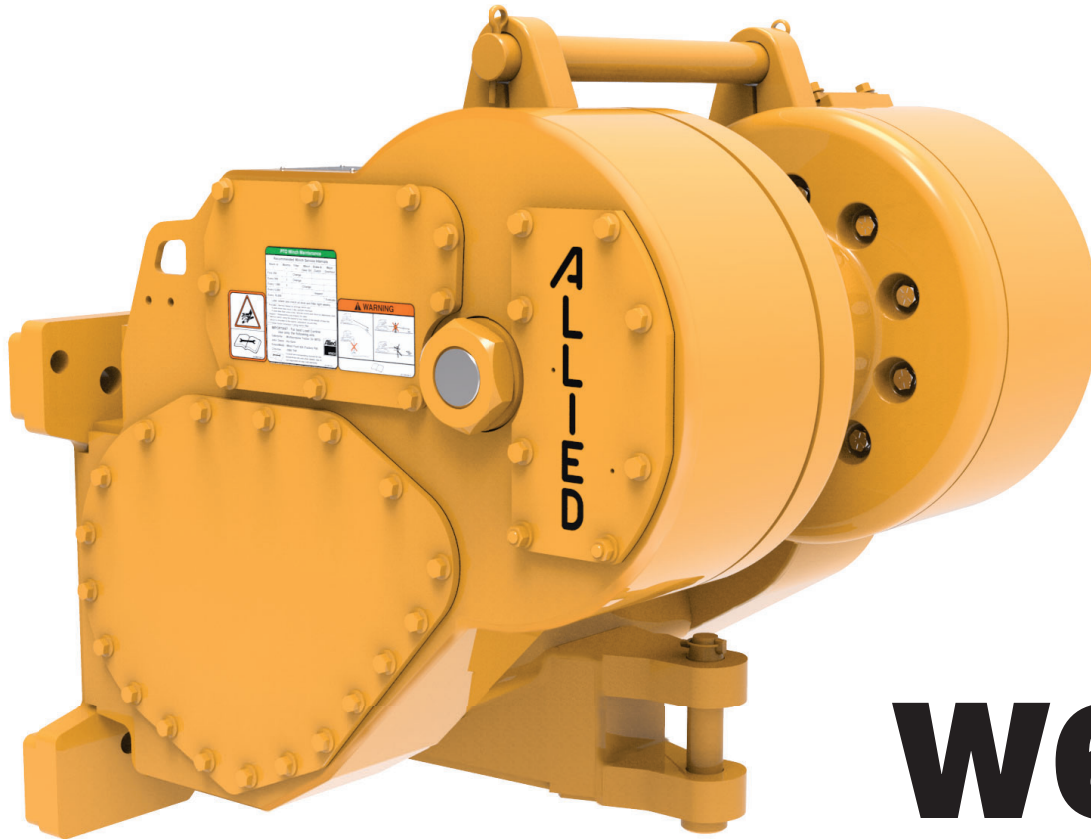


# Parts Manual



# W6G

## Towing Winch

A Product of

**Allied Systems**  
COMPANY

Sherwood, OR USA

Please check the Allied Systems website  
regularly for updates to this manual.  
[www.alliedsystems.com](http://www.alliedsystems.com)

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05/05/2023

# **Safety Precautions**

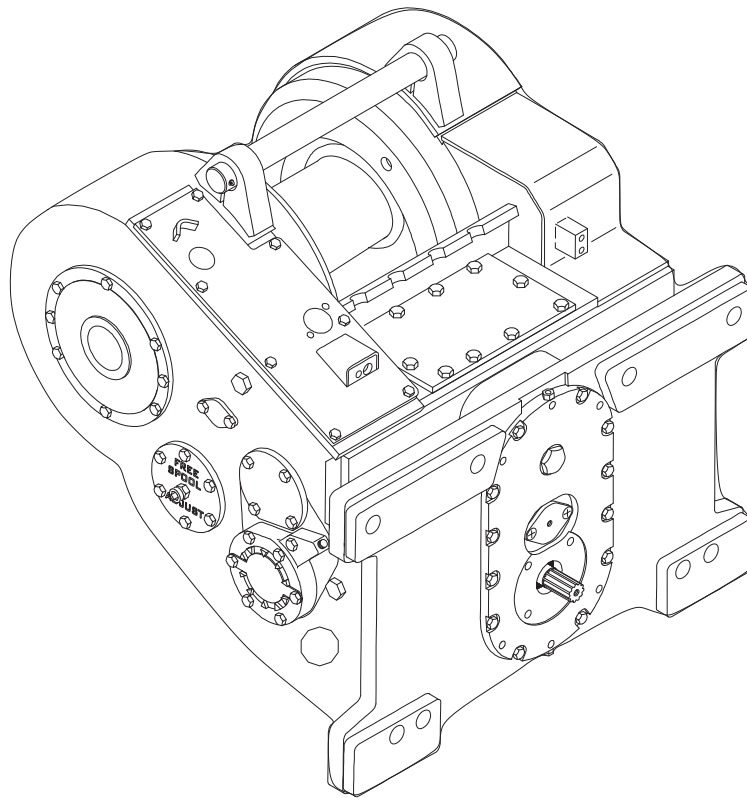
**Read, understand and observe the Safety Summary  
on pages 0-3 through 0-5  
to prevent injury to personnel and damage to equipment.**

Winch serial number \_\_\_\_\_

Date put into service \_\_\_\_\_

**NOTE: This publication may be translated to different languages for sole purpose  
of easy reference in non-English speaking locations.  
Should there be differences in interpretations to the text,  
please refer to the English language edition published by Allied Systems Company  
as the controlling document.**

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## Safety Summary

### General Safety Notices

The following pages contain general safety warnings which supplement specific warnings and cautions appearing elsewhere in this manual. All electrical and hydraulic equipment is dangerous. You must thoroughly review and understand the Safety Summary before attempting to operate, troubleshoot or service this winch.

The following symbols and terms are used to emphasize safety precautions and notices in this manual:

### DANGER

The “DANGER” symbol indicates a hazardous situation which, if not avoided, will result in serious injury or death. Carefully read the message that follows to prevent serious injury or death.

### WARNING

The “WARNING” symbol appears wherever incorrect operating procedures or practices could cause serious injury or death. Carefully read the message that follows to prevent serious injury or death.

### CAUTION

The “CAUTION” symbol appears where a hazardous situation which, if not avoided, could result in minor to moderate injury and equipment damage.

### NOTICE

The “NOTICE” symbol alerts to a situation that is not related to personal injury but may cause equipment damage.

**NOTE:** ...

The term “NOTE” highlights operating procedures or practices that may improve equipment reliability and/or personnel performance.

**NOTE:** All possible safety hazards cannot be foreseen so as to be included in this manual. Therefore, you must always be alert to potential hazards that could endanger personnel and/or damage the equipment.

### Safety Regulations

Each country has its own safety legislation. It is in the operator’s own interest to be conversant with these regulations and to comply with them in full. This also applies to local bylaws and regulations in force on a particular worksite.

Should the recommendations in this manual deviate from those in the user’ country, the national regulations should be followed.

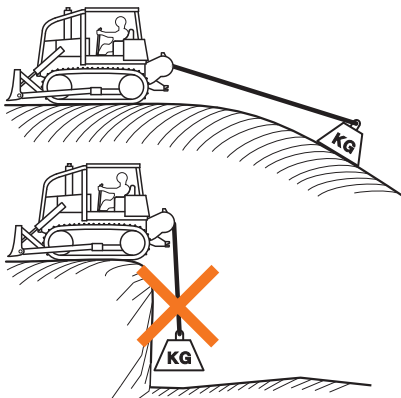
### Operation, Inspection, and Maintenance Warnings

### WARNING

**Obey the following cautions and warnings before using your winch to avoid equipment damage, personal injury or death.**

- Do not operate the winch unless your are authorized and trained to do so.
- Do not operate the winch unless the vehicle is equipped with a screen to protect the operator if the wire rope breaks.
- Read, understand, and follow the operating, inspection, and maintenance instructions in this manual.
- Do not use the control levers for hand holds when entering or leaving the vehicle.
- Do not permit other people near the control area when you inspect or repair a machine.
- Never inspect, repair, or perform maintenance on a machine that is in motion.
- Inspect the winch before each use:
  - » Make sure that the controls and instruments operate correctly.
  - » Report the need for repairs immediately.
  - » Do not work with a damaged or worn wire rope.
  - » Do not use a winch that needs repairs.

- » If the wire rope and ferrule must be removed from the drum, make sure the end of the wire rope and ferrule are controlled when the ferrule is released. The end of the wire rope can suddenly move from the drum like a compressed spring when the ferrule is released, and cause an injury.
- Stay in the operator's seat when operating the winch.
- Do not stand on the vehicle when operating the winch.
- Avoid winch operation near people or other machines.
- Never stand nor permit others to stand in the bight (loop) of a wire rope.
- Do not stand nor permit others to be near the winch or wire rope when there is tension on the wire rope.
- Observe jobsite rules.
- Be in complete control at all times.
- Do not use the control levers as hangers for clothes, water bags, grease guns, lunch pails, etc.
- Do not leave the vehicle when the winch wire rope is under tension.
- Do not permit riders on the vehicle or load.
- Do not use the winch as an anchor for a double or two-part line.
- Do not pull the hook through the throat or over the drum, which will cause damage.
- When the winch is not in use, make sure the control lever is in **BRAKE-ON** position and the winch brake is applied.
- Do not use winch as a hoist. Tractor and skidder mounted winches are designed for towing.



- Always inspect wire rope, tail chain and other rigging components for wear, damage, broken strands or abuse before use.

- Never use wire rope, tail chain or other rigging that is worn-out, damaged or abused.
- Never overload wire rope, tail chain or rigging.
- Wire rope and tail chain will fail if worn-out, overloaded, misused, damaged, improperly maintained or abused. Wire rope or tail chain failure may cause serious injury or death!



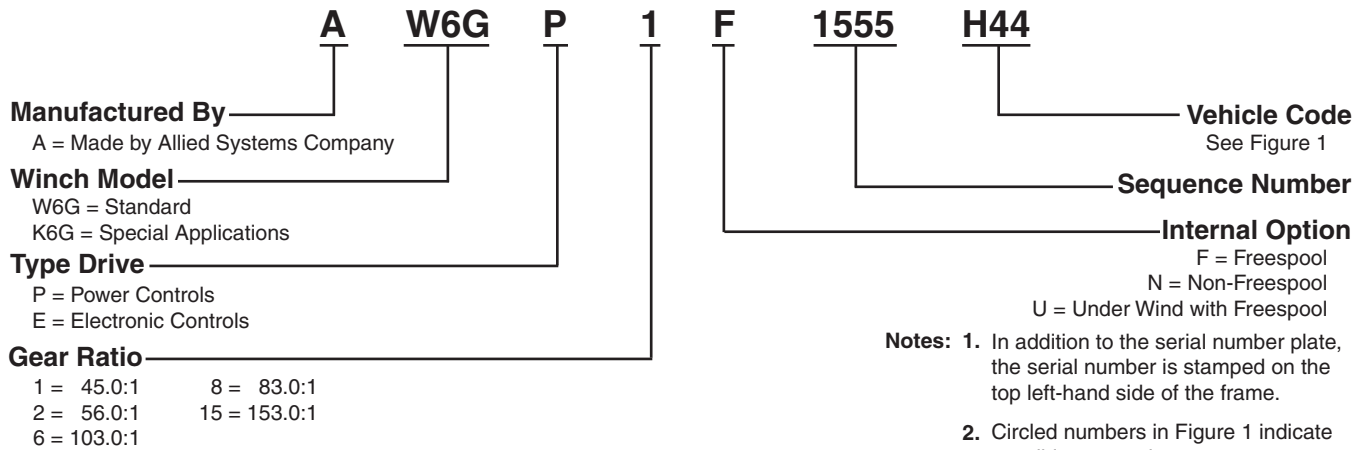
- Do not terminate wire rope to tail chain by the use of a knot.
- Do not handle wire rope if the hook end is not free. A load could break away, suddenly tensioning the wire rope, resulting in serious injury or death.
- Stay clear of wire rope entry areas (fairlead or arch rollers, winch drum etc).
- Make sure ground personnel are in plain view of the operator, and at a distance of at least 1½ times the working length of the wire rope.
- Make sure that any hand signals used by ground personnel are clearly defined and understood by everyone involved.
- Do not attempt to "jerk" or "shock" a load free. Doing so can cause loads in excess of the rated capacity of the wire rope, winch, or mounting hardware.
- Replace any parts only with genuine Allied Winch parts.
- Maintain a **minimum of three (3) complete wraps of wire rope** on the drum for normal operation. It may help to paint the last five wraps of wire rope a contrasting color, to serve as a visual indicator.
- Do not handle wire rope with bare hands. Wear leather gloves at all times.
- Align the tractor with the load to prevent side loading the winch, and to maintain even spooling of the wire rope.

- If applying tension to the wire rope manually during spooling:
  - » ensure that the operator is winching in slowly,
  - » keep your hands and clothing well clear of any rollers or the winch drum,
  - » do not maintain tension by letting the wire rope to slip through your hands,
  - » use a hand-over-hand technique to maintain tension.
- Be aware of the ground conditions, and make sure the ground and tractor are stable enough to pull the intended load.
- Do not attempt to pull loads in excess of the rated capacity of the winch.
- Keep yourself informed of any applicable codes, regulations and standards for the job.
- Your winch may have temperature shut-off system for protection of tractor and winch. Manual override of high temperature shut-off will cause damage to tractor and winch.
- This winch is not rated for any application involved in the lifting or moving of personnel.
- Use only the lubricants listed in the Recommended Oil List. See page 0-12.
- Do not weld on any part of the winch. Contact Allied Systems if weld repairs are needed.
- The hydraulic system must be kept clean and free of contamination at all times.
- Be aware of the hazards of pressurized hydraulics:
  - » Wear personal protective equipment, such as gloves and safety glasses, whenever servicing or checking a hydraulic system.
  - » Assume that all hydraulic hoses and components are pressurized. Relieve all hydraulic pressure before disconnecting any hydraulic line.
  - » Never try to stop or check for a hydraulic leak with any part of your body; use a piece of cardboard to check for hydraulic leaks.
  - » Small hydraulic hose leaks are extremely dangerous, and can inject hydraulic oil under the skin, even through gloves.
  - » Infection and gangrene are possible when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.



**Unit Identification**

Allied Winch S/N Nameplate Data For Tractor Mountings



**Figure 1 - Tractor Identification and Gear Ratio**

Tractor Make Model and Starting Tractor Serial Number Where Applicable						
C O D E	A Fiat-Hitachi/ New Holland	C Caterpillar	E John Deere	H Dresser/ Dressta	K Komatsu	R Case
39						Quadtrac ⑥ ⑧
40						1650L ⑥ ⑧ ⑮
41			750B W/O CAB ⑥ ⑧ ⑮			
42			850B W/ CAB ⑥ ⑧ ⑮			
43		D6D/E/F PS ① ② ⑥ ⑧ ⑮	850B W/O CAB ⑥ ⑧ ⑮			
44			750B W/ CAB ⑥ ⑧ ⑮	TD15E PS ① ② ⑥ ⑧ ⑮		
45			750C I & II ⑥ ⑧ ⑮	TD15E DD ⑥ ⑧ ⑮		
46			850C I & II ① ② ⑥ ⑧ ⑮	TD15H TIER I PS ① ② ⑥ ⑧ ⑮	D65E-12,D65EX-12/15, D65EX-15E0, D65WX-15E0 ⑥ ⑧	
460			850K ① ② ⑥ ⑧ ⑮			

(Continued on next page)



**Figure 1 - Tractor Identification and Gear Ratio**

Tractor Make Model and Starting Tractor Serial Number Where Applicable						
C O D E	A Fiat-Hitachi/ New Holland	C Caterpillar	E John Deere	H Dresser/ Dressta	K Komatsu	R Case
47		D6N* ① ② ⑥ ⑧ ⑮		TD15H TIER II, TD15M ① ② ⑥ ⑧ ⑮	D61EX-12, D61EX-15 ⑥ ⑧	
48	FD14E, DX/FD175/195 ① ② ⑥ ⑧ ⑮					
480		D6H PS ① ② ⑥ ⑧ ⑮				
481		D6H DD ① ⑥ ⑧ ⑮				
49	DC180 ① ② ⑥ ⑧ ⑮					1850K ① ② ⑥ ⑧ ⑮
50		D6R PS ① ② ⑥ ⑧ ⑮				
71		D6R II & III PS; D6T ① ② ⑥ ⑧ ⑮				
73		D6G PS ① ② ⑥ ⑧ ⑮				
78		D6N** ① ② ⑥ ⑧ ⑮				
81		D6N*** ① ② ⑥ ⑧ ⑮				
810		D6N**** ① ② ⑥ ⑧ ⑮				

\* **Tractors (C47) with linkage hydraulic valve controls**  
Prior to the following serial numbers, tractor code C47 was used for D6N:

D6N--CBJ00400  
ALH00735  
CCK00500  
ALR00635  
AKM01235  
ALY01335

\*\* **Tractors (C78) with pilot operated hydraulics**  
After the above serial numbers, tractor codes C78 are used for D6N.

\*\*\* **Tractors (C81) with pilot operated hydraulics**  
After the above serial numbers, tractor codes C81 (with Diff-Steer) are used for D6N.

\*\*\*\* **Tractors (C810) with pilot operated hydraulics**  
With serial number prefixes: PBA & PER, tractor codes C810 are used for D6N.

Figure 2 - List of Installation Drawings

## W6G INSTALLATION DRAWINGS BY TRACTOR

Winch Serial Number	Description	Installation Drawing Part Number
<b>Electronic Control</b>		
W6GE**----C43	W6G CAT D6E, E-CONTROLS 85:1	
W6GE**----C47	W6G CAT D6N W/MECHANICAL VALVE CONTROLS	2311715
W6GE**----C48	W6G CAT D6H PS	2310604
W6GE**----C480	W6G CAT D6H PS	2310604
W6GE**----C481	W6G CAT D6H DD	2310604
W6GE**----C49	W6G CAT D6H DD	2310604
W6GE**----C50	W6G CAT D6R PS	2310604
W6GE**----C71	W6G CAT D6R II & III, D6T	2310604
W6GE**----C78	W6G CAT D6N W/ PILOT CONTROLS	2311715
W6GE**----C81	W6G CAT D6N W/ PILOT CONTROLS	2311711
W6GE**----C810	W6G CAT D6N TIER 4i	2314450
W6GE**----E45	W6G JD 750C I & II	2311309
W6GE**----E46	W6G JD 850C I & II	2311309
W6GE**----E460	W6G JD 850K	2313382
W6GE**----H44	W6G DR TD15E PS	2311749
W6GE**----H45	W6G DR TD15E DD	2311749
W6GE**----H46	W6G DR TD15H PS	2311749
W6GE**----H47	W6G DRESSER TD15H TIER II, TD15M	2311749
W6GE**----K46	W6G KOM D65EX-12 & -15	2310718
W6GE**----K47	W6G KOM D61EX-12 & -15	2311733
W6GE**----R39	W6G CASE QUADTRAC	2311311
W6GE**----R40	W6G CASE 1650L	2310665
<b>Power Control (push pull cable)</b>		
W6GP**----A48	W6G FIAT, FIAT HITACHI; 14E, FD14, FD175, FD195, DX175, DX 195	2301472W
W6GP**----A49	W6G NEW HOLLAND DC-180	2304902W
W6GP**----C43	W6G CAT D6D, E	2301161W
W6GP**----C47	W6G CAT D6N W/MECHANICAL VALVE CONTROLS	2305618W
W6GP**----C48	W6G CAT D6H PS	2300737W
W6GP**----C49	W6G CAT D6H DD	2300737W
W6GP**----C480	W6G CAT D6H PS	2300737W
W6GP**----C481	W6G CAT D6H DD	2300737W
W6GP**----C50	W6G CAT D6R PS	2300737W
W6GP**----C71	W6G CAT D6R II & III, D6T	2300737W
W6GP**----C73	W6G CAT D6G	2305918W
W6GP**----C78	W6G CAT D6N W/ PILOT CONTROLS	2305618W
W6GP**----C81	W6G CAT D6N DIFF-STEER	2310078
W6GP**----C810	W6G CAT D6N TIER 4i	2315168
W6GP**----E41	W6G JD750, 750B	2301160W
W6GP**----E42	W6G JD 850, 850B W/CAB	2301160W
W6GP**----E43	W6G JD 850, 850B	2301160W
W6GP**----E44	W6G JD 750, 750B W/CAB	2301160W
W6GP**----E45	W6G JD 750C I & II	2301534W
W6GP**----E46	W6G JD 850C I & II	2301534W

(continued on next page)

Figure 2 - List of Installation Drawings (continued)

## W6G INSTALLATION DRAWINGS BY TRACTOR

Winch Serial Number	Description	Installation Drawing Part Number
W6GP**----E460	W6G JD 850K	2313333
W6GP**----H44	W6G DR TD15E PS	2301173W
W6GP**----H45	W6G DR TD15E DD	2301173W
W6GP**----H46	W6G DR TD15H PS	2301173W
W6GP**----H47	W6G DRESSER TD15H TIER II, TD15M	2301173W
W6GP**----K46	W6G KOM D65EX-12 & -15	2301685W
W6GP**----K47	W6G KOM D61EX-12 & -15	2306267W
W6GP**----R39	W6G CASE QUADTRAC	2305395W
W6GP**----R40	W6G CASE 1650L	2310471
W6GP**----R49	W6G CASE 1850K	2304902W

**Notes:** 1. This list is for operators to keep track of necessary information of their winch installation drawings by tractors.

2. If any of the installation drawings listed above is needed, please contact the Service Department of Allied Systems Company.

How to use the Illustrated Parts manual

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**Numerical Index**

Part No.	Page	Item	Description	Part No.
108877W	2-8	23	O-Ring	1305093W
109453W	1-9	9	O-Ring	1306001W
109453W	2-2	10	O-Ring	1306002W
110322W	3-12	9	Clamp	1306003W
110322W	3-27	11	Shim, .005	1306003W
110931W	2-5	23	Shim, .007	1308400W
110932W	2-5	23	Shim, .020	1308401W
110933W	2-5	23	Clamp, Strap	1308402W
114312W	3-10	24	O-Ring	1308403W
118361W	3-7	13	O-Ring	1308406W
118361W	3-8	16	O-Ring	1308436W
118361W	3-9	21	O-Ring	1308437W
118365W	3-9	26	O-Ring	1308438W
119491W	2-6	17	Seal, Oil	1308439W
12327W	2-5	3	Capcrew	1308440W
12447W	2-11	9	Bearing	1308441W
125399W	2-2	8	Clamp	1308442W
127045W	3-3	14	Clamp	1308443W
127045W	3-5	14	Snap-Ring	1310110W
127045W	2-10	3	Snap-Ring	1310111W

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**Index-Master**

Description	Page No.
Arch	4-3
Box-Gear	2-5 thru 2-7
Brake	2-10
	2-9
	2-9
	1-4
	4-3 & 4-4

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**Shaft-PTO**

Last Used on S/N WBLP-2099 & AWBL-1000

Tractor Model	Shaft-PTO (Item 3)		Bearing Carrier (Item 4)	Pin (Item 5)	Lo Pin (Item 6)
	Gear Ratio	Lo Pin (Item 6)			
Caterpillar D7DD	49.8:1	132909W	98362W	19929W	96
Caterpillar D7FS	25977W	132909W	98362W	19929W	
Caterpillar 572	25977W	129509W	98362W	9583W	
Flat-Allis 16B	25373W		216222W	19929W	
Flat-Allis 20		132909W	216222W	9583W	
Dresser TD-20E	258766W		98362W	19929W	
Komatsu D65A-12E-16	219032W		98362W	213139W	
Deere D650C	258954W	253030W	98362W		
Caterpillar D700A					

0-1

**Index-Illustrated**

Ref	Item	Page
1	Frame/Covers/Decals/Parts-Mounting	1-1
2	Gear Train/Shaft	2-1
3	Hydraulics/Controls	3-1
4	Optional	4-1
5	Numerical Index	5-1

A-49.8:1 Gear Ratio  
B-71.6:1 Gear Ratio

Item	Part No.	Description	A	B	Item
1	134078W	Shim, .005	A/R	A/R	11
1	134079W	Shim, .007	A/R	A/R	11
2	79383W	Seal, Oil	1	1	12
3	"a	Shaft, PTO	1	1	13
4	"a	Bearing, Carrier	1	1	14
5	"a	Pin	1	1	15
6	"a	Ring, Lock	1	1	16
7	"a	Coupler	1	1	1
8	36573W	Ring, Snap	1	1	1
9	125399W	Bearing	1	1	1
10	109453W	O-Ring	1	1	1

**When the part number and the next higher assembly is not known:**

1. Determine the function and application of the part required. Turn to the illustrated index page immediately behind the front cover and select the most appropriate area.
2. Use the table of contents at the beginning of each chapter to determine the assembly which would normally contain the part required. Proceed then to locate the part on the assembly breakdown page.

**When the part number is not known and the next higher assembly is known:**

1. Determine the assembly the required part is used on. Turn to the master index (which immediately follows the illustrated index).
2. Locate the assembly on which the required part is used, and turn to the page indicated for that assembly. Proceed to locate the part on the assembly breakdown page.

**When the part number is known:**

Use the numerical index to find the part number. Turn to the page listed and locate the part as indicated by the reference number.

**General:**

The assembly breakdowns include part numbers, descriptions, quantities required, keys and footnotes to help in selecting the correct parts.

Keys are used to show effective serial numbers for two or more similar assemblies, LH and RH assembly parts, etc. Select the appropriate key, "A," "B," "C," or "D" and the corresponding quantity column to find the required parts.

Indent dots are used to indicate assemblies and sub-parts of assemblies. No dot indicates the major assembly. Part descriptions which are indented with dots are sub-parts of the major assembly shown above.

Quantities shown are for one assembly. Note that when two assemblies are shown, but the quantity of the sub-parts is indicated as three, this means three per assembly - for a total of six. AR means As Required, and NSS indicates Not Sold Separately.

Serial numbers are shown to allow for the most current parts information to be incorporated into the parts manual. See page 0-6 for serial number information.

When ordering replacement parts, give the complete unit serial number, part number, name of part and quantity required.

For any further information on parts, service or ordering, consult your local winch dealer, or contact Allied Systems Company:

Allied Systems Company  
21433 SW Oregon Street  
Sherwood, Oregon 97140  
U.S.A.

Phone: 503-625-2560  
Fax: 503-625-5132  
E-Mail: parts@alliedsystems.com

Also see our website, [www.alliedsystems.com](http://www.alliedsystems.com), where the most current copy of this manual is always available.

**NOTE: This publication may be translated to different languages for sole purpose of easy reference in non-English speaking locations. Should there be differences in interpretations to the text, please refer to the English language edition published by Allied Systems Company as the controlling document.**

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**Oil Specifications**
**Recommended Oil List**

<b>Recommended Oils* - General Conditions</b>			
<b>Manufacturer</b>	<b>Oil Type</b>	<b>Ambient Temperature Range</b>	
		<b>°F</b>	<b>°C</b>
ExxonMobil	Mobil Fluid 424 (Factory fill)	-13 to 105	-25 to 43
John Deere	Hy-Gard™	-13 to 122	-25 to 50
Chevron	1000 THF	-13 to 105	-25 to 43
Caterpillar	Multipurpose Tractor Oil (MTO)	-13 to 104	-25 to 40
Case	Hy-Tran Ultra	-20 to 122	-30 to 50
<b>Recommended Oils* - Low Temperature Conditions</b>			
<b>Manufacturer</b>	<b>Oil Type</b>	<b>Ambient Temperature Range</b>	
		<b>°F</b>	<b>°C</b>
ExxonMobil	Mobil Fluid LT	-40 to 86	-40 to 30
John Deere	Low Viscosity Hy-Gard	-40 to 86	-40 to 30
Chevron	THF W	-40 to 86	-40 to 30

\* Note: Use of non-recommended oils may void warranty.

**Figure 3 - Recommended Oil List**

**Oil Capacity**

The oil capacity for the W6G winch is 19.5 gallons  
(73.8 Liters).



## Frame/Covers/Decals/Mounting Parts

Frame/Covers ..... 1-2 thru 1-15

Mounting Parts ..... 1-16 thru 1-59

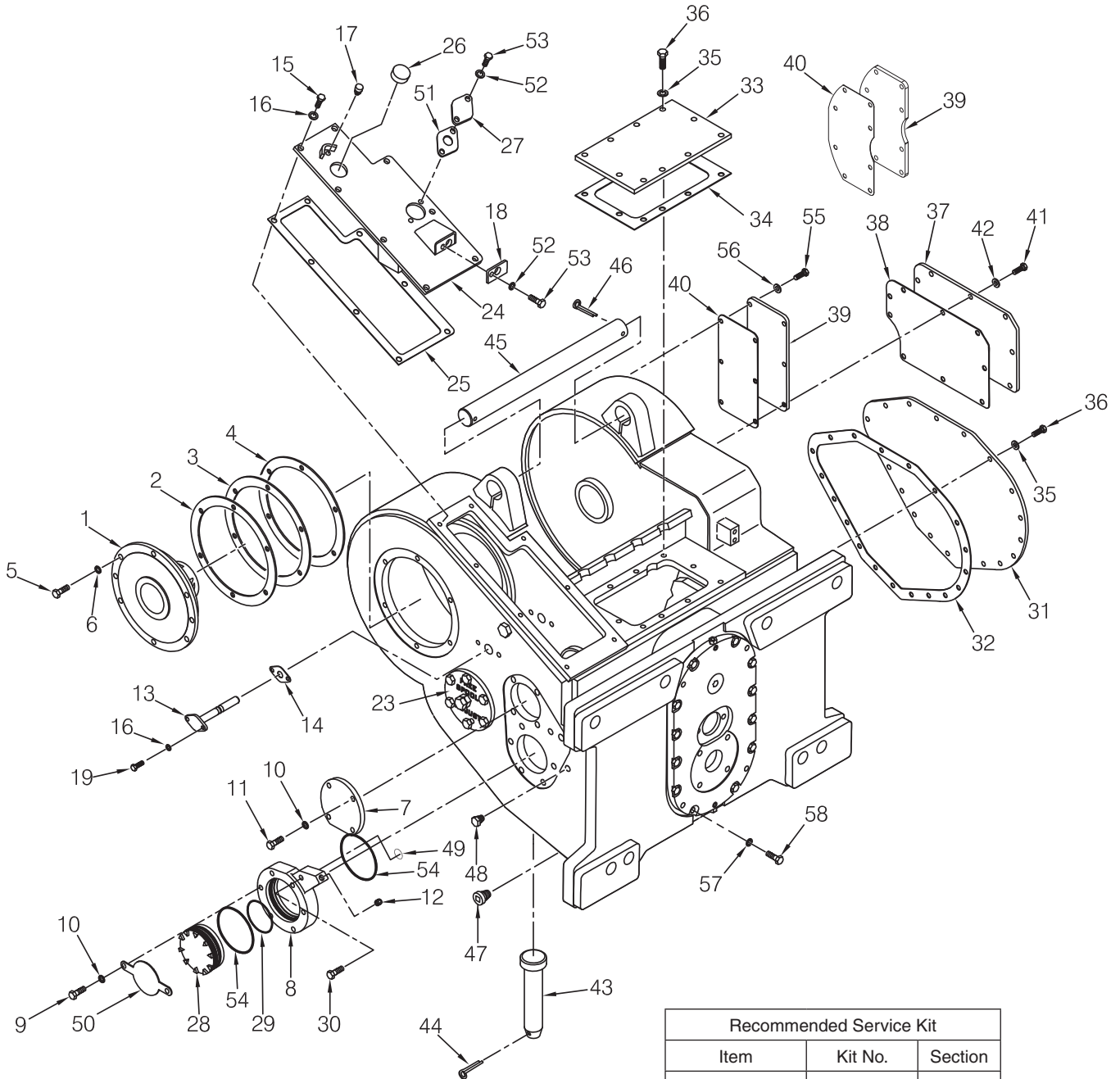
Nameplate & Decals ..... 1-60

### Frame/Covers

Power Controlled Winch with Freespool

Last Used on S/N AW6G-1049

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**Frame/Covers**

Power Controlled Winch with Freespool

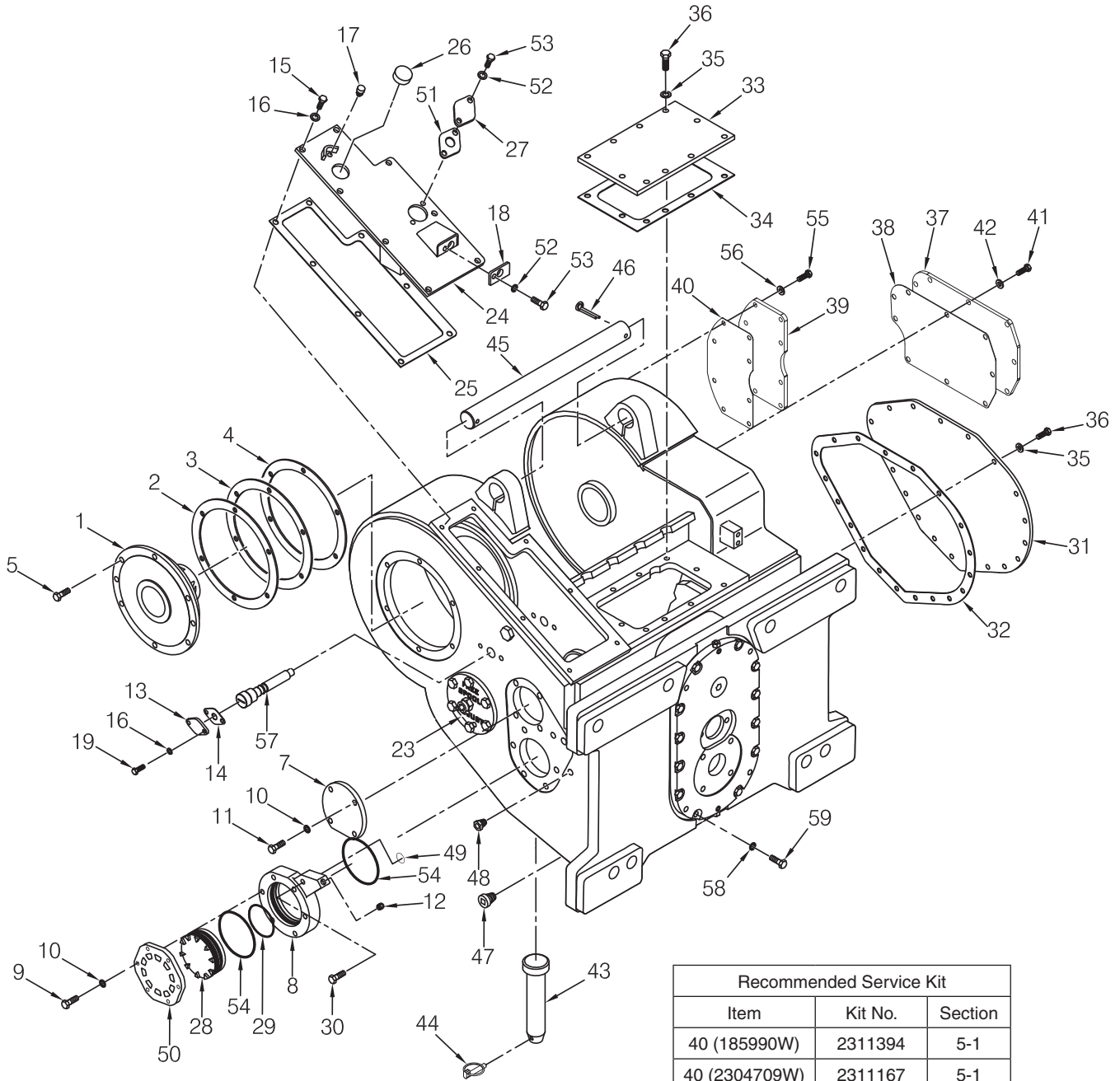
Last Used on S/N AW6G-1049

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	38	2300689W	Gasket	1
2	175646W	Shim .005	AR	39	*f 2300508W	Plate	1
3	175647W	Shim .007	AR		*g 2304708W	Plate	1
4	175648W	Shim .020	AR	40	*f 185990W	Gasket	1
5	178402W	Capscrew	6		*g 2304709W	Gasket	1
6	15158W	Washer	14	41	179443W	Capscrew	9
7	2300746W	Retainer, Bearing	1	42	15156W	Washer	9
8	2302479W	Housing, Bearing Retainer	1	43	95959W	Pin, Drawbar	1
9	2302498W	Capscrew	5	44	*b 15273W	Pin, Cotter	1
10	15158W	Washer	11		*c 2303221W	Pin, Retaining	1
11	178402W	Capscrew	4	45	196280W	Rod, Tie	1
12	15347W	Fitting	1	46	15272W	Pin, Cotter	2
13	151581W	Shaft	1	47	15316W	Pipe Fitting	1
14	151646W	Gasket	1	48	15303W	Pipe Fitting	1
15	178402W	Capscrew	8	49	63105W	O-Ring	1
16	15158W	Washer	32	50	*d 2302483W	Keeper, Bearing Retainer	1
17	21420W	Breather	1		*e 2304690W	Keeper, Bearing Retainer	1
18	303946W	Gasket	1	51	151646W	Gasket	1
19	178402W	Capscrew	2	52	15158W	Washer	3
23	-----	Retainer (2-31 thru 2-35)	1	53	178402W	Capscrew	3
24	2300692W	Cover	1	54	55289W	O-Ring	2
25	2300693W	Gasket	1	55	*f 179443W	Capscrew	6
26	15319W	Fitting	1		*g 178402W	Capscrew	8
27	151589W	Plate	1	56	*f 15156W	Washer	6
28	*d 2302481W	Retainer, Bearing	1		*g 15158W	Washer	8
	*e 2304689W	Retainer, Bearing	1	57	221771W	Washer	12
29	15885W	O-Ring	1	58	182209W	Capscrew	12
30	307788W	Capscrew	2				
31	2300687W	Cover	1	*a	Used on all but Komatsu		
32	2300690W	Gasket	1	*b	Last Used on S/N AW6G-1016		
33	*a 2301689W	Plate	1	*c	First Used on S/N AW6G-1017		
34	*a 2301690W	Gasket	1	*d	Last Used on S/N AW6G-1024		
35	15158W	Washer	29	*e	First Used on S/N AW6G-1025		
36	178402W	Capscrew	29	*f	Last Used on S/N AW6G-1027		
37	2300688W	Cover	1	*g	First Used on S/N AW6G-1028		

### Frame/Covers

Power Controlled Winch with Freespool  
 First Used S/N AW6G-1050  
 Page 1 of 2



**Frame/Covers**

Power Controlled Winch with Freespool

First Used S/N AW6G-1050

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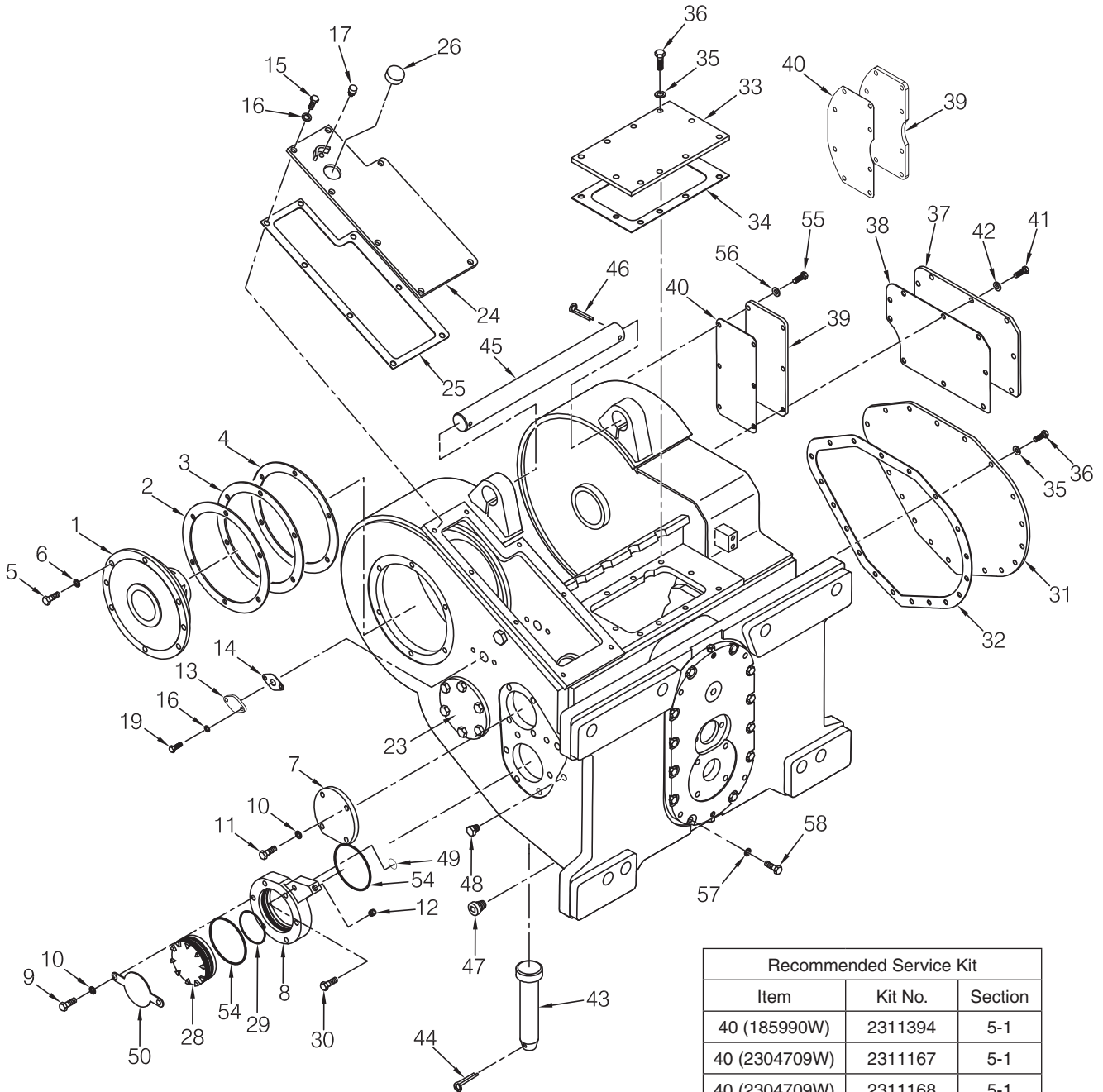
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	35	15158W	Washer	29
2	175646W	Shim .005	AR	36	178402W	Capscrew	29
3	175647W	Shim .007	AR	37	2305119W	Cover	1
4	175648W	Shim .020	AR	38	2314008	Gasket	1
5	2303848W	Capscrew	6	39	2304708W	Plate	1
7	2300746W	Retainer, Bearing	1	40	2314005	Gasket	1
8	2302479W	Housing, Bearing Retainer	1	41	179443W	Capscrew	9
9	2302498W	Capscrew	5	42	15156W	Washer	9
10	15158W	Washer	11	43	95959W	Pin, Drawbar	1
11	178402W	Capscrew	4	44	2303221W	Pin, Retaining	1
12	15347W	Fitting	1	45	196280W	Rod, Tie	1
13	151589W	Plate	1	46	15272W	Pin, Cotter	2
14	151646W	Gasket	1	47	15316W	Fitting, Pipe	1
15	178402W	Capscrew	8	48	*b 2305101W	Fitting, Sight Gauge	1
16	15158W	Washer	32		*c 14595W	Fitting, Sight Gauge	1
17	21420W	Breather	1	49	63105W	O-Ring	1
18	303946W	Gasket	1	50	2304690W	Keeper, Bearing Retainer	1
19	178402W	Capscrew	2	51	151646W	Gasket	1
23	-----	Retainer (2-31 thru 2-35)	1	52	15158W	Washer	3
24	2300692W	Cover	1	53	178402W	Capscrew	3
25	2300693W	Gasket	1	54	55289W	O-Ring	2
26	15319W	Fitting	1	55	178402W	Capscrew	8
27	151589W	Plate	1	56	15158W	Washer	8
28	2305994W	Retainer, Bearing	1	57	2305512W	Shaft, Freespool	1
29	15885W	O-Ring	1	58	221771W	Washer	12
30	307788W	Capscrew	2	59	182209W	Capscrew	12
31	2300687W	Cover	1				
32	2300690W	Gasket	1		*a	Used on all but Komatsu	
33	*a 2301689W	Plate	1		*b	Last Used on S/N AW6G-1131	
34	*a 2314007	Gasket	1		*c	First Used on S/N AW6G-1132	

### Frame/Covers

Power Controlled Winch without Freespool

Last Used on S/N AW6G-1049

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Recommended Service Kit		
Item	Kit No.	Section
40 (185990W)	2311394	5-1
40 (2304709W)	2311167	5-1
40 (2304709W)	2311168	5-1
14, 25, 32, 34, 38, 40	2302729W	5-1
49, 54	2311388	5-1

**Frame/Covers**

Power Controlled Winch without Freespool

Last Used on S/N AW6G-1049

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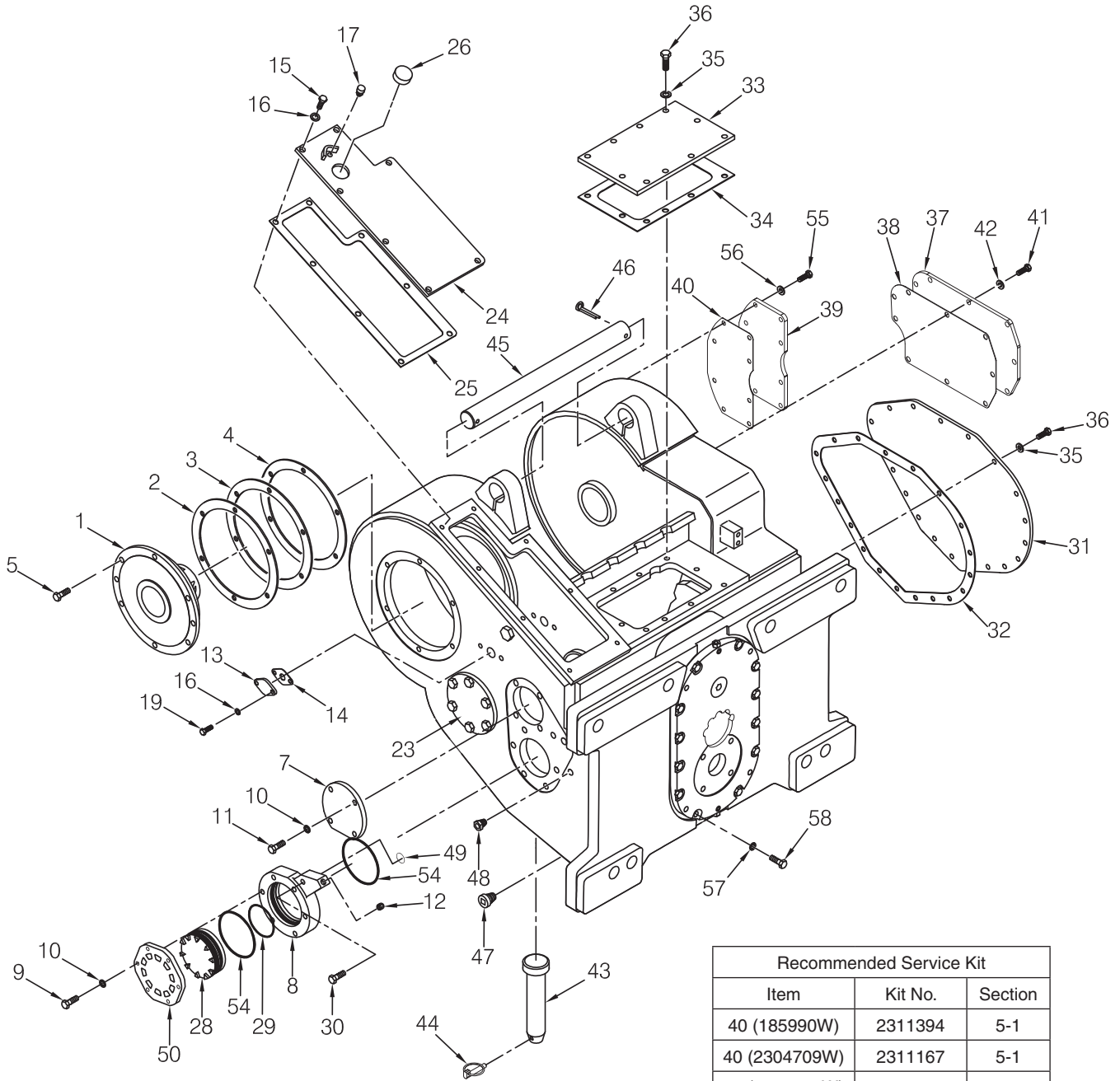
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	38	2300689W	Gasket	1
2	175646W	Shim .005	AR	39	*f 2300508W	Plate	1
3	175647W	Shim .007	AR		*g 2304708W	Plate	1
4	175648W	Shim .020	AR	40	*f 185990W	Gasket	1
5	178402W	Capscrew	6		*g 2304709W	Gasket	1
6	15158W	Washer	14	41	179443W	Capscrew	9
7	2300746W	Retainer, Bearing	1	42	15156W	Washer	9
8	2302479W	Housing, Bearing Retainer	1	43	95959W	Pin, Drawbar	1
9	2302498W	Capscrew	5	44	*b 15273W	Pin, Cotter	1
10	15158W	Washer	11		*c 2303221W	Pin, Retaining	1
11	178402W	Capscrew	4	45	196280W	Rod, Tie	1
12	15347W	Fitting	1	46	15272W	Pin, Cotter	2
13	151589W	Plate	1	47	15316W	Pipe Fitting	1
14	151646W	Gasket	1	48	15303W	Pipe Fitting	1
15	178402W	Capscrew	8	49	63105W	O-Ring	1
16	15158W	Washer	32	50	*d 2302483W	Keeper, Bearing Retainer	1
17	21420W	Breather	1		*e 2304690W	Keeper, Bearing Retainer	1
19	178403W	Capscrew	2	54	55289W	O-Ring	2
23	280262W	Cover	1	55	*f 179443W	Capscrew	6
24	2300721W	Cover	1		*g 178402W	Capscrew	8
25	2300693W	Gasket	1	56	*f 15156W	Washer	6
26	15319W	Fitting	1		*g 15158W	Washer	8
28	*d 2302481W	Retainer, Bearing	1	57	221771W	Washer	12
	*e 2304689W	Retainer, Bearing	1	58	182209W	Capscrew	12
29	15885W	O-Ring	1				
30	307788W	Capscrew	2		*a	Used on all but Komatsu	
31	2300687W	Cover	1		*b	Last Used on S/N AW6G-1016	
32	2300690W	Gasket	1		*c	First Used on S/N AW6G-1017	
33	*a 2301689W	Plate	1		*d	Last Used on S/N AW6G-1024	
34	*a 2301690W	Gasket	1		*e	First Used on S/N AW6G-1025	
35	15158W	Washer	29		*f	Last Used on S/N AW6G-1027	
36	178402W	Capscrew	29		*g	First Used on S/N AW6G-1028	
37	2300688W	Cover	1				

**Frame/Covers**

Power Controlled Winch without Freespool

First Used S/N AW6G-1050

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Recommended Service Kit		
Item	Kit No.	Section
40 (185990W)	2311394	5-1
40 (2304709W)	2311167	5-1
40 (2304709W)	2311168	5-1
14, 25, 32, 34, 38, 40	2302729W	5-1
49, 54	2311388	5-1

**Frame/Covers**

Power Controlled Winch without Freespool  
 First Used S/N AW6G-1050  
 Page 2 of 2

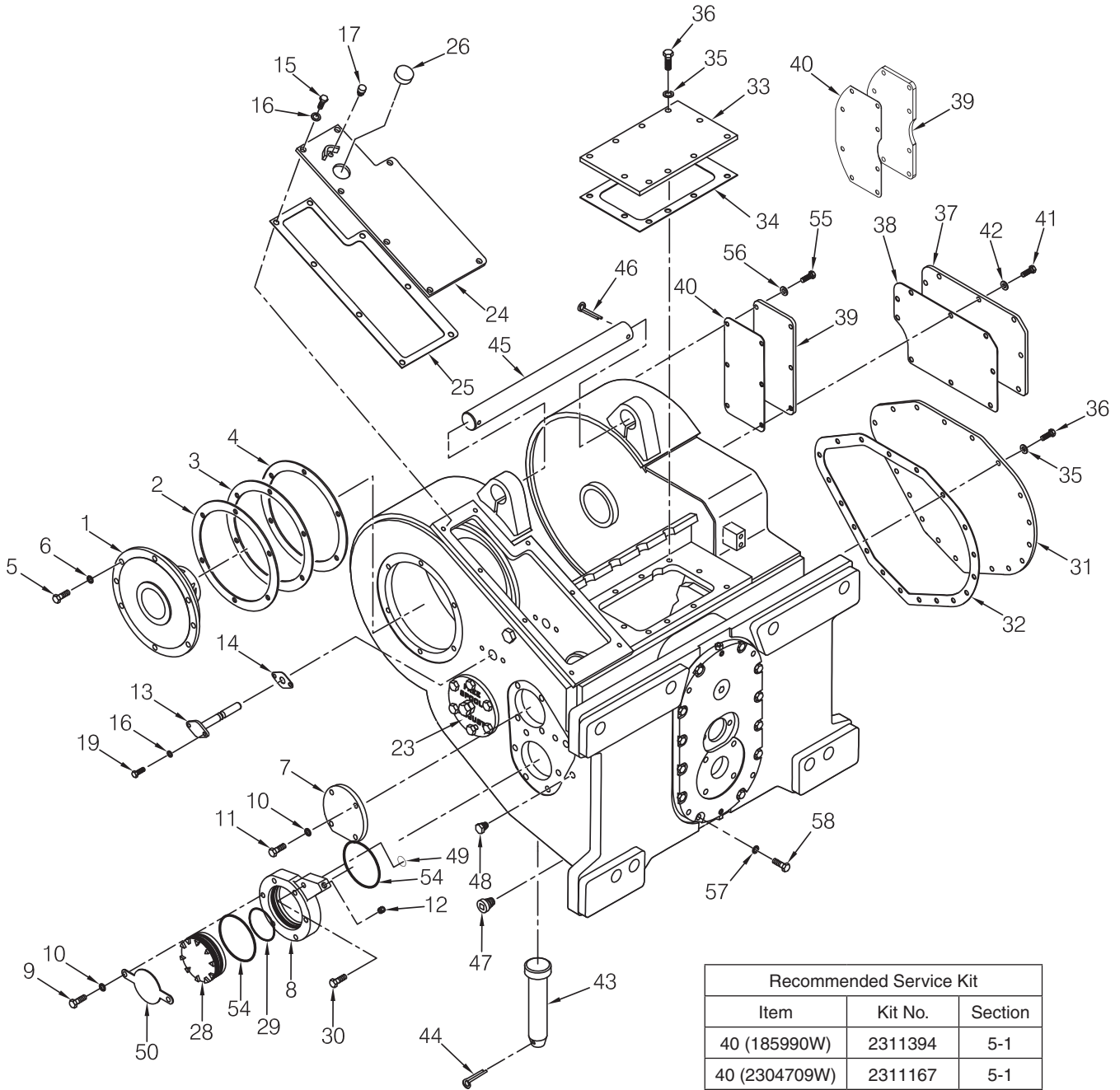
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	34	*a 2314007	Gasket	1
2	175646W	Shim .005	AR	35	15158W	Washer	29
3	175647W	Shim .007	AR	36	178402W	Capscrew	29
4	175648W	Shim .020	AR	37	2305119W	Cover	1
5	2303848W	Capscrew	6	38	2314008	Gasket	1
7	2300746W	Retainer, Bearing	1	39	2304708W	Plate	1
8	2302479W	Housing, Bearing Retainer	1	40	2314005	Gasket	1
9	2302498W	Capscrew	5	41	179443W	Capscrew	9
10	15158W	Washer	11	42	15156W	Washer	9
11	178402W	Capscrew	4	43	95959W	Pin, Drawbar	1
12	15347W	Fitting	1	44	2303221W	Pin, Retaining	1
13	151589W	Plate	1	45	196280W	Rod, Tie	1
14	151646W	Gasket	1	46	15272W	Pin, Cotter	2
15	178402W	Capscrew	8	47	15316W	Fitting, Pipe	1
16	15158W	Washer	32	48	*b 2305101W	Fitting, Sight Gauge	1
17	21420W	Breather	1		*c 14595W	Fitting, Sight Gauge	1
19	178402W	Capscrew	2	49	63105W	O-Ring	1
23	280262W	Cover	1	50	2304690W	Keeper, Bearing Retainer	1
24	2300721W	Cover	1	54	55289W	O-Ring	2
25	2300693W	Gasket	1	55	178402W	Capscrew	8
26	15319W	Fitting	1	56	15158W	Washer	8
28	2305994W	Retainer, Bearing	1	57	221771W	Washer	12
29	15885W	O-Ring	1	58	182209W	Capscrew	12
30	307788W	Capscrew	2				
31	2300687W	Cover	1		*a	Used on all but Komatsu	
32	2300690W	Gasket	1		*b	Last Used on S/N AW6G-1131	
33	*a 2301689W	Plate	1		*c	First Used on S/N AW6G-1132	

**Frame/Covers**

Electronic Controlled Winch with Freespool

Last Used on S/N AW6G-1049

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
40 (185990W)	2311394	5-1
40 (2304709W)	2311167	5-1
40 (2304709W)	2311168	5-1
14, 25, 32, 34, 38, 40	2302729W	5-1
49, 54	2311388	5-1



**Frame/Covers**

Electronic Controlled Winch with Freespool

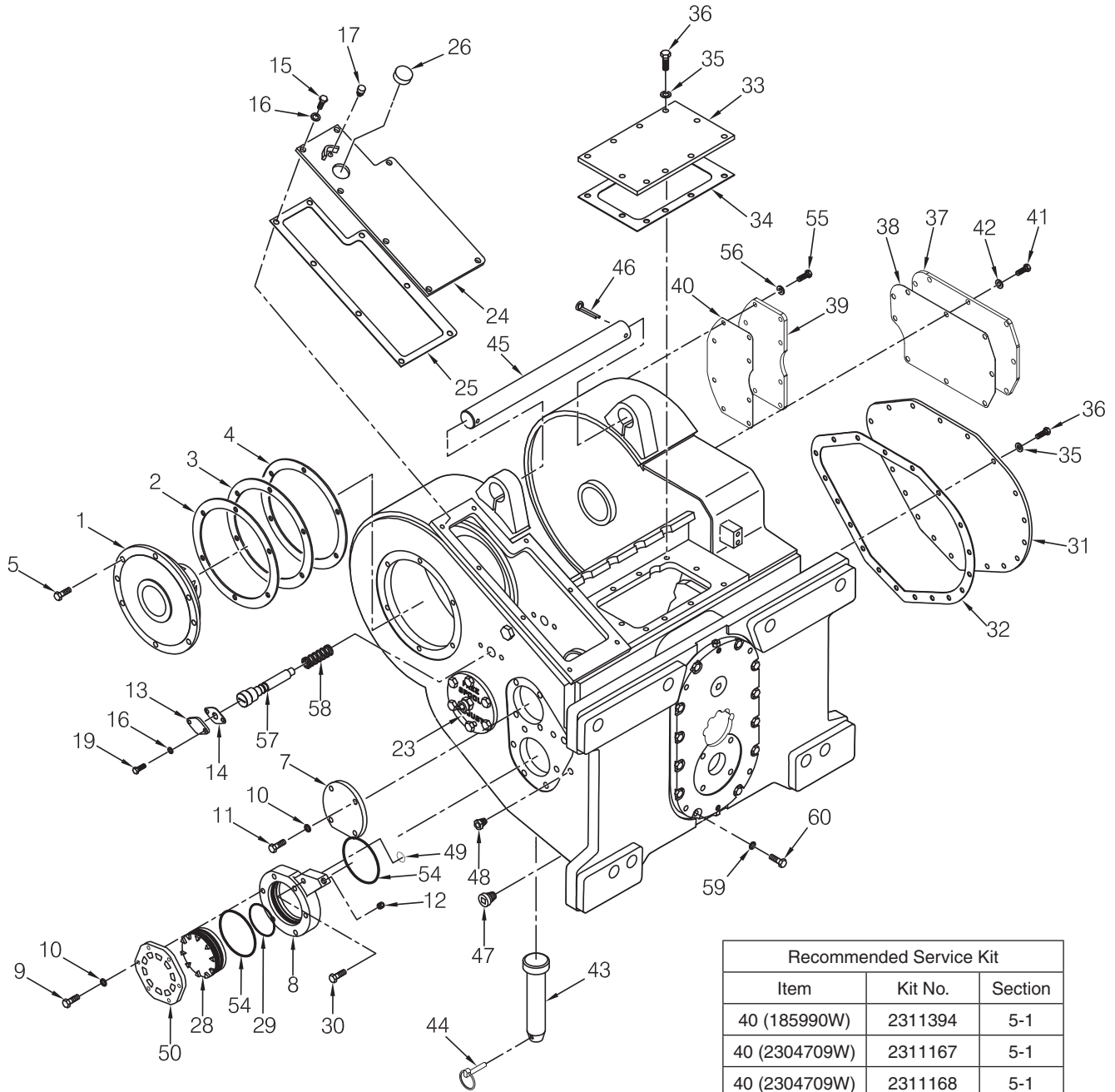
Last Used on S/N AW6G-1049

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	38	2300689W	Gasket	1
2	175646W	Shim .005	AR	39	*f 2300508W	Plate	1
3	175647W	Shim .007	AR	39	*g 2304708W	Plate	1
4	175648W	Shim .020	AR	40	*f 185990W	Gasket	1
5	178402W	Capscrew	6	g 2304709W	Gasket	1	
6	15158W	Washer	14	41	179443W	Capscrew	9
7	2300746W	Retainer, Bearing	1	42	15156W	Washer	9
8	2302479W	Housing, Bearing Retainer	1	43	95959W	Pin, Drawbar	1
9	2302498W	Capscrew	5	44	*b 15273W	Pin, Cotter	1
10	15158W	Washer	11	*c 2303221W	Pin, Retaining	1	
11	178402W	Capscrew	4	45	196280W	Rod, Tie	1
12	15347W	Fitting	1	46	15272W	Pin, Cotter	2
13	151581W	Shaft	1	47	15316W	Pipe Fitting	1
14	151646W	Gasket	1	48	15303W	Pipe Fitting	1
15	178402W	Capscrew	8	49	63105W	O-Ring	1
16	15158W	Washer	32	50	*d 2302483W	Keeper, Bearing Retainer	1
17	21420W	Breather	1	*e 2304690W	Keeper, Bearing Retainer	1	
19	178402W	Capscrew	2	52	15158W	Washer	3
23	-----	Retainer (2-31 thru 2-35)	1	53	178402W	Capscrew	3
24	2300721W	Cover	1	54	55289W	O-Ring	2
25	2300693W	Gasket	1	55	*f 179443W	Capscrew	6
26	15319W	Fitting	1	*g 178402W	Capscrew	8	
27	151589W	Plate	1	56	*f 15156W	Washer	6
28	*d 2302481W	Retainer, Bearing	1	*g 15158W	Washer	8	
	*e 2304689W	Retainer, Bearing	1	57	221771W	Washer	12
29	15885W	O-Ring	1	58	182209W	Capscrew	12
30	307788W	Capscrew	2				
31	2300687W	Cover	1	*a	Used on All but Komatsu		
32	2300690W	Gasket	1	*b	Last Used on S/N AW6G-1016		
33	*a 2301689W	Plate	1	*c	First Used on S/N AW6G-1017		
34	*a 2301690W	Gasket	1	*d	Last Used on S/N AW6G-1024		
35	15158W	Washer	29	*e	First Used on S/N AW6G-1025		
36	178402W	Capscrew	29	*f	Last Used on S/N AW6G-1027		
37	2300688W	Cover	1	*g	First Used on S/N AW6G-1028		

**Frame/Covers**

Electronic Controlled Winch with Freespool  
 First Used S/N AW6G-1050  
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**Frame/Covers**

Electronic Controlled Winch with Freespool

First Used S/N AW6G-1050

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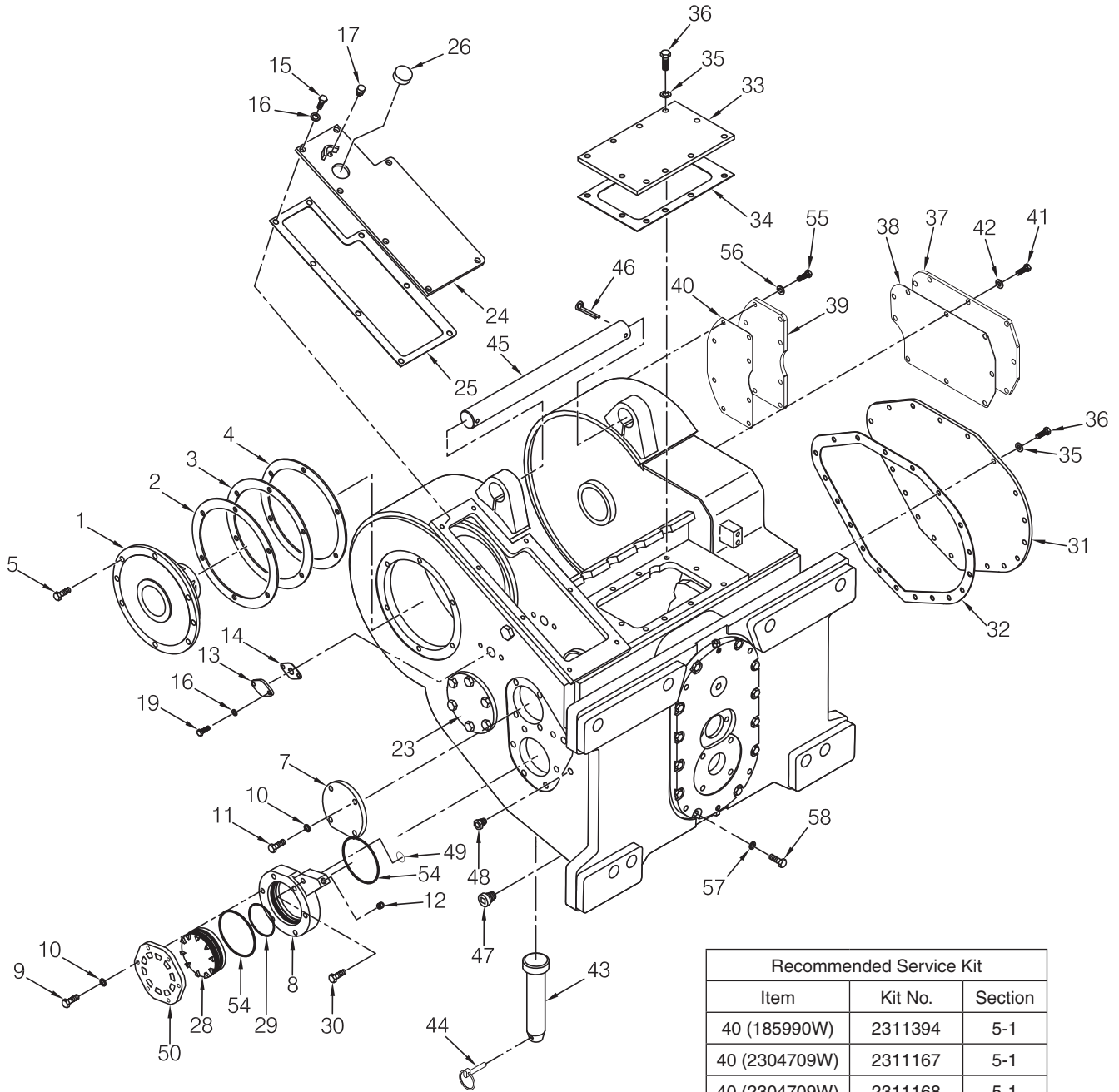
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	36	178402W	Capscrew	29
2	175646W	Shim .005	AR	37	2305119W	Cover	1
3	175647W	Shim .007	AR	38	2314008	Gasket	1
4	175648W	Shim .020	AR	39	2304708W	Plate	1
5	2303848W	Capscrew	6	40	2314005	Gasket	1
7	2300746W	Retainer, Bearing	1	41	179443W	Capscrew	9
8	2302479W	Housing, Bearing Retainer	1	42	15156W	Washer	9
9	2302498W	Capscrew	5	43	95959W	Pin, Drawbar	1
10	15158W	Washer	11	44	2303221W	Pin, Retaining	1
11	178402W	Capscrew	4	45	196280W	Rod, Tie	1
12	15347W	Fitting	1	46	15272W	Pin, Cotter	2
13	151589W	Plate	1	47	15316W	Fitting, Pipe	1
14	151646W	Gasket	1	48	*c 2305101W	Fitting, Sight Gauge	1
15	178402W	Capscrew	8		*d 14595W	Fitting, Sight Gauge	1
16	15158W	Washer	32	49	63105W	O-Ring	1
17	21420W	Breather	1	50	2304690W	Keeper, Bearing Retainer	1
19	178402W	Capscrew	2	54	55289W	O-Ring	2
23	-----	Retainer (2-31 thru 2-35)	1	55	178402W	Capscrew	8
24	2300721W	Cover	1	56	15158W	Washer	8
25	2300693W	Gasket	1	57	2305098W	Freespool Shaft	1
26	15319W	Fitting	1	58	2305096W	Spring	1
28	*b 2305994W	Retainer, Bearing	1	59	221771W	Washer	12
29	15885W	O-Ring	1	60	182209W	Capscrew	12
30	307788W	Capscrew	2				
31	2300687W	Cover	1		*a	Used on All but Komatsu	
32	2300690W	Gasket	1		*b	First Used on S/N AW6G-1065	
33	*a 2301689W	Plate	1		*c	Last Used on S/N AW6G-1131	
34	*a 2314007	Gasket	1		*d	First Used on S/N AW6G-1132	
35	15158W	Washer	29				

**Frame/Covers**

Electronic Controlled Winch without Freespool

First Used S/N AW6G-1050

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Recommended Service Kit		
Item	Kit No.	Section
40 (185990W)	2311394	5-1
40 (2304709W)	2311167	5-1
40 (2304709W)	2311168	5-1
14, 25, 32, 34, 38, 40	2302729W	5-1
49, 54	2311388	5-1

**Frame/Covers**

Electronic Controlled Winch without Freespool

First Used S/N AW6G-1050

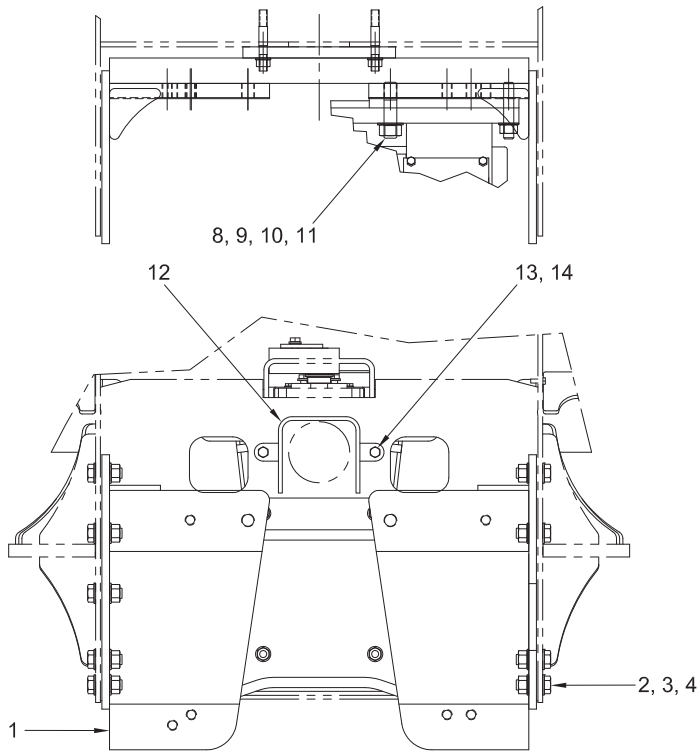
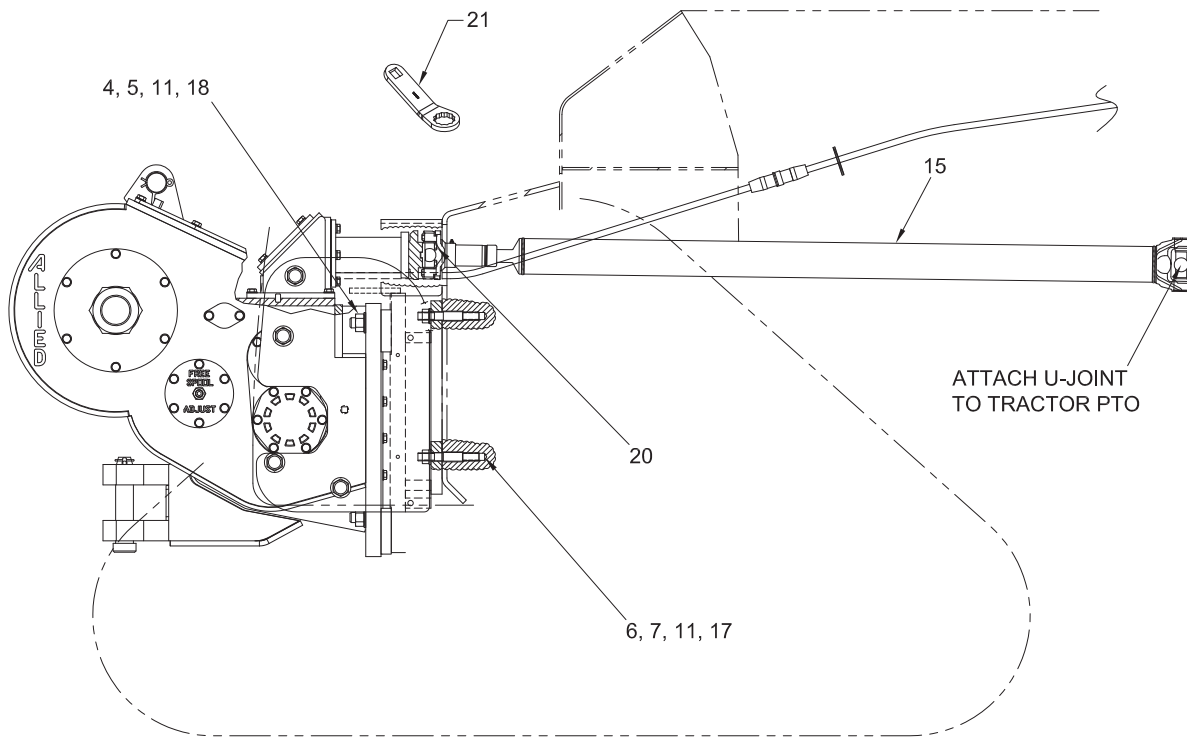
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	172810W	Retainer	1	34	*a 2314007	Gasket	1
2	175646W	Shim .005	AR	35	15158W	Washer	29
3	175647W	Shim .007	AR	36	178402W	Capscrew	29
4	175648W	Shim .020	AR	37	2305119W	Cover	1
5	2303848W	Capscrew	6	38	2314008	Gasket	1
7	2300746W	Retainer, Bearing	1	39	2304708W	Plate	1
8	2302479W	Housing, Bearing Retainer	1	40	2314005	Gasket	1
9	2302498W	Capscrew	5	41	179443W	Capscrew	9
10	15158W	Washer	11	42	15156W	Washer	9
11	178402W	Capscrew	4	43	95959W	Pin, Drawbar	1
12	15347W	Fitting	1	44	2303221W	Pin, Retaining	1
13	151589W	Plate	1	45	196280W	Rod, Tie	1
14	151646W	Gasket	1	46	15272W	Pin, Cotter	2
15	178402W	Capscrew	8	47	15316W	Fitting, Pipe	1
16	15158W	Washer	32	48	*b 2305101W	Fitting, Sight Gauge	1
17	21420W	Breather	1		*c 14595W	Fitting, Sight Gauge	1
19	178402W	Capscrew	2	49	63105W	O-Ring	1
23	280262W	Cover (2-30)	1	50	2304690W	Keeper, Bearing Retainer	1
24	2300721W	Cover	1	54	55289W	O-Ring	2
25	2300693W	Gasket	1	55	178402W	Capscrew	8
26	15319W	Fitting	1	56	15158W	Washer	8
28	2305994W	Retainer, Bearing	1	57	221771W	Washer	12
29	15885W	O-Ring	1	58	182209W	Capscrew	12
30	307788W	Capscrew	2				
31	2300687W	Cover	1	*a	Used on All but Komatsu		
32	2300690W	Gasket	1	*b	Last Used on S/N AW6G-1131		
33	*a 2301689W	Plate	1	*c	First Used on S/N AW6G-1132		

# Mounting Parts

Case Quadtrac (R39)

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REAR VIEW  
(WITHOUT WINCH)

**Mounting Parts**

Case Quadtrac (R39)

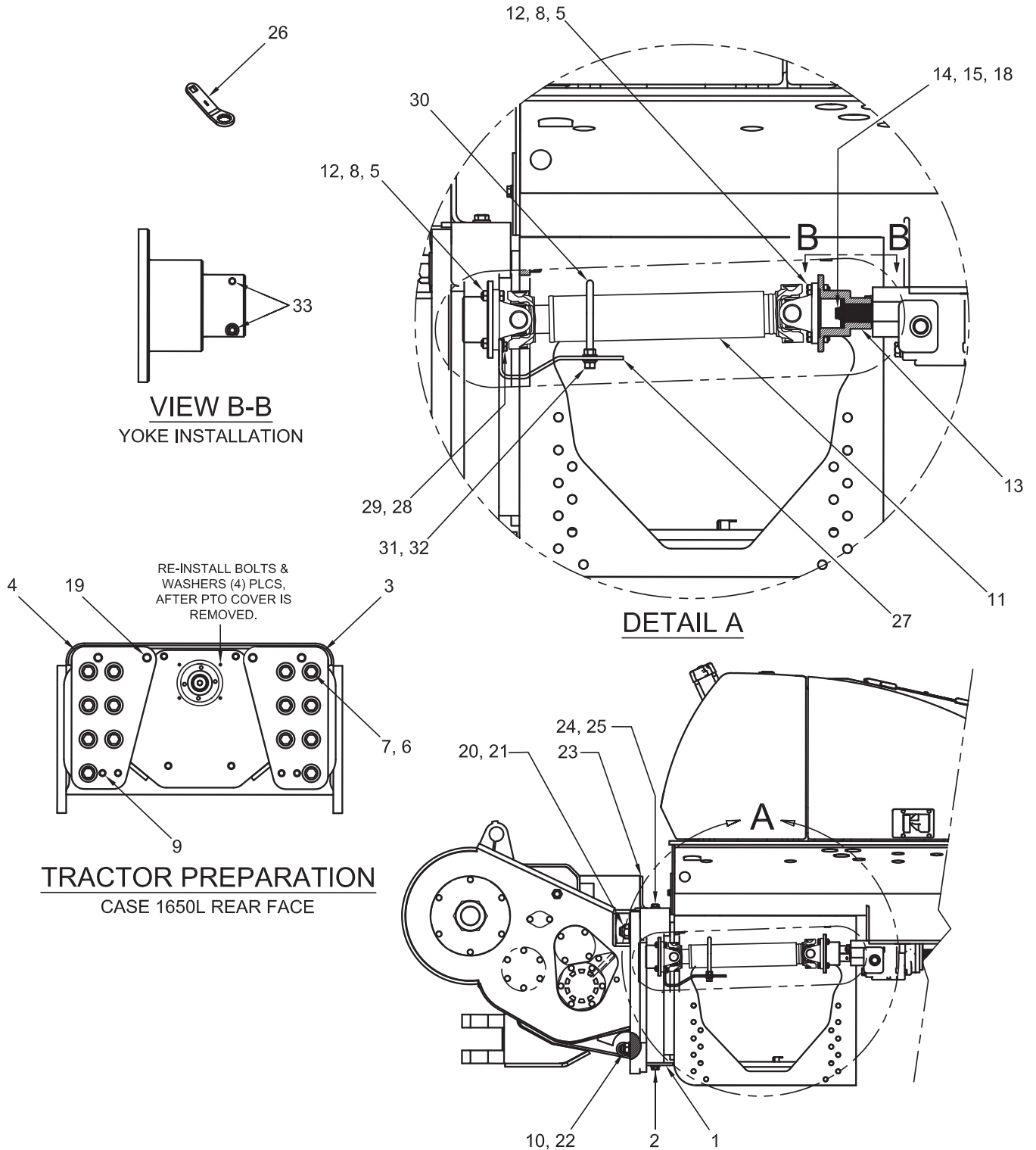
Page 1 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305370W	Bracket, Mounting	1	15	2305396W	Driveshaft	1
2	*c 221692W	Capscrew	9		2301006W	. Spider & Bearing Assembly	1
3	221720W	Nut	9		2305398W	. Bearing Kit	1
4	221780W	Washer	24	17	221777W	Washer	4
5	*a, *b 2301144W	Stud	6	18	221721W	Nut	6
6	*a, *b 2305379W	Stud	4	20	*c 221507W	Capscrew	4
7	292659W	Nut	4	21	2310958	Wrench, Torque Extension	1
8	*a, *b 216224W	Stud	2				
9	221725W	Nut	2	*a	Use 230064W Stud Locker Kit (Tractor End Only)		
10	15128W	Washer	2	*b	Use 318702W Thread Lock (Winch End Only)		
12	2305380W	Guard, PTO	1	*c	Use 318702W Thread Lock		
13	*c 226458W	Capscrew	2				
14	15160W	Washer	2				

# Mounting Parts

Case 1650L (R40)

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**Mounting Parts**

Case 1650L (R40)

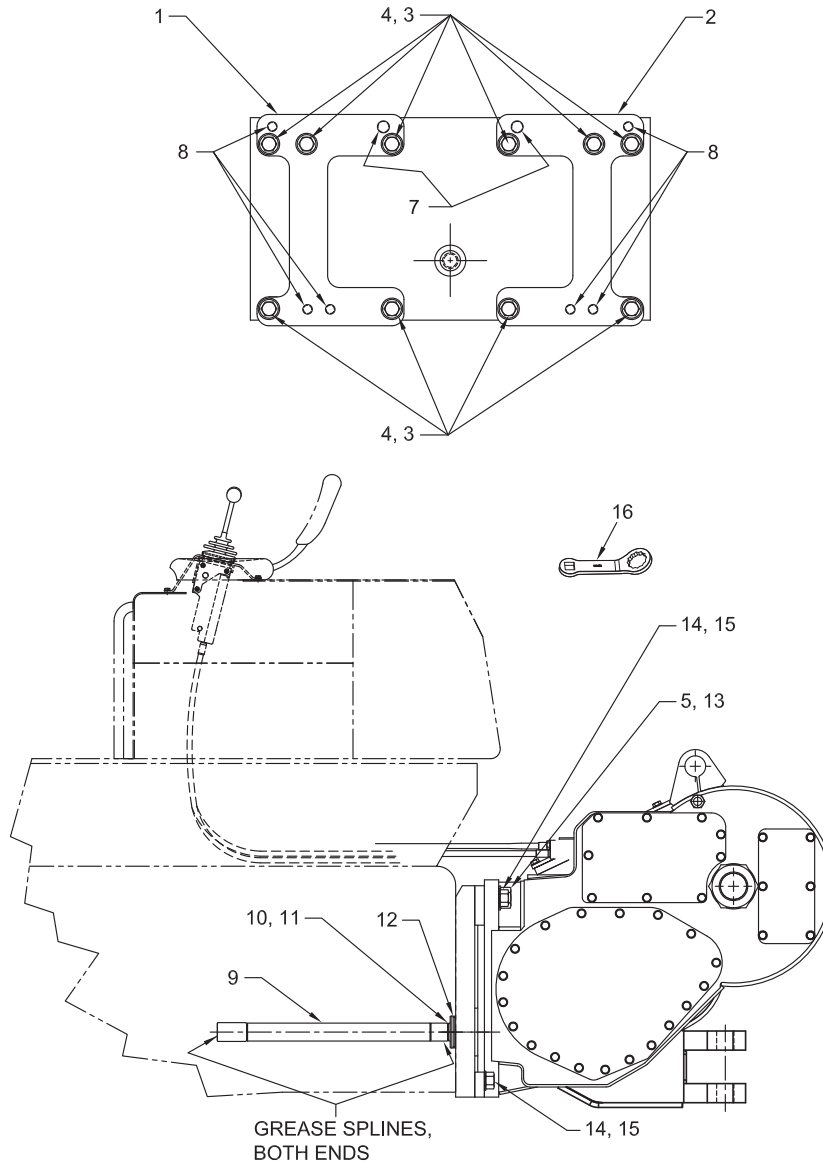
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2310472	Guard	1	19	2301140W	Stud	4
2	*a 2303905W	Screw, Flange	4	20	15128W	Washer	4
3	2310451	Bracket, Mounting - RH	1	21	*a 221725W	Nut	4
4	2310454	Bracket, Mounting - LH	1	22	*a 221721W	Nut	4
5	221771W	Washer	8	23	2310509	Guard	1
6	*a 274044W	Capscrew	14	24	Y01C-1048	Capscrew	2
7	296434W	Washer	14	25	221775W	Washer	2
8	221712W	Nut	8	26	2310958	Wrench, Torque Extension	1
9	2301144W	Stud	4	27	2314043	Bracket, Guard	1
10	221780W	Washer	4	28	293628W	Capscrew	2
11	2310449	Driveshaft, Damped	1	29	296420W	Washer	2
12	*a 2310470	Bolt, Flange	8	30	2304350W	Assembly, U-Bolt	1
13	2314160	Yoke, Flange	1	31	15158W	Washer	2
14	296422W	Washer	1	32	15135W	Washer	4
15	*a 292526W	Capscrew	1	33	*a 16328W	Capscrew	2
17	129563W	Clamp, Strap (Not Shown)	5				
18	58916W	Ring, Snap	1		*a Use 318702W Thread Lock		

# Mounting Parts

Case 1850K (R49)

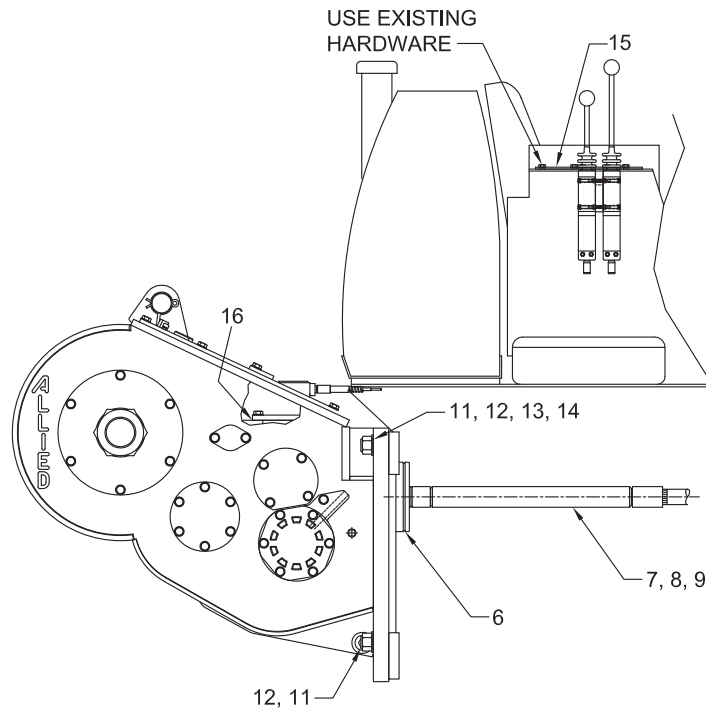
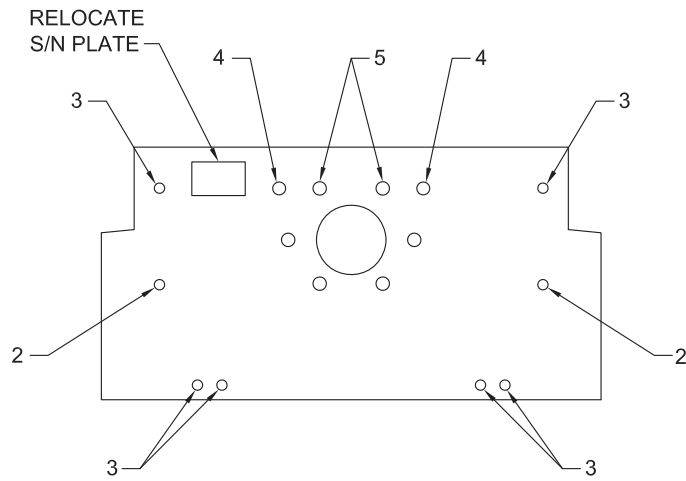
## TRACTOR PREPARATION



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301427W	Spacer, LH	1	11	9554W	Ring, Lock	1
2	2301428W	Spacer, RH	1	12	15880W	O-Ring	1
3	2301477W	Capscrew	10	13	15128W	Washer	2
4	296434W	Washer	10	14	*b 221721W	Nut	6
5	221725W	Nut	2	15	221780W	Washer	6
7	*a 2301140W	Stud	2	16	2310958	Wrench, Torque Extension	1
8	*a 2301144W	Stud	6				
9	2304904W	Shaft, PTO	1				
10	19928W	Pin	1				
				*a		Use 230064W Loctite Kit	
				*b		Use 245231W Thread Lock	

## Mounting Parts

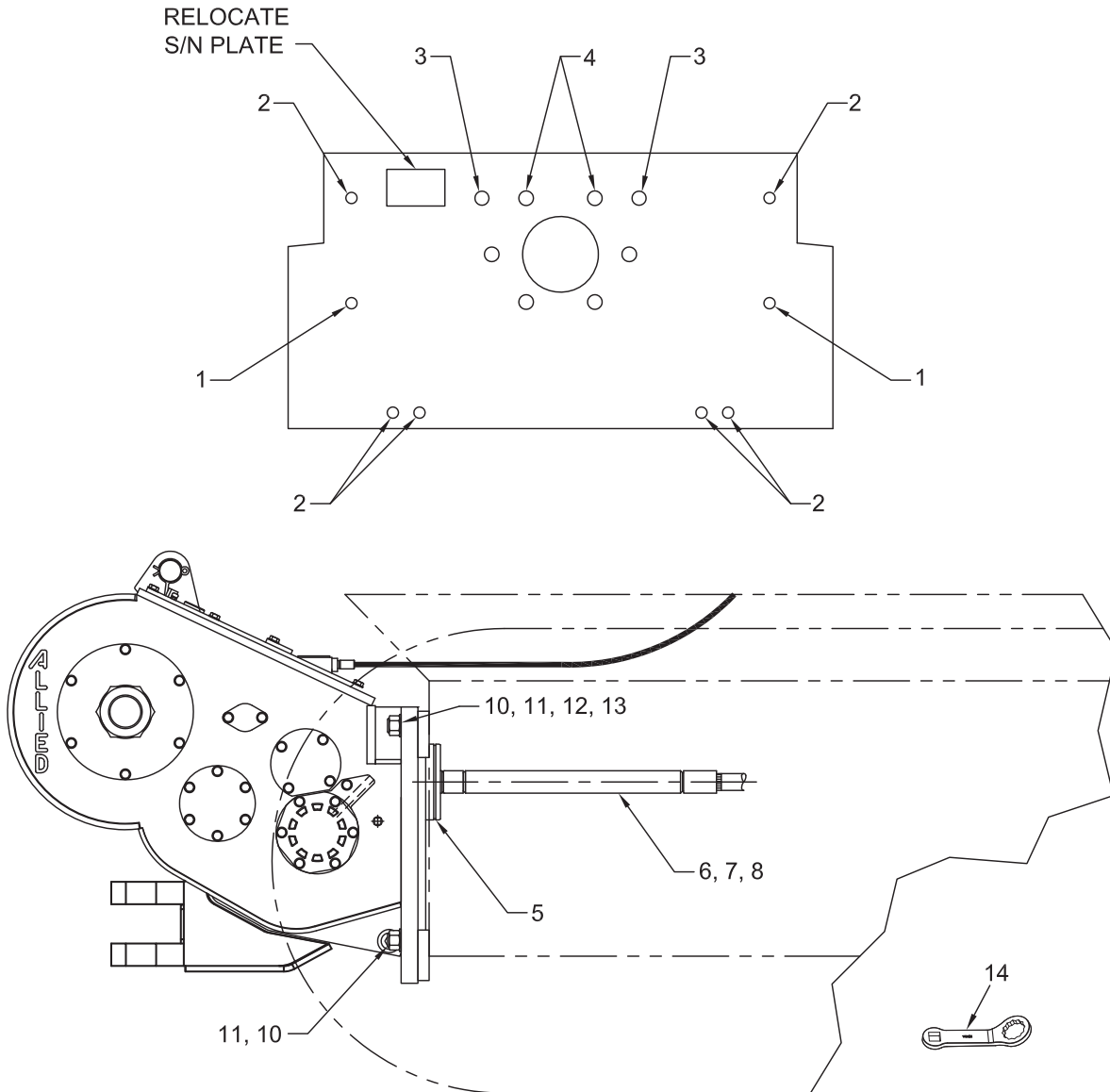
Caterpillar D6D PS, D6E PS (C43)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
2	18005W	Plug	2	12	221780W	Washer	6
3	*a 253939W	Stud	6	13	*b 221725W	Nut	2
4	*a 2300783W	Stud	2	14	15128W	Washer	2
5	18004W	Plug	6	15	2304506W	Bracket, Mounting	1
6	90937W	O-Ring	1	16	2301690W	Gasket	1
7	2300789W	PTO	1				
8	19928W	Pin	1		*a	Use 230064W Loctite Kit	
9	9554W	Ring, Lock	1		*b	Use 245231 Thread Lock	
11	*b 221721W	Nut	6				

## Mounting Parts

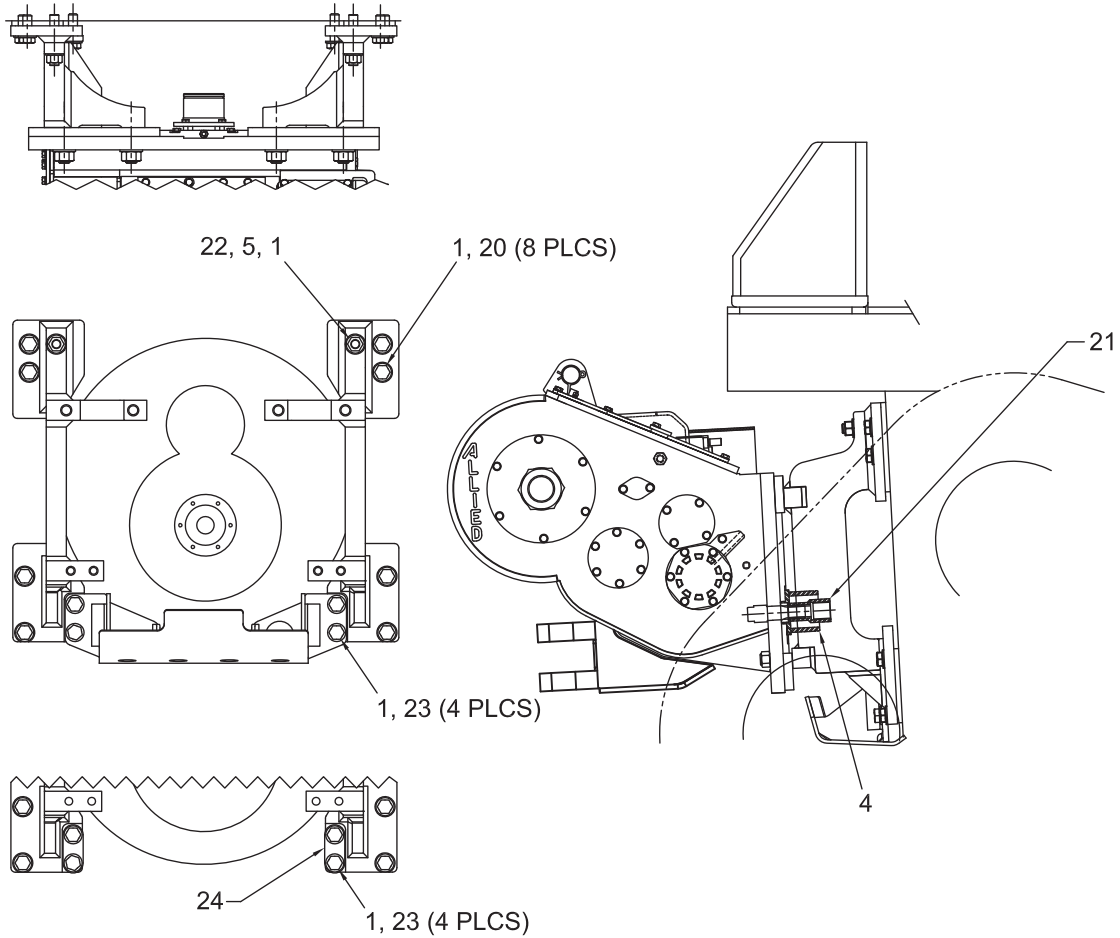
Caterpillar D6G PS (C73)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	18005W	Plug	2	10	*b 221721W	Nut	6
2	*a 253939W	Stud	6	11	221780W	Washer	6
3	*a 2300783W	Stud	2	12	*b 221725W	Nut	2
4	18004W	Plug	6	13	15128W	Washer	2
5	90937W	O-Ring	1	14	2310958	Wrench, Torque Extension	1
6	2300789W	PTO	1				
7	19928W	Pin	1				
8	9554W	Ring, Lock	1				
					*a	Use 230064W Loctite Kit	
					*b	Use 245231 Thread Lock	

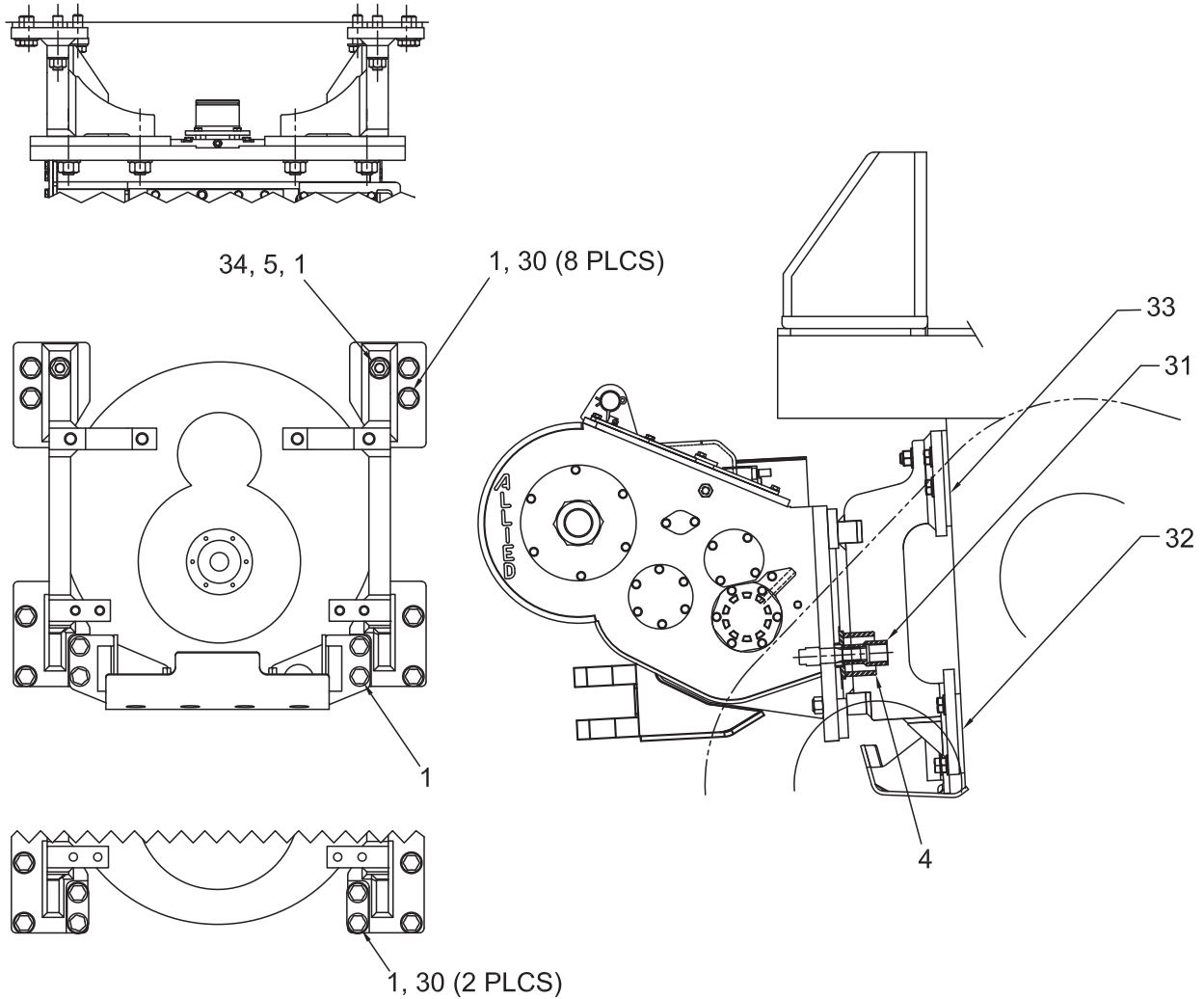
### Mounting Parts

Caterpillar D6H PS (C480),  
D6R PS (C50),  
D6R Series II & III PS and D6T (C71)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	221780W	Washer	12	22	*a 259543W	Stud	2
3	129563W	Clamp, Strap (Not Shown)	2	23	*a R13801898	Capscrew	4
4	15887W	O-Ring	1	24	2314824	Plate, Spacer Bracket	2
5	221721W	Nut	4				
20	*a 221690W	Capscrew	8		*a Use 230064W	Locktite Kit	
21	2300709W	Coupling, PTO	1				

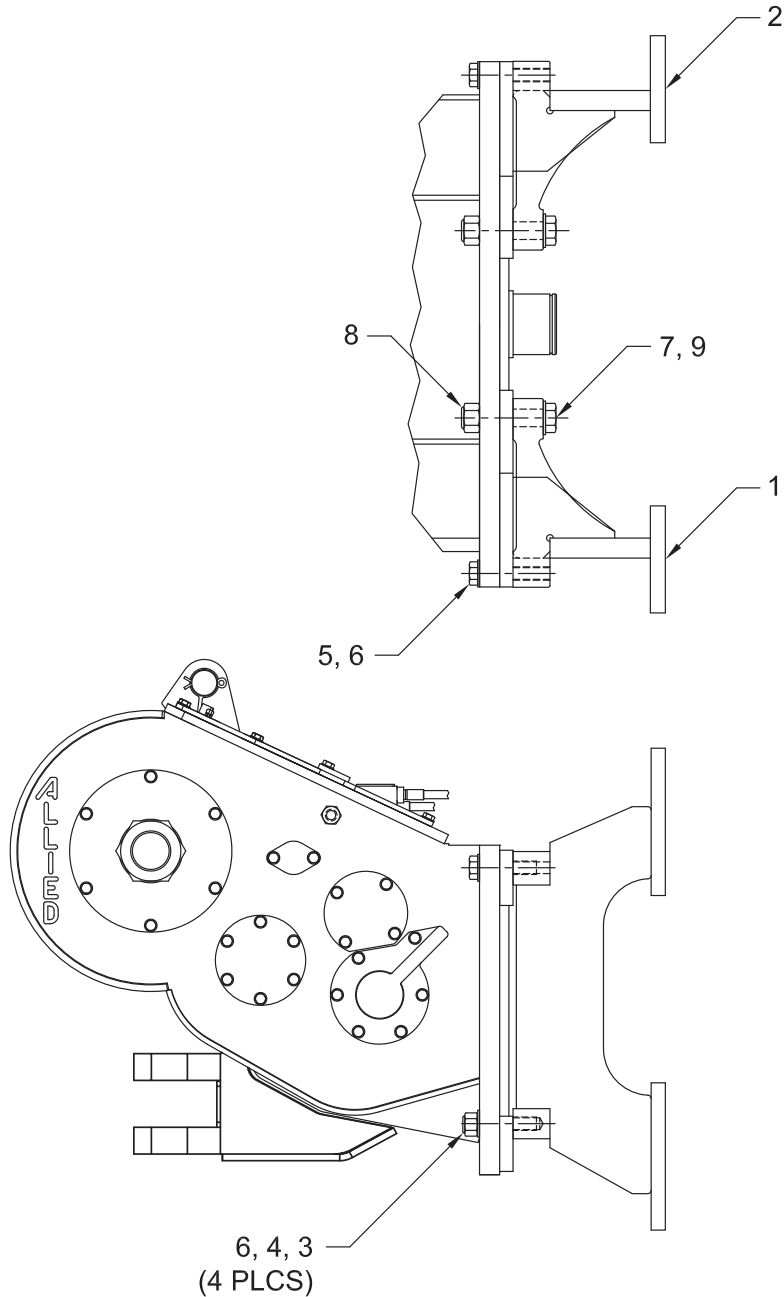
**Mounting Parts**  
Caterpillar D6H DD (C481)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	221780W	Washer	12	32	383170W	Spacer	2
3	129563W	Clamp, Strap (Not Shown)	2	33	2301176W	Spacer	2
4	15887W	O-Ring	1	34	*a 2301789W	Stud	2
5	221721W	Nut	4		*a	Use 230064W Locktite Kit	
30	*a R13801898	Capscrew	4				
31	2301125W	Coupling, PTO	1				

### Mounting Parts

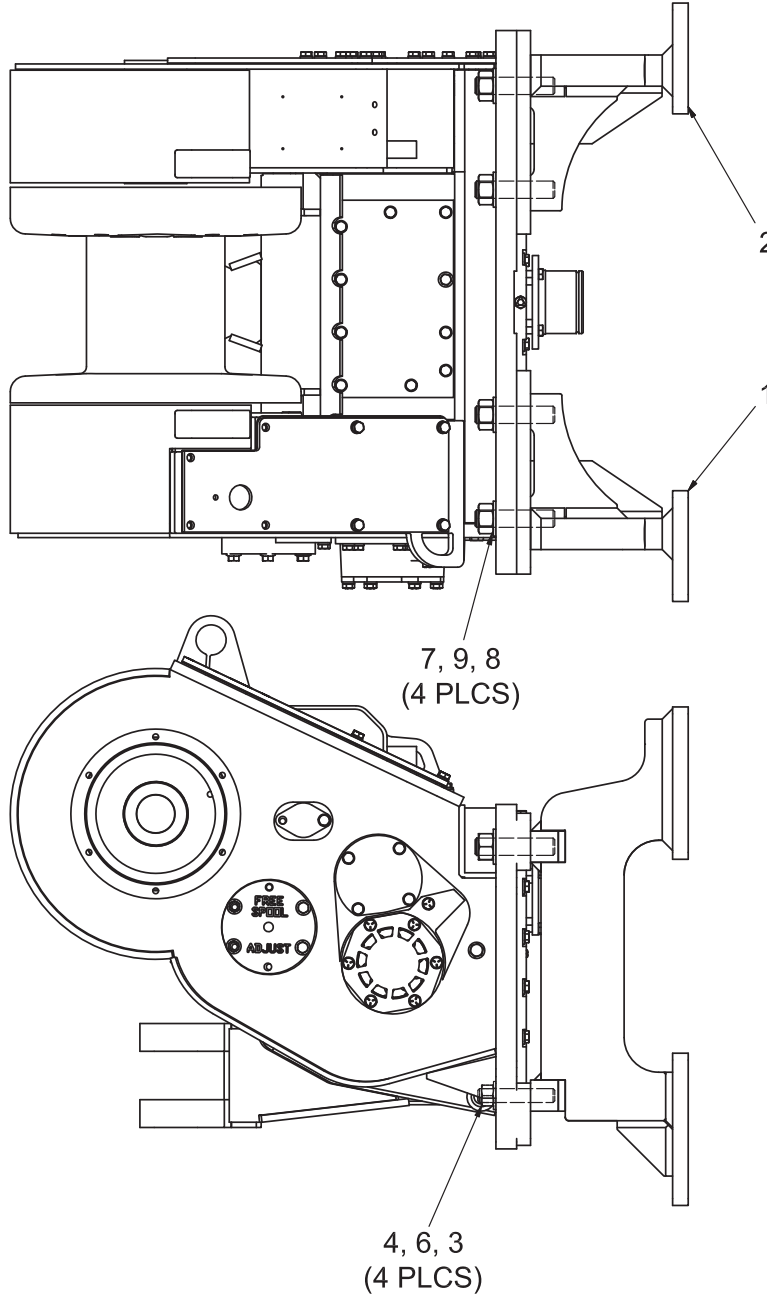
Mounting Bracket Installation  
 Caterpillar D6H PS (C480), D6H DD (C481);  
 D6R PS (C50), and D6R Series II & III PS (C71)  
 Last Used on S/N AW6G-1922



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300723W	Bracket, Mounting - RH	1	7	2301775W	Capscrew	2
2	2300724W	Bracket, Mounting - LH	1	8	221724W	Nut	2
3	*a 221721W	Nut	4	9	15128W	Washer	2
4	*b 2301144W	Stud	4				
5	Y17C-1664	Capscrew	2		*a	Use 264134W Adhesive Sealant	
6	221780W	Washer	6		*b	Use 383789W Adhesive Sealant	

### Mounting Parts

Mounting Bracket Installation  
 Caterpillar D6H PS (C480), D6H DD (C481);  
 D6R PS (C50), D6R Series II & III PS and D6T (C71)  
 First Used on S/N AW6G-1923

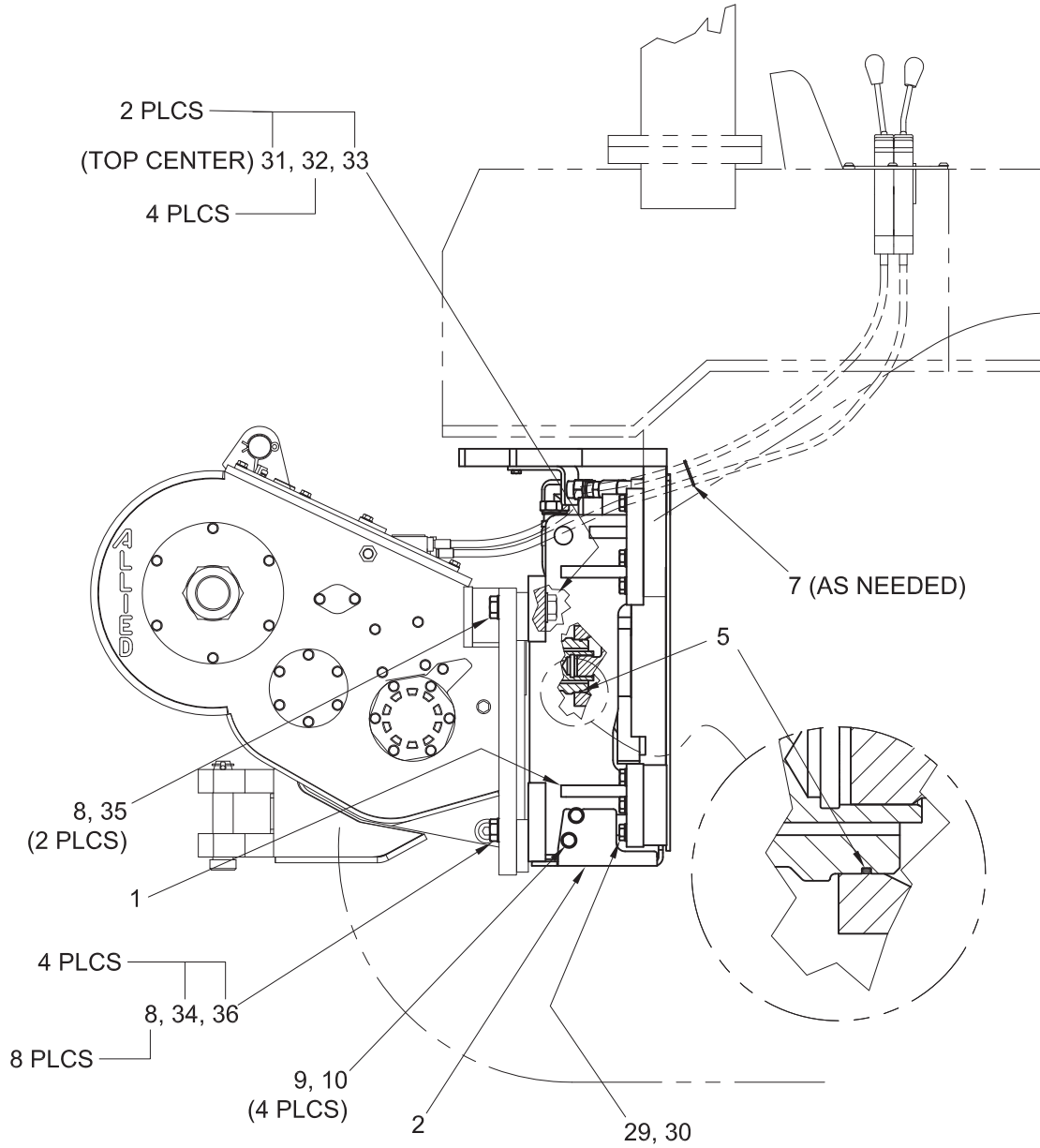


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2314554	Bracket, Mounting - RH	1	8	*b 221725W	Nut	4
2	2314553	Bracket, Mounting - LH	1	9	225851	Washer	4
3	*b 221721W	Nut	4				
4	*a 2301144W	Stud	4		*a	Use 264134W Adhesive Sealant	
6	221780W	Washer	4		*b	Use 383789W Adhesive Sealant	
7	*a 2301140W	Stud	4				



## Mounting Parts

Power Controls (P-Controls)  
Caterpillar D6N (C47, C78)



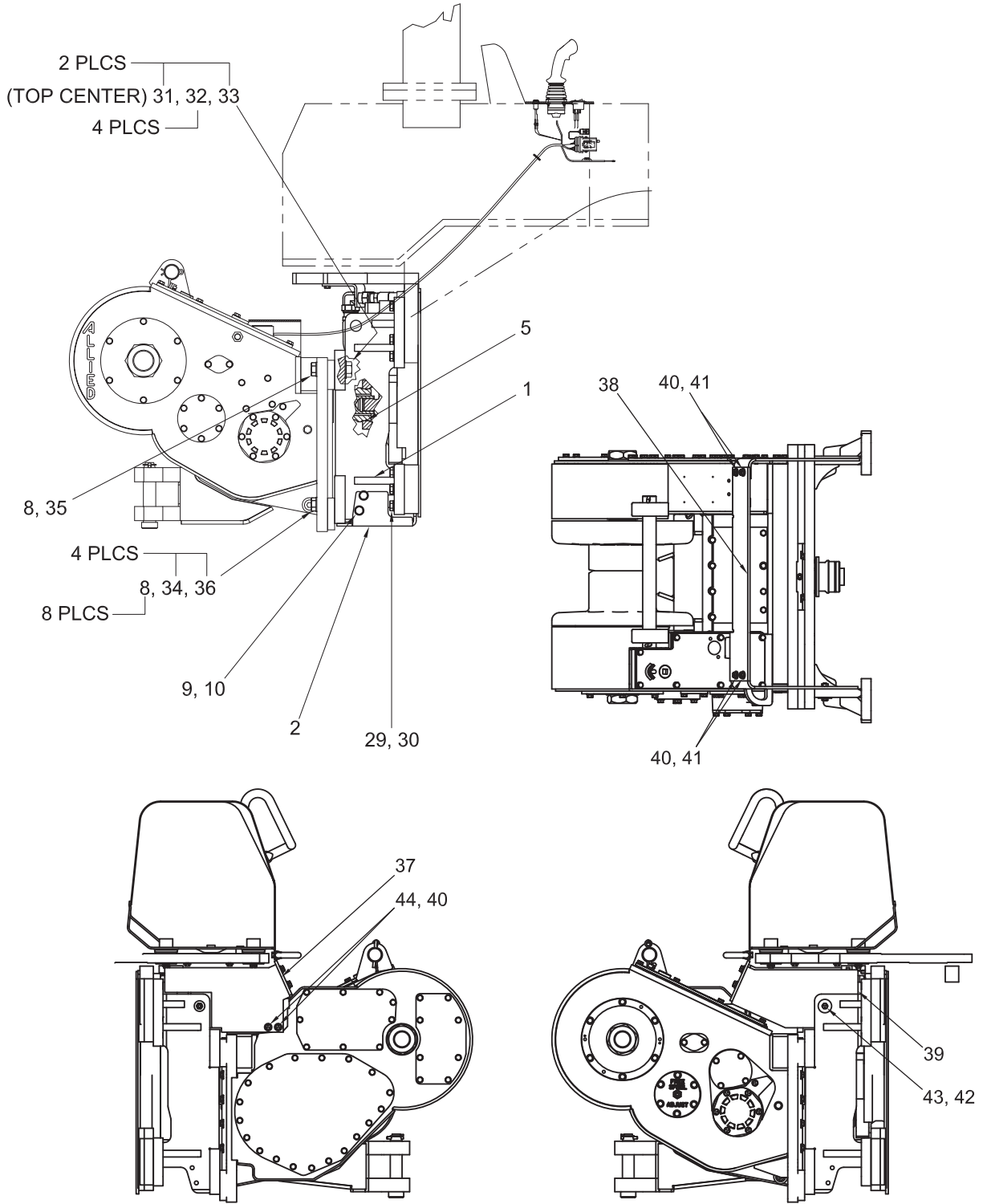
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305516W	Bracket, Mounting	1	31	*a 2305619W	Capscrew	2
2	2305541W	Guard, Bottom	1	32	15128W	Washer	4
5	15887W	O-Ring	1	33	221724W	Nut	2
7	137852W	Clamp, Strap	6	34	*a R1381901	Capscrew	4
8	221780W	Washer	10	35	*a 221701W	Capscrew	2
9	*a Y17C-1024	Capscrew	4	36	221720W	Nut	4
10	221775W	Washer	4				
29	*a 293710W	Capscrew	16		*a Use 318702W Thread Lock		
30	221777W	Washer	16				

### Mounting Parts

Electronic Controls (E-Controls)

Caterpillar D6N (C47, C78)

Page 1 of 2



**Mounting Parts**  
 Electronic Controls (E-Controls)  
 Caterpillar D6N (C47, C78)  
 Page 2 of 2

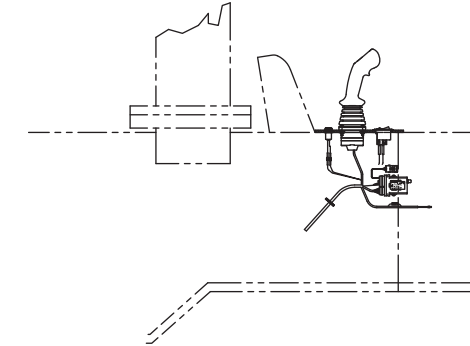
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305516W	Bracket, Mounting	1	35	*a 221701W	Capscrew	2
2	2305541W	Guard, Bottom	1	36	221720W	Nut	4
3	2306315W	Bracket, Filter	1	37	2314302	Guard, LH	1
5	15887W	O-Ring	1	38	2314235	Plate, Center Guard	1
8	221780W	Washer	10	39	2314237	Guard, RH	1
9	*a Y17C-1024	Capscrew	4	40	221771W	Washer	6
10	221775W	Washer	4	41	18588W	Capscrew	4
29	*a 293710W	Capscrew	16	42	2305715W	Washer	1
30	221777W	Washer	16	43	Y01C-0840	Capscrew	1
31	*a 2305619W	Capscrew	2	44	16830W	Capscrew	2
32	15128W	Washer	4				
33	221724W	Nut	2		*a Use 318702W Thread Lock		
34	*a R1381901	Capscrew	4				

# Mounting Parts

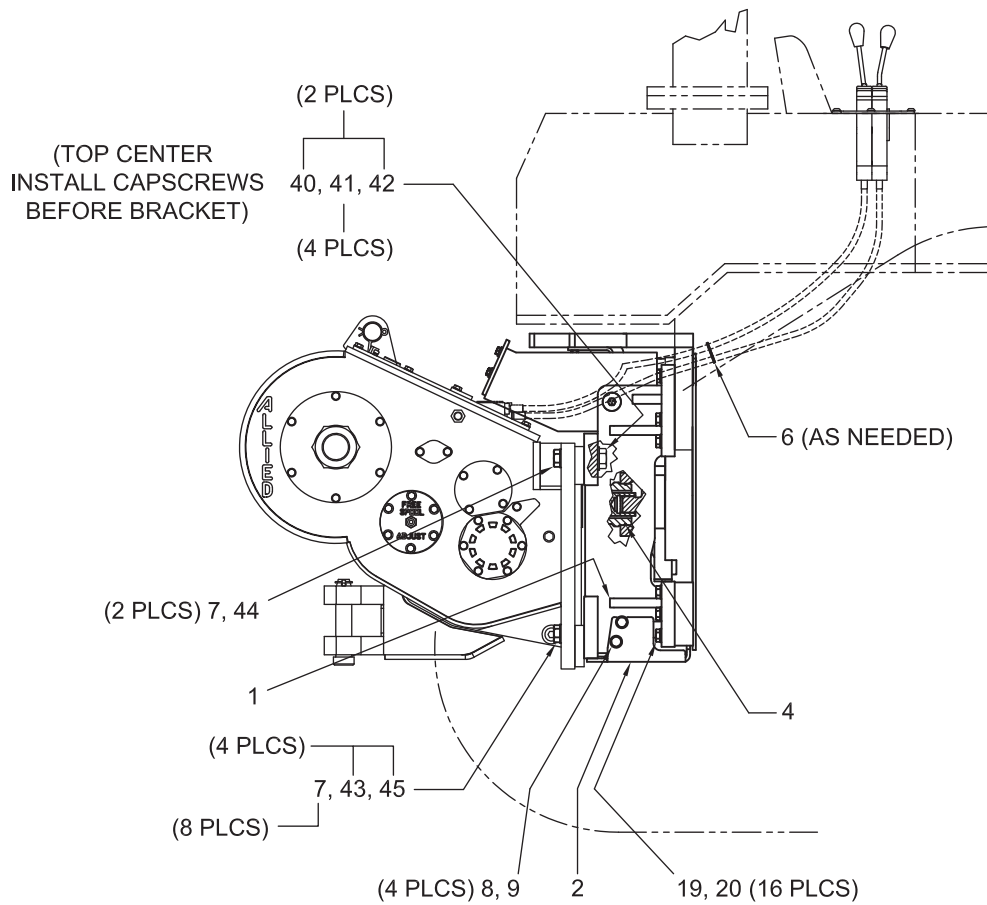
Caterpillar D6N (C81)

Page 1 of 2

SHOWN WITH  
ELECTRONIC CONTROLS



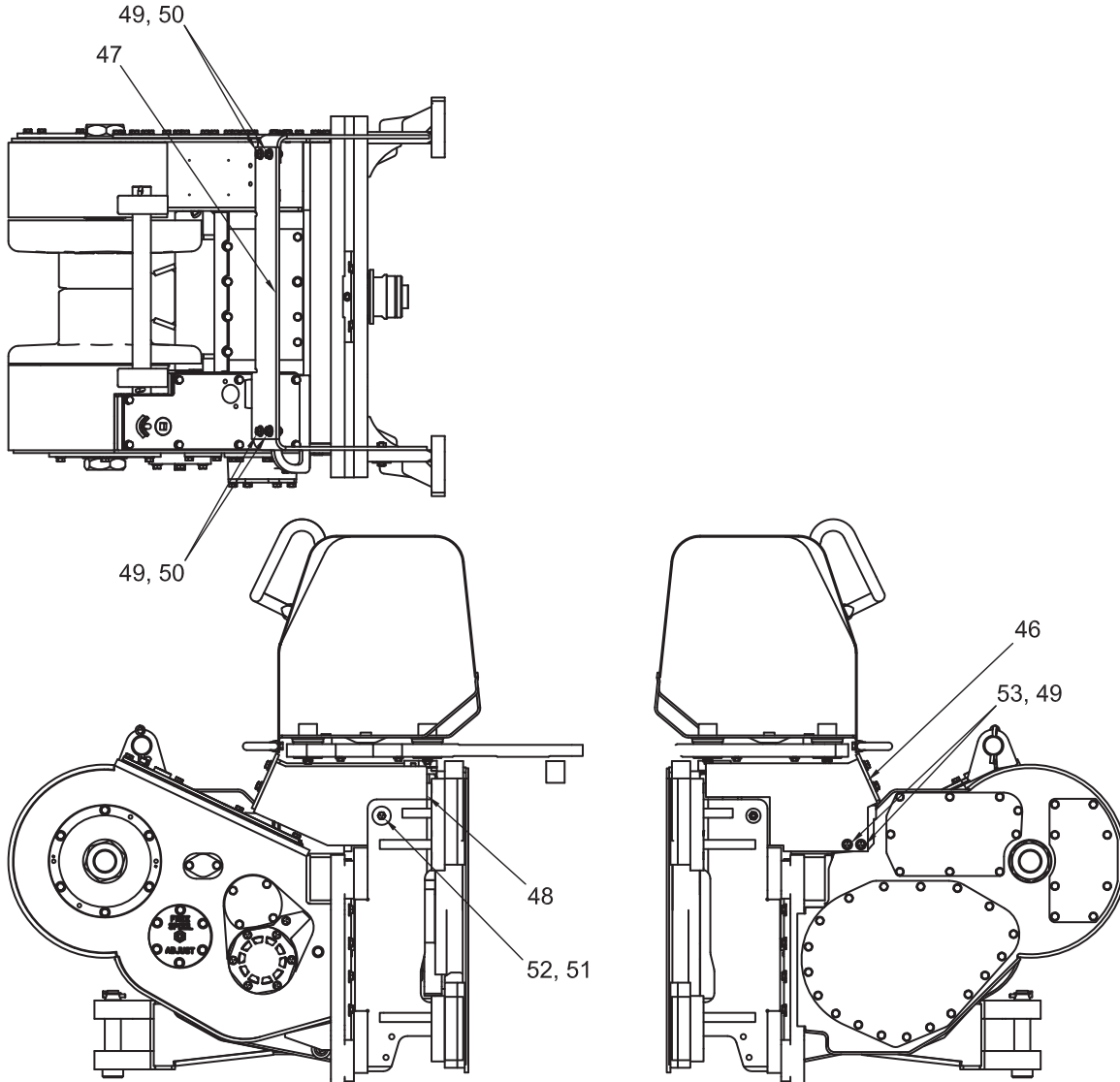
SHOWN WITH FREESPOOL  
(POWER CONTROLS)



**Mounting Parts**

Caterpillar D6N (C81)

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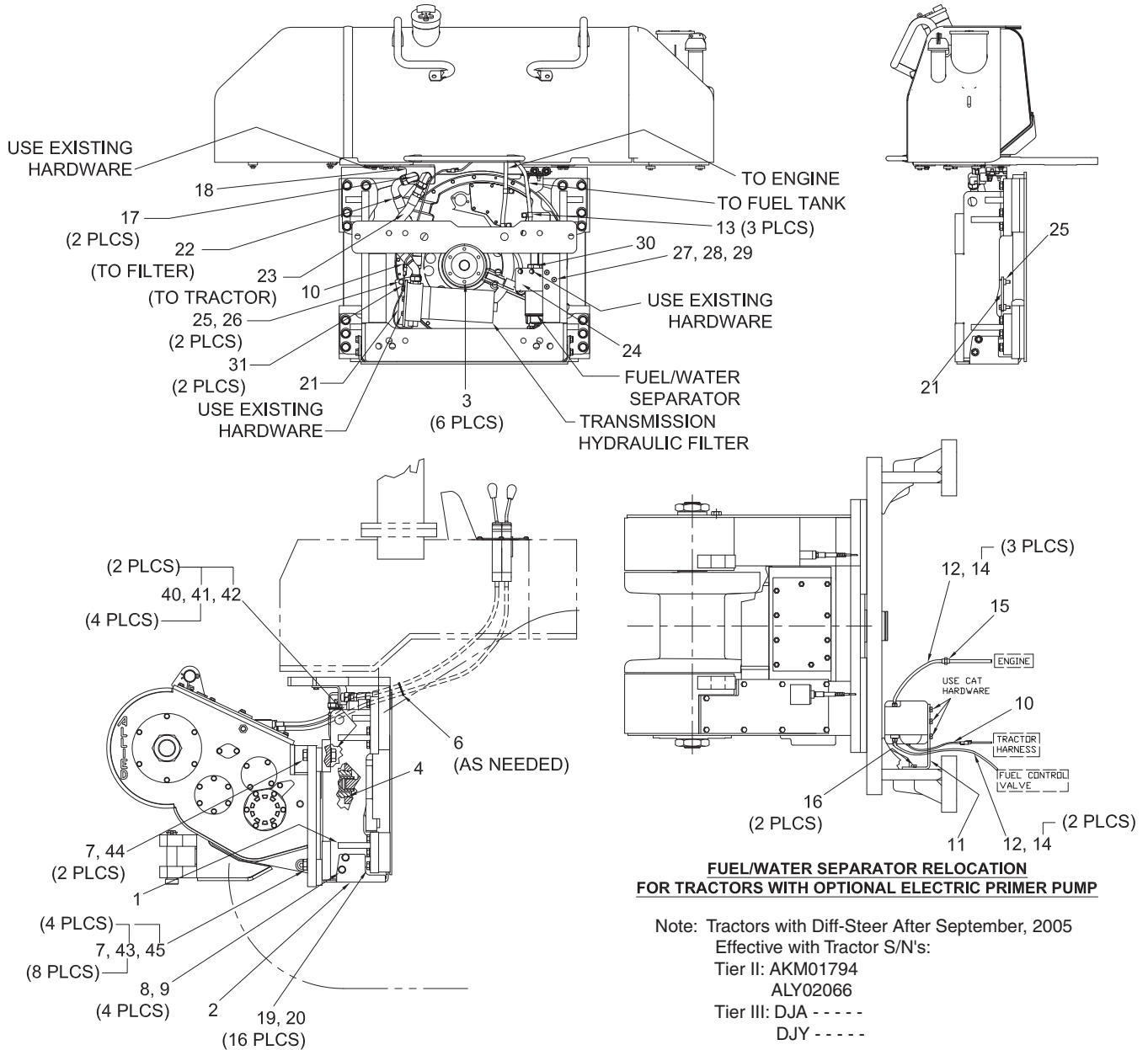


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305516W	Bracket, Mounting	1	44	*a 221701W	Capscrew	2
2	2305541W	Guard, Bottom	1	45	221720W	Nut	4
4	15887W	O-Ring	1	46	2314302	Guard, LH	1
6	137852W	Clamp, Strap	AR	47	2314235	Plate, Center Guard	1
7	221780W	Washer	10	48	2314237	Guard, RH	1
8	*a Y17C-1024	Capscrew	4	49	221771W	Washer	6
9	221775W	Washer	4	50	18588W	Capscrew	4
19	*a 293710W	Capscrew	16	51	2305715W	Washer	1
20	221777W	Washer	16	52	Y01C-0840	Capscrew	1
40	*a 2305619W	Capscrew	2	53	16830W	Capscrew	2
41	15128W	Washer	4				
42	221724W	Nut	2				
43	*a R13801901	Capscrew	4				
					*a	Use 318702W Thread Lock	

### Mounting Parts

Caterpillar D6N with Diff-Steer (C81)

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## Mounting Parts

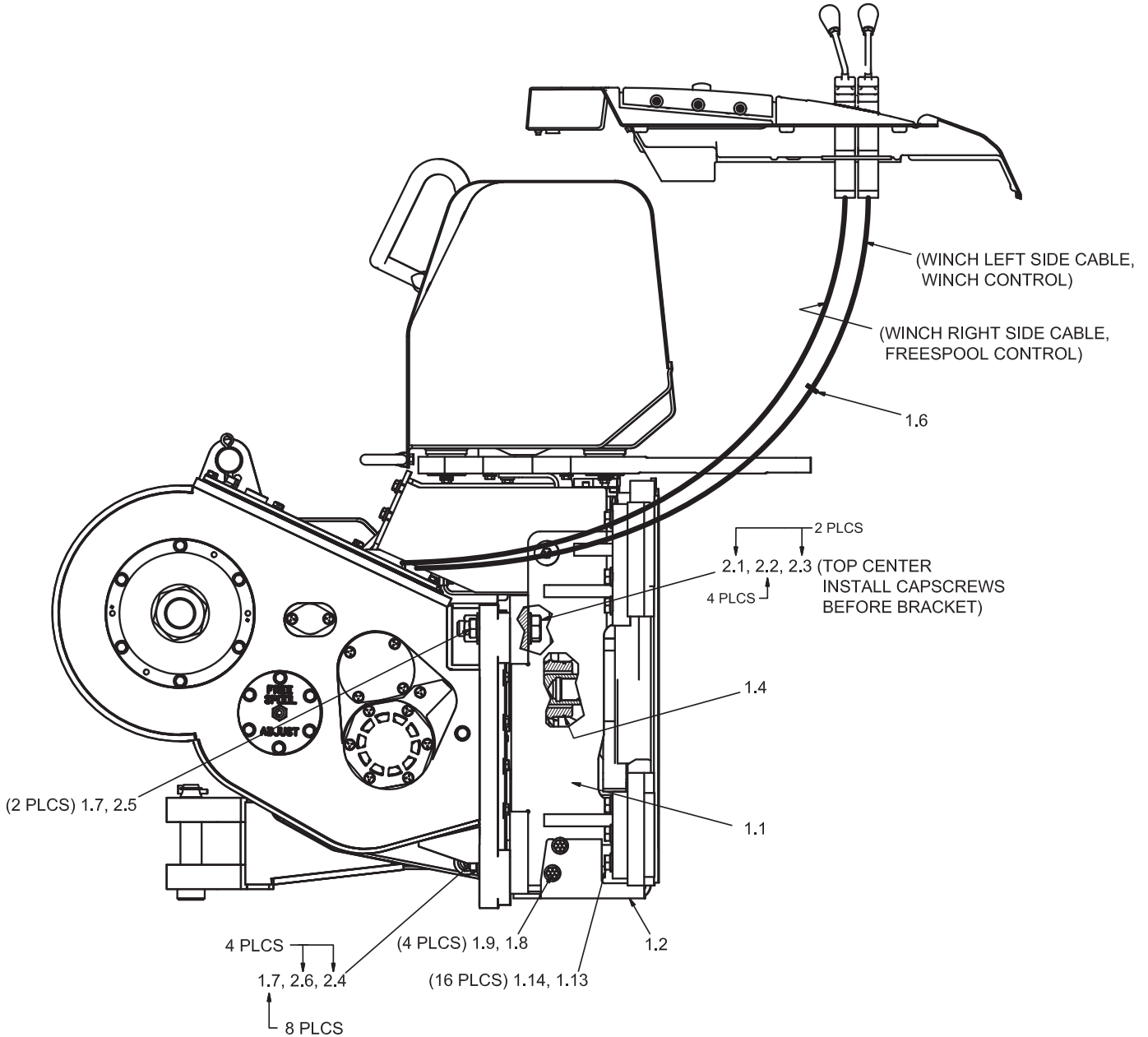
Caterpillar D6N with Diff-Steer (C81)

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305516W	Bracket, Mounting	1	21	2307890W	Bracket, Filter	1
2	2305541W	Guard, Bottom	1	22	2307895W	Assembly, Hose	1
3	56995W	Plug	6	23	2307896W	Assembly, Hose	1
4	15887W	O-Ring	1	24	2307894W	Plate, Mounting	1
6	137852W	Clamp, Strap	6	25	2307893W	Spacer	2
7	221780W	Washer	10	26	293647W	Cap screw	2
8	*a Y17C-1024	Cap screw	4	27	Y09G-0616	Cap screw	3
9	221775W	Washer	4	28	15134W	Washer	3
10	2305617W	Harness, External Filter	2	29	15056W	Nut	3
11	2306836W	Bracket, Mounting	1	30	2307911W	Gasket	1
12	2306857W	Hose, Fuel	1	31	243057	Clamp	2
13	387316W	Clamp	3	40	*a 2305619W	Cap screw	2
14	166857W	Clamp	5	41	15128W	Washer	4
15	2306858W	Fitting	1	42	221724W	Nut	2
16	18738W	Cap screw	2	43	*a R13801901	Cap screw	4
17	2305620W	Fitting	2	44	*a 221701W	Cap screw	2
18	2305588W	Bracket	1	45	221720W	Nut	4
19	*a 293710W	Cap screw	16				
20	221777W	Washer	16		*a Use 318702W Thread Lock		

### Mounting Parts

Power Controls (P-Controls)  
Caterpillar D6N Tier 4i (C810)  
S/N PREFIX: PBA & PER  
For Tractors with & without Ripper or Dual Controls  
Page 1 of 2

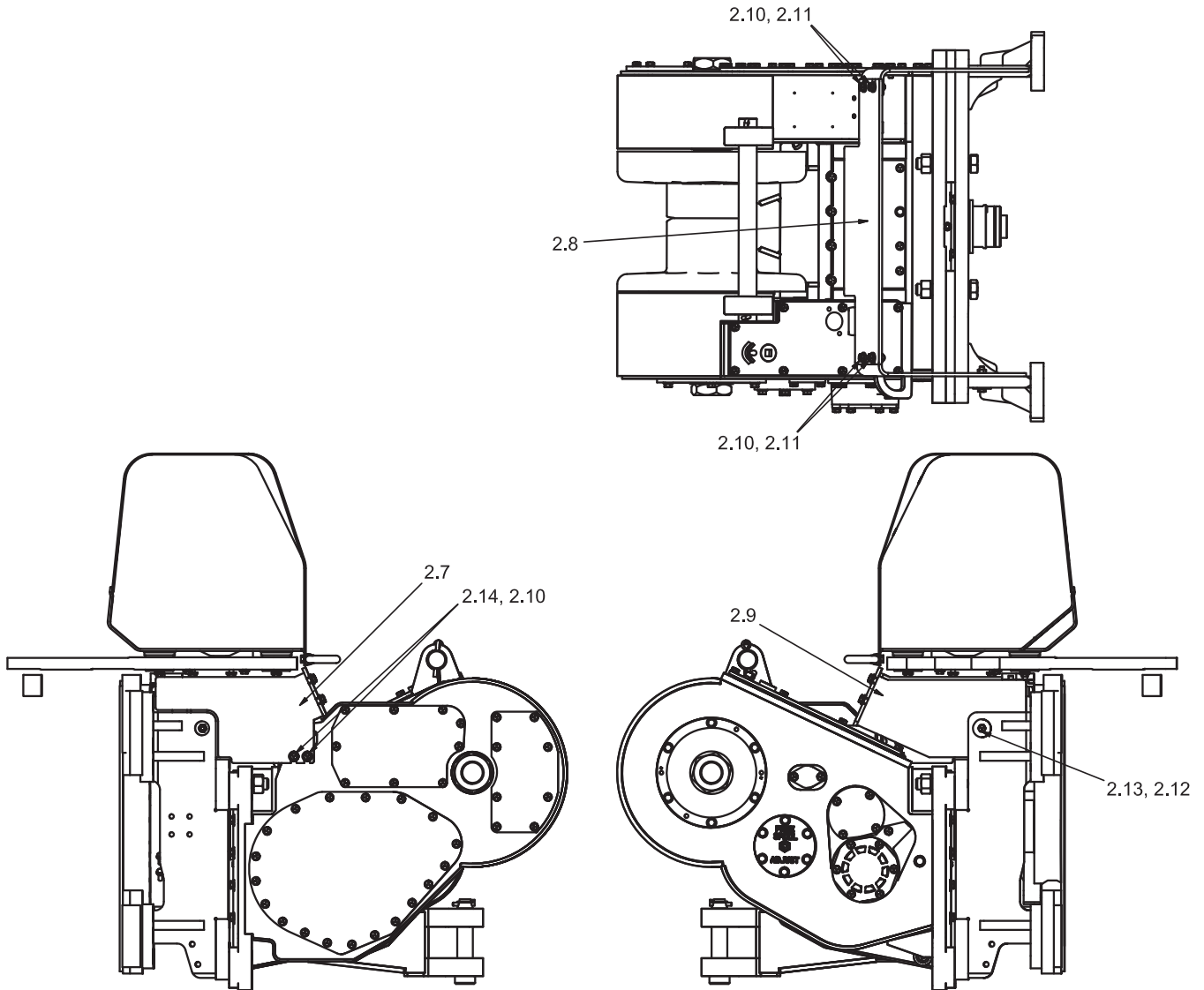




### Mounting Parts

Power Controls (P-Controls)  
 Caterpillar D6N Tier 4i (C810)  
 S/N PREFIX: PBA & PER

For Tractors with & without Ripper or Dual Controls  
 Page 2 of 2



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2305516W	Bracket, Mounting	1	2.5	*a 221701W	Capscrew	2
1.2	2305541W	Guard, Bottom	1	2.6	221720W	Nut	4
1.4	15887W	O-Ring	1	2.7	2314302	Guard, LH	1
1.6	137852W	Clamp, Strap	6	2.8	2314235	Plate, Guard Center	1
1.7	221780W	Washer	10	2.9	2314237	Guard, RH	1
1.8	*a Y17C-1024	Capscrew	4	2.10	221771W	Washer	6
1.9	221775W	Washer	4	2.11	18588W	Capscrew	4
1.13	*a 293710W	Capscrew	16	2.12	2305715W	Washer	1
1.14	221777W	Washer	16	2.13	Y01C-0840	Capscrew	1
2.1	*a 2305619W	Capscrew	2	2.14	16830W	Capscrew	2
2.2	225851	Washer	4				
2.3	221724W	Nut	2		*a	Use 318702W Thread Lock	
2.4	*a R13801901	Capscrew	4				

### Mounting Parts

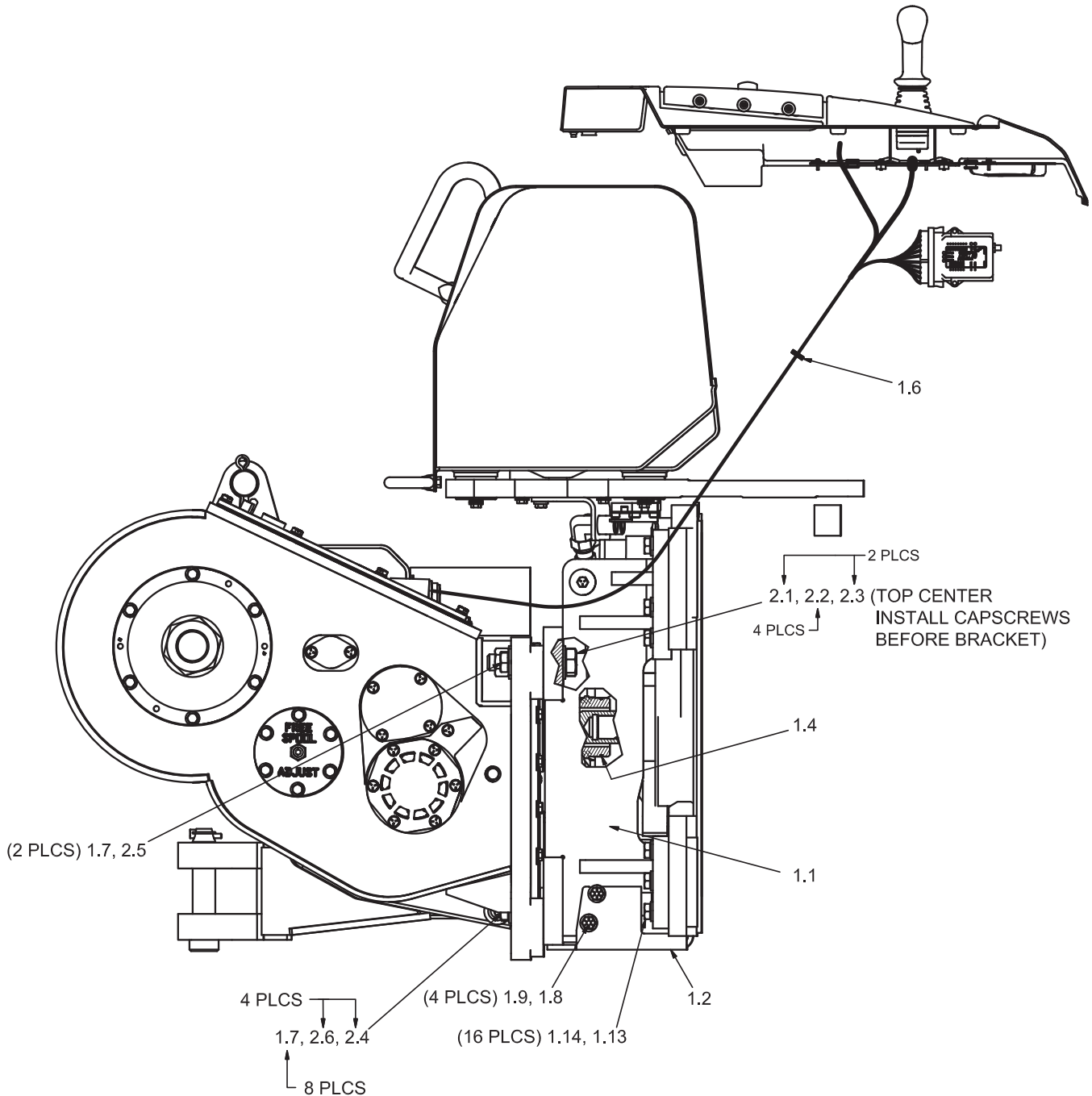
Electronic Controls (E-Controls)

Caterpillar D6N Tier 4i (C810)

S/N PREFIX: PBA & PER

For Tractors with & without Ripper or Dual Controls

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### Mounting Parts

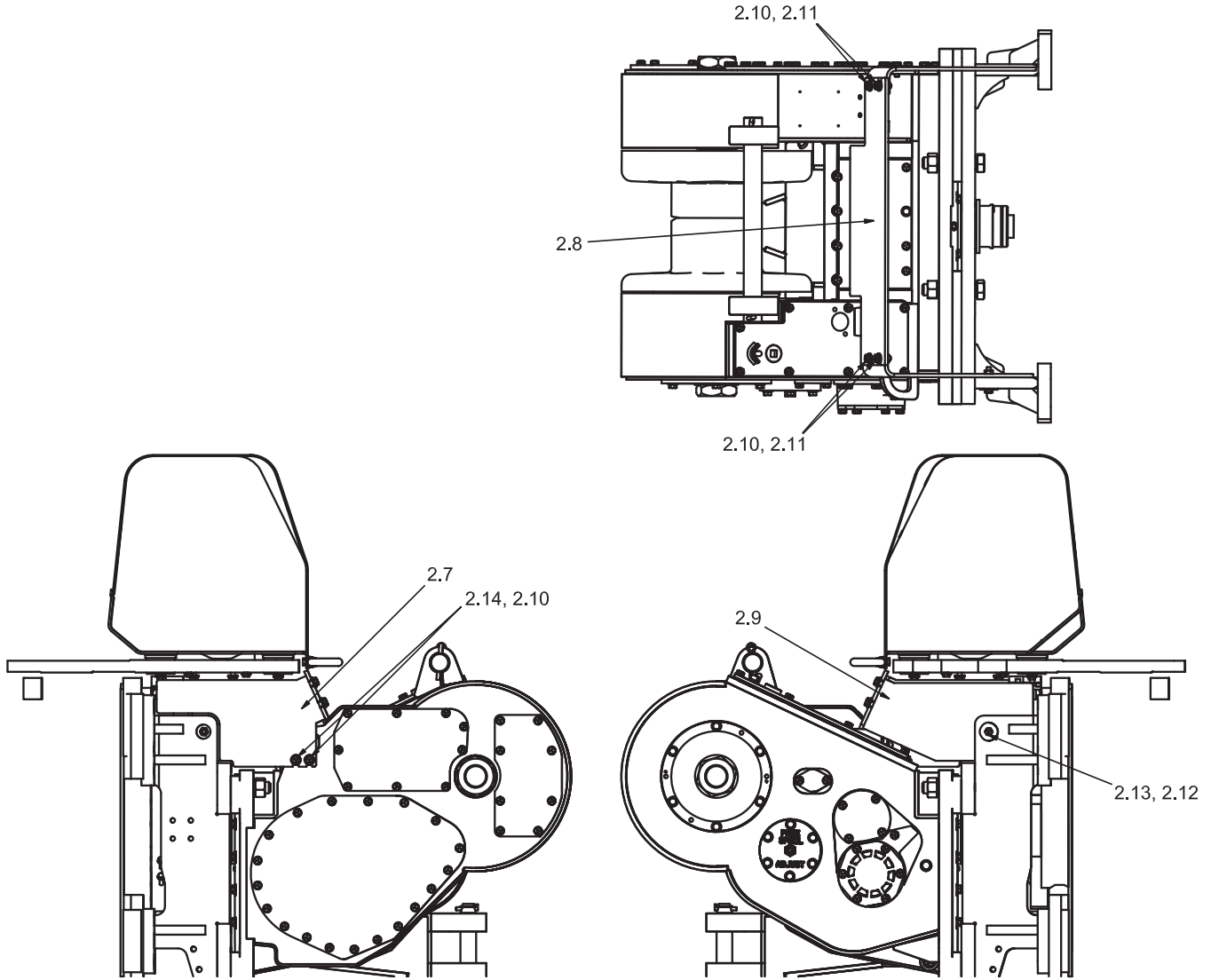
Electronic Controls (E-Controls)

Caterpillar D6N Tier 4i (C810)

S/N PREFIX: PBA & PER

For Tractors with & without Ripper or Dual Controls

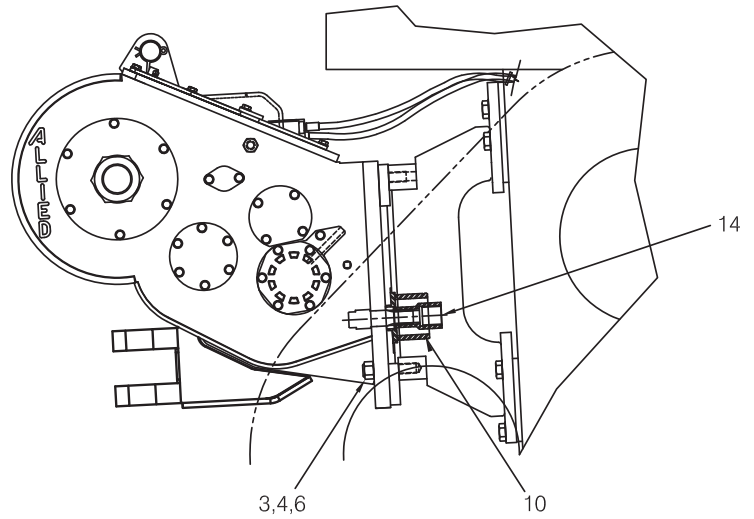
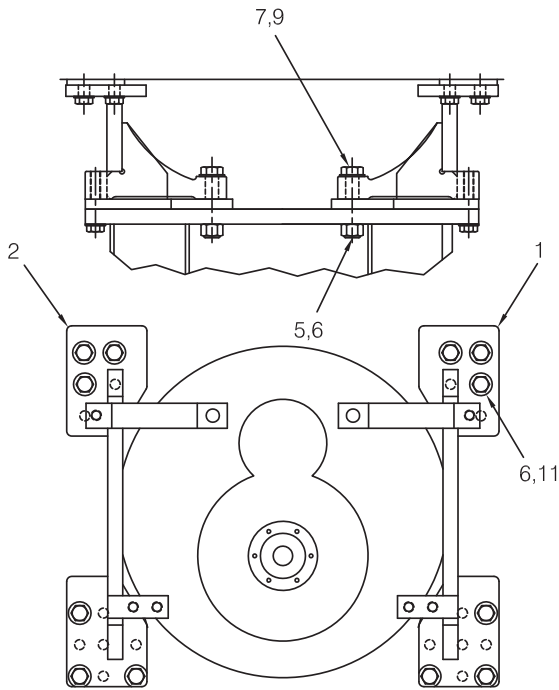
Page 2 of 2



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2305516W	Bracket, Mounting	1	2.5	*a 221701W	Capscrew	2
1.2	2305541W	Guard, Bottom	1	2.6	221720W	Nut	4
1.4	15887W	O-Ring	1	2.7	2314302	Guard, LH	1
1.6	137852W	Clamp, Strap	6	2.8	2314235	Plate, Guard Center	1
1.7	221780W	Washer	10	2.9	2314237	Guard, RH	1
1.8	*a Y17C-1024	Capscrew	4	2.10	221771W	Washer	6
1.9	221775W	Washer	4	2.11	18588W	Capscrew	4
1.13	*a 293710W	Capscrew	16	2.12	2305715W	Washer	1
1.14	221777W	Washer	16	2.13	Y01C-0840	Capscrew	1
2.1	*a 2305619W	Capscrew	2	2.14	16830W	Capscrew	2
2.2	225851	Washer	4				
2.3	221724W	Nut	2				
2.4	*a R13801901	Capscrew	4				
				*a	Use 318702W	Thread Lock	

### Mounting Parts

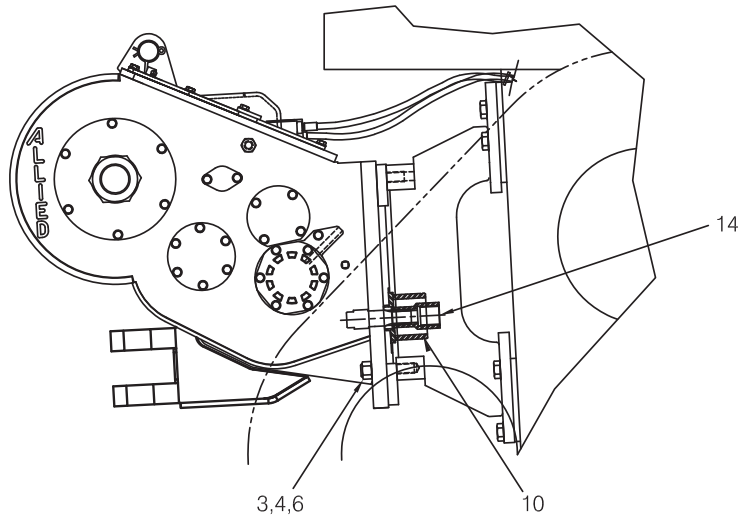
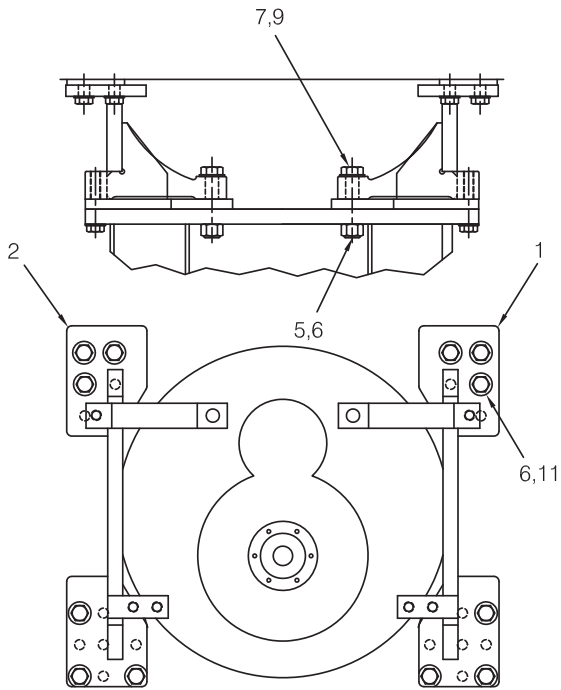
Caterpillar D6R PS (C50), D6R Series II, III PS (C71)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300723W	Bracket, RH	1	9	15128W	Washer	2
2	2300724W	Bracket, LH	1	10	15887W	O-Ring	1
3	*b 221721W	Nut	4	11	Y17C-1636	Capscrew	12
4	*a 2301144W	Stud	4	14	2300709W	Coupling	1
5	Y17C-1664	Capscrew	2				
6	221780W	Washer	18		*a	Use 230064W Locktite Kit	
7	*a 2301775W	Capscrew	2		*b	Use 245231 Thread Lock	
8	*b 221724W	Nut	2				

**Mounting Parts**

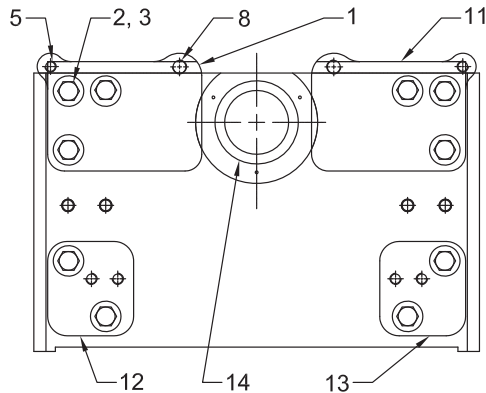
Caterpillar D6T (C71)



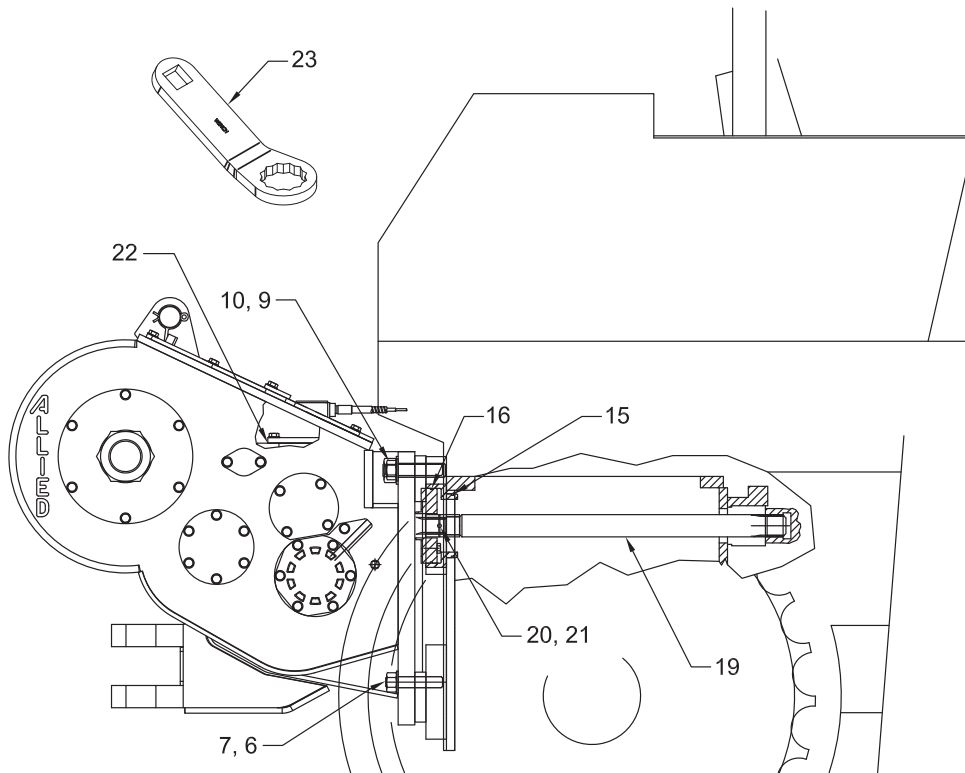
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300723W	Bracket, RH	1	9	15128W	Washer	2
2	2300724W	Bracket, LH	1	10	15887W	O-Ring	1
3	*b 221721W	Nut	4	11	Y17C-1636	Capscrew	12
4	*a 2301144W	Stud	4	14	2300709W	Coupling	1
5	Y17C-1664	Capscrew	2				
6	221780W	Washer	18		*a	Use 230064W Locktite Kit	
7	*a 2301775W	Capscrew	2		*b	Use 245231 Thread Lock	
8	*b 221724W	Nut	2				

### Mounting Parts

Dresser/Dressta TD15E PS (H44); TD15E DD (H45); TD15H Tier I PS (H46)



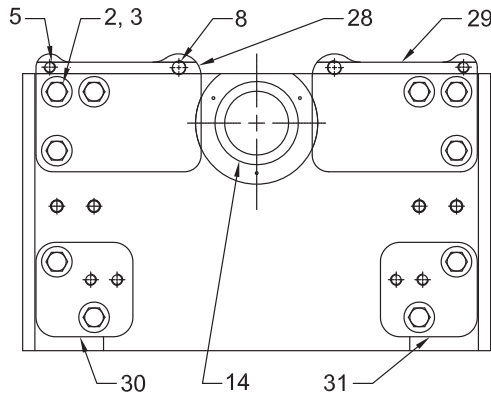
TRACTOR REAR FACE



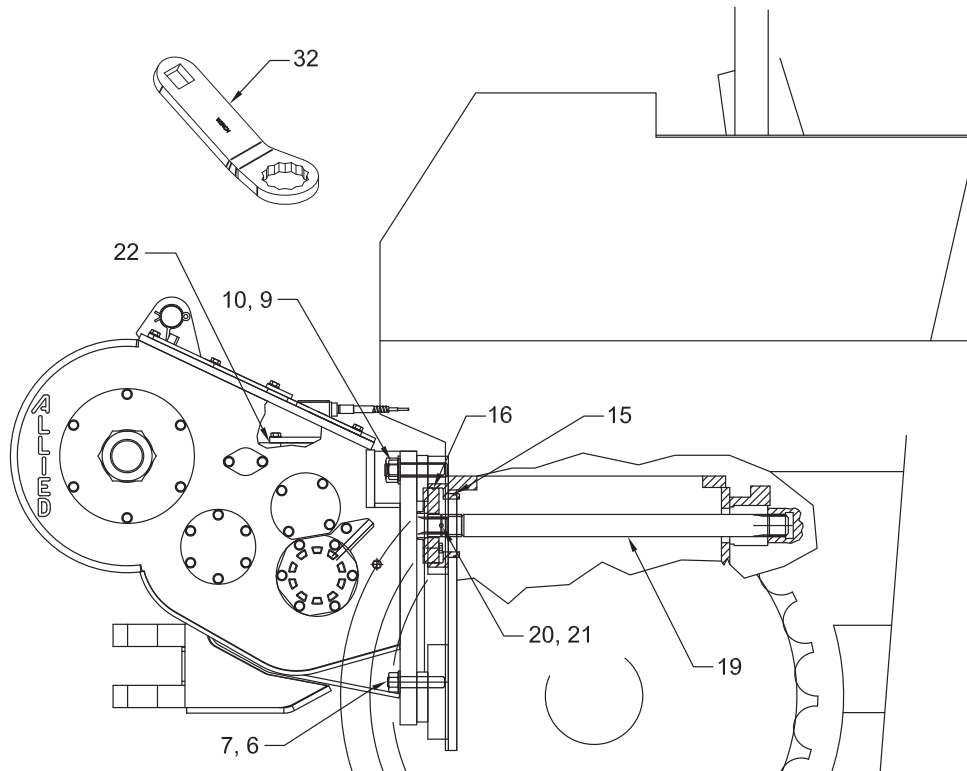
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301156W	Plate, Upper Mounting Pad - LH	1	15	15893W	O-Ring	1
2	*a 2301171W	Capscrew	10	16	90937W	O-Ring	1
3	15137W	Washer	10	17	166857W	Clamp, Hose	1
5	*a 253939W	Stud	6	18	318935W	Hose	1
6	221780W	Washer	6	19	2301167W	Shaft	1
7	*b 221721W	Nut	6	20	19928W	Pin	1
8	*a 216224W	Stud	2	21	9554W	Lock, Ring	1
9	15128W	Washer	2	22	2301690W	Gasket	1
10	*b 221725W	Nut	2	23	2310958	Wrench, Torque Extension	1
11	2301154W	Plate, Upper Mounting Pad - RH	1				
12	2301153W	Plate, Lower Mounting Pad - LH	1				
13	2301145W	Plate, Lower Mounting Pad - RH	1				
14	2301169W	Pilot, PTO	1				
				*a	Use 230064W	Loctite Kit	
				*b	Use 245231	Thread Lock	

### Mounting Parts

Dresser/Dressta TD15H Tier II & TD15M (H47)



TRACTOR REAR FACE



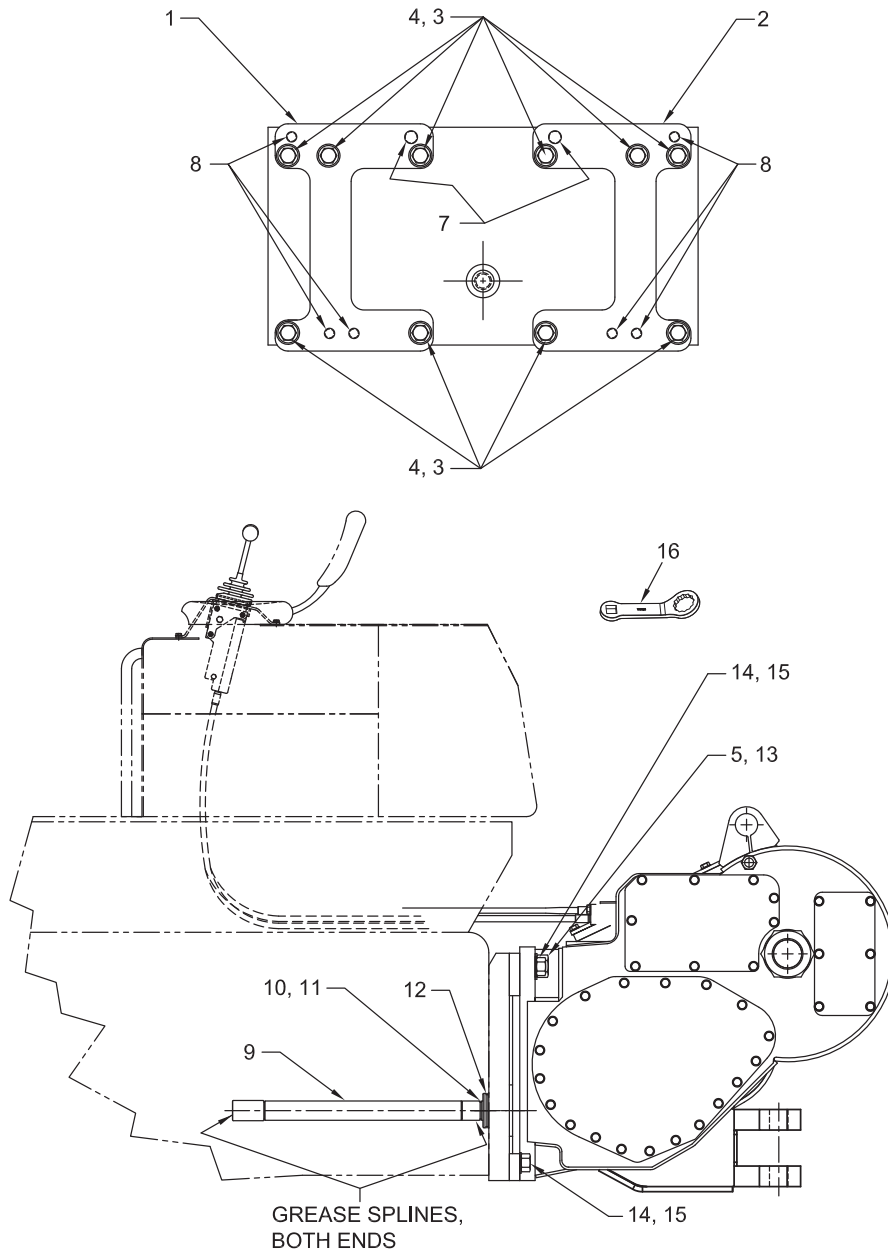
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
2	*a 2301171W	Capscrew	10	19	2301167W	Shaft	1
3	15137W	Washer	10	20	19928W	Pin	1
5	*a 253939W	Stud	6	21	9554W	Lock, Ring	1
6	221780W	Washer	6	22	2301690W	Gasket	1
7	*b 221721W	Nut	6	28	2307851W	Plate, Upper Mounting Pad - LH	1
8	*a 216224W	Stud	2	29	2307850W	Plate, Upper Mounting Pad - RH	1
9	15128W	Washer	2	30	2307853W	Plate, Lower Mounting Pad - LH	1
10	*b 221725W	Nut	2	31	2307852W	Plate, Lower Mounting Pad - RH	1
14	2301169W	Pilot, PTO	1	32	2310958	Wrench, Torque Extension	1
15	15893W	O-Ring	1				
16	90937W	O-Ring	1				
17	166857W	Clamp, Hose	1				
18	318935W	Hose	1				

\*a Use 230064W Loctite Kit  
 \*b Use 245231 Thread Lock

## Mounting Parts

Fiat-Hitachi/New Holland DC180 (A49)

### TRACTOR PREPARATION



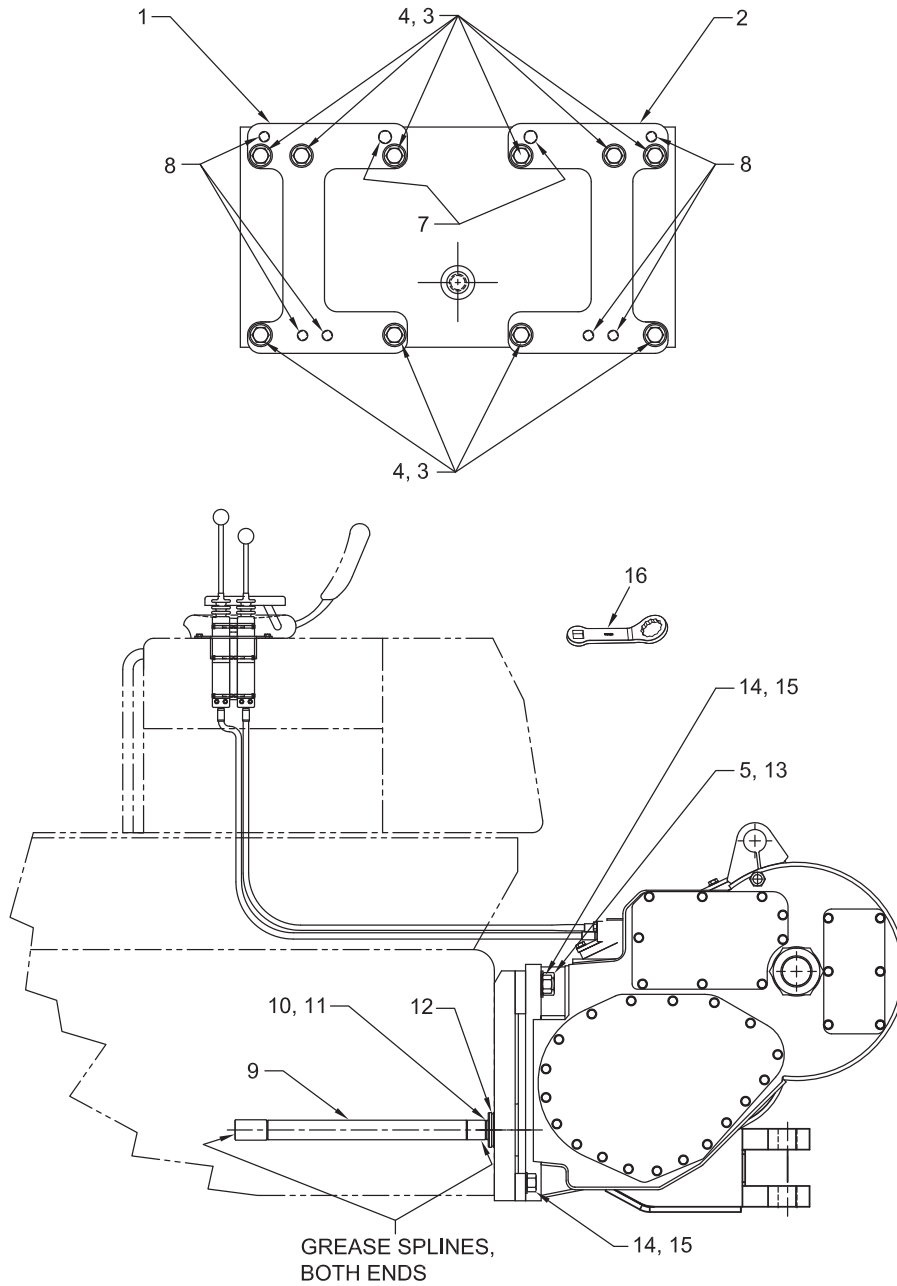
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301427W	Spacer, LH	1	11	9554W	Ring, Lock	1
2	2301428W	Spacer, RH	1	12	15880W	O-Ring	1
3	2301477W	Capscrew	10	13	15128W	Washer	2
4	296434W	Washer	10	14	*b 221721W	Nut	6
5	221725W	Nut	2	15	221780W	Washer	6
7	*a 2301140W	Stud	2	16	2310958	Wrench, Torque Extension	1
8	*a 2301144W	Stud	6				
9	2304904W	Shaft, PTO	1				
10	19928W	Pin	1				
				*a		Use 230064W Loctite Kit	
				*b		Use 245231 Thread Lock	



**Mounting Parts**

Fiat-Hitachi/New Holland FD14E, DX 175/195, & FD 175/195 (A48)

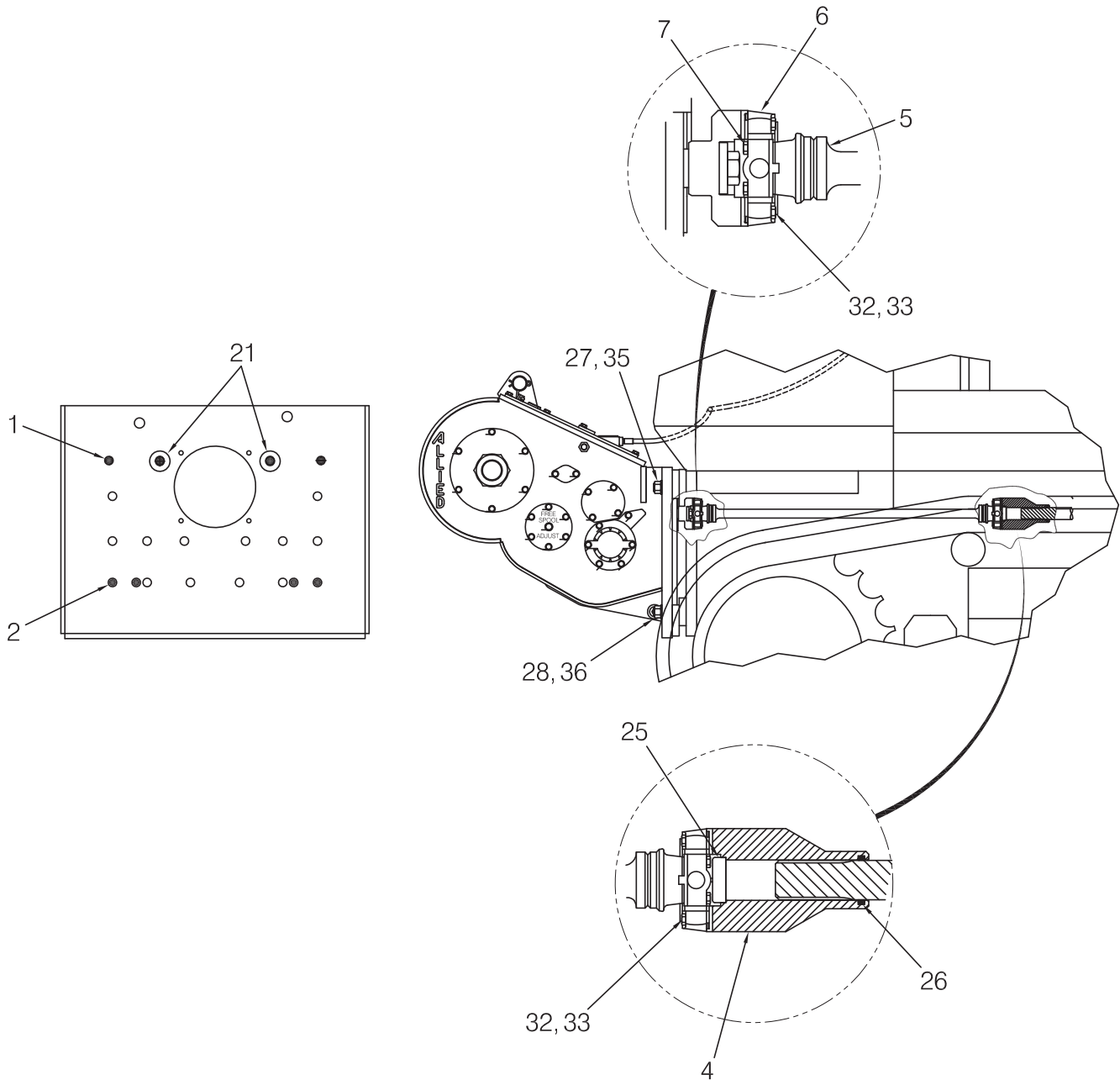
TRACTOR PREPARATION



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301427W	Spacer, LH	1	11	9554W	Ring, Lock	1
2	2301428W	Spacer, RH	1	12	15880W	O-Ring	1
3	2301477W	Capscrew	10	13	15128W	Washer	2
4	296434W	Washer	10	14	*b 221721W	Nut	6
5	221725W	Nut	2	15	221780W	Washer	6
7	*a 2301140W	Stud	2	16	2310958	Wrench, Torque Extension	1
8	*a 2301144W	Stud	6				
9	2301437W	Shaft, PTO	1				
10	19928W	Pin	1				
				*a	Use 230064W Loctite Kit		
				*b	Use 245231 Thread Lock		

### Mounting Parts

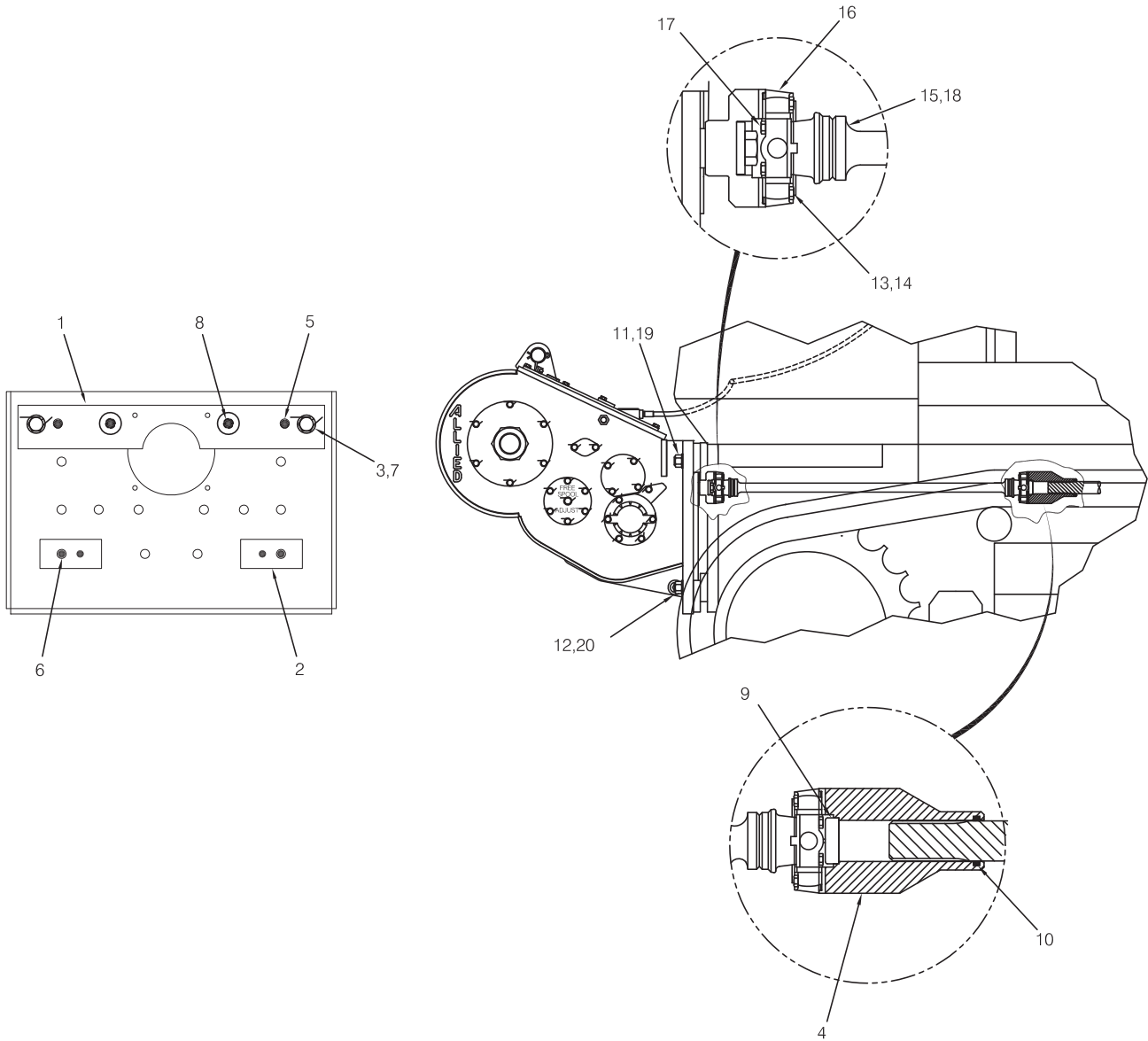
John Deere 750B without Cab (E41), 750B with Cab (E44)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 2301140W	Stud	4	27	*b 221725W	Nut	4
2	*a 2301144W	Stud	4	28	*b 221721W	Nut	4
4	388610W	Coupling	1	32	388612W	Washer	8
5	2300785W	Shaft, Universal	1	33	*a 388611W	Capscrew	8
6	2300041W	. U-Joint	2	35	15128W	Washer	4
7	221466W	. Capscrew	8	36	221780W	Washer	4
21	223453W	Shim .020	AR				
25	225097W	Cup, Dust	1		*a Use 230064W Loctite Kit		
26	25360	O-Ring	1		*b Use 245231 Thread Lock		

### Mounting Parts

John Deere 850B without Cab (E42), 850B with Cab (E43)

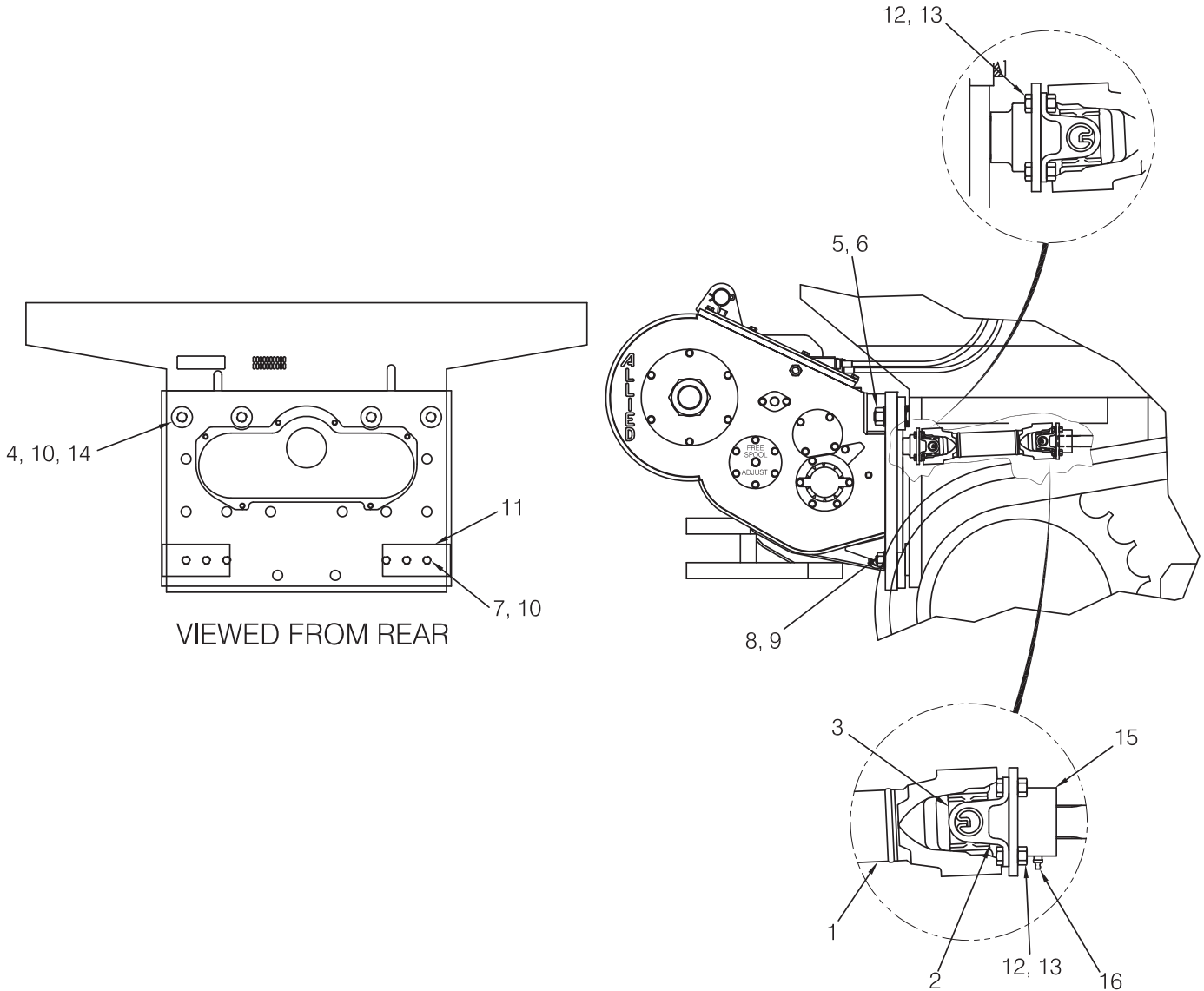


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	321415W	Spacer	1	13	388612W	Washer	8
2	360378W	Bracket	2	14	*b 388611W	Capscrew	8
3	15128W	Washer	2	15	2300785W	Shaft, Universal	1
4	1310734W	Coupling	1	16	2300041W	. U-Joint	2
5	*a 2301143W	Stud	4	17	221466W	. Capscrew	4
6	*a 2301789W	Stud	4	18	2300794W	. Shaft	1
7	248321W	Capscrew	2	19	15128W	Washer	4
8	223453W	Shim	AR	20	221780W	Washer	4
9	225097W	Cap, Dust	1				
10	25360	O-Ring	1		*a	Use 230064W Loctite Kit	
11	*b 221725W	Nut	4		*b	Use 245231 Thread Lock	
12	221721W	Nut	4				

### Mounting Parts

John Deere 750C Series I & II (E45)

Last Used S/N AW6G-1043



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301539W	Driveshaft	1	11	2301530W	Pad, Mounting	2
2	2302799W	. Yoke, Flange	2	12	2301540W	Capscrew	8
3	2302798W	. Kit, Cross & Bearing	2	13	221710W	Nut	8
4	*a 2301785W	Stud	4	14	2301529W	Washer	4
5	*b 221725W	Nut	4	15	2301531W	Flange	1
6	15128W	Washer	4	16	16001W	Fitting, Lube	1
7	*a 259543W	Stud	4				
8	*b 221721W	Nut	4		*a	Use 230064W Loctite Kit	
9	221780W	Washer	4		*b	Use 245231 Thread Lock	
10	223453W	Shim .020	AR				

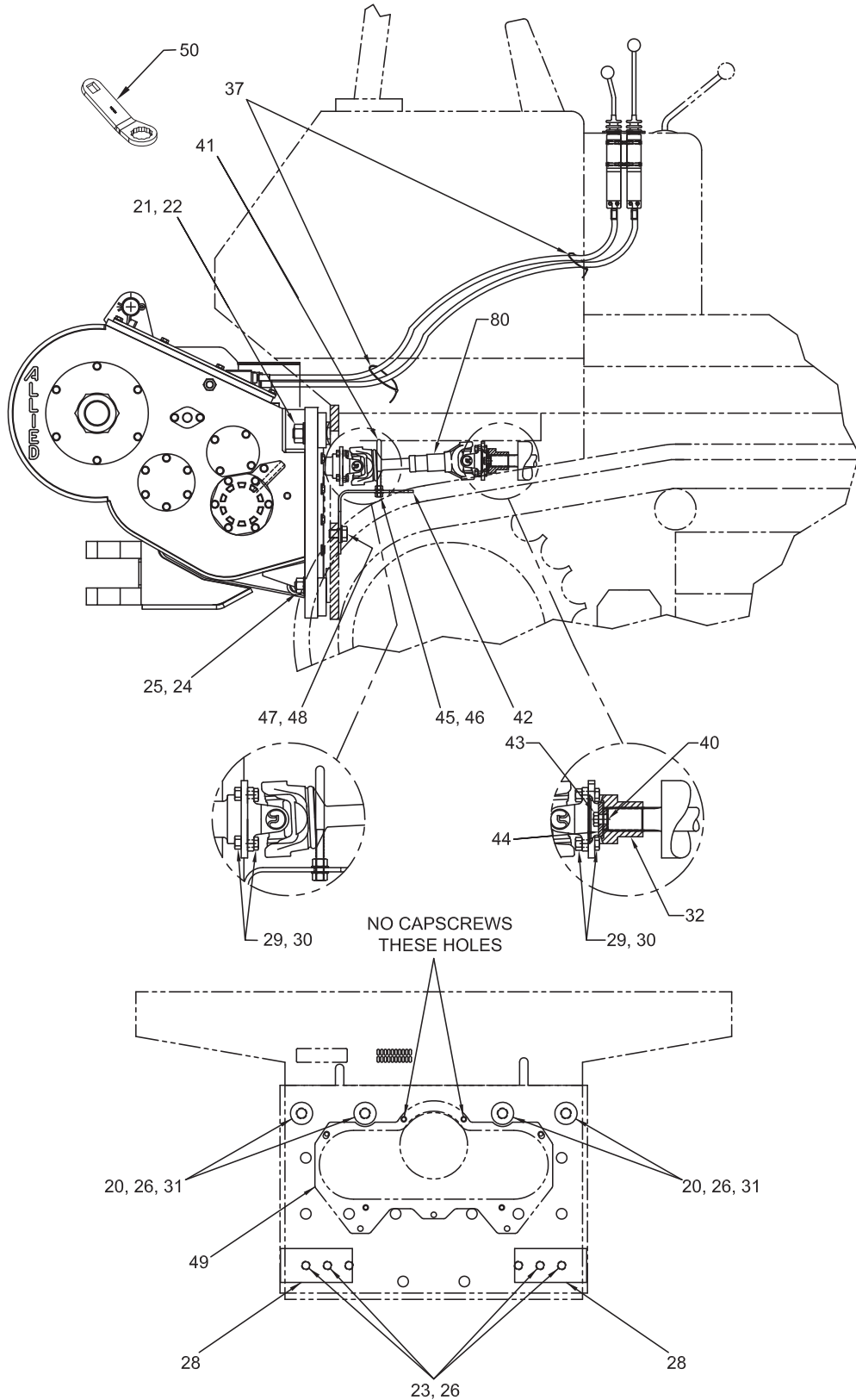
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### Mounting Parts

John Deere 750C Series I & II (E45)

First Used S/N AW6G-1044

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750C I & II VIEWED FROM REAR

**Mounting Parts**

John Deere 750C Series I & II (E45)

First Used S/N AW6G-1044

Page 2 of 2

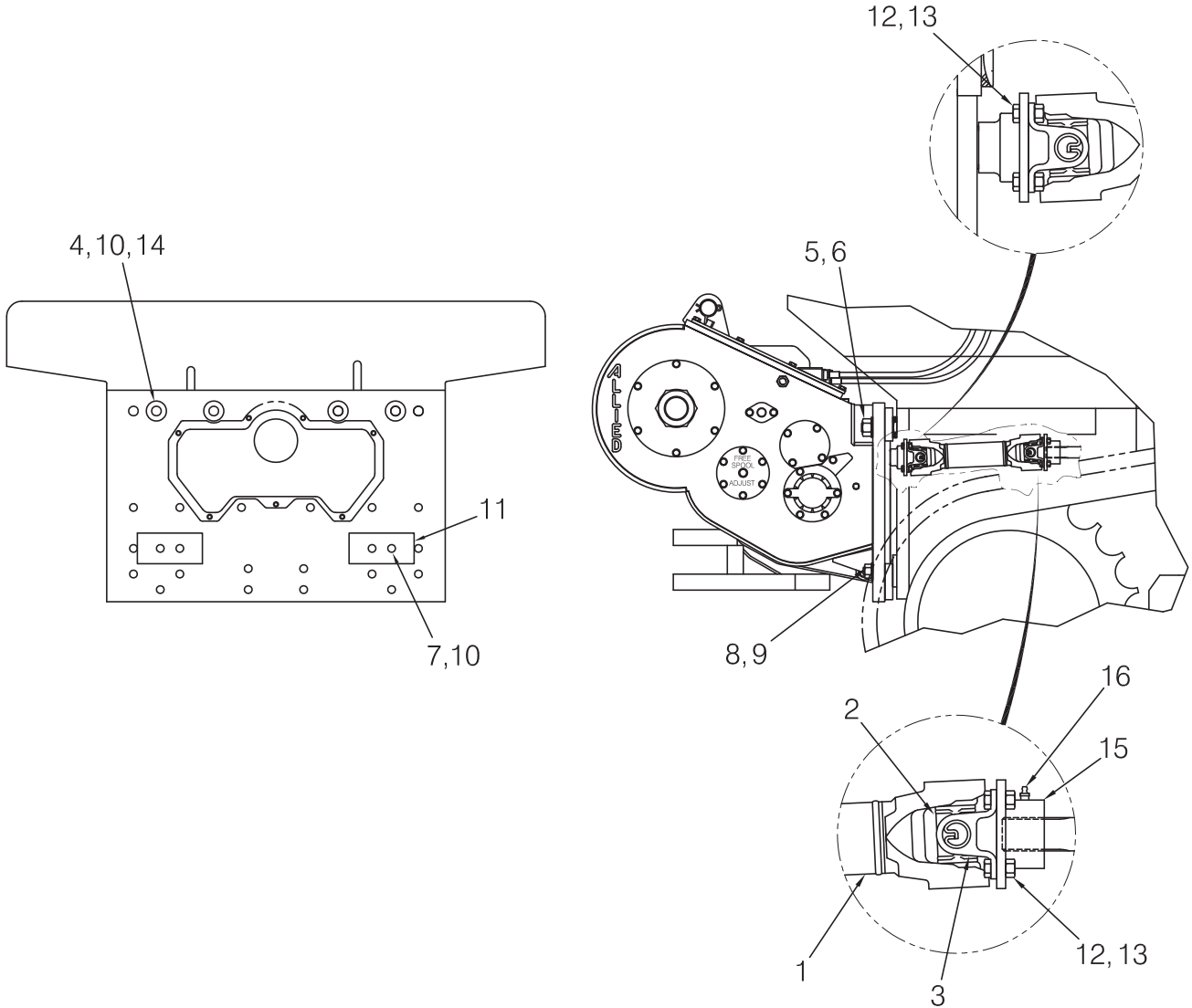
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
20	*a 2301785W	Stud	4	43	292527W	Capscrew	1
21	*b 221725W	Nut	4	44	*c 2303737W	Washer	1
22	15128W	Washer	4		*d 2307311W	Washer	1
23	*a 259543W	Stud	4	45	15135W	Washer	4
24	*b 221721W	Nut	4	46	15158W	Washer	2
25	221780W	Washer	4	47	18662W	Capscrew	2
26	223453W	Shim .020	AR	48	15166W	Washer	2
28	2301530W	Pad, Mounting	2	49	2301850W	Cover, Dust	1
29	2301540W	Capscrew	8	50	2310958	Wrench, Torque Extension	1
30	221710W	Nut	8	80	2303952W	Driveshaft	1
31	2301529W	Washer	4				
32	2303733W	Flange, Tractor End	1		*a Use 318702W Thread Lock		
37	129563W	Clamp, Strap	2		*b Use 230064W Loctite Kit		
40	58916W	Ring, Snap	1		*c Last Used on S/N AW6G-1597		
41	2304350W	Assembly, U-Bolt	1		*d First Used on S/N AW6G-1598		
42	2303981W	Guard, Driveline - Winch End	1				

**Mounting Parts**

John Deere 850C Series I & II (E46)

Last Used S/N AW6G-1043

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**Mounting Parts**

John Deere 850C Series I & II (E46)

Last Used S/N AW6G-1043

Page 1 of 2

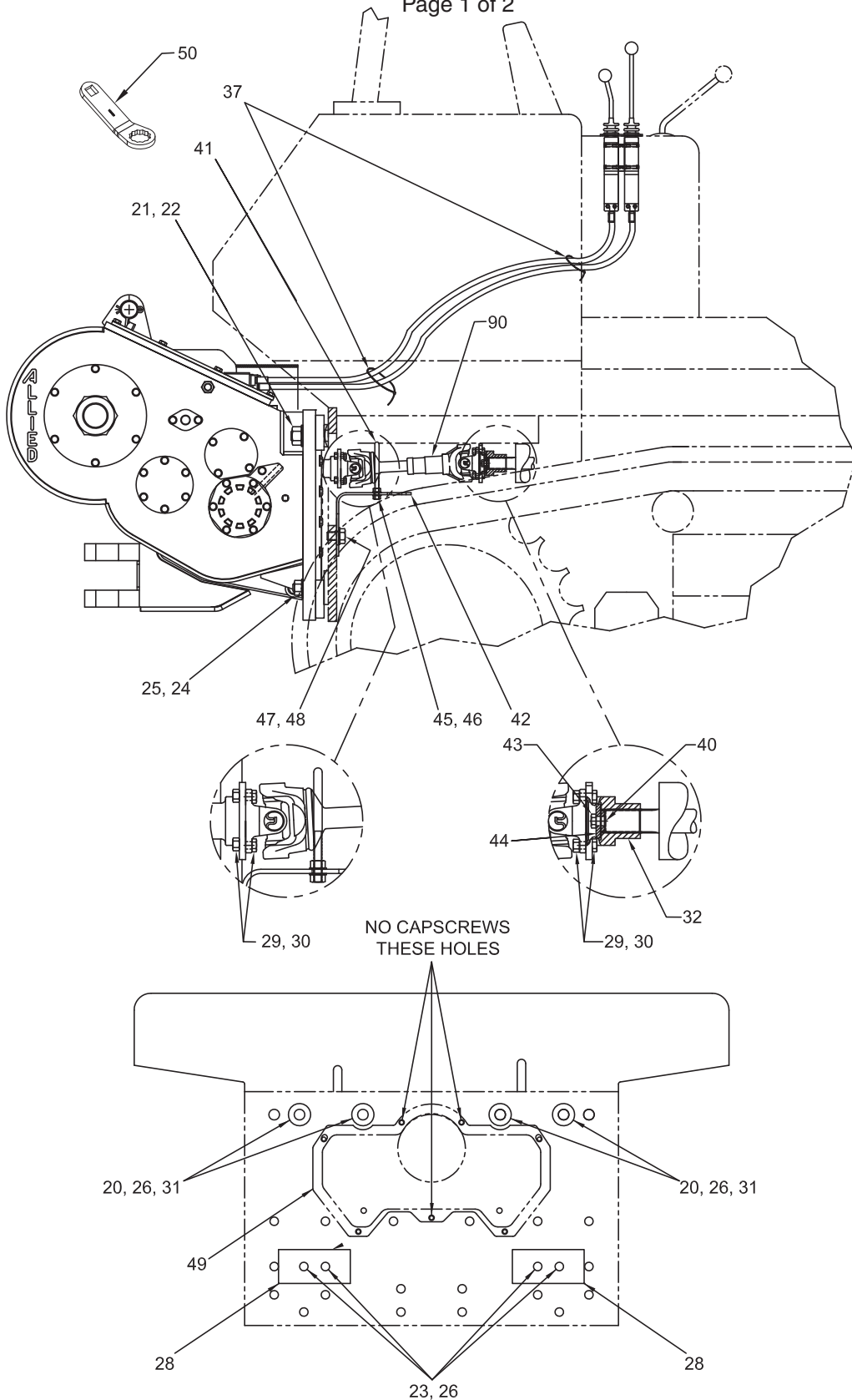
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301532W	Shaft, Drive	1	11	2301530W	Pad, Mounting	2
2	2302790W	. Kit, Cross & Bearing	2	12	2301540W	Capscrew	8
3	2302791W	. Yoke, Flange	2	13	2301541W	Nut	8
4	*a 2301785W	Stud	4	14	2301529W	Washer	4
5	*b 221725W	Nut	4	15	2301531W	Flange	1
6	15128W	Washer	4	16	16001W	Fitting, Lube	1
7	*a 259543W	Stud	4				
8	*b 221721W	Nut	4	*a	Use 230064W Loctite Kit		
9	221780W	Washer	4	*b	Use 245231 Thread Lock		
10	223453W	Shim .020	AR				

### Mounting Parts

John Deere 850C Series I & II (E46)

First Used S/N AW6G-1044

Page 1 of 2



NO CAPSCREWS  
THESE HOLES

850C I & II VIEWED FROM REAR

**Mounting Parts**

John Deere 850C Series I & II (E46)

First Used S/N AW6G-1044

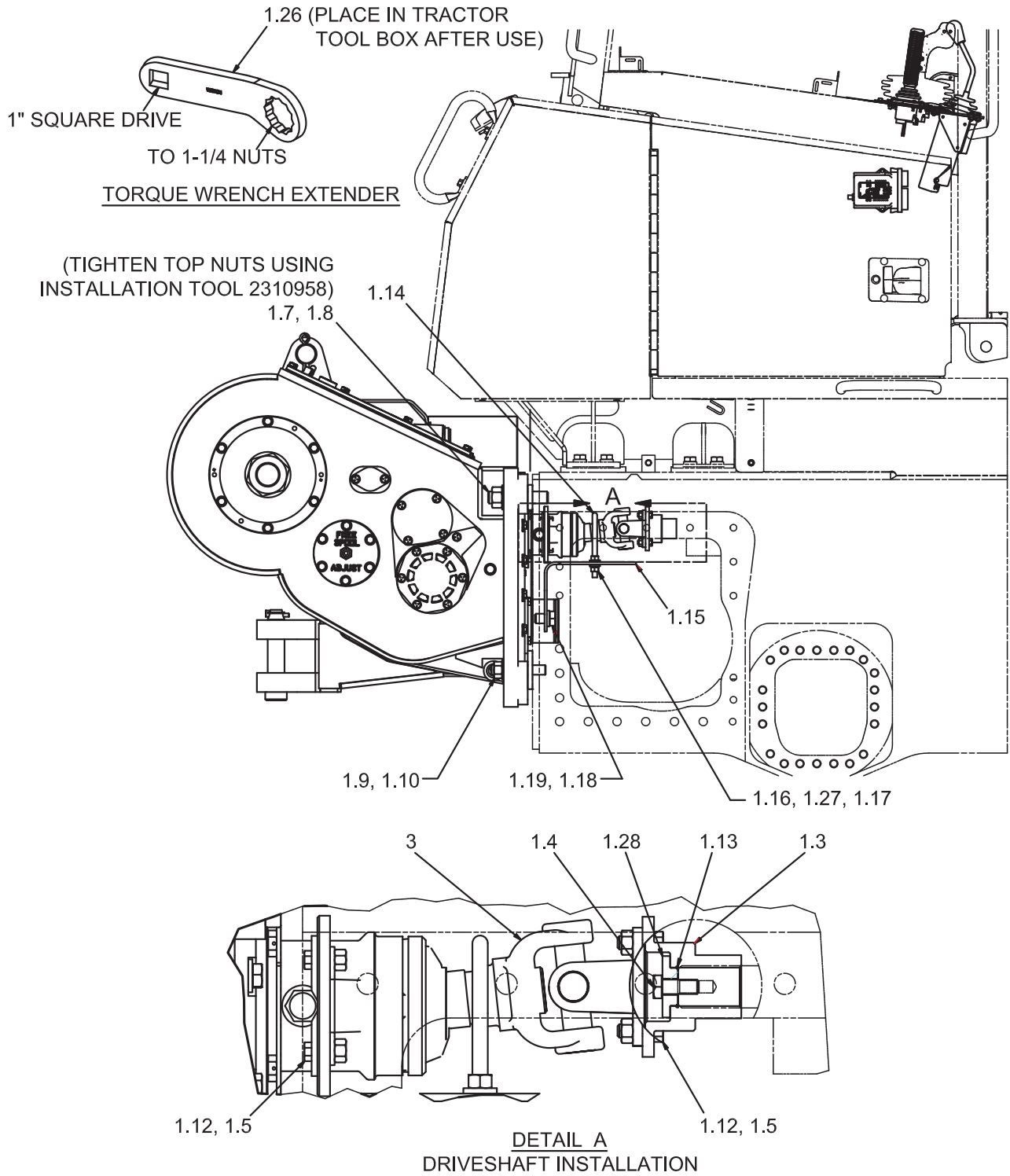
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
20	*a 2301785W	Stud	4	43	292527W	Capscrew	1
21	*b 221725W	Nut	4	44	*c 2303737W	Washer	1
22	15128W	Washer	4		*d 2307311W	Washer	1
23	*a 259543W	Stud	4	45	15135W	Washer	4
24	*b 221721W	Nut	4	46	15158W	Washer	2
25	221780W	Washer	4	47	18662W	Capscrew	2
26	223453W	Shim .020	AR	48	15166W	Washer	2
28	2301530W	Pad, Mounting	2	49	2301850W	Cover, Dust	1
29	2301540W	Capscrew	8	50	2310958	Wrench, Torque Extension	1
30	221710W	Nut	8	90	2305346W	Driveshaft	1
31	2301529W	Washer	4				
32	2303733W	Flange, Tractor End	1		*a Use 318702W Thread Lock		
37	129563W	Clamp, Strap	2		*b Use 230064W Loctite Kit		
40	58916W	Ring, Snap	1		*c Last Used on S/N AW6G-1597		
41	2304350W	Assembly, U-Bolt	1		*d First Used on S/N AW6G-1598		
42	2303981W	Guard, Driveline - Winch End	1				

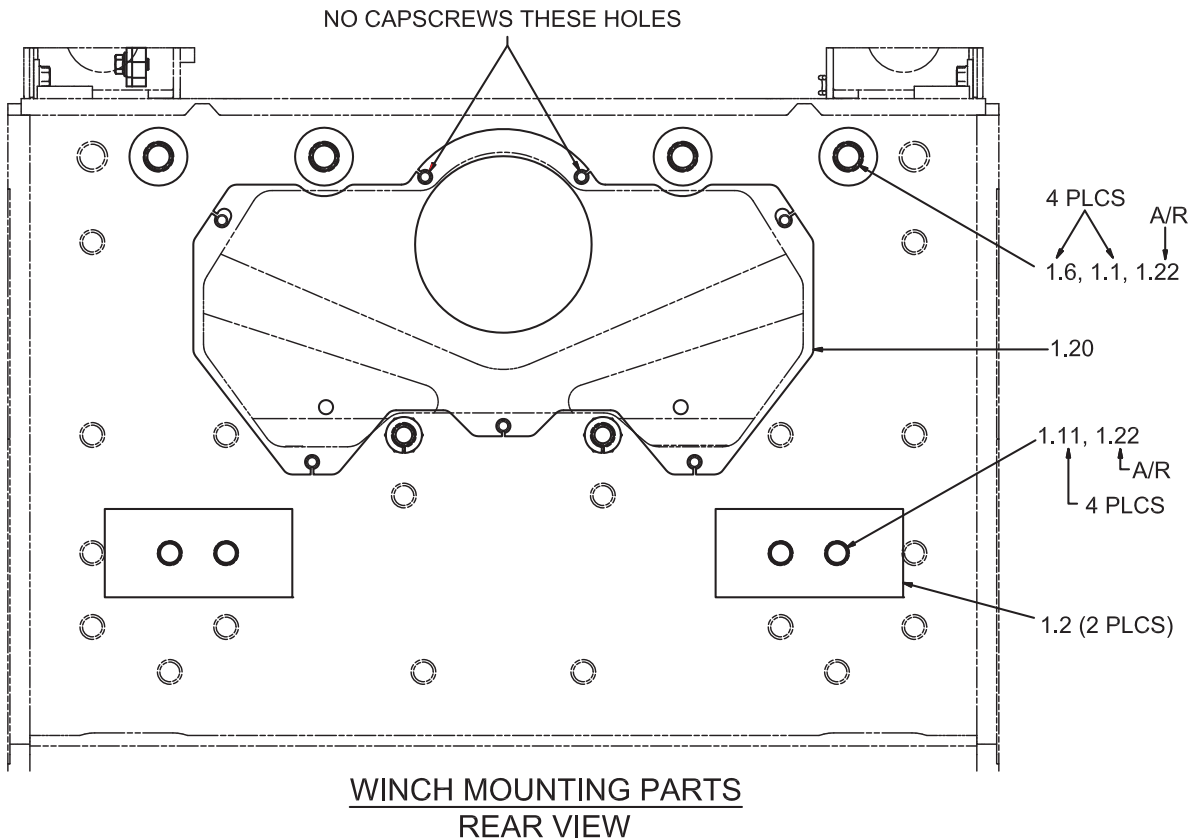
# Mounting Parts

John Deere 850K (E460)

Page 1 of 2



**Mounting Parts**  
John Deere 850K (E460)  
Page 2 of 2

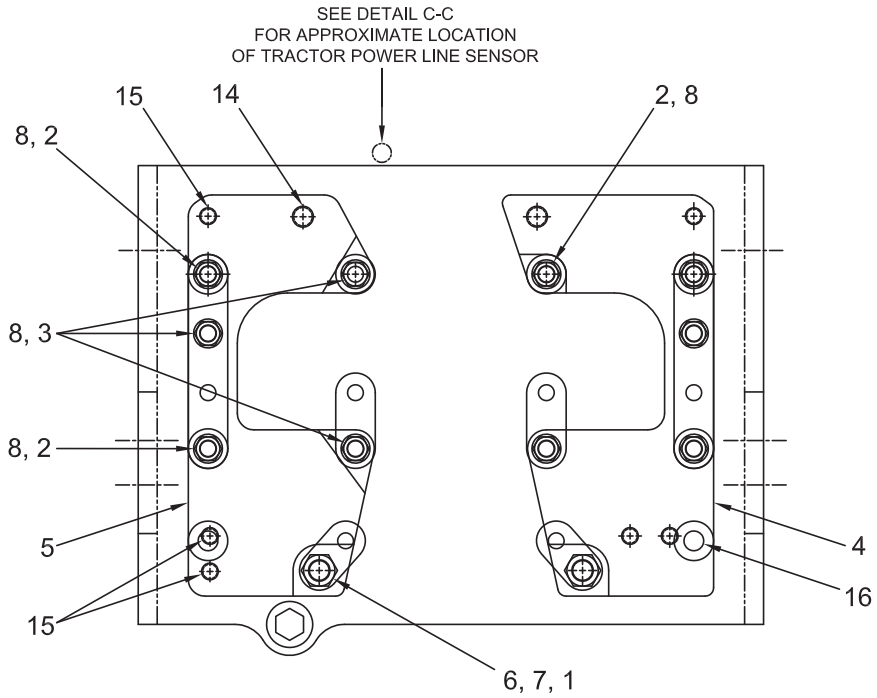


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2301529W	Washer, Spherical	4	1.16	221711W	Nut	4
1.2	2301530W	Pad, Mounting	2	1.17	221771W	Washer	4
1.3	2303733W	Flange, Tractor End	1	1.18	15166W	Washer	2
1.4	292527W	Capscrew	1	1.19	225768	Capscrew	2
1.5	2301540W	Capscrew	8	1.20	2301850W	Cover, Dust	1
1.6	*a 2301785W	Stud	4	1.22	223453W	Shim .020	AR
1.7	15128W	Washer	4	1.24	129563W	Clamp, Strap (Not Shown)	1
1.8	*b 221725W	Nut	4	1.26	2310958	Wrench, Extension Torque	1
1.9	221780W	Washer	4	1.27	15158W	Washer	2
1.10	*b 221721W	Nut	4	1.28	2307311W	Washer	1
1.11	*a 259543W	Stud	4	3	2313334	Driveshaft - w/Slip	1
1.12	221710W	Nut	8				
1.13	58916W	Ring, Snap	1				
1.14	2304350W-1	Assembly, U-Bolt	1	*a	Use 230064W	Loctite Kit	
1.15	2303981W	Guard, Driveline	1	*b	Use 318702W	Thread Lock	

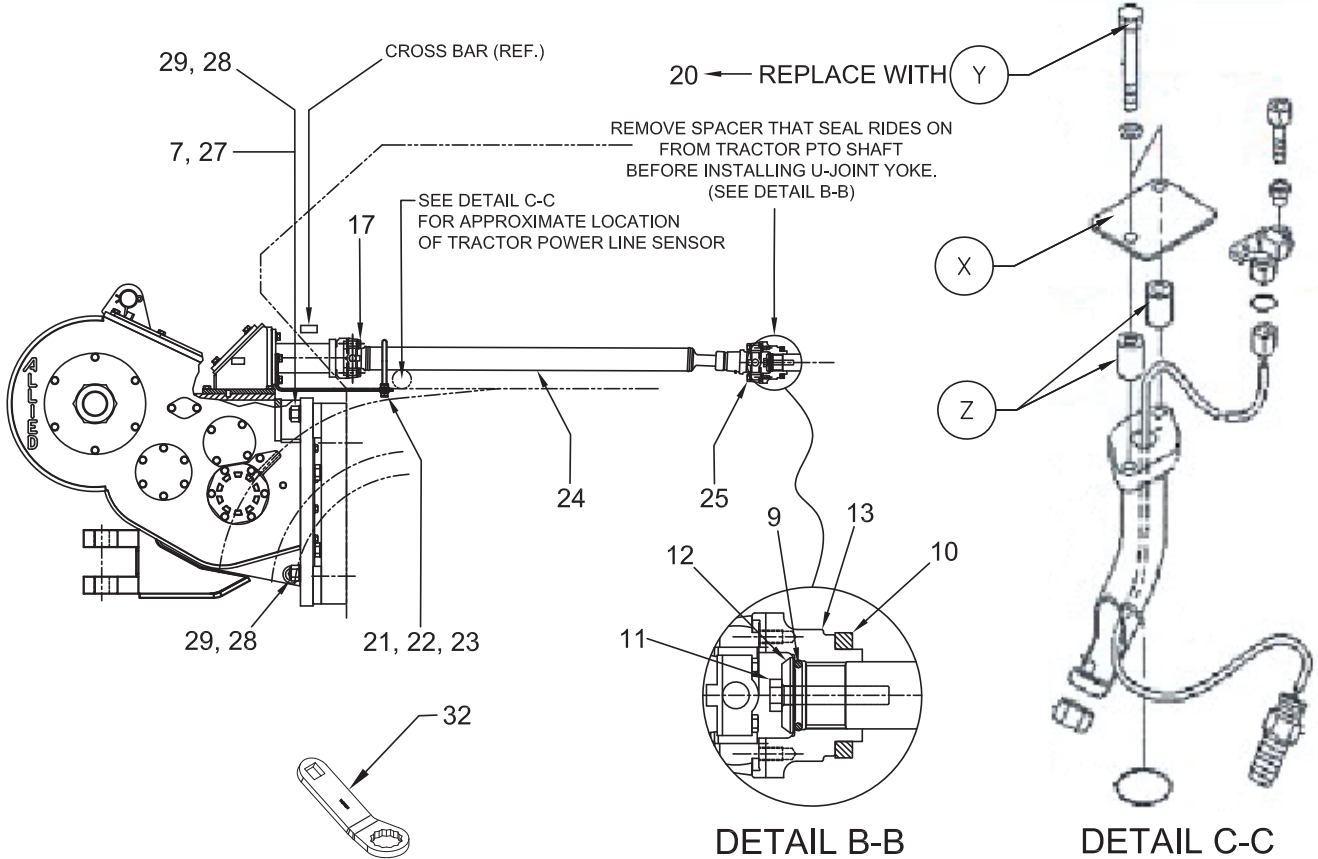
**Mounting Parts**

Komatsu D61EX-12, D61EX-15 (K47)

Page 1 of 2



**D61EX-12 TRACTOR REAR FACE**



## Mounting Parts

Komatsu D61EX-12, D61EX-15 (K47)

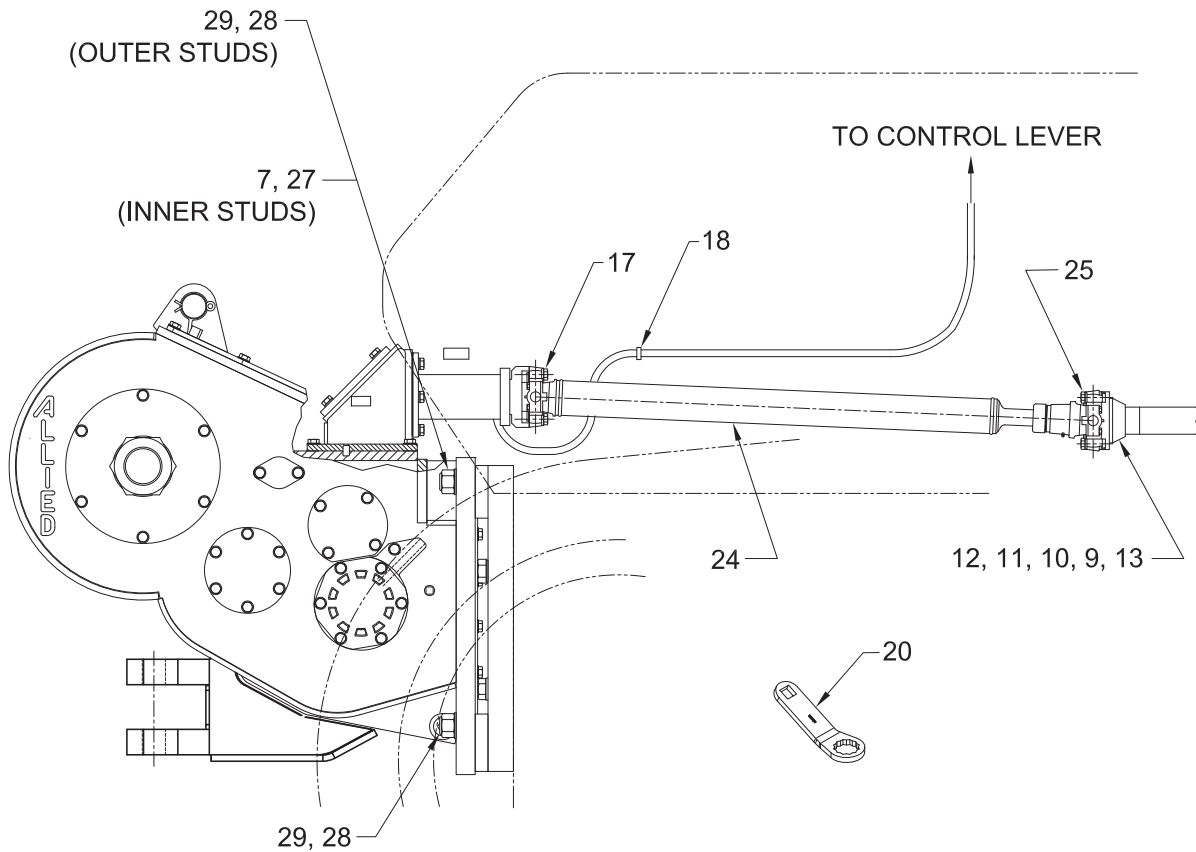
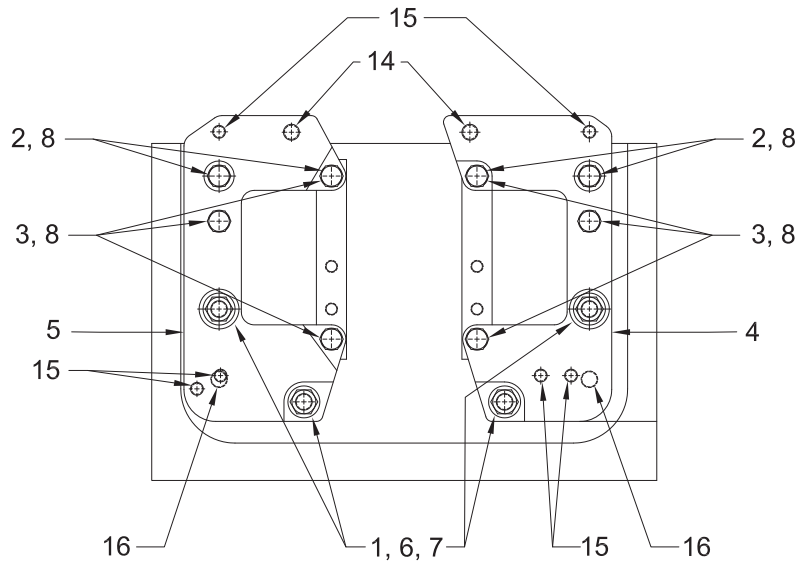
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 2306298W	Stud	2	20	293629W	Capscrew	2
2	*a, *b 293729W	Capscrew	5	21	2304350W	Assembly, U-Bolt	1
3	*b 293731W	Capscrew	5	22	15158W	Washer	2
4	2306299W	Spacer, RH	1	23	15135W	Washer	4
5	2306300W	Spacer, LH	1	24	2303674W	Shaft	1
6	*b 221724W	Nut	2		53038W	. Capscrew	8
7	15128W	Washer	4		R12968393	. U-Joint	2
8	296434W	Washer	10	25	*a 293632W	Capscrew	4
9	2301641W	O-Ring	1	27	*b 221725W	Nut	2
10	2301642W	Seal	1	28	*b 221721W	Nut	6
11	*a 2301643W	Capscrew	1	29	221780W	Washer	6
12	2300422W	Washer	1	32	2310958	Wrench, Torque Extension	1
13	2300423W	Yoke, PTO	1				
14	*a 2301140W	Stud	2		*a Use 230064W	Loctite Kit	
15	*a 2301144W	Stud	6		*b Use 318702	Thread Lock	
16	18001W	Plug	2				
17	*a 221507W	Capscrew	4				

### Mounting Parts

Komatsu D65EX-12/15, D65EX-15E0, D65PX-12/15, D65WX-15E0 (K46)

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## Mounting Parts

Komatsu D65EX-12/15, D65EX-15E0, D65PX-12/15, D65WX-15E0 (K46)

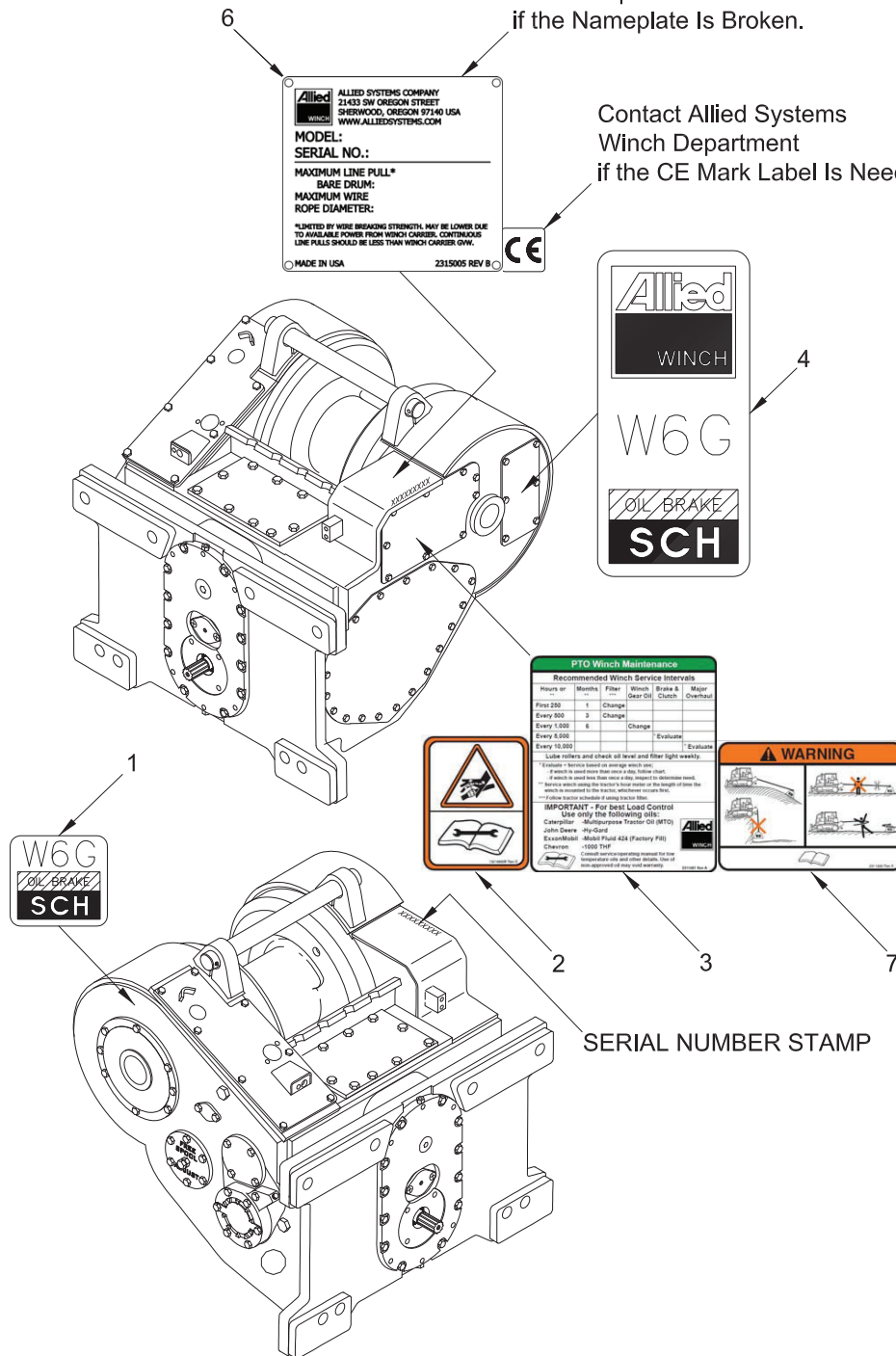
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 2301638W	Stud	4	16	18001W	Plug	2
2	*a 274044W	Capscrew	3	17	*a 221507W	Capscrew	4
3	*a 293730W	Capscrew	5	20	2310958	Wrench, Torque Extension	1
4	2301639W	Spacer, RH	1	24	2300966W	Shaft	1
5	2301640W	Spacer, LH	1		53038W	. Capscrew	8
6	221724W	Nut	4		R12968393	. U-Joint	2
7	15128W	Washer	6	25	*a 293632W	Capscrew	4
8	296434W	Washer	8	27	*b 221725W	Nut	2
9	2301641W	O-Ring	1	28	221721W	Nut	6
10	2301642W	Seal, Oil	1	29	221780W	Washer	6
11	*a 2301643W	Capscrew	1				
12	2300422W	Washer	1		*a Use 230064W	Loctite Kit	
13	2300423W	Yoke, PTO	1		*b Use 318702W	Thread Lock	
14	*a 2301140W	Stud	2				
15	*a 2301144W	Stud	6				

# Nameplate & Decals

Contact Allied Systems  
Winch Department  
if the Nameplate Is Broken.

Contact Allied Systems  
Winch Department  
if the CE Mark Label Is Needed.



SERIAL NUMBER STAMP

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300792W	Decal, Model - RH	1	4	2300791W	Decal, Model - LH	1
2	1321665W	Decal, Warning	1	6	16602W	Screw	4
3	2311481	Decal, PTO Winch Maintenance	1	7	2311330	Decal, Load & Wire Rope Safety	1

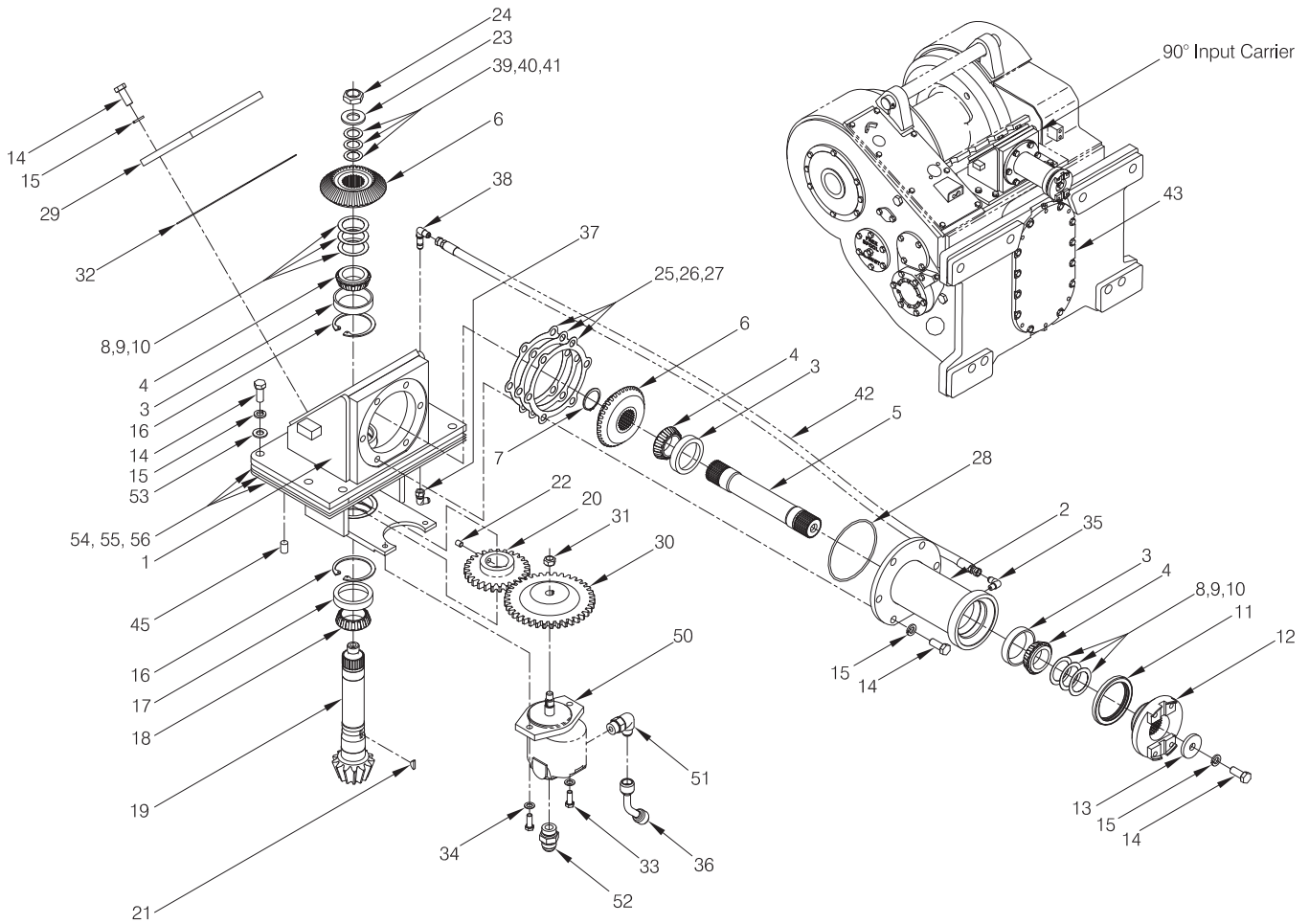
## Gear Train/Shaft

Brake Arrangement . . . . .	2-50 thru 2-53
Clutch Assembly . . . . .	2-46 thru 2-49
Clutch Group . . . . .	2-42 thru 2-45
Drum Shaft . . . . .	2-62 & 2-63
Freespool Lockout Kit . . . . .	2-64
Idler Gear Shaft . . . . .	2-61
Input Arrangement. . . . .	2-2 thru 2-41
Intermediate Gear Shaft . . . . .	2-54 thru 2-60
Wire Rope Lock . . . . .	2-65

# 90° Input Arrangement

Case Quadtrac (R39)

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
32	2302729W	5-1

90° Input Arrangement

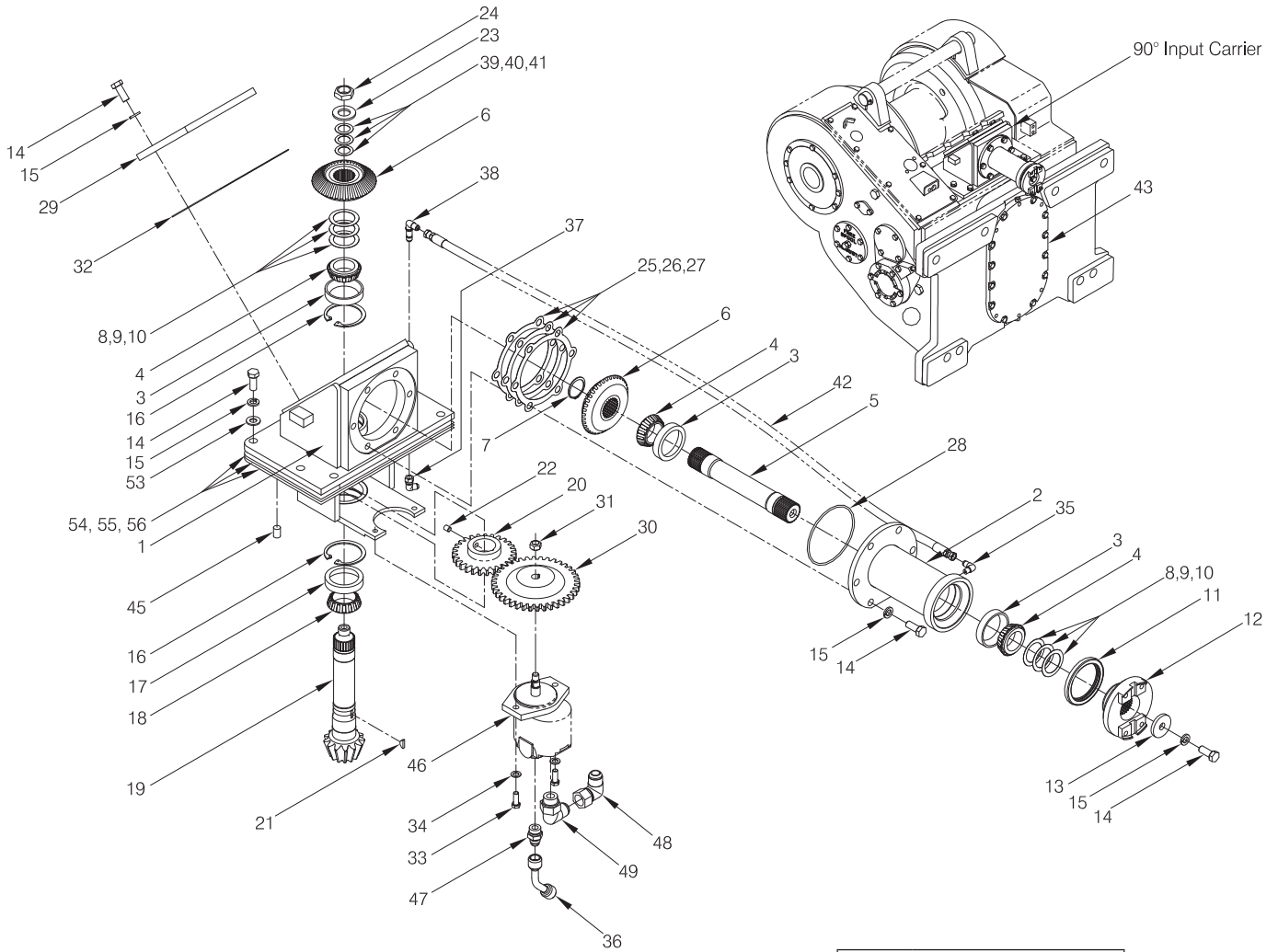
Case Quadtrac (R39)

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301605W	Housing, Gear	1	30	*e 2307118W	Gear	1
2	2301601W	Carrier, PTO	1	31	221355W	Nut	1
3	2301338W	Cup, Roller Bearing	3	32	2301631W	Gasket	1
4	2301339W	Cone, Roller Bearing	3	33	16805W	Capscrew	2
5	2301618W	Shaft	1	34	15156W	Washer	2
6	2301616W	Gear, Bevel	2	35	14500W	Fitting	1
7	58941W	Ring, Snap	1	36	2302240W	Assembly, Tube	1
8	2301624W	Shim .005	AR	37	16987W	Fitting	1
9	2301625W	Shim .007	AR	38	16455W	Fitting	1
10	2301626W	Shim .020	AR	39	250833W	Shim .005	AR
11	123270W	Seal	1	40	2301644W	Shim .007	AR
12	2301600W	Yoke	1	41	250834W	Shim .020	AR
13	2301627W	Washer	1	42	140288W	Assembly, Hose	1
14	*a 178402W	Capscrew	11	43	*c 2301632W	Plate, Cover	1
15	15158W	Washer	11	45	176208W	Pin	1
16	58929W	Ring, Snap	2	50	-----	Pump (3-65)	1
17	2301336W	Cup, Roller Bearing	1	51	17224W	Fitting	1
18	2301337W	Cone, Roller Bearing	1	52	16543W	Fitting	1
19	2301619W	Pinion	1	53	15135W	Washer	8
20	2301621W	Gear	1	54	2301628W	Shim .005	AR
21	2312027	Key	1	55	2301629W	Shim .007	AR
22	*b 220984W	Screw	1	56	2301630W	Shim .020	AR
23	221779W	Washer	1				
24	222677W	Nut	1	*a	Use 1324880W Adhesive/Sealant		
25	110934W	Shim .005	AR	*b	Use 383789W Adhesive/Sealant		
26	110935W	Shim .007	AR	*c	Use HCE-96 Adhesive Sealant in Bead to This Location Prior to Assembly		
27	110936W	Shim .020	AR	*d	Last Used on S/N AW6G-1197		
28	55289W	O-Ring	1	*e	First Used on S/N AW6G-1198		
29	2301613W	Cover	1				
30	*d 2305656W	Gear	1				

### 90° Input Arrangement

Komatsu D61EX-12/-15 (K47);  
 D65E-12 & D65EX-12/-15 (K46)  
 Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
32	2302729W	5-1

## 90° Input Arrangement

Komatsu D61EX-12/-15 (K47);  
D65E-12 & D65EX-12/-15 (K46)  
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301605W	Housing, Gear	1	31	221355W	Nut	1
2	2301601W	Carrier, PTO	1	32	2301631W	Gasket	1
3	2301338W	Cup, Roller Bearing	3	33	16805W	Capscrew	2
4	2301339W	Cone, Roller Bearing	3	34	15156W	Washer	2
5	2301618W	Shaft	1	35	14500W	Fitting	1
6	2301616W	Gear, Bevel	2	36	2302240W	Assembly, Tube	1
7	58941W	Ring, Snap	1	37	16987W	Fitting	1
8	2301624W	Shim .005	AR	38	16455W	Fitting	1
9	2301625W	Shim .007	AR	39	250833W	Shim .005	AR
10	2301626W	Shim .020	AR	40	2301644W	Shim .007	AR
11	123270W	Seal	1	41	250834W	Shim .020	AR
12	2301600W	Yoke	1	42	140288W	Assembly, Hose	1
13	2301627W	Washer	1	43	*c 2301632W	Plate, Cover	1
14	*a 178402W	Capscrew	11	45	176208W	Pin	1
15	15158W	Washer	11	46	-----	Pump (3-67 & 3-68)	1
16	58929W	Ring, Snap	2	47	16909W	Fitting	1
17	2301336W	Cup, Roller Bearing	1	48	83857W	Fitting	1
18	2301337W	Cone, Roller Bearing	1	49	16561W	Fitting	1
19	2301619W	Pinion	1	53	15135W	Washer	8
20	2301621W	Gear	1	54	2301628W	Shim .005	AR
21	2312027	Key	1	55	2301629W	Shim .007	AR
22	*b 220984W	Screw	1	56	2301630W	Shim .020	AR
23	221779W	Washer	1				
24	222677W	Nut	1	*a	Use 1324880W Adhesive/Sealant		
25	110934W	Shim .005	AR	*b	Use 383789W Adhesive/Sealant		
26	110935W	Shim .007	AR	*c	Use HCE-96 Adhesive Sealant in Bead to This Location Prior to Assembly		
27	110936W	Shim .020	AR	*d	Last Used on AW6G-1197		
28	55289W	O-Ring	1	*e	First Used on AW6G-1198		
29	2301613W	Cover	1				
30	*d 2305656W	Gear	1				
	*e 2307118W	Gear	1				

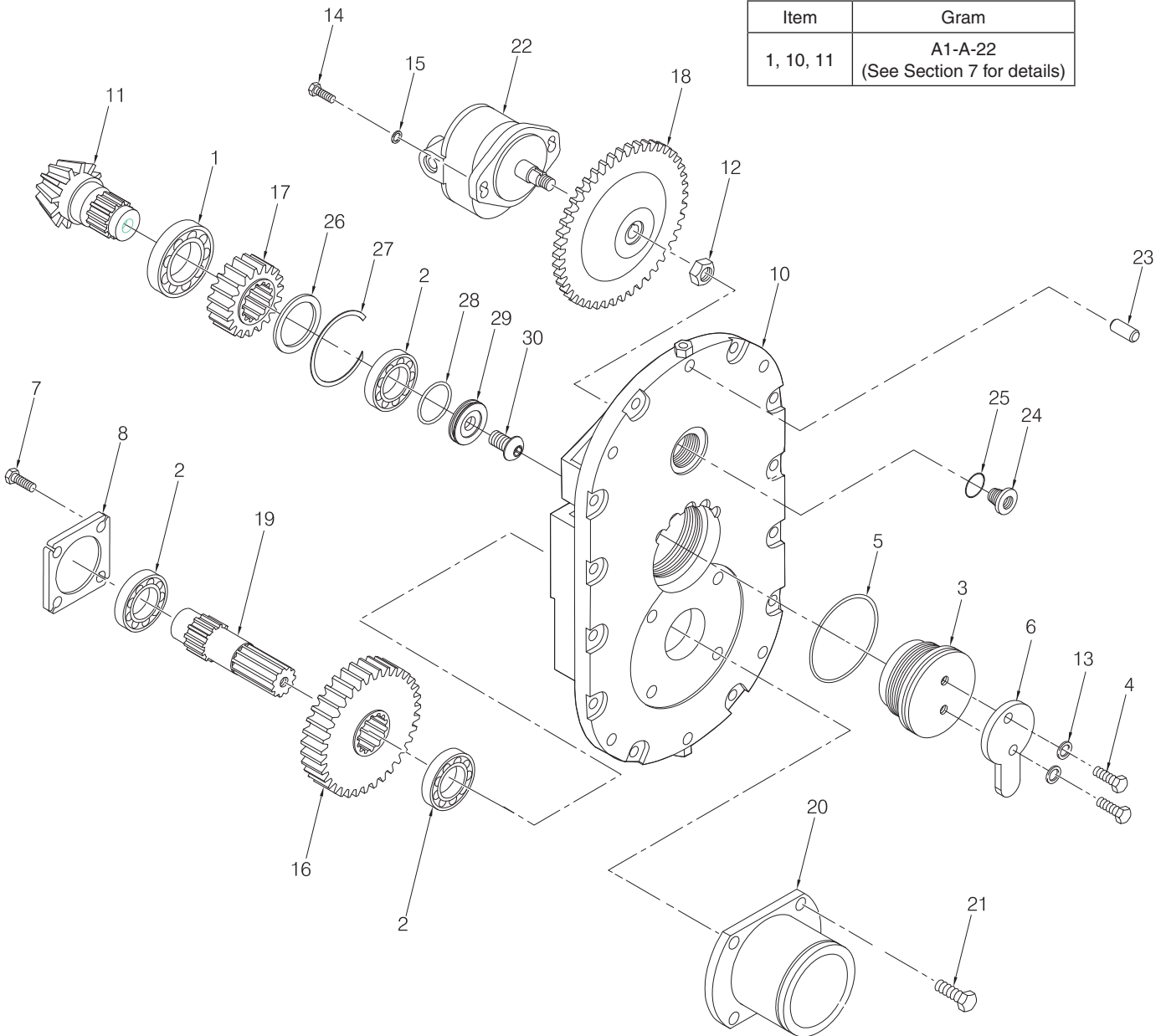
# Low Input Arrangement

Case 1850K (R49)

Last Used on S/N AW6G-1061

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)





**Low Input Arrangement**

Case 1850K (R49)

Last Used on S/N AW6G-1061

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

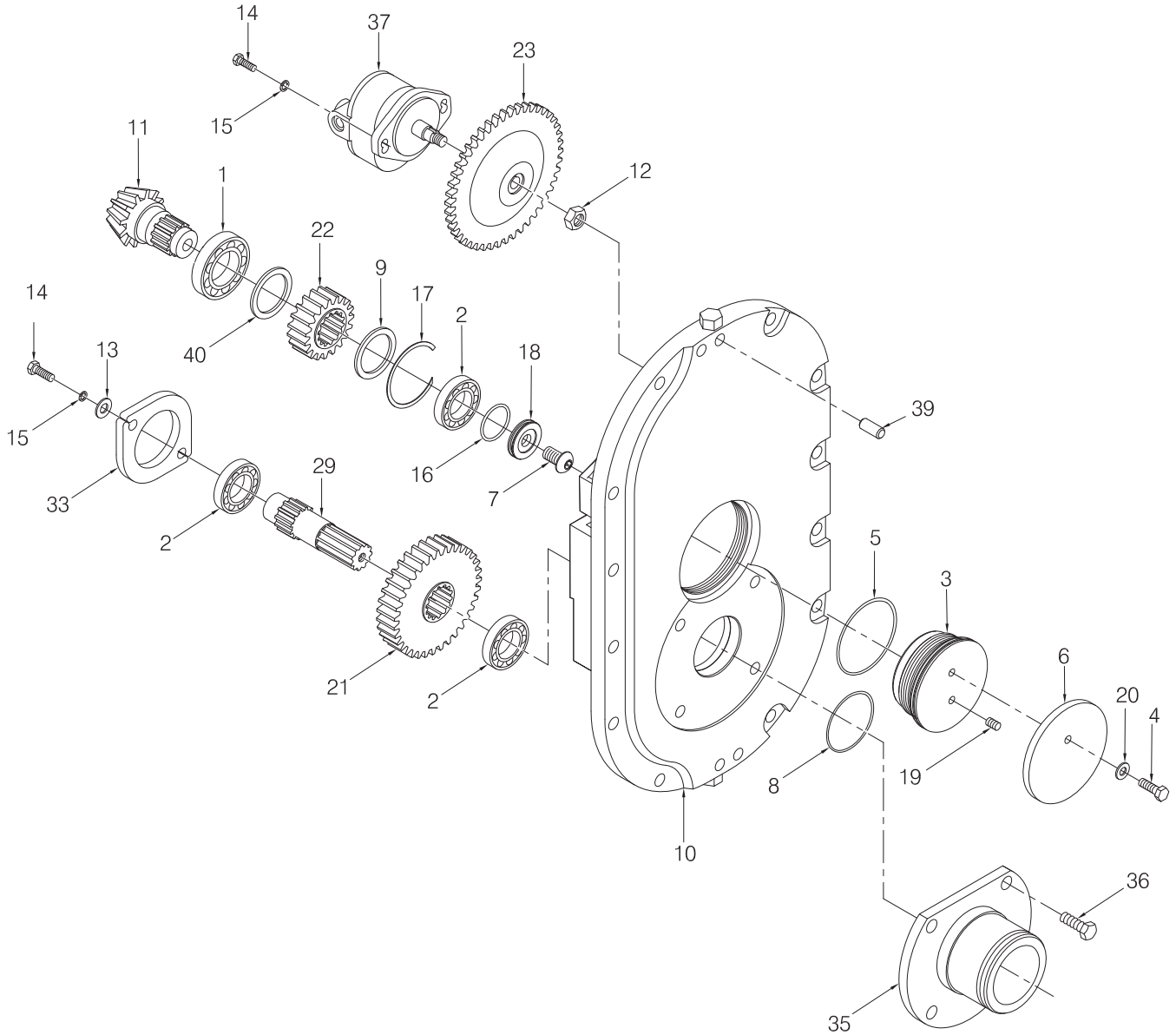
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	18	2300654W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300747W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300748W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	19	2301484W	Shaft, Input	1	1	1
5	39371W	O-Ring	1	1	1	20	*a 2301431W	Pilot, PTO	1	1	1
6	2302492W	Keeper	1	1	1	21	178402W	Capscrew	4	4	4
7	194090W	Capscrew	4	4	4	22	-----	Pump (3-68)	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	23	222734W	Pin	2	2	2
10	2302493W	Carrier, Input	1	1	1	24	188210W	Fitting	1	1	1
11	2300624W	Gear, Bevel	1	1	1	25	16983W	O-Ring	1	1	1
12	138750W	Nut	1	1	1	26	2306201W	Spacer	1	1	1
13	15155W	Washer	2	2	2	27	2306203W	Ring, Snap	1	1	1
14	16805W	Capscrew	2	2	2	28	2306202W	O-Ring	1	1	1
15	15156W	Washer	2	2	2	29	*b 2306204W	Plate	1	1	1
16	2300647W	Gear	1	--	--	30	*b 220098W	Capscrew	1	1	1
	2300749W	Gear	--	1	--						
	2300625W	Gear	--	--	1		*a	Use 1324880W Adhesive/Sealant			
17	2300625W	Gear	1	--	--		*b	Use 318702W Thread Lock			
	2300749W	Gear	--	1	--						
	2300647W	Gear	--	--	1						

# Low Input Arrangement

Case 1850K (R49)

First Used on S/N AW6G-1062

Page 1 of 2



**Low Input Arrangement**

Case 1850K (R49)

First Used on S/N AW6G-1062

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2301484W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	33		2300645W	Retainer, Bearing	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	35		2301431W	Pilot, PTO	1	1	1
8		165035W	Seal	1	1	1	36		178402W	Capscrew	4	4	4
9	*e	2306201W	Spacer	1	1	1	37		-----	Pump (3-68)	1	1	1
	*f	2306423W	Spacer	1	1	1	39		222734W	Pin	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	40		2304942W	Spacer	1	1	1
	*f	2306561W	Carrier, Input	1	1	1							
11	*e	2300624W	Gear, Bevel	1	1	1			*a	Use 318702W Thread Lock			
	*f, *g	2306564W	Gear, Bevel	1	1	1			*b	Use 1324880W Adhesive/Sealant			
	*h	2307599W	Gear, Bevel	1	1	1			*c	Last used on S/N AW6G-1111			
12	*q	221355W	Nut	1	1	1			*d	First used on S/N AW6G-1112			
13		15134W	Washer	2	2	2			*e	Last used on S/N AW6G-1149			
14	*b	16805W	Capscrew	4	4	4			*f	First used on S/N AW6G-1150			
15		15156W	Washer, Lock	4	4	4			*g	Last used on S/N AW6G-1420			
16	*d	2306202W	O-Ring	1	1	1			*h	First used on S/N AW6G-1421			
17	*d	2306203W	Ring, Snap	1	1	1			*j	Last used on S/N AW6G-1220			
18	*d, *g	2306204W	Plate	1	1	1			*k	First used on S/N AW6G-1221			
19	*d	2306350W	Setscrew	1	1	1			*l	Last used on S/N AW6G-1197			
20	*d	18515W	Washer	1	1	1			*m	First used on S/N AW6G-1198			
21		2300647W	Gear	1	--	--			*n	Last used on S/N AW6G-1214			
		2300749W	Gear	--	1	--			*p	First used on S/N AW6G-1215			
		2300625W	Gear	--	--	1			*q	Use 383789W Adhesive/Sealant			
22		2300625W	Gear	1	--	--							
		2300749W	Gear	--	1	--							
		2300647W	Gear	--	--	1							

**Low Input Arrangement**

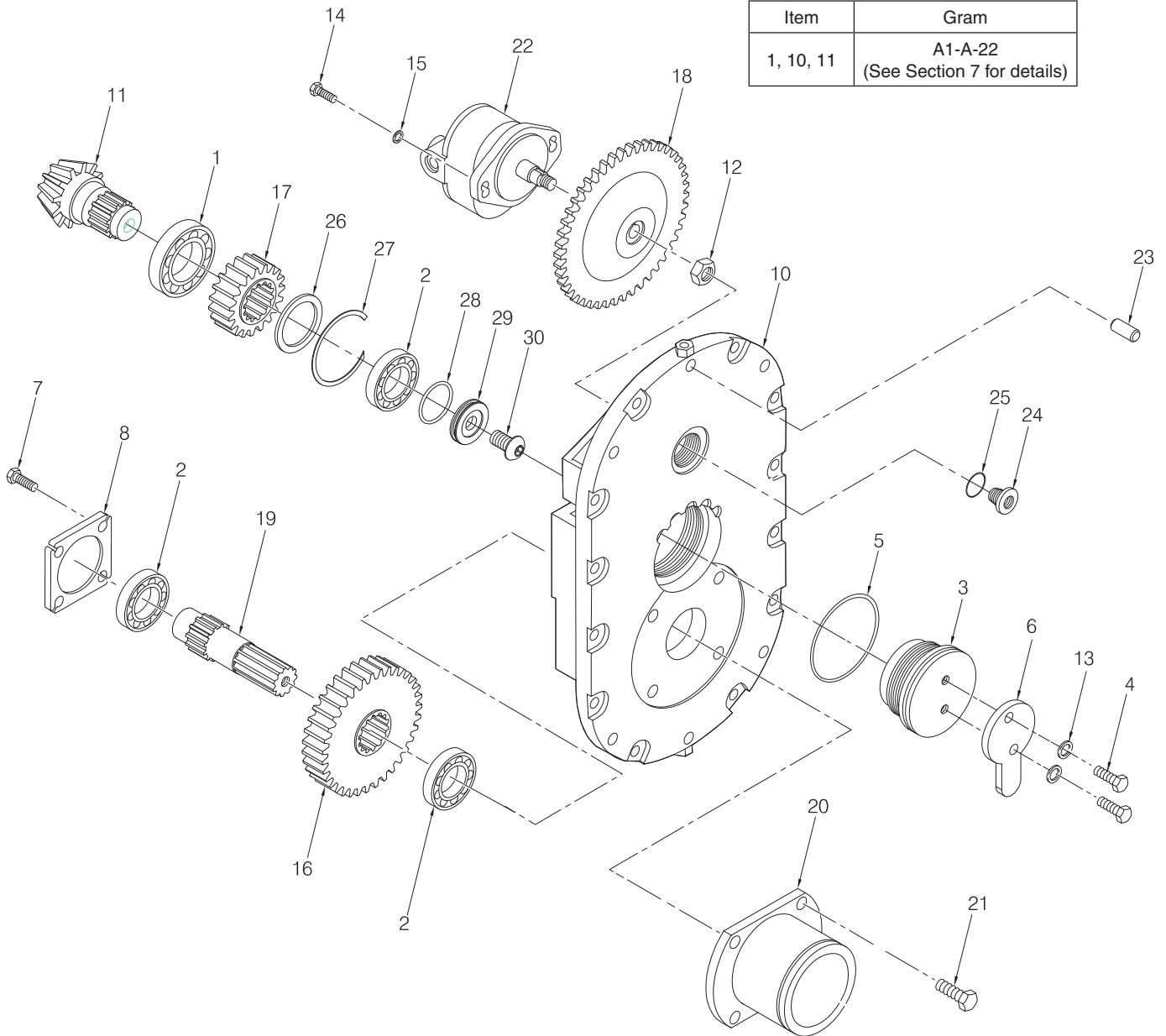
Caterpillar D6H DD (C481), D6H PS (C480);

D6R PS (C50); D6R Series II & III (C71)

Last Used on S/N AW6G-1061

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



**Low Input Arrangement**  
 Caterpillar D6H DD (C481), D6H PS (C480);  
 D6R PS (C50); D6R Series II & III (C71)  
 Last Used on S/N AW6G-1061  
 Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	18	2300654W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300747W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300748W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	19	2300646W	Shaft, Input	1	1	1
5	39371W	O-Ring	1	1	1	20	*a 2300648W	Pilot, PTO	1	1	1
6	2302492W	Keeper	1	1	1	21	178402W	Capscrew	4	4	4
7	194090W	Capscrew	4	4	4	22	-----	Pump (3-65 & 3-66)	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	23	222734W	Pin	2	2	2
10	2302493W	Carrier, Input	1	1	1	24	188210W	Fitting	1	1	1
11	2300624W	Gear, Bevel	1	1	1	25	16983W	O-Ring	1	1	1
12	138750W	Nut	1	1	1	26	2306201W	Spacer	1	1	1
13	15155W	Washer	2	2	2	27	2306203W	Ring, Snap	1	1	1
14	16805W	Capscrew	2	2	2	28	2306202W	O-Ring	1	1	1
15	15156W	Washer	2	2	2	29	*b 2306204W	Plate	1	1	1
16	2300647W	Gear	1	--	--	30	*b 220098W	Capscrew	1	1	1
	2300749W	Gear	--	1	--						
	2300625W	Gear	--	--	1		*a	Use 1324880W Adhesive/Sealant			
17	2300625W	Gear	1	--	--		*b	Use 318702W Thread Lock			
	2300749W	Gear	--	1	--						
	2300647W	Gear	--	--	1						

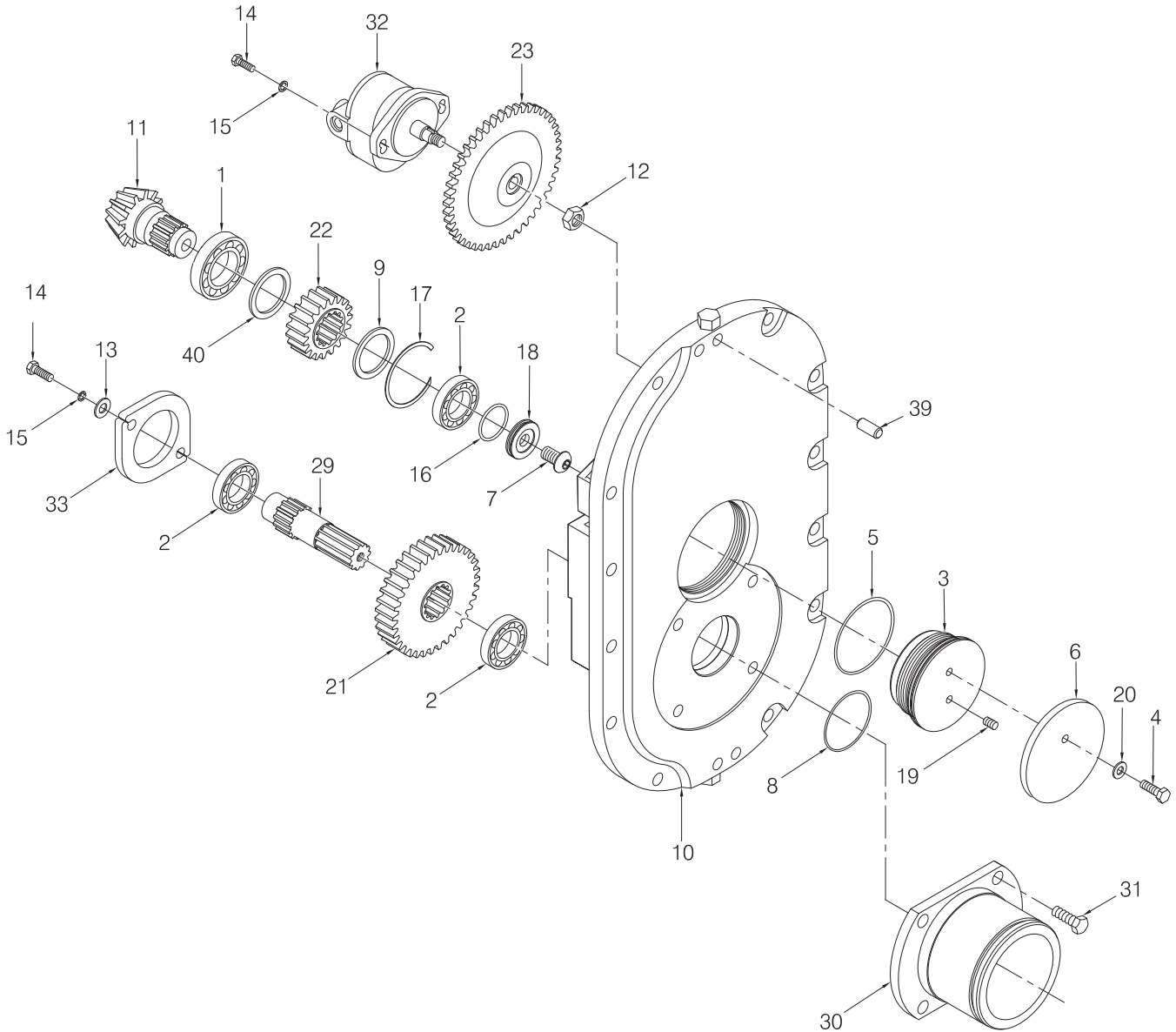
### Low Input Arrangement

Caterpillar D6H DD (C481), D6H PS (C480);

D6R PS (C50); D6R Series II & III (C71)

First Used on S/N AW6G-1062

Page 1 of 2



**Low Input Arrangement**  
 Caterpillar D6H DD (C481), D6H PS (C480);  
 D6R PS (C50); D6R Series II & III (C71)  
 First Used on S/N AW6G-1062  
 Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2300646W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	30		2300648W	Pilot, PTO	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	31		178402W	Capscrew	4	4	4
8		165035W	Seal	1	1	1	32		-----	Pump (3-65 & 3-66)	1	1	1
9	*e	2306201W	Spacer	1	1	1	33		2300645W	Retainer, Bearing	1	1	1
	*f	2306423W	Spacer	1	1	1	39		222734W	Pin	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	40		2304942W	Spacer	1	1	1
	*f	2306561W	Carrier, Input	1	1	1							
11	*e	2300624W	Gear, Bevel	1	1	1		*a	Use 318702W Thread Lock				
	*f, *g	2306564W	Gear, Bevel	1	1	1		*b	Use 1324880W Adhesive/Sealant				
	*h	2307599W	Gear, Bevel	1	1	1		*c	Last Used on S/N AW6G-1111				
12	*q	221355W	Nut	1	1	1		*d	First Used on S/N AW6G-1112				
13		15134W	Washer	2	2	2		*e	Last Used on S/N AW6G-1149				
14	*b	16805W	Capscrew	4	4	4		*f	First Used on S/N AW6G-1150				
15		15156W	Washer, Lock	4	4	4		*g	Last Used on S/N AW6G-1420				
16	*d	2306202W	O-Ring	1	1	1		*h	First Used on S/N AW6G-1421				
17	*d	2306203W	Ring, Snap	1	1	1		*j	Last Used on S/N AW6G-1220				
18	*d, *g	2306204W	Plate	1	1	1		*k	First Used on S/N AW6G-1221				
19	*d	2306350W	Setscrew	1	1	1		*l	Last Used on S/N AW6G-1197				
20	*d	18515W	Washer	1	1	1		*m	First Used on S/N AW6G-1198				
21		2300647W	Gear	1	--	--		*n	Last Used on S/N AW6G-1214				
		2300749W	Gear	--	1	--		*p	First Used on S/N AW6G-1215				
		2300625W	Gear	--	--	1		*q	Use 383789W Adhesive/Sealant				
22		2300625W	Gear	1	--	--							
		2300749W	Gear	--	1	--							
		2300647W	Gear	--	--	1							

**Low Input Arrangement**

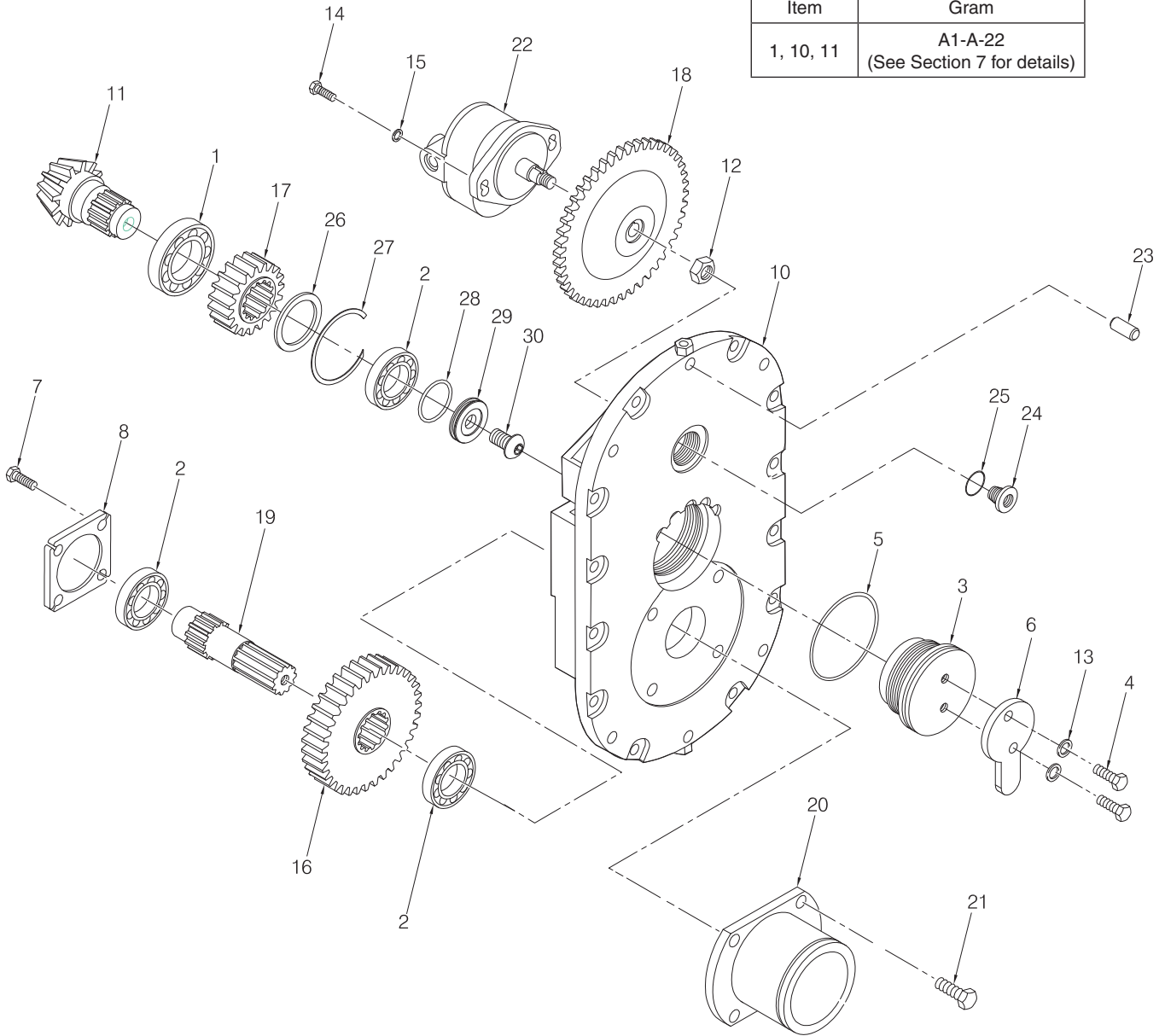
Fiat-Hitachi/New Holland DC-180 (A49);

FD14E (A48)

Last Used on S/N AW6G-1061

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)





**Low Input Arrangement**  
 Fiat-Hitachi/New Holland DC-180 (A49);  
 FD14E (A48)  
 Last Used on S/N AW6G-1061  
 Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

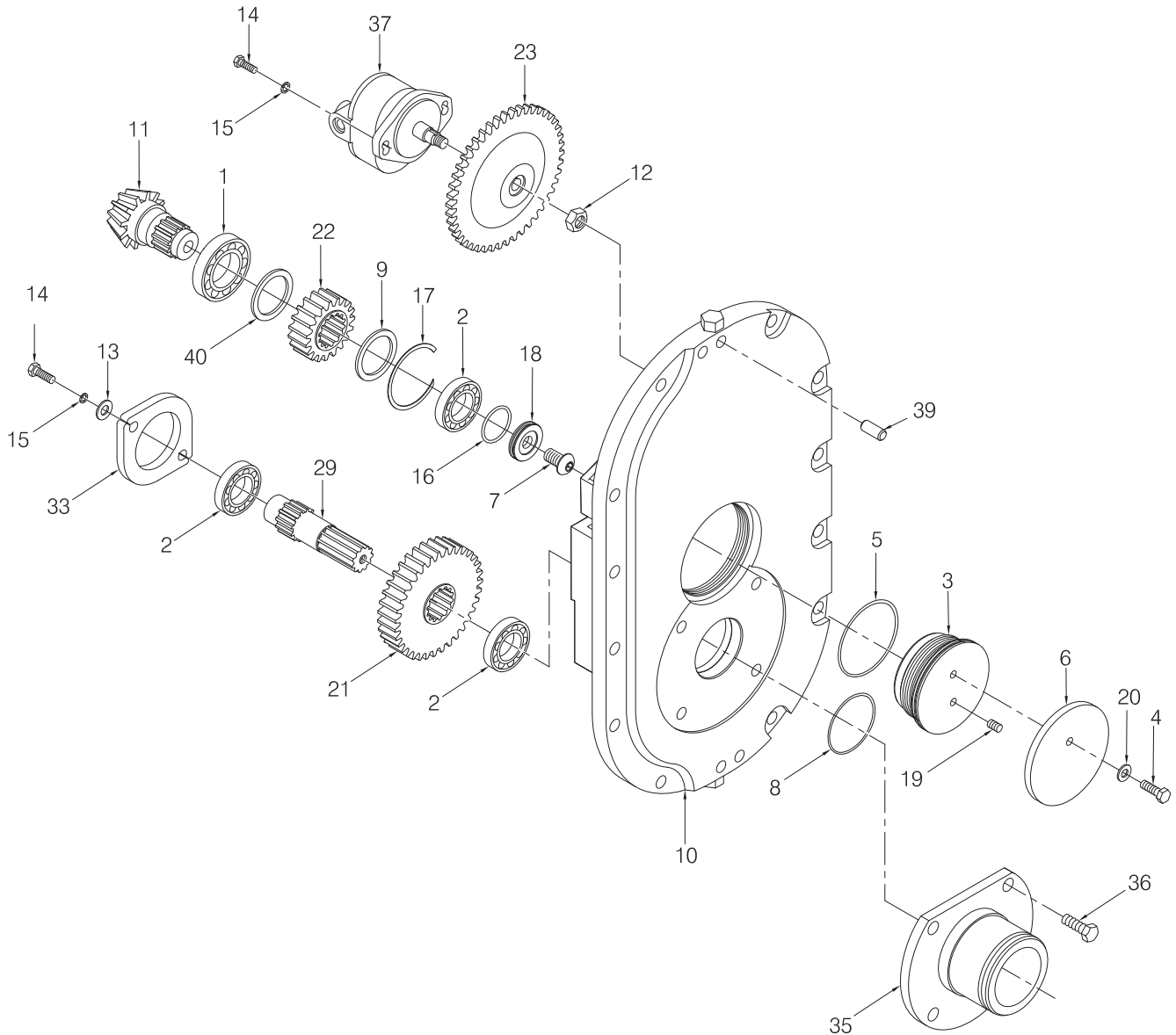
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	18	2300654W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300747W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300748W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	19	2301484W	Shaft, Input	1	1	1
5	39371W	O-Ring	1	1	1	20	*a 2301431W	Pilot, PTO	1	1	1
6	2302492W	Keeper	1	1	1	21	178402W	Capscrew	4	4	4
7	194090W	Capscrew	4	4	4	22	-----	Pump (3-67 & 3-68)	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	23	222734W	Pin	2	2	2
10	2302493W	Carrier, Input	1	1	1	24	188210W	Fitting	1	1	1
11	2300624W	Gear, Bevel	1	1	1	25	16983W	. O-Ring	1	1	1
12	138750W	Nut	1	1	1	26	2306201W	Spacer	1	1	1
13	15155W	Washer	2	2	2	27	2306203W	Ring, Snap	1	1	1
14	16805W	Capscrew	2	2	2	28	2306202W	O-Ring	1	1	1
15	15156W	Washer	2	2	2	29	2306204W	Plate	1	1	1
16	2300647W	Gear	1	--	--	30	*b 220098W	Capscrew	1	1	1
	2300749W	Gear	--	1	--						
	2300625W	Gear	--	--	1		*a	Use 1324880W Adhesive/Sealant			
17	2300625W	Gear	1	--	--		*b	Use 318702W Thread Lock			
	2300749W	Gear	--	1	--						
	2300647W	Gear	--	--	1						

### Low Input Arrangement

Fiat-Hitachi/New Holland DC180 (A49);  
FD14E, FD175/195, FDX175/195 (A48)

First Used on S/N AW6G-1062

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**Low Input Arrangement**  
 Fiat-Hitachi/New Holland DC180 (A49);  
 FD14E, FD175/195, FDX175/195 (A48)  
 First Used on S/N AW6G-1062  
 Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2301484W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	33		2300645W	Retainer, Bearing	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	35		2301431W	Pilot, PTO	1	1	1
8		165035W	Seal	1	1	1	36		178402W	Capscrew	4	4	4
9	*e	2306201W	Spacer	1	1	1	37		-----	Pump (3-67 & 3-68)	1	1	1
	*f	2306423W	Spacer	1	1	1	39		222734W	Pin	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	40		2304942W	Spacer	1	1	1
	*f	2306561W	Carrier, Input	1	1	1							
11	*e	2300624W	Gear, Bevel	1	1	1			*a	Use 318702W Thread Lock			
	*f, *g	2306564W	Gear, Bevel	1	1	1			*b	Use 1324880W Adhesive/Sealant			
	*h	2307599W	Gear, Bevel	1	1	1			*c	Last Used on S/N AW6G-1111			
12	*q	221355W	Nut	1	1	1			*d	First Used on S/N AW6G-1112			
13		15134W	Washer	2	2	2			*e	Last Used on S/N AW6G-1149			
14	*b	16805W	Capscrew	4	4	4			*f	First Used on S/N AW6G-1150			
15		15156W	Washer, Lock	4	4	4			*g	Last Used on S/N AW6G-1420			
16	*d	2306202W	O-Ring	1	1	1			*h	First Used on S/N AW6G-1421			
17	*d	2306203W	Ring, Snap	1	1	1			*j	Last Used on S/N AW6G-1220			
18	*d, *g	2306204W	Plate	1	1	1			*k	First Used on S/N AW6G-1221			
19	*d	2306350W	Setscrew	1	1	1			*l	Last Used on S/N AW6G-1197			
20	*d	18515W	Washer	1	1	1			*m	First Used on S/N AW6G-1198			
21		2300647W	Gear	1	--	--			*n	Last Used on S/N AW6G-1214			
		2300749W	Gear	--	1	--			*p	First Used on S/N AW6G-1215			
		2300625W	Gear	--	--	1			*q	Use 383789W Adhesive/Sealant			
22		2300625W	Gear	1	--	--							
		2300749W	Gear	--	1	--							
		2300647W	Gear	--	--	1							



**High Input Arrangement**

Case 1650L (R40)

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B - 83:1 & 103:1

C - 153:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			B	C				B	C
1	41210W	Bearing	1	1	25	2304942W	Spacer	1	1
2	44308W	Bearing	3	3	40	2300749W	Gear	1	--
3	2306200W	Adjuster, Pinion Bearing	1	1	41	2307118W	Gear	1	--
4	2306349W	Capscre	1	1	50	2300625W	Gear	--	1
5	16561W	Fitting	1	1	51	2300647W	Gear	--	1
6	39371W	O-Ring	1	1	52	2307119W	Gear	--	1
7	2305628W	Plate, Keeper	1	1	110	2300798W	Shaft, Input	1	1
10	165035W	Seal	1	1	112	2305987W	Screw, Set	4	4
11	2306423W	Spacer	1	1	113	*b 16829W	Capscrew	1	1
12	2306561W	Carrier, Input	1	1	115	2301627W	Washer	1	1
13	2307599W	Gear, Bevel	1	1	116	122400W	Ring, Snap	1	1
14	*a 221355W	Nut	1	1	140	2310450	Yoke	1	1
16	15134W	Washer	2	2	141	2300645W	Retainer, Bearing	1	1
17	16805W	Capscrew	4	4	142	2306216W	Shim .005	AR	AR
18	15156W	Washer	4	4	143	2306217W	Shim .007	AR	AR
20	*a 2306202W	O-Ring	1	1	144	2306218W	Shim .020	AR	AR
21	2306203W	Ring, Snap	1	1					
23	2306350W	Screw, Set	1	1					
24	18515W	Washer	1	1					
					*a	Use 383789W Adhesive/Sealant			
					*b	Use 264134W Adhesive/Sealant			

### High Input Arrangement

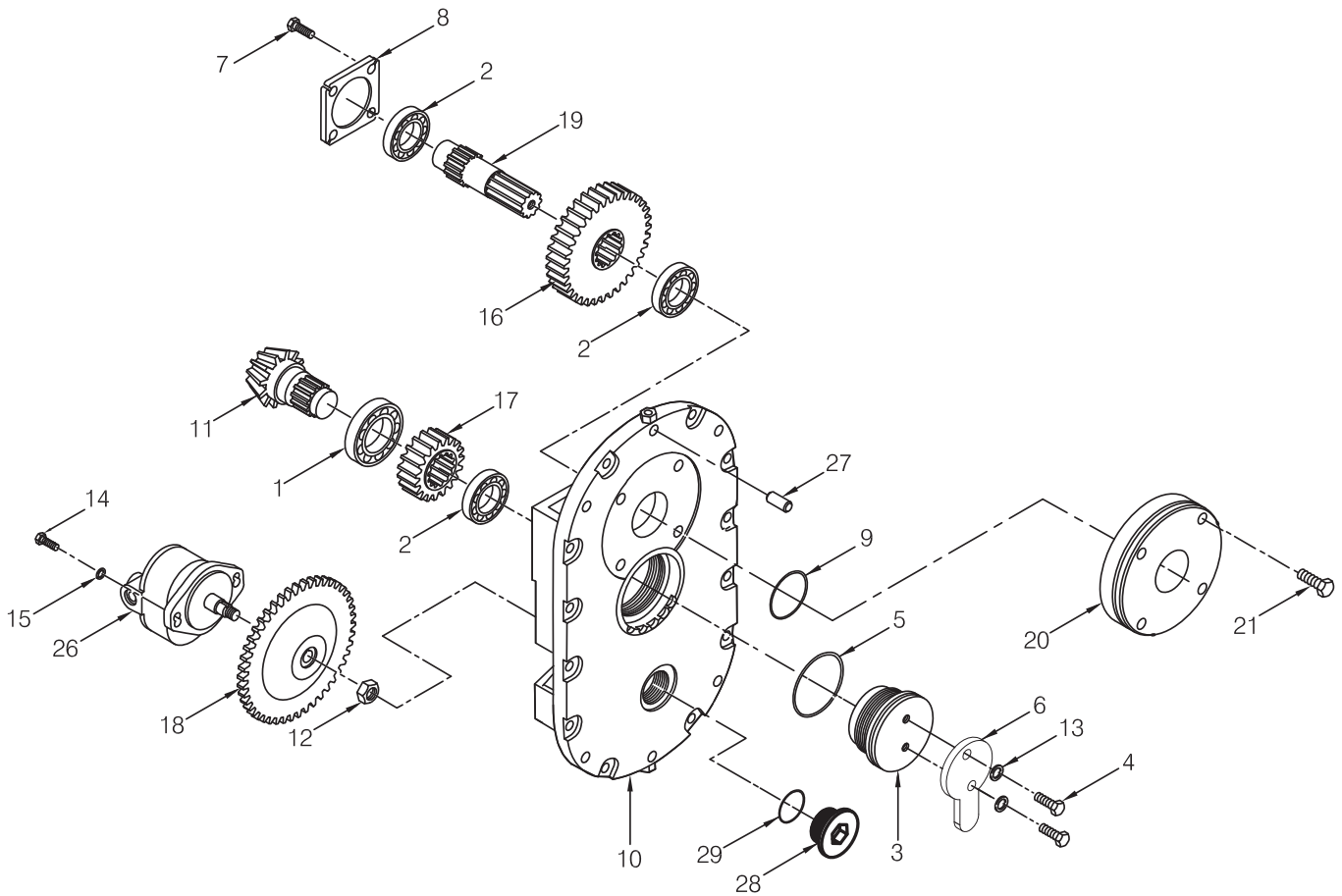
Caterpillar D6D, D6E PS (C43);

D6G PS (C73)

Last Used on S/N AW6G-1060

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Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



**High Input Arrangement**

Caterpillar D6D, D6E PS (C43);

D6G PS (C73)

Last Used on S/N AW6G-1060

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	17	2300625W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300749W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300647W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	18	2300654W	Gear	1	--	--
5	39371W	O-Ring	1	1	1		2300747W	Gear	--	1	--
6	2302492W	Keeper	1	1	1		2300748W	Gear	--	--	1
7	194090W	Capscrew	4	4	4	19	2300646W	Shaft, Input	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	20	*a 2300779W	Pilot, PTO	1	1	1
9	165035W	Seal	1	1	1	21	307788W	Capscrew	4	4	4
10	2302493W	Carrier, Input	1	1	1	26	-----	Pump (3-65 & 3-66)	1	1	1
11	2300624W	Gear, Bevel	1	1	1	27	222734W	Pin	2	2	2
12	138750W	Nut	1	1	1	28	188210W	Fitting	1	1	1
13	15155W	Washer	2	2	2	29	16983W	.O-Ring	1	1	1
14	16805W	Capscrew	2	2	2						
15	15156W	Washer	2	2	2		*a	Use 1324880W Adhesive/Sealant			
16	2300647W	Gear	1	--	--						
	2300749W	Gear	--	1	--						
	2300625W	Gear	--	--	1						

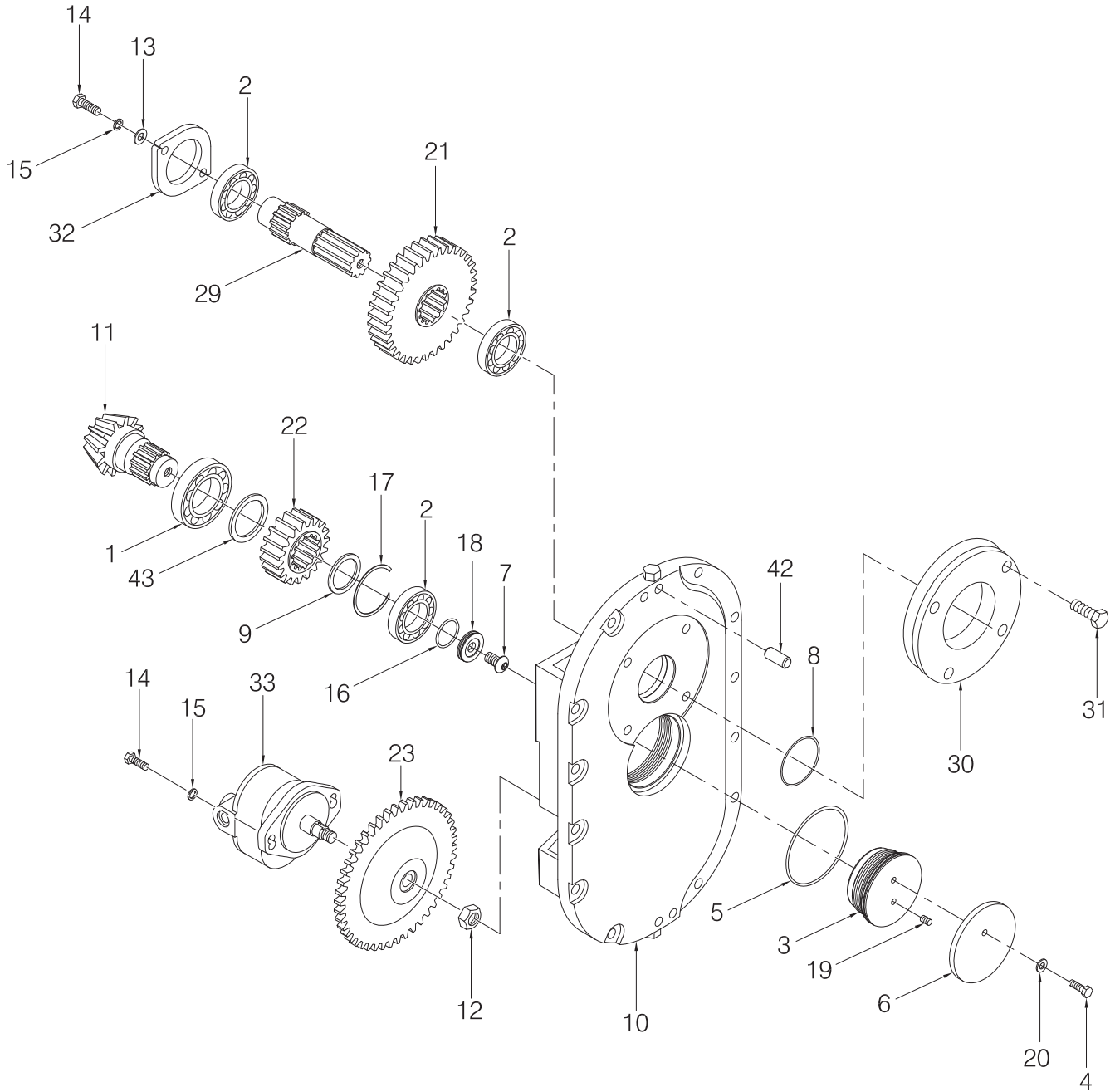
### High Input Arrangement

Caterpillar D6D, D6E PS (C43);

D6G PS (C73)

First Used on S/N AW6G-1061

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### High Input Arrangement

Caterpillar D6D, D6E PS (C43);  
D6G PS (C73)

First Used on S/N AW6G-1061

Page 2 of 2

A - 45:1 & 56:1  
B - 83:1 & 103:1  
C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2300646W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	30		2300779W	Pilot, PTO	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	31		2302626W	Capscrew	4	4	4
8		165035W	Seal	1	1	1	32		2300645W	Retainer, Bearing	1	1	1
9	*d, *e	2306201W	Spacer	1	1	1	33		2302963W	Pump (3-66)	1	1	1
	*f	2306423W	Spacer	1	1	1	42		222734W	Pin	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	43		2304942W	Spacer	1	1	1
	*f	2306561W	Carrier, Input	1	1	1		*a	Use 318702W Thread Lock				
11	*e	2300624W	Gear, Bevel	1	1	1		*b	Use 1324880W Adhesive/Sealant				
	*f, *g	2306564W	Gear, Bevel	1	1	1		*c	Last Used on S/N AW6G-1111				
	*h	2307599W	Gear, Bevel	1	1	1		*d	First Used on S/N AW6G-1112				
12	*q	221355W	Nut	1	1	1		*e	Last Used on S/N AW6G-1149				
13		15134W	Washer	2	2	2		*f	First Used on S/N AW6G-1150				
14	*b	16805W	Capscrew	4	4	4		*g	Last Used on S/N AW6G-1420				
15		15156W	Washer, Lock	4	4	4		*h	First Used on S/N AW6G-1421				
16	*d	2306202W	O-Ring	1	1	1		*j	Last Used on S/N AW6G-1220				
17	*d	2306203W	Ring, Snap	1	1	1		*k	First Used on S/N AW6G-1221				
18	*d, *g	2306204W	Plate	1	1	1		*l	Last Used on S/N AW6G-1197				
19	*d	2306350W	Setscrew	1	1	1		*m	First Used on S/N AW6G-1198				
20	*d	18515W	Washer	1	1	1		*n	Last Used on S/N AW6G-1214				
21		2300647W	Gear	1	--	--		*p	First Used on S/N AW6G-1215				
		2300749W	Gear	--	1	--		*q	Use 383789W Adhesive/Sealant				
		2300625W	Gear	--	--	1							
22		2300625W	Gear	1	--	--							
		2300749W	Gear	--	1	--							
		2300647W	Gear	--	--	1							

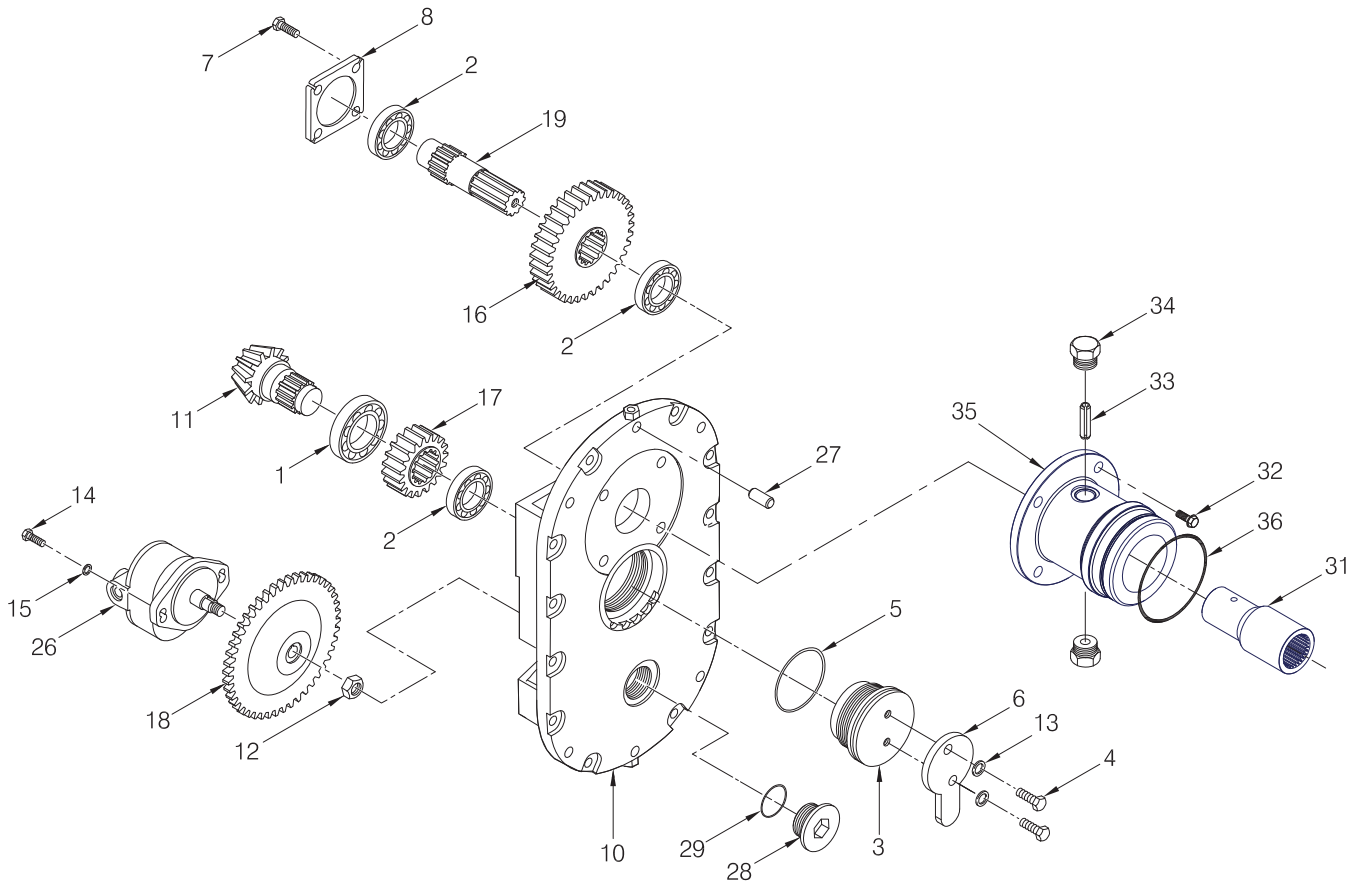
# High Input Arrangement

Caterpillar D6N (C47, C78, C81)

Last Used on S/N AW6G-1060

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



### High Input Arrangement

Caterpillar D6N (C47, C78, C81)

Last Used on S/N AW6G-1060

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

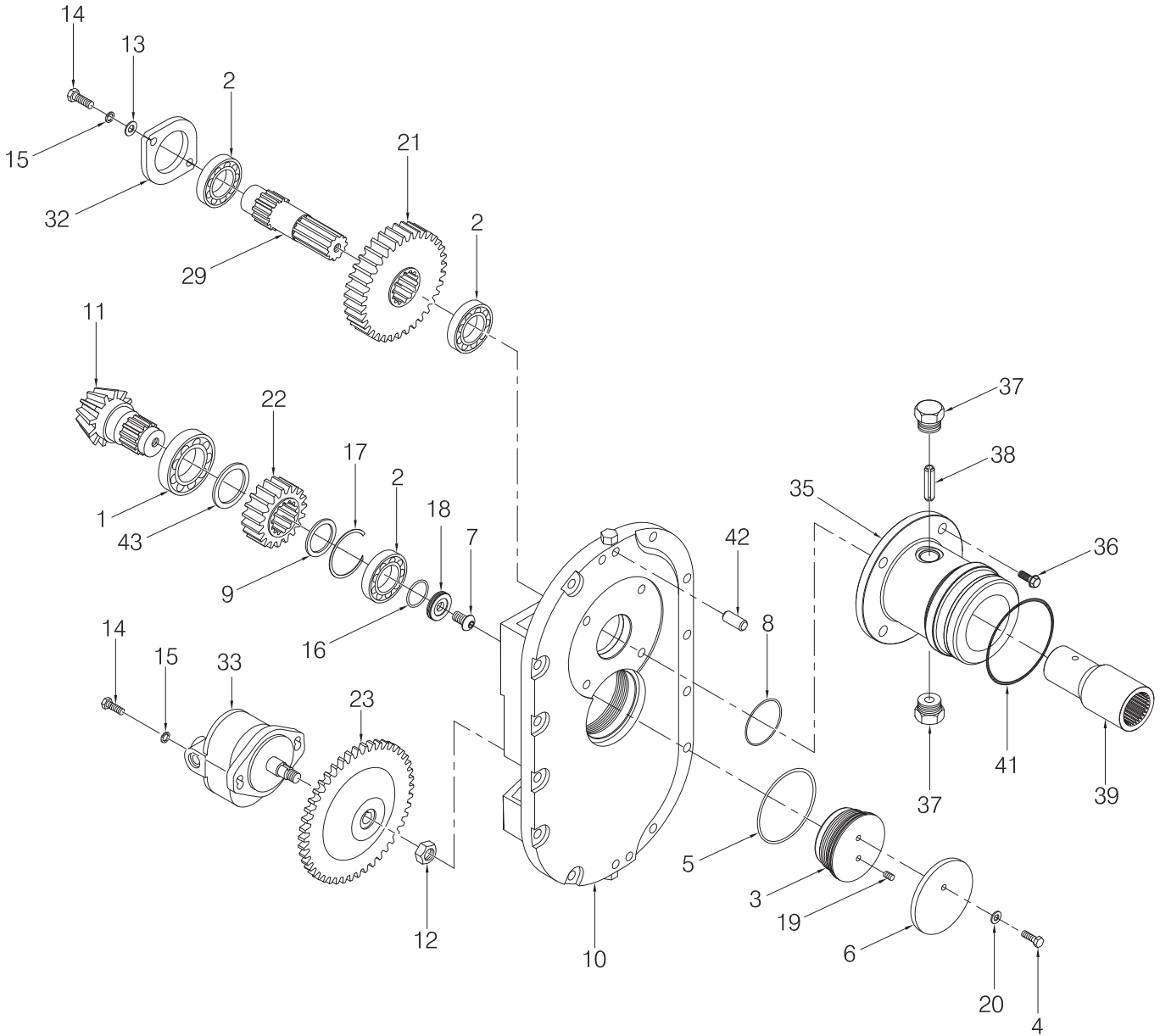
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	17	2300625W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300749W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300647W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	18	2300654W	Gear	1	--	--
5	39371W	O-Ring	1	1	1		2300747W	Gear	--	1	--
6	2302492W	Keeper	1	1	1		2300748W	Gear	--	--	1
7	194090W	Capscrew	4	4	4	19	2300646W	Shaft, Input	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	26	-----	Pump (3-65 & 3-66)	1	1	1
9	165035W	Seal	1	1	1	27	222734W	Pin	2	2	2
10	2302493W	Carrier, Input	1	1	1	28	188210W	Fitting	1	1	1
11	2300624W	Gear, Bevel	1	1	1	29	16983W	O-Ring	1	1	1
12	138750W	Nut	1	1	1	31	2305498W	Coupler	1	1	1
13	15155W	Washer	2	2	2	32	178402W	Capscrew	4	4	4
14	16805W	Capscrew	2	2	2	33	19929W	Pin	1	1	1
15	15156W	Washer	2	2	2	34	216590W	Fitting, O-Ring	2	2	2
16	2300647W	Gear	1	--	--	35	2305497W	Pilot, PTO	1	1	1
	2300749W	Gear	--	1	--	36	15887W	O-Ring	1	1	1
	2300625W	Gear	--	--	1						

# High Input Arrangement

Caterpillar D6N (C47, C78, C81)

First Used on S/N AW6G-1061

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## High Input Arrangement

Caterpillar D6N (C47, C78, C81)

First Used on S/N AW6G-1061

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2300646W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	32		2300645W	Retainer, Bearing	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	33		2302963W	Pump (3-66)	1	1	1
8		165035W	Seal	1	1	1	35		2305497W	Pilot, PTO	1	1	1
9	*d, *e	2306201W	Spacer	1	1	1	36		178402W	Capscrew	4	4	4
9	*f	2306423W	Spacer	1	1	1	37		216590W	Fitting	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	38		19929W	Pin	1	1	1
	*f	2306561W	Carrier, Input	1	1	1	39		2305498W	Coupler	1	1	1
11	*e	2300624W	Gear, Bevel	1	1	1	41		15887W	O-Ring	1	1	1
	*f, *g	2306564W	Gear, Bevel	1	1	1	42		222734W	Pin	2	2	2
	*h	2307599W	Gear, Bevel	1	1	1	43		2304942W	Spacer	1	1	1
12	*q	221355W	Nut	1	1	1							
13		15134W	Washer	2	2	2		*a	Use 318702W	Thread Lock			
14	*b	16805W	Capscrew	4	4	4		*b	Use 1324880W	Adhesive/Sealant			
15		15156W	Washer, Lock	4	4	4		*c	Last Used on S/N	AW6G-1111			
16	*d	2306202W	O-Ring	1	1	1		*d	First Used on S/N	AW6G-1112			
17	*d	2306203W	Ring, Snap	1	1	1		*e	Last Used on S/N	AW6G-1149			
18	*d, *g	2306204W	Plate	1	1	1		*f	First Used on S/N	AW6G-1150			
19	*d	2306350W	Setscrew	1	1	1		*g	Last Used on S/N	AW6G-1420			
20	*d	18515W	Washer	1	1	1		*h	First Used on S/N	AW6G-1421			
21		2300647W	Gear	1	--	--		*j	Last Used on S/N	AW6G-1220			
		2300749W	Gear	--	1	--		*k	First Used on S/N	AW6G-1221			
		2300625W	Gear	--	--	1		*l	Last Used on S/N	AW6G-1220			
22		2300625W	Gear	1	--	--		*m	First Used on S/N	AW6G-1221			
		2300749W	Gear	--	1	--		*n	Last Used on S/N	AW6G-1214			
		2300647W	Gear	--	--	1		*p	First Used on S/N	AW6G-1215			
								*q	Use 383789W	Adhesive/Sealant			

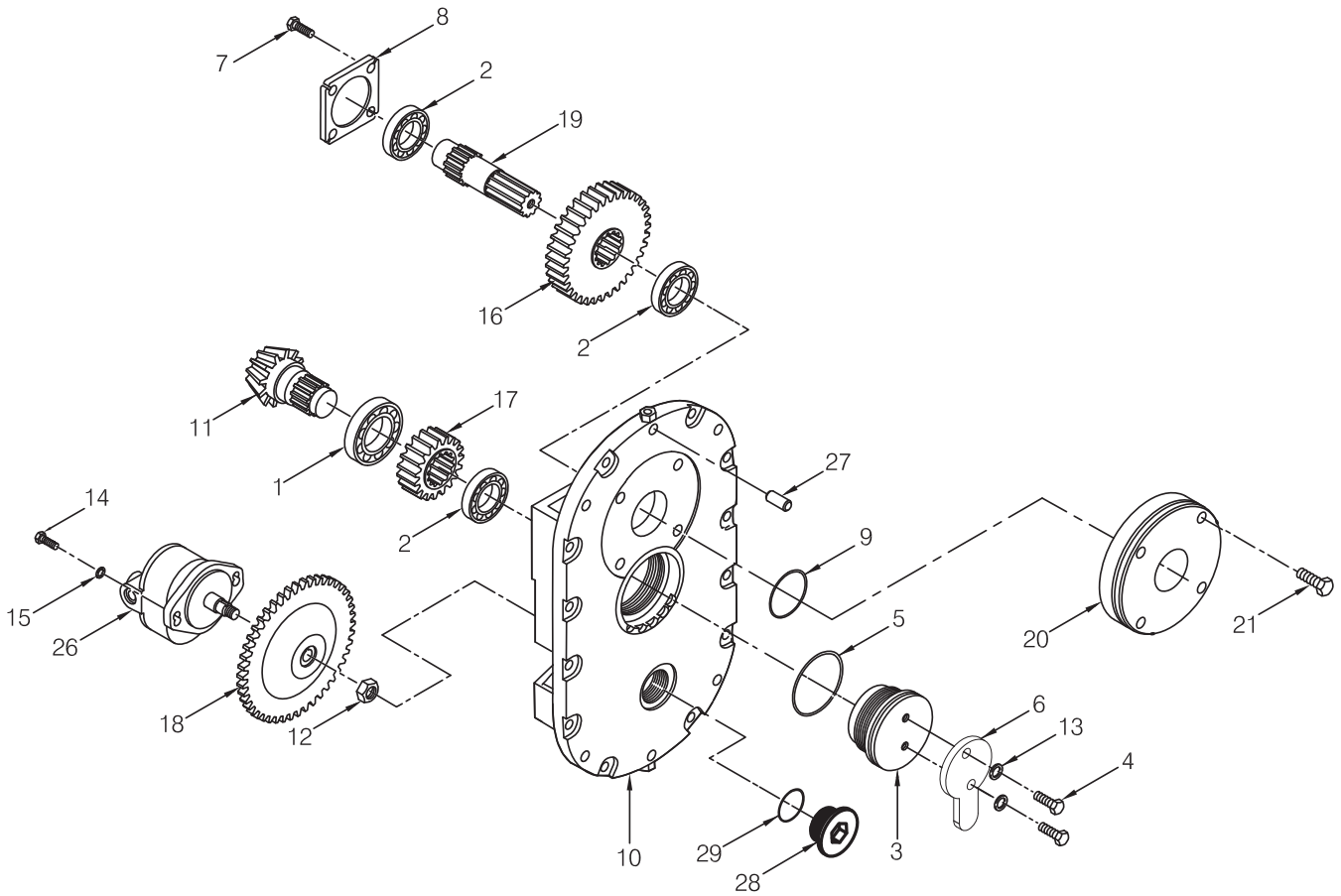
### High Input Arrangement

Dresser/Dressta TD15E PS (H44), TD15E DD (H45);  
 TD15H Tier I PS (H46); TD15H Tier II, TD15M (H47)

Last Used on S/N AW6G-1060

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



**High Input Arrangement**

Dresser/Dressta TD15E PS (H44), TD15E DD (H45);  
 TD15H Tier I PS (H46); TD15H Tier II, TD15M (H47)  
 Last Used on S/N AW6G-1060

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

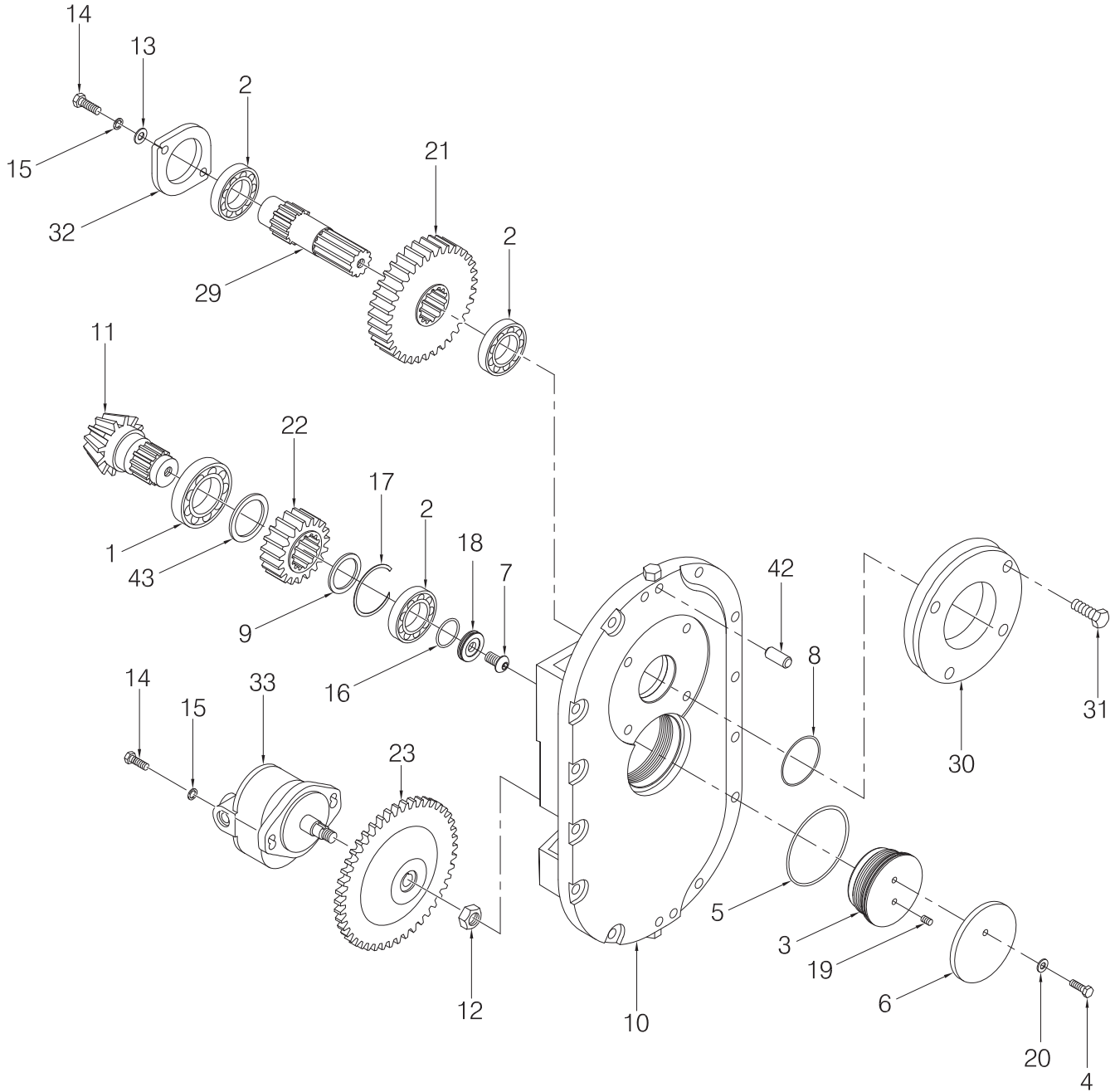
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	17	2300625W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300749W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300647W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	18	2300654W	Gear	1	--	--
5	39371W	O-Ring	1	1	1		2300747W	Gear	--	1	--
6	2302492W	Keeper	1	1	1		2300748W	Gear	--	--	1
7	194090W	Capscrew	4	4	4	19	2300646W	Shaft, Input	1	1	1
8	2300645W	Retainer, Bearing	1	1	1	20	*a 2300779W	Pilot, PTO	1	1	1
9	165035W	Seal	1	1	1	21	307788W	Capscrew	4	4	4
10	2302493W	Carrier, Input	1	1	1	26	-----	Pump (3-65 & 3-66)	1	1	1
11	2300624W	Gear, Bevel	1	1	1	27	222734W	Pin	2	2	2
12	138750W	Nut	1	1	1	28	188210W	Fitting	1	1	1
13	15155W	Washer	2	2	2	29	16983W	.O-Ring	1	1	1
14	16805W	Capscrew	2	2	2						
15	15156W	Washer	2	2	2		*a	Use 1324880W Adhesive/Sealant			
16	2300647W	Gear	1	--	--						
	2300749W	Gear	--	1	--						
	2300625W	Gear	--	--	1						

### High Input Arrangement

Dresser/Dressta TD15E PS (H44), TD15E DD (H45);  
TD15H Tier I PS (H46); TD15H Tier II, TD15M (H47)

First Used on S/N AW6G-1061

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### High Input Arrangement

Dresser/Dressta TD15E PS (H44), TD15E DD (H45);  
 TD15H Tier I PS (H46); TD15H Tier II, TD15M (H47)  
 First Used on S/N AW6G-1061

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*e	44310W	Bearing	1	1	1	23	*j	2305655W	Gear	1	--	--
	*f	41210W	Bearing	1	1	1		*k	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*l	2305656W	Gear	--	1	--
3	*c	2305630W	Carrier, Pinion	1	1	1		*m	2307118W	Gear	--	1	--
	*d	2306200W	Carrier, Pinion	1	1	1		*n	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*p	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2300646W	Shaft, Input	1	1	1
6		2305628W	Keeper	1	1	1	30		2300779W	Pilot, PTO	1	1	1
7	*a, *d, *g	220098W	Capscrew	1	1	1	31		2302626W	Capscrew	4	4	4
8		165035W	Seal	1	1	1	32		2300645W	Retainer, Bearing	1	1	1
9	*d, *e	2306201W	Spacer	1	1	1	33		2302963W	Pump (3-66)	1	1	1
	*f	2306423W	Spacer	1	1	1	42		222734W	Pin	2	2	2
10	*e	2305629W	Carrier, Input	1	1	1	43		2304942W	Spacer	1	1	1
	*f	2306561W	Carrier, Input	1	1	1		*a	Use 318702W Thread Lock				
11	*e	2300624W	Gear, Bevel	1	1	1		*b	Use 1324880W Adhesive/Sealant				
	*f, *g	2306564W	Gear, Bevel	1	1	1		*c	Last Used on S/N AW6G-1111				
	*h	2307599W	Gear, Bevel	1	1	1		*d	First Used on S/N AW6G-1112				
12	*q	221355W	Nut	1	1	1		*e	Last Used on S/N AW6G-1149				
13		15134W	Washer	2	2	2		*f	First Used on S/N AW6G-1150				
14	*b	16805W	Capscrew	4	4	4		*g	Last Used on S/N AW6G-1420				
15		15156W	Washer, Lock	4	4	4		*h	First Used on S/N AW6G-1421				
16	*d	2306202W	O-Ring	1	1	1		*j	Last Used on S/N AW6G-1220				
17	*d	2306203W	Ring, Snap	1	1	1		*k	First Used on S/N AW6G-1221				
18	*d, *g	2306204W	Plate	1	1	1		*l	Last Used on S/N AW6G-1197				
19	*d	2306350W	Setscrew	1	1	1		*m	First Used on S/N AW6G-1198				
20	*d	18515W	Washer	1	1	1		*n	First Used on S/N AW6G-1214				
21		2300647W	Gear	1	--	--		*p	First Used on S/N AW6G-1215				
		2300749W	Gear	--	1	--		*q	Use 383789W Adhesive/Sealant				
		2300625W	Gear	--	--	1							
22		2300625W	Gear	1	--	--							
		2300749W	Gear	--	1	--							
		2300647W	Gear	--	--	1							

### High Input Arrangement

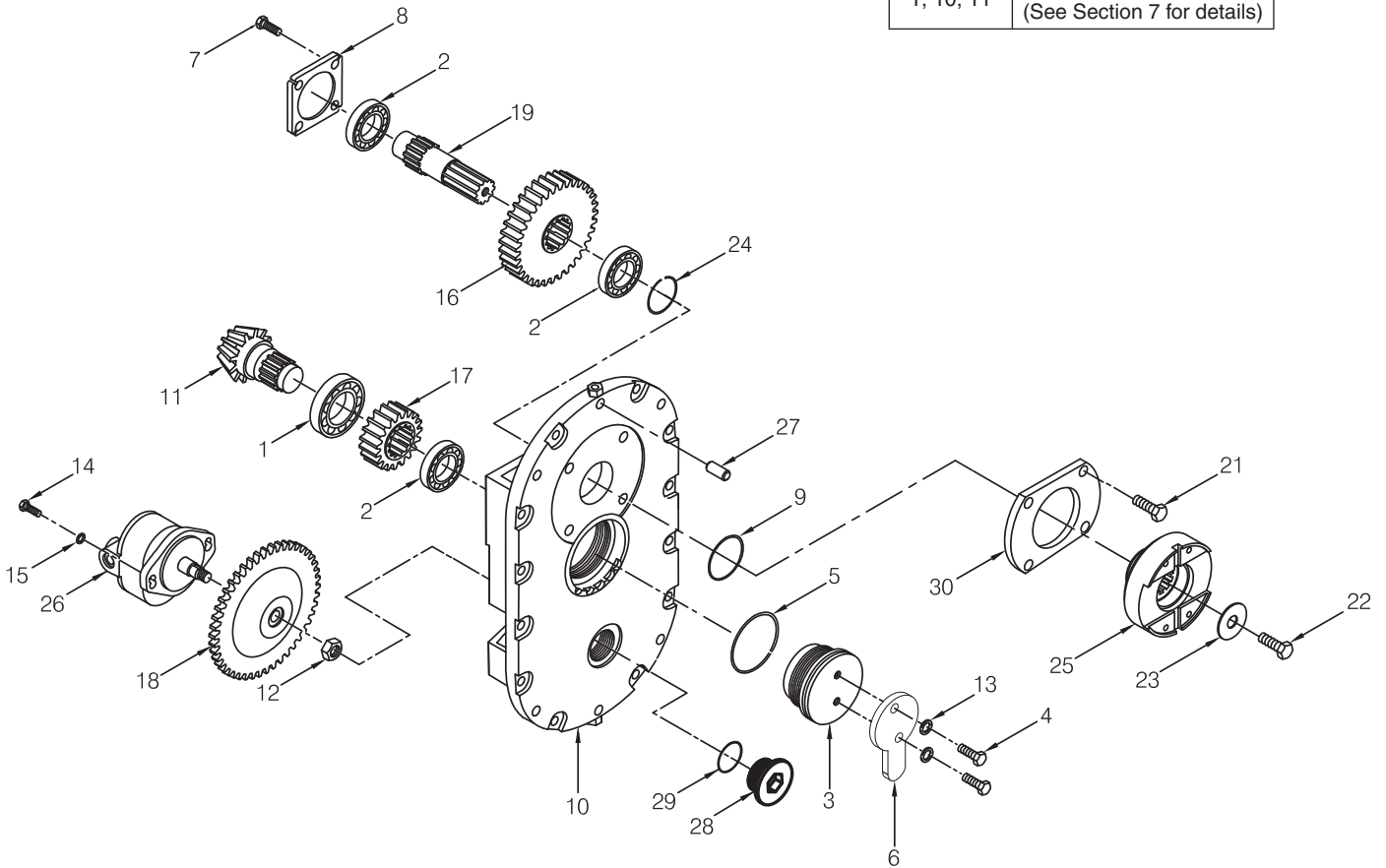
John Deere 750B w/o Cab (E41); 850B w/ Cab (E42);

850B w/o Cab (E43); 750B w/ Cab (E44)

Last Used on S/N AW6G-1060

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



**High Input Arrangement**

John Deere 750B w/o Cab (E41); 850B w/ Cab (E42);  
 850B w/o Cab (E43); 750B w/ Cab (E44)  
 Last Used on S/N AW6G-1060

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	17	2300625W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300749W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300647W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	18	2300654W	Gear	1	--	--
5	39371W	O-Ring	1	1	1		2300747W	Gear	--	1	--
6	2302492W	Keeper	1	1	1		2300748W	Gear	--	--	1
7	194090W	Capscrew	4	4	4	19	2300798W	Shaft, Input	--	1	1
8	2300645W	Retainer, Bearing	1	1	1	21	178402W	Capscrew	4	4	4
9	165035W	Seal	1	1	1	22	*a 16829W	Capscrew	--	1	1
10	2302493W	Carrier, Input	1	1	1	23	*a 2301627W	Washer	--	1	1
11	2300624W	Gear, Bevel	1	1	1	24	122400W	Ring, Snap	--	1	1
12	138750W	Nut	1	1	1	25	2300797W	Yoke	--	1	1
13	15155W	Washer	2	2	2	26	-----	Pump (3-65)	1	1	1
14	16805W	Capscrew	2	2	2	27	222734W	Pin	2	2	2
15	15156W	Washer	2	2	2	28	188210W	Fitting	1	1	1
16	2300647W	Gear	1	--	--	29	16983W	O-Ring	1	1	1
	2300749W	Gear	--	1	--	30	2300799W	Retainer	--	1	1
	2300625W	Gear	--	--	1						

\*a Use 264134W Adhesive/Sealant

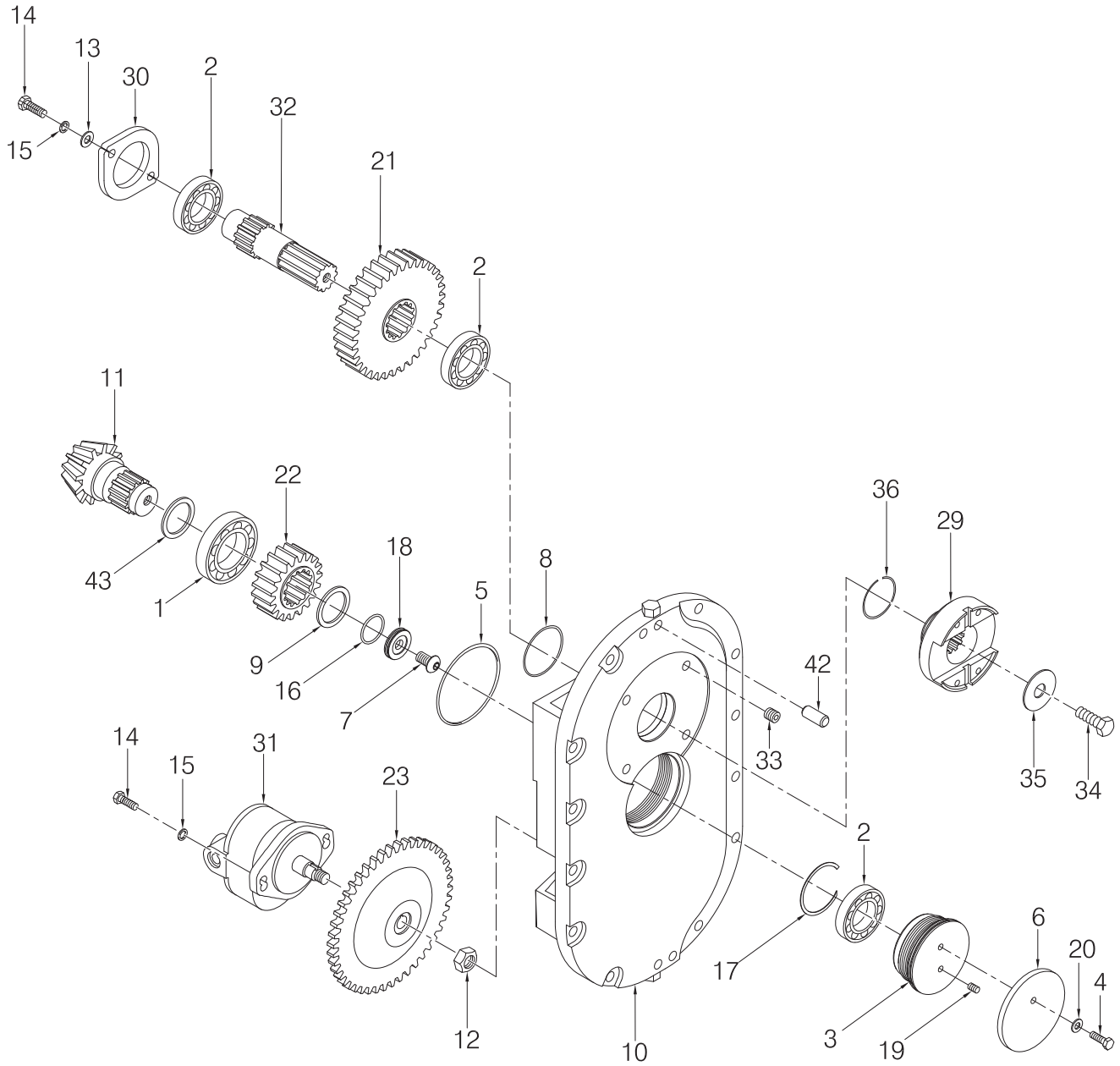
### High Input Arrangement

John Deere 750B w/o Cab (E41); 850B w/ Cab (E42);

850B w/o Cab (E43); 750B w/ Cab (E44)

First Used on S/N AW6G-1061

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### High Input Arrangement

John Deere 750B w/o Cab (E41); 850B w/ Cab (E42);  
850B w/o Cab (E43); 750B w/ Cab (E44)  
First Used on S/N AW6G-1061

A - 45:1 & 56:1  
B - 83:1 & 103:1  
C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*g	44310W	Bearing	1	1	1	23	*l	2305655W	Gear	1	--	--
	*h	41210W	Bearing	1	1	1		*m	2307117W	Gear	1	--	--
2		44308W	Bearing	3	3	3		*n	2305656W	Gear	--	1	--
3	*e	2305630W	Carrier, Pinion	1	1	1		*p	2307118W	Gear	--	1	--
	*f	2306200W	Carrier, Pinion	1	1	1		*q	2305657W	Gear	--	--	1
4		2305631W	Capscrew	1	1	1		*r	2307119W	Gear	--	--	1
5		39371W	O-Ring	1	1	1	29		2300797W	Yoke	1	1	1
6		2305628W	Keeper	1	1	1	30		2300645W	Retainer, Bearing	1	1	1
7	*a, *f, *j	220098W	Capscrew	1	1	1	31		2302963W	Pump (3-66)	1	1	1
8		165035W	Seal	1	1	1	32		2300798W	Shaft, Input	1	1	1
9	*f, *g	2306201W	Spacer	1	1	1	33	*c	222648W	Setscrew	4	4	4
	*h	2306423W	Spacer	1	1	1	34	*d	16829W	Capscrew	1	1	1
10	*g	2305629W	Carrier, Input	1	1	1	35		2301627W	Washer	1	1	1
	*h	2306561W	Carrier, Input	1	1	1	36		122400W	Ring, Snap	1	1	1
11	*f	2300624W	Gear, Bevel	1	1	1	42		222734W	Pin	2	2	2
	*h, *j	2306564W	Gear, Bevel	1	1	1	43		2304942W	Spacer	1	1	1
	*k	2307599W	Gear, Bevel	1	1	1							
12	*c	221355W	Nut	1	1	1		*a	Use 318702W	Thread Lock			
13		15134W	Washer	2	2	2		*b	Use 1324880W	Adhesive/Sealant			
14	*b	16805W	Capscrew	4	4	4		*c	Use 383789W	Adhesive/Sealant			
15		15156W	Washer, Lock	4	4	4		*d	Use 264134W	Adhesive/Sealant			
16	*f	2306202W	O-Ring	1	1	1		*e	Last Used on S/N AW6G-1111				
17	*f	2306203W	Ring, Snap	1	1	1		*f	First Used on S/N AW6G-1112				
18	*f	2306204W	Plate	1	1	1		*g	Last Used on S/N AW6G-1149				
19	*f	2306350W	Setscrew	1	1	1		*h	First Used on S/N AW6G-1150				
20	*f	18515W	Washer	1	1	1		*j	Last Used on S/N AW6G-1420				
21		2300647W	Gear	1	--	--		*k	First Used on S/N AW6G-1421				
		2300749W	Gear	--	1	--		*l	Last Used on S/N AW6G-1220				
		2300625W	Gear	--	--	1		*m	First Used on S/N AW6G-1221				
22		2300625W	Gear	1	--	--		*n	Last Used on S/N AW6G-1197				
		2300749W	Gear	--	1	--		*p	First Used on S/N AW6G-1198				
		2300647W	Gear	--	--	1		*q	Last Used on S/N AW6G-1214				
								*r	First Used on S/N AW6G-1215				

### High Input Arrangement

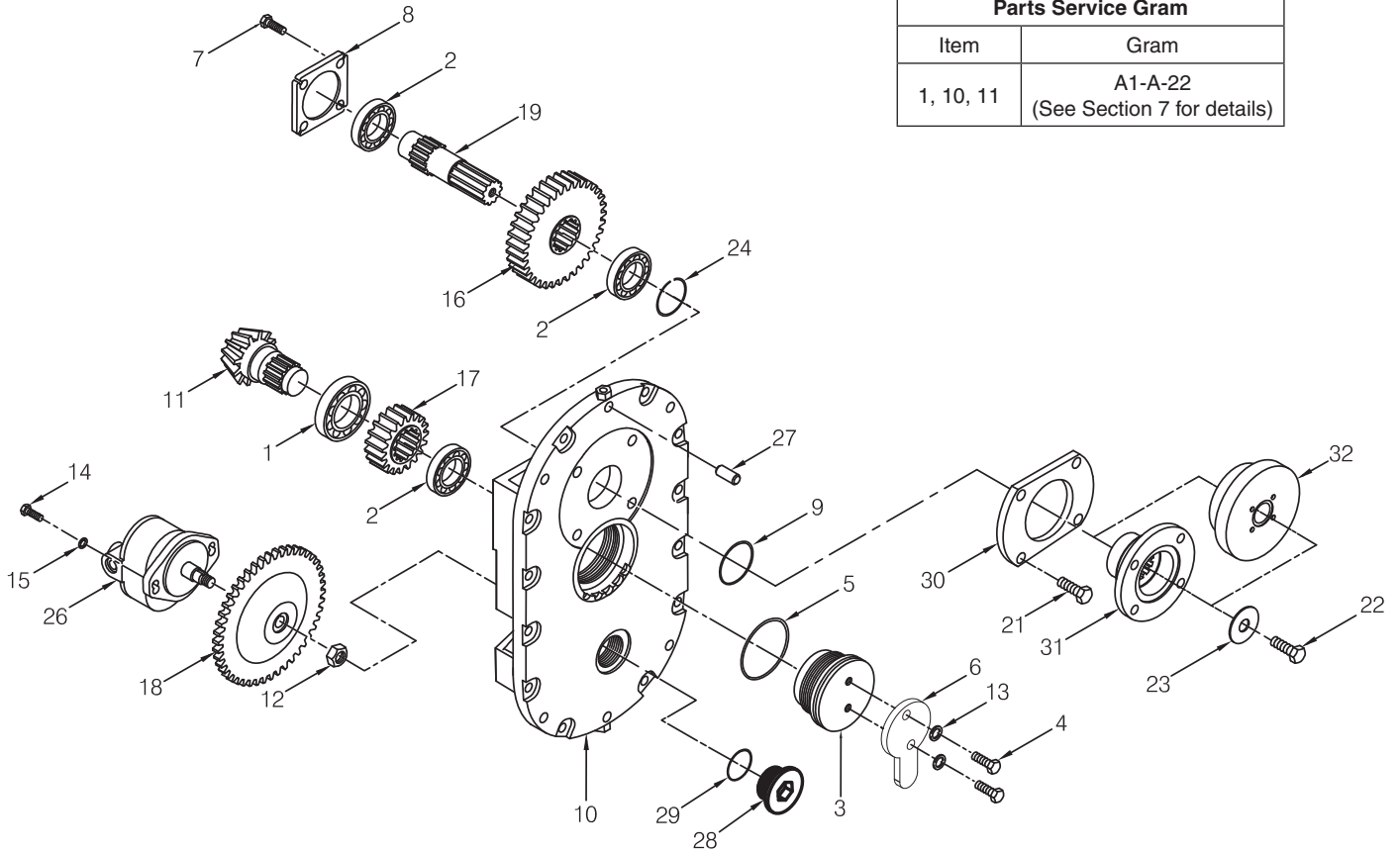
John Deere 750C Series I & II (E45);

850C Series I & II (E46)

Last Used on S/N AW6G-1060

Page 1 of 2

Parts Service Gram	
Item	Gram
1, 10, 11	A1-A-22 (See Section 7 for details)



### High Input Arrangement

John Deere 750C Series I & II (E45);

850C Series I & II (E46)

Last Used on S/N AW6G-1060

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A - 45:1 & 56:1

B - 83:1 & 103:1

C - 153:1

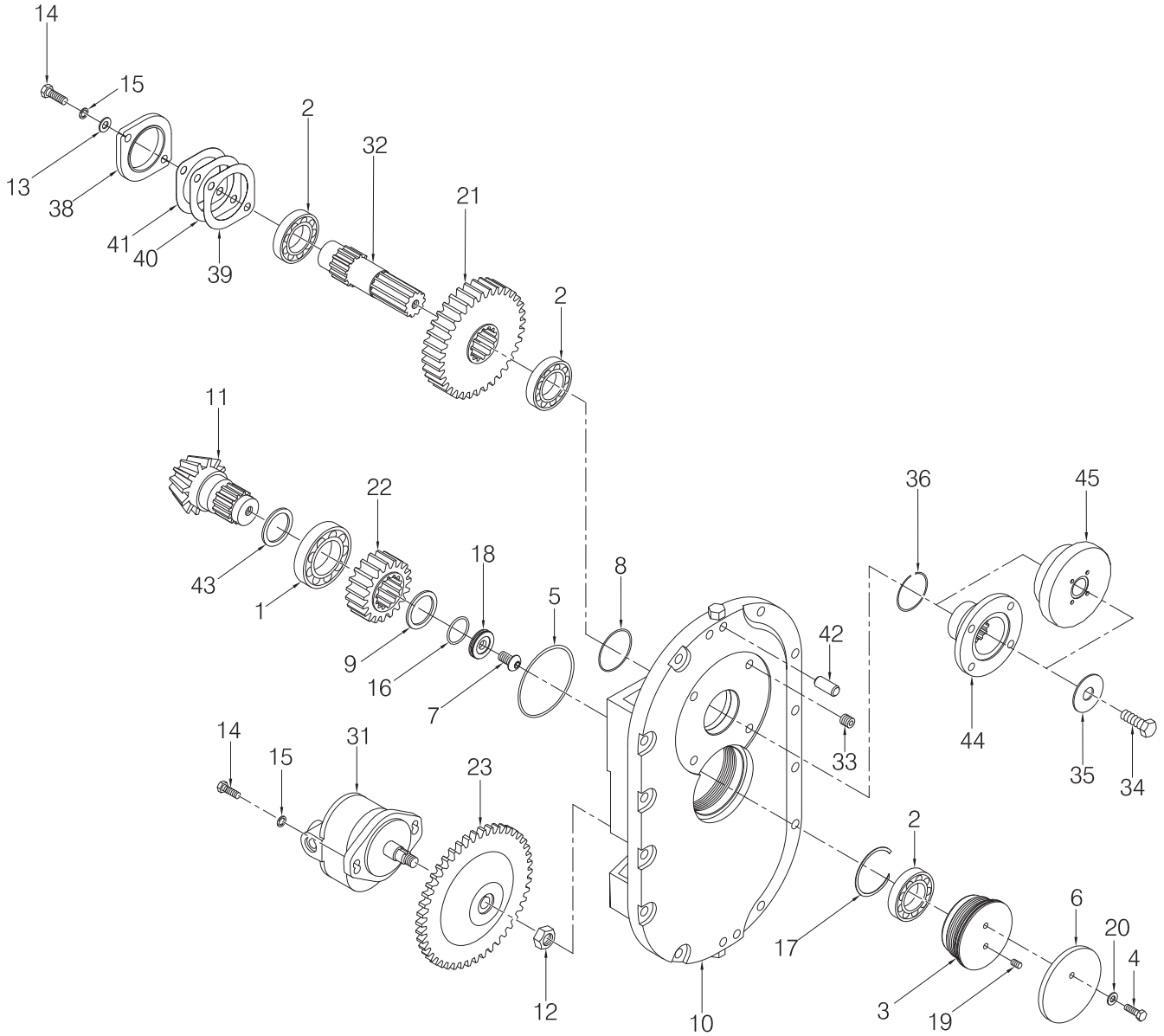
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	44310W	Bearing	1	1	1	18	2300654W	Gear	1	--	--
2	44308W	Bearing	3	3	3		2300747W	Gear	--	1	--
3	2302993W	Carrier, Pinion	1	1	1		2300748W	Gear	--	--	1
4	16691W	Capscrew	2	2	2	19	2300798W	Shaft, Input	--	1	1
5	39371W	O-Ring	1	1	1	21	178402W	Capscrew	4	4	4
6	2302492W	Keeper	1	1	1	22	*a 16829W	Capscrew	--	1	1
7	194090W	Capscrew	4	4	4	23	*a 2301627W	Washer	--	1	1
8	2300645W	Retainer, Bearing	1	1	1	24	122400W	Ring, Snap	--	1	1
9	165035W	Seal	1	1	1	26	-----	Pump (3-65)	1	1	1
10	2302493W	Carrier, Input	1	1	1	27	222734W	Pin	2	2	2
11	2300624W	Gear, Bevel	1	1	1	28	188210W	Fitting	1	1	1
12	138750W	Nut	1	1	1	29	16983W	.O-Ring	1	1	1
13	15155W	Washer	2	2	2	30	2300799W	Retainer	--	1	1
14	16805W	Capscrew	2	2	2	31	*b 2301533W	Flange, Winch End	--	1	1
15	15156W	Washer	2	2	2	32	*c 2303962W	Flange, Damped	--	1	1
16	2300647W	Gear	1	--	--		*a	Use 264134W Adhesive/Sealant			
	2300749W	Gear	--	1	--		*b	Last Used on S/N AW6G-1043			
	2300625W	Gear	--	--	1		*c	First Used on S/N AW6G-1044			
17	2300625W	Gear	1	--	--						
	2300749W	Gear	--	1	--						
	2300647W	Gear	--	--	1						

# High Input Arrangement

John Deere 750C Series I & II (E45)

First Used on S/N AW6G-1061

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# High Input Arrangement

John Deere 750C Series I & II (E45)

First Used on S/N AW6G-1061

Page 2 of 2

A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

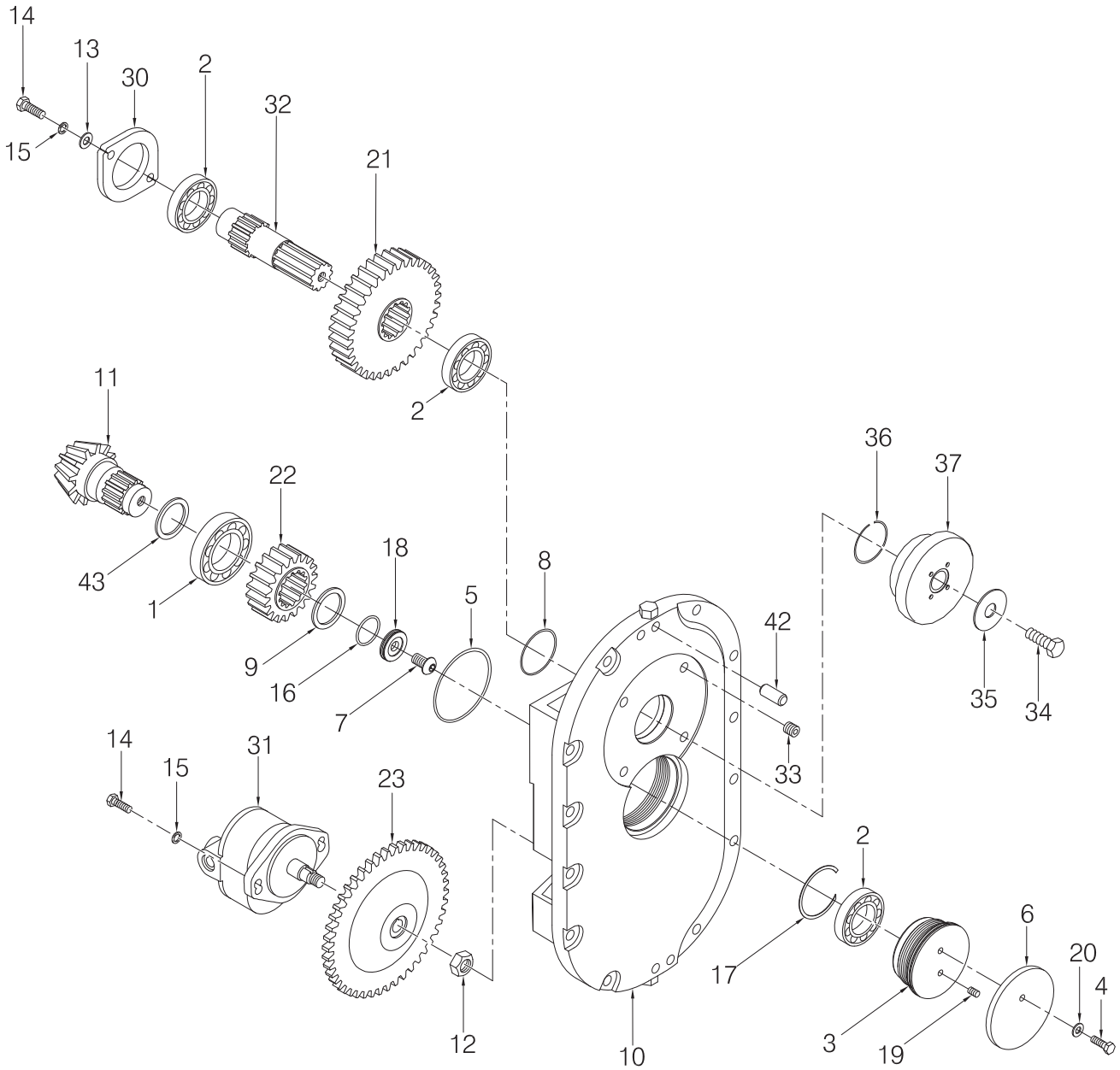
Item	Part No.	Description	Qty			Item	Part No.	Description	Qty				
			A	B	C				A	B	C		
1	*g	44310W	Bearing	1	1	1	31	2302963W	Pump (3-66)	1	1	1	
	*h	41210W	Bearing	1	1	1	32	2300798W	Shaft, Input	1	1	1	
2		44308W	Bearing	3	3	3	33	*c	222648W	Setscrew	4	4	4
3	*e	2305630W	Carrier, Pinion	1	1	1	34	*d	16829W	Capscrew	1	1	1
	*f	2306200W	Carrier, Pinion	1	1	1	35		2301627W	Washer	1	1	1
4		2305631W	Capscrew	1	1	1	36		122400W	Ring, Snap	1	1	1
5		39371W	O-Ring	1	1	1	38	*f	2306215W	Retainer, Bearing	1	1	1
6		2305628W	Keeper	1	1	1	39	*f	2306216W	Shim .005	AR	AR	AR
7	*a, *f, *i	220098W	Capscrew	1	1	1	40	*f	2306217W	Shim .007	AR	AR	AR
8		165035W	Seal	1	1	1	41	*f	2306218W	Shim .020	AR	AR	AR
9	*f, *g	2306201W	Spacer	1	1	1	42		222734W	Pin	2	2	2
	*h	2306423W	Spacer	1	1	1	43		2304942W	Spacer	1	1	1
10	*g	2305629W	Carrier, Input	1	1	1	44	*e	2303962W	Flange, Damped	1	1	1
	*h	2306561W	Carrier, Input	1	1	1	45	*f	2301553W	Flange, Winch End	1	1	1
11	*g	2300624W	Gear, Bevel	1	1	1							
	*h, *i	2306564W	Gear, Bevel	1	1	1		*a	Use 318702W Thread Lock				
	*j	2307599W	Gear, Bevel	1	1	1		*b	Use 1324880W Adhesive/Sealant				
12	*c	221355W	Nut	1	1	1		*c	Use 383789W Adhesive/Sealant				
13		15134W	Washer	2	2	2		*d	Use 264134W Adhesive				
14	*b	16805W	Capscrew	4	4	4		*e	Last Used on S/N AW6G-1111				
15		15156W	Washer, Lock	4	4	4		*f	First Used on S/N AW6G-1112				
16	*f	2306202W	O-Ring	1	1	1		*g	Last Used on S/N AW6G-1149				
17	*f	2306203W	Ring, Snap	1	1	1		*h	First Used on S/N AW6G-1150				
18	*f	2306204W	Plate	1	1	1		*i	Last Used on S/N AW6G-1420				
19	*f	2306350W	Setscrew	1	1	1		*j	First Used on S/N AW6G-1421				
20	*f	18515W	Washer	1	1	1		*k	Last Used on S/N AW6G-1220				
21		2300647W	Gear	1	--	--		*l	First Used on S/N AW6G-1221				
		2300749W	Gear	--	1	--		*m	Last Used on S/N AW6G-1197				
		2300625W	Gear	--	--	1		*n	First Used on S/N AW6G-1198				
22		2300625W	Gear	1	--	--		*p	Last Used on S/N AW6G-1214				
		2300749W	Gear	--	1	--		*q	First Used on S/N AW6G-1215				
		2300647W	Gear	--	--	1							
23	*k	2305655W	Gear	1	--	--							
	*l	2307117W	Gear	1	--	--							
	*m	2305656W	Gear	--	1	--							
	*n	2307118W	Gear	--	1	--							
	*p	2305657W	Gear	--	--	1							
	*q	2307119W	Gear	--	--	1							

# High Input Arrangement

John Deere 850C Series I & II (E46)

First Used on S/N AW6G-1061

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## High Input Arrangement

John Deere 850C Series I & II (E46)

First Used on S/N AW6G-1061

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A - 45:1 & 56:1  
 B - 83:1 & 103:1  
 C - 153:1

Item	Part No.	Description	Qty			Item	Part No.	Description	Qty		
			A	B	C				A	B	C
1	*g 44310W	Bearing	1	1	1	23	*k 2305655W	Gear	1	--	--
	*h 41210W	Bearing	1	1	1		*l 2307117W	Gear	1	--	--
2	44308W	Bearing	3	3	3		*m 2305656W	Gear	--	1	--
3	*e 2305630W	Carrier, Pinion	1	1	1		*n 2307118W	Gear	--	1	--
	*f 2306200W	Carrier, Pinion	1	1	1		*p 2305657W	Gear	--	--	1
4	2305631W	Capscrew	1	1	1		*q 2307119W	Gear	--	--	1
5	39371W	O-Ring	1	1	1	30	2300645W	Retainer, Bearing	1	1	1
6	2305628W	Keeper	1	1	1	31	2302963W	Pump (3-66)	1	1	1
7	*a, *f, *i 220098W	Capscrew	1	1	1	32	2300798W	Shaft, Input	1	1	1
8	165035W	Seal	1	1	1	33	*c 222648W	Setscrew	4	4	4
9	*f, *g 2306201W	Spacer	1	1	1	34	*d 16829W	Capscrew	1	1	1
	*h 2306423W	Spacer	1	1	1	35	2301627W	Washer	1	1	1
10	*g 2305629W	Carrier, Input	1	1	1	36	122400W	Ring, Snap	1	1	1
	*j 2306561W	Carrier, Input	1	1	1	37	2301533W	Flange, Winch End	1	1	1
11	*g 2300624W	Gear, Bevel	1	1	1	42	222734W	Pin	2	2	2
	*h, *i 2306564W	Gear, Bevel	1	1	1	43	2304942W	Spacer	1	1	1
	*j 2307599W	Gear, Bevel	1	1	1						
12	*c 221355W	Nut	1	1	1		*a	Use 318702W Thread Lock			
13	15134W	Washer	2	2	2		*b	Use 1324880W Adhesive/Sealant			
14	*b 16805W	Capscrew	4	4	4		*c	Use 383789W Adhesive/Sealant			
15	15156W	Washer, Lock	4	4	4		*d	Use 264134W Adhesive/Sealant			
16	*f 2306202W	O-Ring	1	1	1		*e	Last Used on S/N AW6G-1111			
17	*f 2306203W	Ring, Snap	1	1	1		*f	First Used on S/N AW6G-1112			
18	*f, *i 2306204W	Plate	1	1	1		*g	Last Used on S/N AW6G-1149			
19	*f 2306350W	Setscrew	1	1	1		*h	First Used on S/N AW6G-1150			
20	*f 18515W	Washer	1	1	1		*i	Last Used on S/N AW6G-1420			
21	2300647W	Gear	1	--	--		*j	First Used on S/N AW6G-1421			
	2300749W	Gear	--	1	--		*k	Last Used on S/N AW6G-1220			
	2300625W	Gear	--	--	1		*l	First Used on S/N AW6G-1221			
22	2300625W	Gear	1	--	--		*m	Last Used on S/N AW6G-1197			
	2300749W	Gear	--	1	--		*n	First Used on S/N AW6G-1198			
	2300647W	Gear	--	--	1		*p	Last Used on S/N AW6G-1214			
							*q	First Used on S/N AW6G-1215			



**Clutch Group**

Last Used on S/N AW6G-1204

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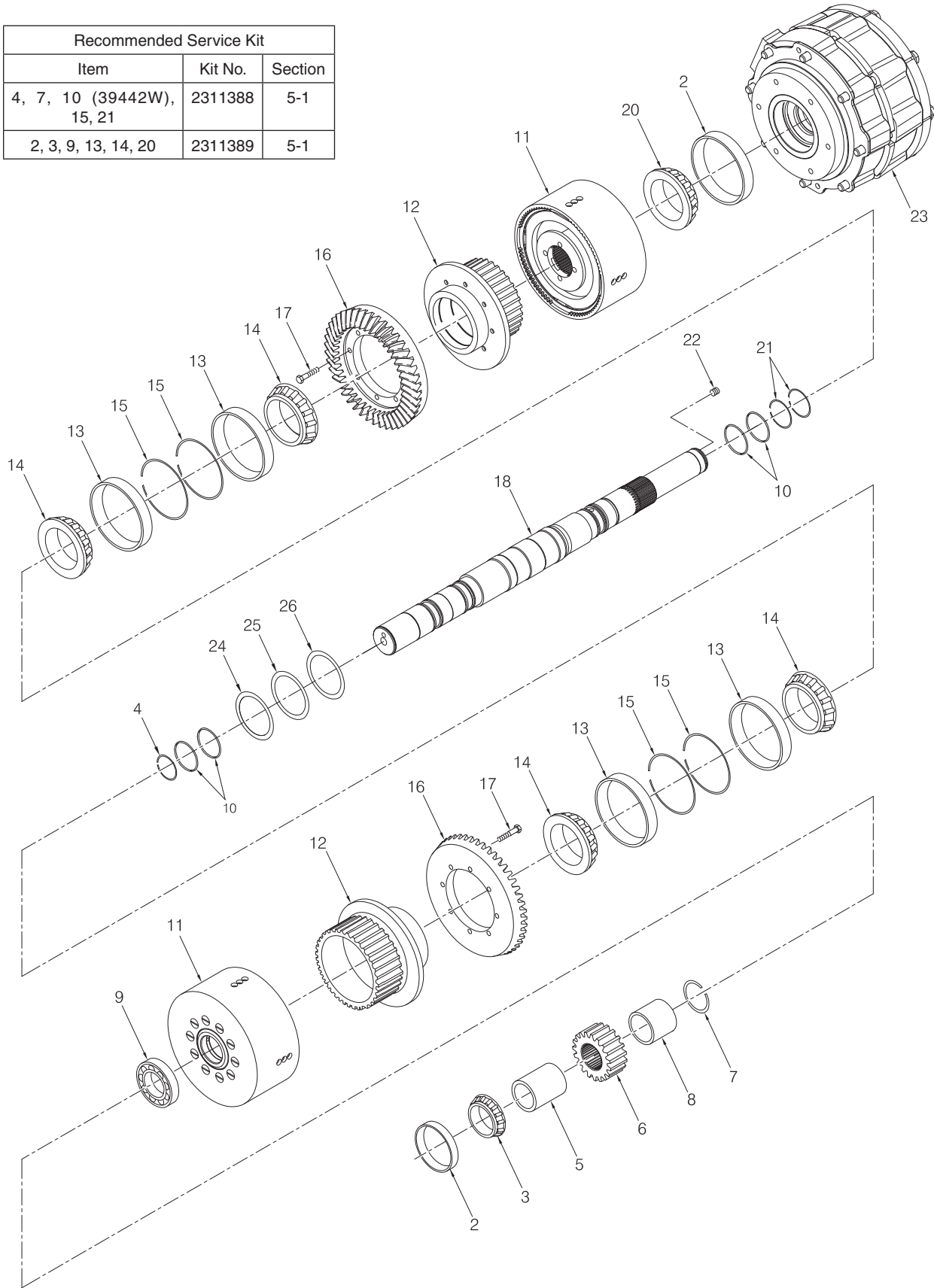
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
2	2300668W	Cup, Bearing	2	16	2300610W	Gear, Bevel	2
3	2300669W	Cone, Bearing	1	17	246769W	Capscrew	16
4	219070W	Ring, Seal	1	18	2300609W	Shaft	1
5	2300612W	Spacer	1	20	2300673W	Cone, Bearing	1
6	2300613W	Gear, Clutch Shaft	1	21	2300643W	Ring, Seal	2
7	58924W	Snap	1	22	15483W	Fitting, Pipe	1
8	2300634W	Spacer	1	23	2300708W	Brake Arrangement	1
9	43211W	Bearing	1	24	2306398W	Shim .005	AR
10	141913W	O-Ring	4	25	2306399W	Shim .007	AR
	*a 59229W	O-Ring	4	26	2306400W	Shim .020	AR
11	2300707W	Assembly, Clutch (2-26)	2				
12	2300606W	Hub, Clutch	2				
13	2300671W	Cup, Bearing	4				
14	2300672W	Cone, Bearing	4				
15	184818W	Ring, Snap	4				
					*a	Included in Cold-Weather Seal Package P/N 2305406W	

# Clutch Group

First Used on S/N AW6G-1205

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Recommended Service Kit		
Item	Kit No.	Section
4, 7, 10 (39442W), 15, 21	2311388	5-1
2, 3, 9, 13, 14, 20	2311389	5-1



**Clutch Group**

First Used on S/N AW6G-1205

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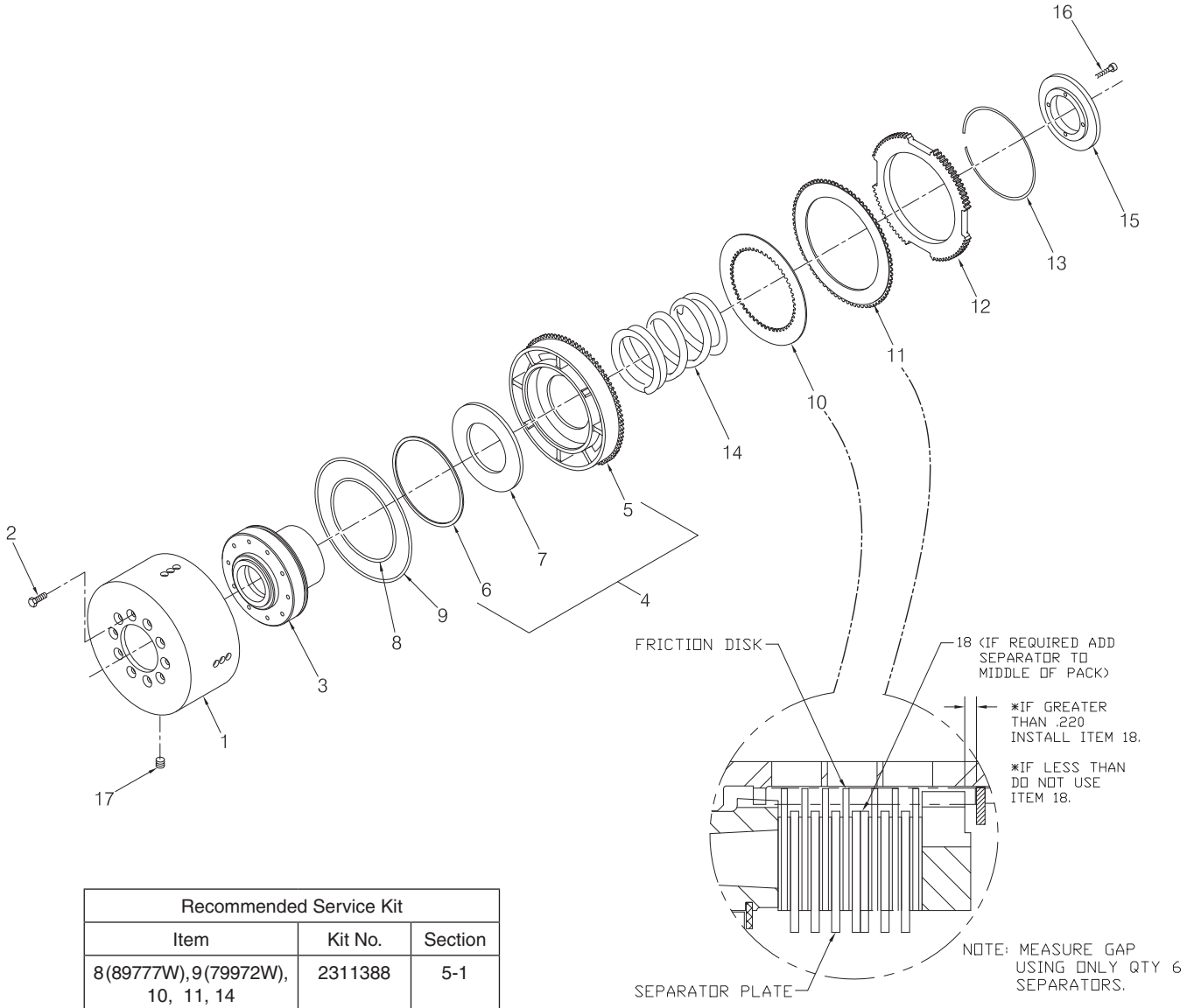
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
2	2300668W	Cup, Bearing	2	16	2300610W	Gear, Bevel	2
3	2300669W	Cone, Bearing	1	17	246769W	Capscrew	16
4	219070W	Ring, Seal	1	18	2307029W	Shaft	1
5	2300612W	Spacer	1	20	2300673W	Cone, Bearing	1
6	2300613W	Gear, Clutch Shaft	1	21	2300643W	Ring, Seal	2
7	58924W	Snap	1	22	15483W	Fitting, Pipe	1
8	2300634W	Spacer	1	23	2300708W	Brake Arrangement	1
9	43211W	Bearing	1	24	*a 2306398W	Shim .005	AR
10	39442W	O-Ring	4	25	*a 2306399W	Shim .007	AR
11	2300707W	Assembly, Clutch (2-27)	2	26	*a 2306400W	Shim .020	AR
12	2300606W	Hub, Clutch	2				
13	2300671W	Cup, Bearing	4				
14	2300672W	Cone, Bearing	4				
15	184818W	Ring, Snap	4				

\*a Use Combination of Shims to Set Ring Gear Mounting Distance to +/-0.001".

# Clutch Assembly

Last Used on S/N AW6G-1204

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Recommended Service Kit		
Item	Kit No.	Section
8(89777W),9(79972W), 10, 11, 14	2311388	5-1



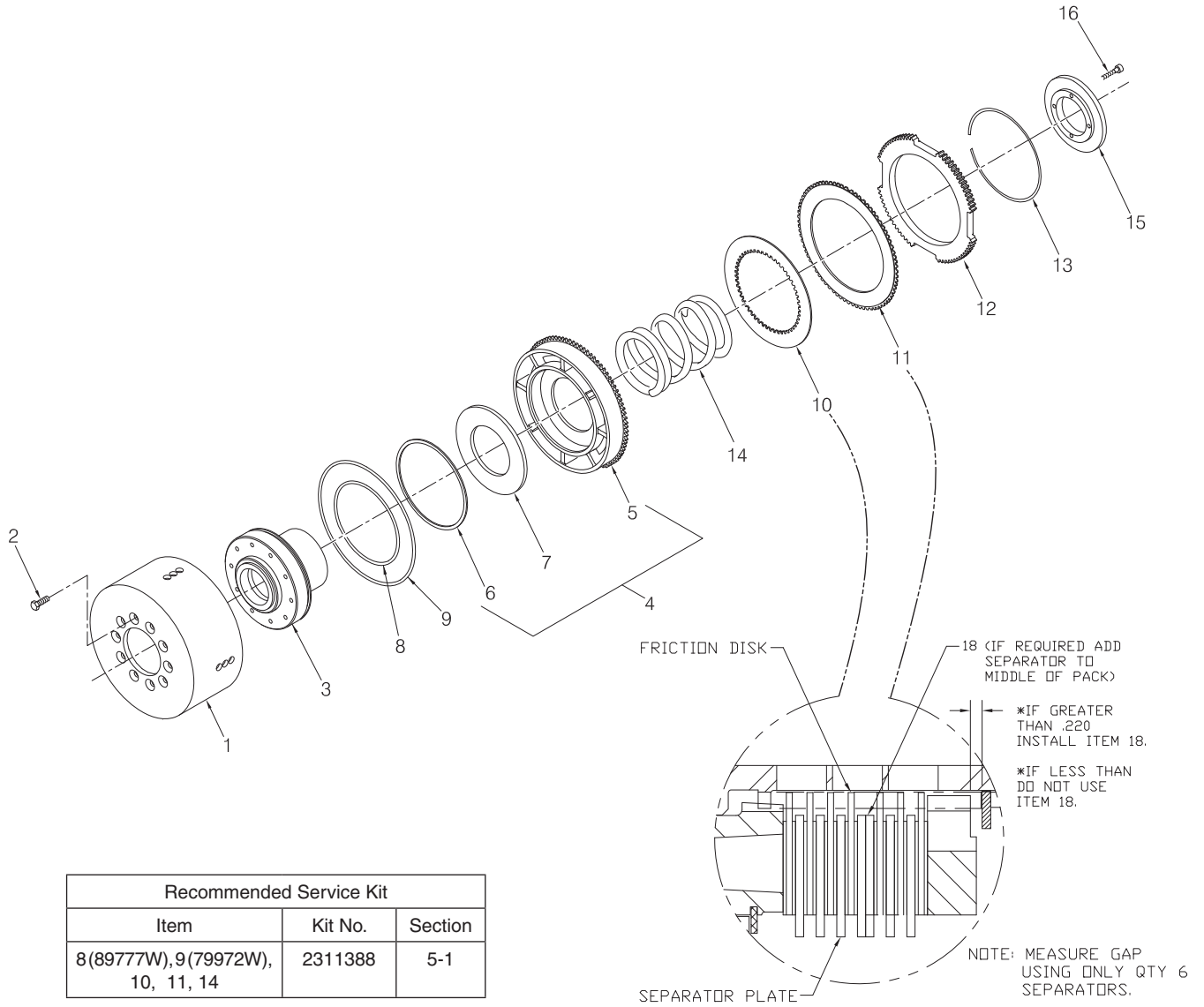
**Clutch Assembly**

Last Used on S/N AW6G-1204

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2300707W</b>	<b>Assembly, Clutch</b>	<b>1</b>				
1	*b 2300602W	. Assembly, Clutch Spider	1	12	2300618W	. Plate, Clutch	1
	*c 2305072W	. Assembly, Clutch Spider	1	13	2300670W	. Ring, Snap	1
2	*c 295752W	. . Capscrew	10	14	*a 2300619W	. Spring	1
	*b 2300603W	. . Hub	1	15	2300608W	. Spring, Retainer	1
3	*c,*d 2304978W	. . Hub	1	16	16338W	. Capscrew	4
4	2300604W	. Assembly, Piston	1	17	*b 15483W	. Fitting, Pipe	1
5	*c 2305607W	. . Piston	1	18	261542W	. Plate, Separator (See Detail)	1
6	*c 2305609W	. . Ring, Retaining	1				
7	*c 2305608W	. . Plate, Spring Reaction	1	*a	Included in 2302774W Service Kit		
8	*a 89777W	. O-Ring	1	*b	Last Used S/N AW6G-1064		
	*e 15893W	. O-Ring	1	*c	First Used S/N AW6G-1065		
9	*a 79972W	. O-Ring	1	*d	Use 318702W Thread Lock		
	*e 113586W	. O-Ring	1	*e	Included in Cold-Weather Seal Package P/N 2305406W		
10	*a 261542W	. Plate, Separator	6				
11	*a 328715W	. Disc, Friction	7				

**Clutch Assembly**  
 First Used on S/N AW6G-1205  
 Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
8 (89777W), 9 (79972W), 10, 11, 14	2311388	5-1

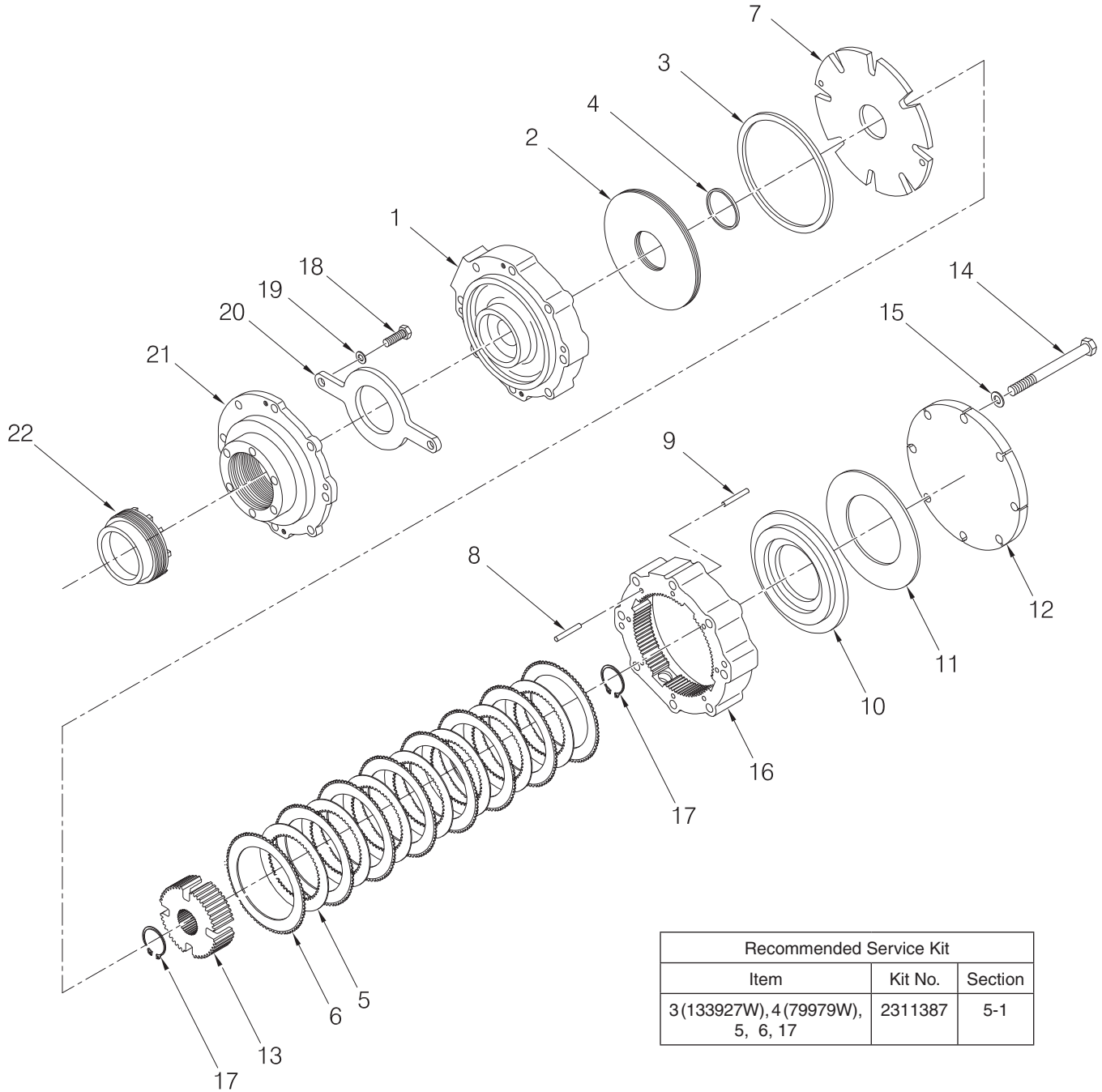
**Clutch Assembly**

First Used on S/N AW6G-1205

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2300707W</b>	<b>Assembly, Clutch</b>	<b>1</b>				
1	2305072W	. Assembly, Clutch Spider	1	11	*a 328715W	. Disc, Friction	7
2	295752W	. . Capscrew	10	12	2300618W	. Plate, Clutch	1
3	*c 2304978W	. . Hub	1	13	2300670W	. Ring, Snap	1
4	2300604W	. Assembly, Piston	1	14	*a 2300619W	. Spring	1
5	2305607W	. . Piston	1	15	2300608W	. Spring, Retainer	1
6	2305609W	. . Ring, Retaining	1	16	16338W	. Capscrew	4
7	2305608W	. . Plate, Spring Reaction	1	18	261542W	. Plate, Separator (See Detail)	1
8	*a 89777W	. O-Ring	1				
	*b 15893W	. O-Ring	1	*a	Included in 2302774W Service Kit		
9	*a 79972W	. O-Ring	1	*b	Included in Cold-Weather Seal Package P/N 2305406W		
	*b 113586W	. O-Ring	1				
10	*a 261542W	. Plate, Separator	6	*c	Use 318702W Thread Lock		

**Brake Arrangement**  
 Last Used on S/N AW6G-1204  
 Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
3 (133927W), 4 (79979W), 5, 6, 17	2311387	5-1

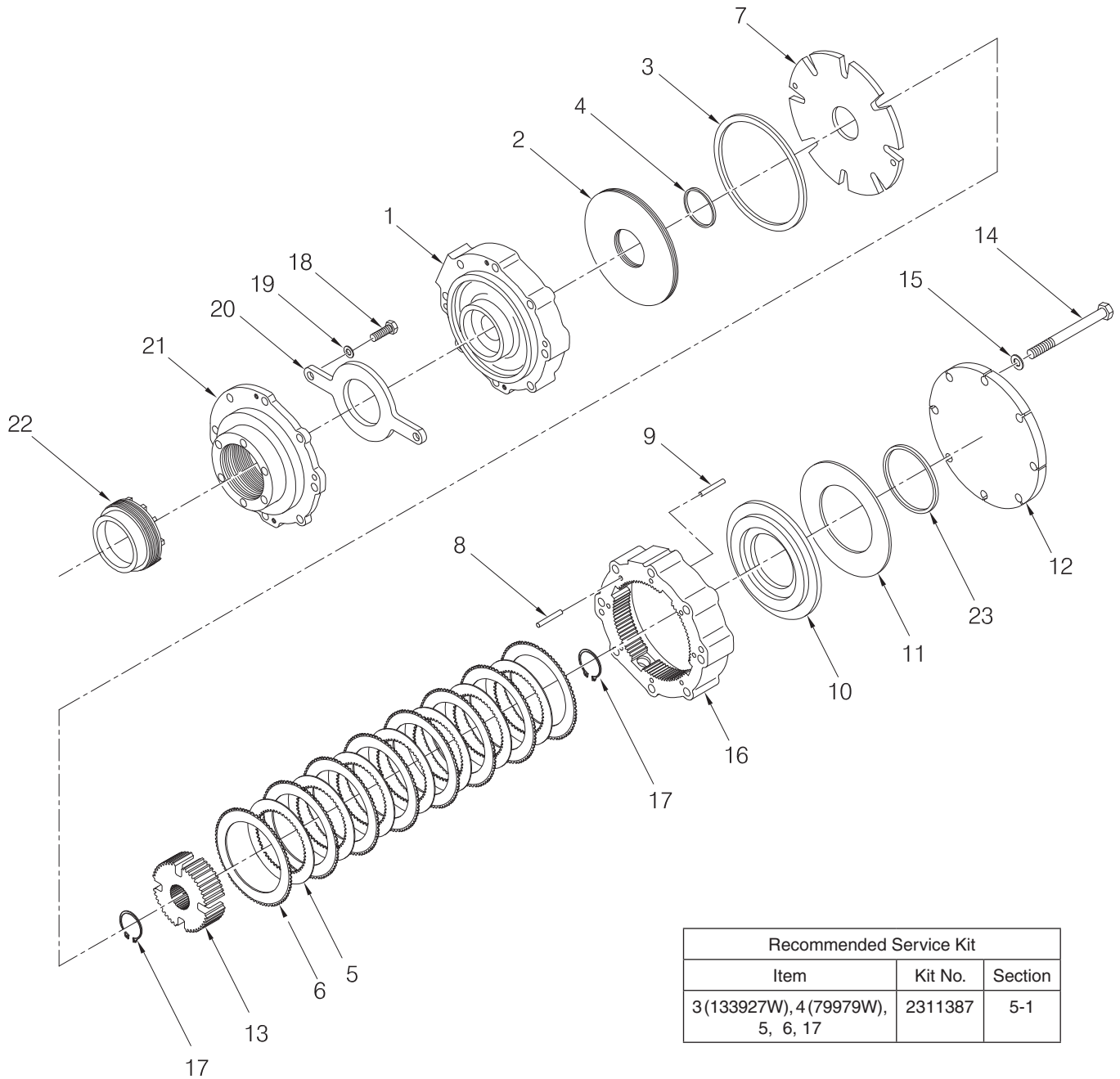
**Brake Arrangement**  
 Last Used on S/N AW6G-1204  
 Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 2302488W	Carrier, Bearing	1	15	221775W	Washer	8
	*b 2305993W	Carrier, Bearing	1	16	2300627W	Cage	1
2	133926W	Piston	1	17	12963W	Ring, Snap	2
3	133927W	Ring, Seal	1	18	221563W	Capscrew	2
	*e 2305405W	Ring, Seal	1	19	15135W	Washer	2
4	79979W	O-Ring	1	20	2302490W	Keeper	1
	*e 46629W	O-Ring	1	21	2302484W	Housing, Bearing Retainer	1
5	261542W	Plate, Separator	7	22	*c 2302486W	Retainer, Bearing	1
6	328715W	Disc, Friction	8	22	*d 2306983W	Retainer, Bearing	1
7	2300629W	Plate, Pressure	1				
8	92867W	Pin	2		*a	Last Used on S/N AW6G-1064	
9	2301523W	Pin, Thrust	8		*b	First Used on S/N AW6G-1065	
10	265401W	Ring	1		*c	Last Used on S/N AW6G-1151	
11	193912W	Spring	1		*d	First Used on S/N AW6G-1152	
12	2300631W	Cover, Brake	1		*e	Included in Cold-Weather Seal Package	
13	2300630W	Hub, Brake	1			P/N 2305406W	
14	2301522W	Capscrew	2				

### Brake Arrangement

First Used on S/N AW6G-1205

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
3 (133927W), 4 (79979W), 5, 6, 17	2311387	5-1

**Brake Arrangement**

First Used on S/N AW6G-1205

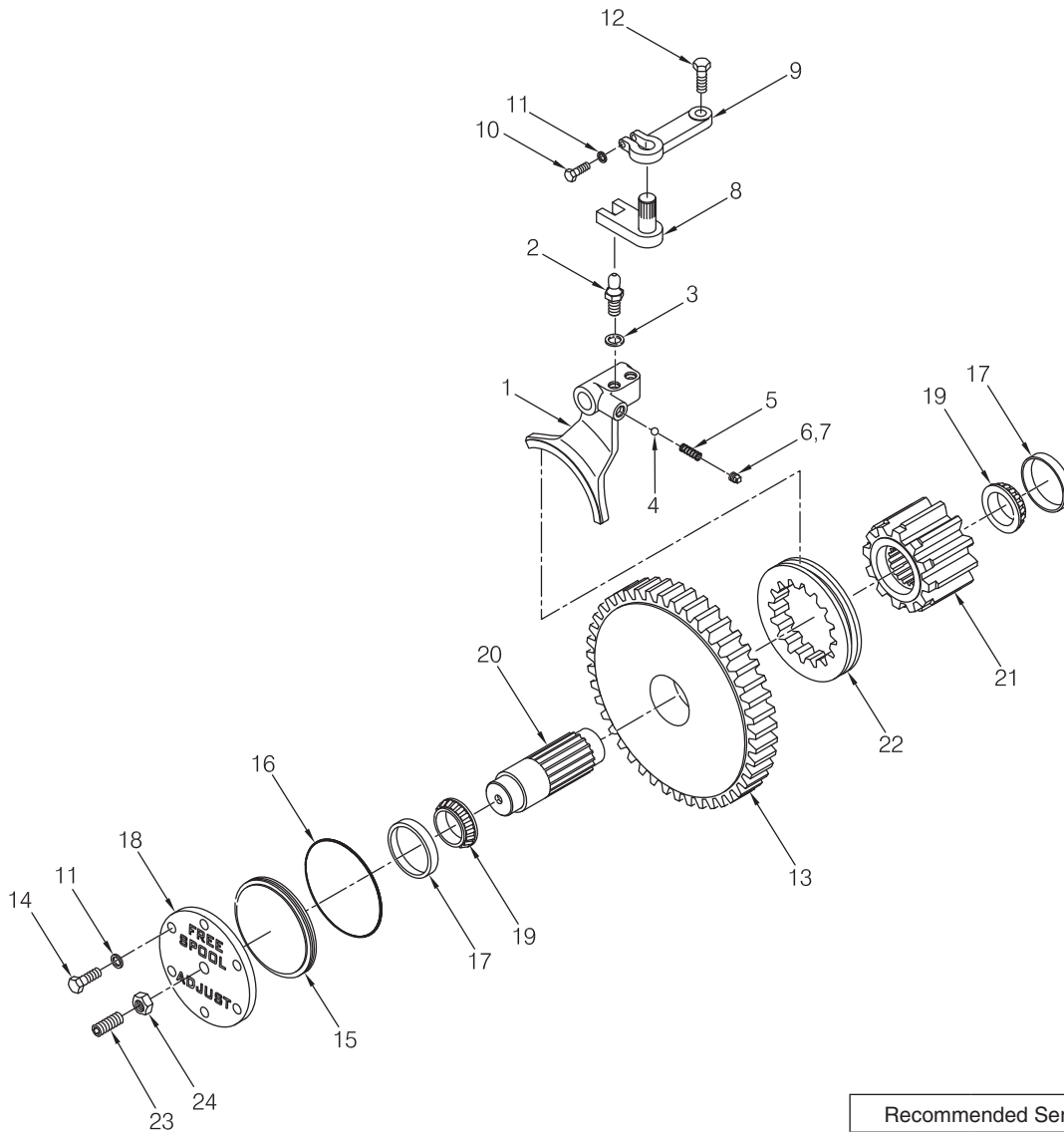
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305993W	Carrier, Bearing	1	14	2301522W	Capscrew	2
2	133926W	Piston	1	15	221775W	Washer	8
3	133927W	Ring, Seal	1	16	2300627W	Cage	1
3	*a 2305405W	Ring, Seal	1	17	12963W	Ring, Snap	2
4	79979W	O-Ring	1	18	221563W	Capscrew	2
	*a 46629W	O-Ring	1	19	15135W	Washer	2
5	261542W	Plate, Separator	7	20	2302490W	Keeper	1
6	328715W	Disc, Friction	8	21	2302484W	Housing, Bearing Retainer	1
7	2300629W	Plate, Pressure	1	22	2306983W	Retainer, Bearing	1
8	92867W	Pin	2	23	*b 2310475	Ring, Stroke Limiter	1
9	2301523W	Pin, Thrust	8				
10	265401W	Ring	1		*a	Included in Cold-Weather Seal Package	
11	193912W	Spring	1			P/N 2305406W	
12	2300631W	Cover, Brake	1		*b	First Used on S/N AW6G-1524	
13	2300630W	Hub, Brake	1				

# Intermediate Gear Shaft, Power Controls

With Freespool

Last Used on S/N AW6G-1015



A - 45:1, 83:1 & 153:1  
 B - 56:1 & 103:1

Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311391	5-1

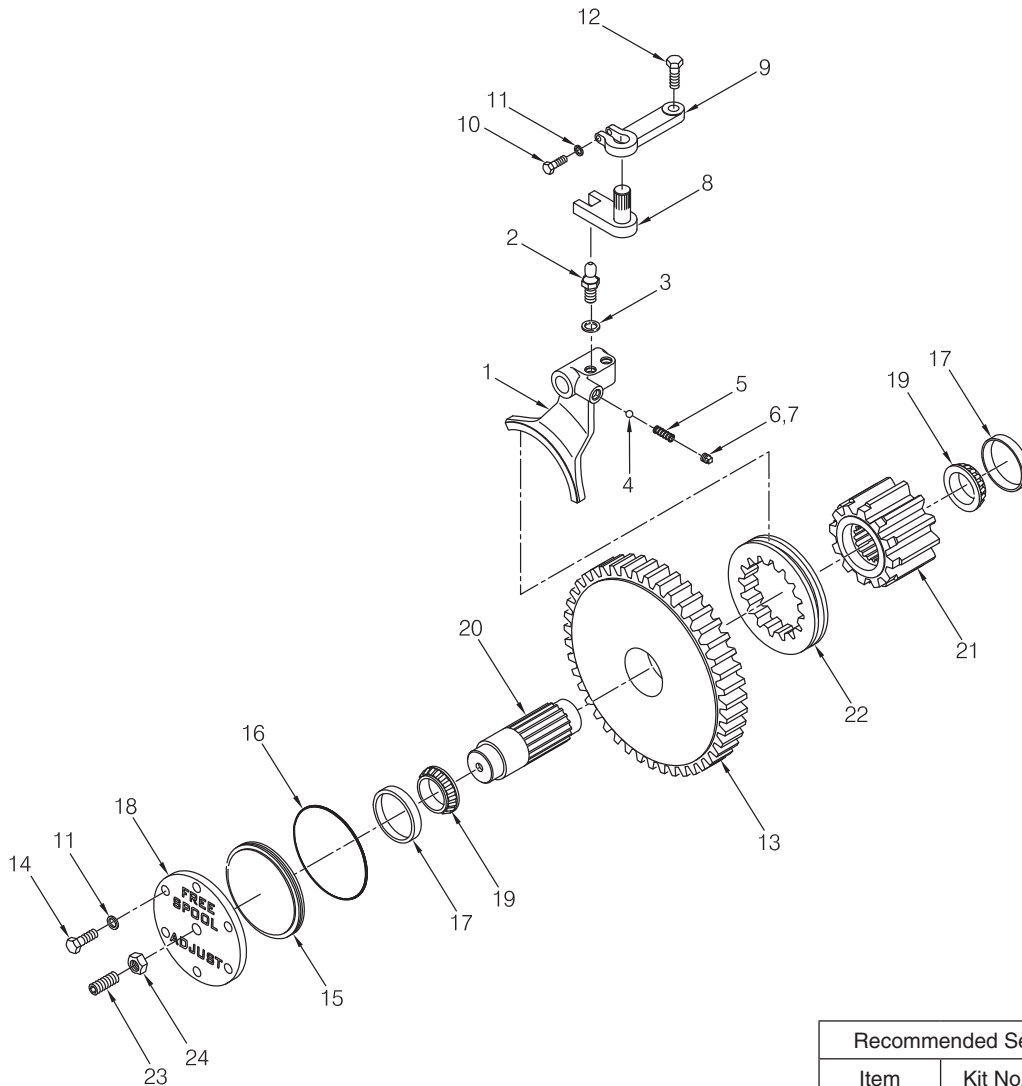
Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	151580W	Shifter	1	1	14	2302626W	Capscrew	6	6
2	151583W	Stud, Ball	1	1	15	2302624W	Piston, Adjust	1	1
3	15906W	Washer	1	1	16	159940W	O-Ring	1	1
4	6348W	Ball	1	1	17	30059W	Cup, Bearing	2	2
5	280985W	Spring	1	1	18	2302625W	Cover	1	1
6	46578W	Plug	1	1	19	30058W	Cone, Bearing	2	2
7	67355W	Lockwire	AR	AR	20	2302311W	Cone, Bearing	2	2
8	151584W	Shaft, Crank	1	1	21	283427W	Shaft, (2.75" OD)	1	1
9	203239W	Crank	1	1	22	282148W	Gear, Pinion	1	1
10	18588W	Capscrew	1	1	23	151588W	Clutch	1	1
11	15158W	Washer	7	7	24	2304803W	Setscrew	1	1
12	85749W	Bolt, Shoulder	1	1		221717W	Nut	1	1
13	283434W	Gear (2.75" ID)	1	--					



# Intermediate Gear Shaft, Power Controls

With Freespool

Used on S/N AW6G-1016 thru AW6G-1049



Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311392	5-1

A - 45:1, 83:1 & 153:1

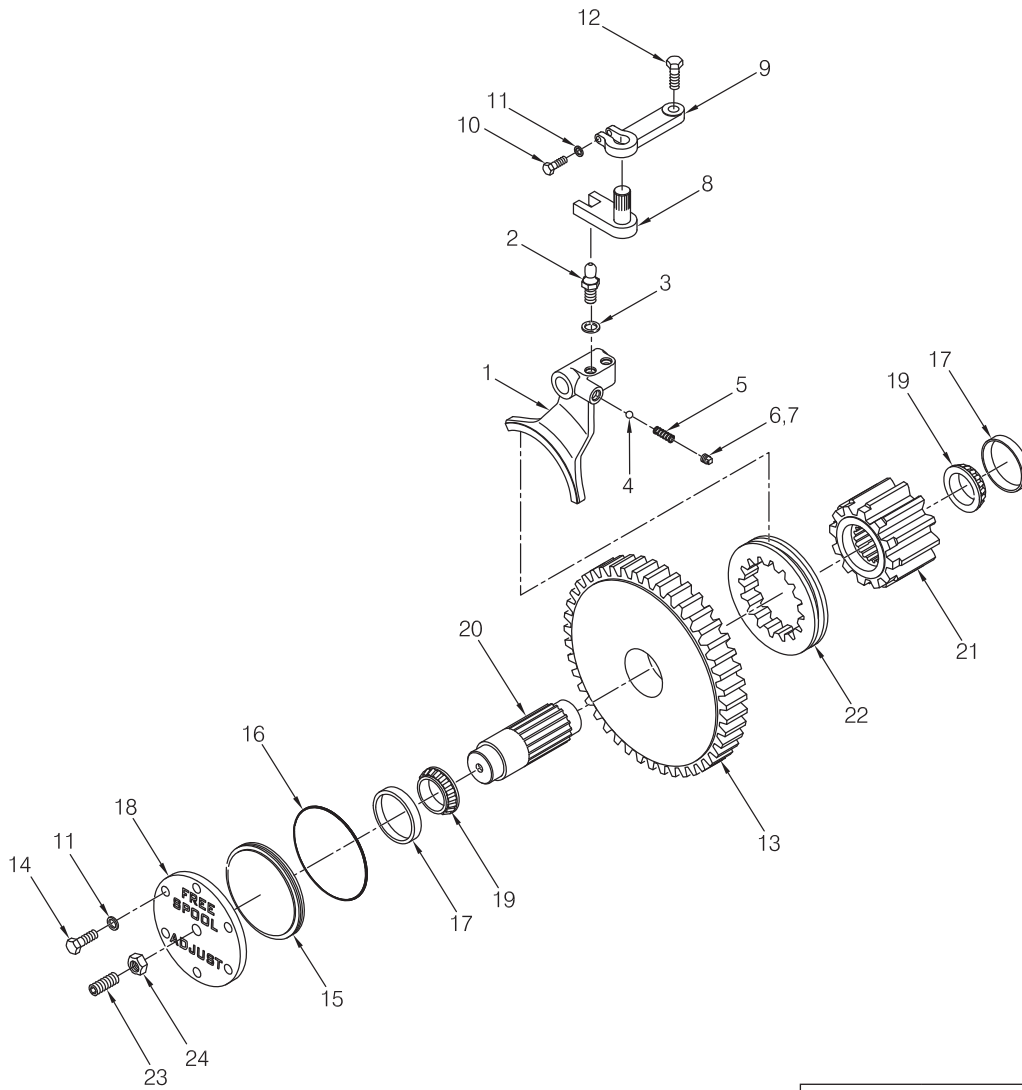
B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	151580W	Shifter	1	1	15	2302624W	Piston, Adjust	1	1
2	151583W	Stud, Ball	1	1	16	159940W	O-Ring	1	1
3	15906W	Washer	1	1	17	30059W	Cup, Bearing	2	2
4	6348W	Ball	1	1	18	2302625W	Cover	1	1
5	280985W	Spring	1	1	19	2302311W	Cone, Bearing	2	2
6	46578W	Plug	1	1	20	2302310W	Shaft, (2.94" OD)	1	1
7	67355W	Lockwire	AR	AR	21	2302309W	Gear, Pinion	1	1
8	151584W	Shaft, Crank	1	1	22	151588W	Clutch	1	1
9	203239W	Crank	1	1	23	*c 221650W	Capscrew	1	1
10	18588W	Capscrew	1	1	23	*d 2304803W	Setscrew	1	1
11	15158W	Washer	7	7	24	*d 221717W	Nut	1	1
12	85749W	Bolt, Shoulder	1	1					
13	282724W	Gear (2.94" ID)	1	--		*a	Last Used on S/N AW6G-1023		
	*a 283433W	Gear (2.75" ID)	--	1		*b	First Used on S/N AW6G-1024		
	*b 282149W	Gear (2.94" ID)	--	1		*c	Last Used on S/N AW6G-1031		
14	2302626W	Capscrew	6	6		*d	First Used on S/N AW6G-1032		

# Intermediate Gear Shaft, Power Controls

With Freespool

Used on S/N AW6G-1050 thru AW6G-1091



Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311393	5-1

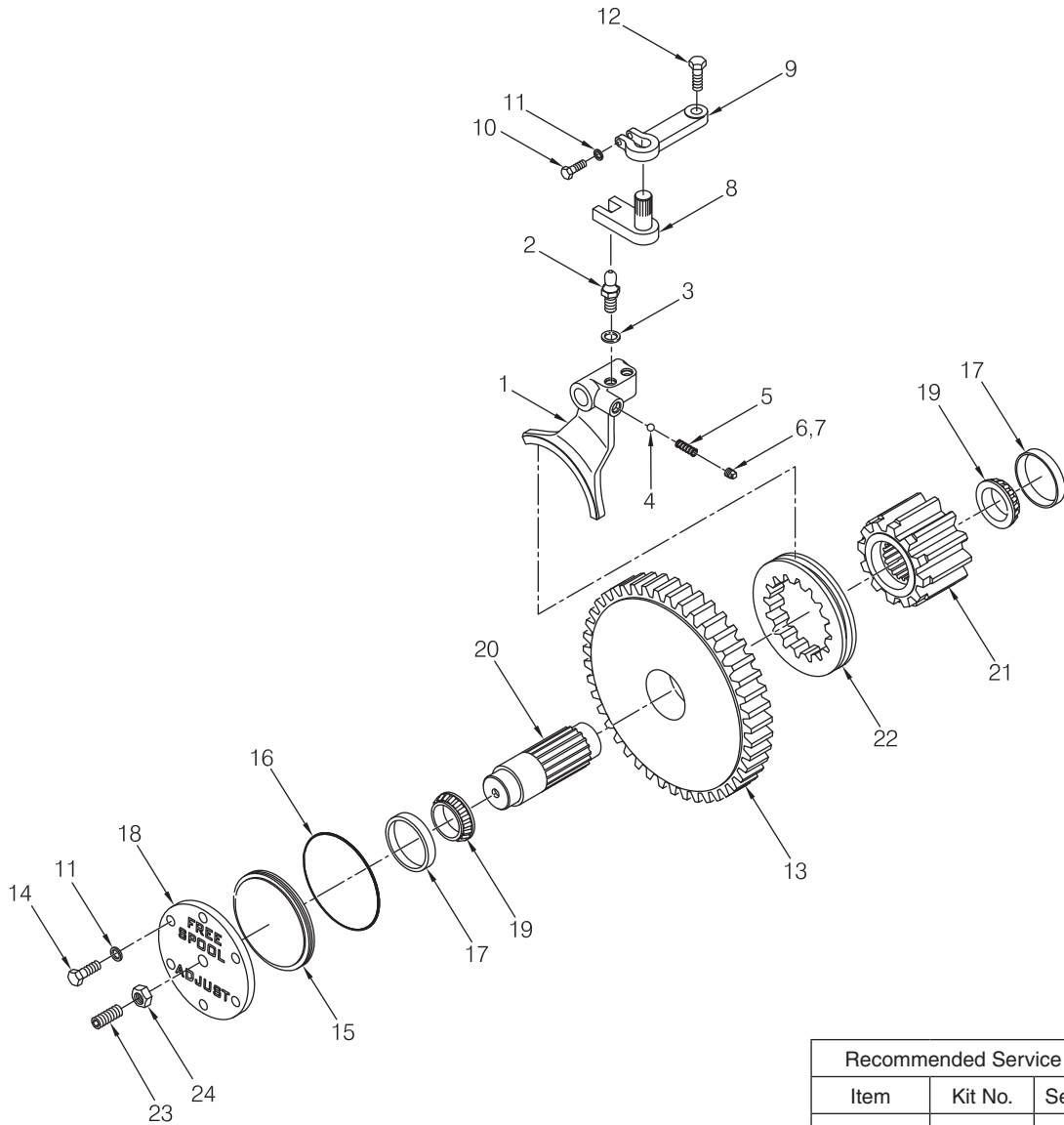
A - 45:1, 83:1 & 153:1  
 B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	151580W	Shifter	1	1	13	282149W	Gear (2.94" ID)	--	1
2	151583W	Stud, Ball	1	1	14	2302626W	Capscrew	6	6
3	15906W	Washer	1	1	15	2302624W	Piston, Adjust	1	1
4	6348W	Ball	1	1	16	159940W	O-Ring	1	1
5	280985W	Spring	1	1	17	30059W	Cup, Bearing	2	2
6	46578W	Plug	1	1	18	2302625W	Cover	1	1
7	67355W	Lockwire	AR	AR	19	30080W	Cone, Bearing	2	2
8	151584W	Shaft, Crank	1	1	20	2305556W	Shaft, (2.94" OD)	1	1
9	203239W	Crank	1	1	21	2302309W	Gear, Pinion	1	1
10	18588W	Capscrew	1	1	22	151588W	Clutch	1	1
11	15158W	Washer	7	7	23	2304803W	Setscrew	1	1
12	85749W	Bolt, Shoulder	1	1	24	221717W	Nut	1	1
13	282724W	Gear (2.94" ID)	1	--					

# Intermediate Gear Shaft, Power Controls

With Freespool

First Used on S/N AW6G-1092



Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311392	5-1

A - 45:1, 83:1 & 153:1

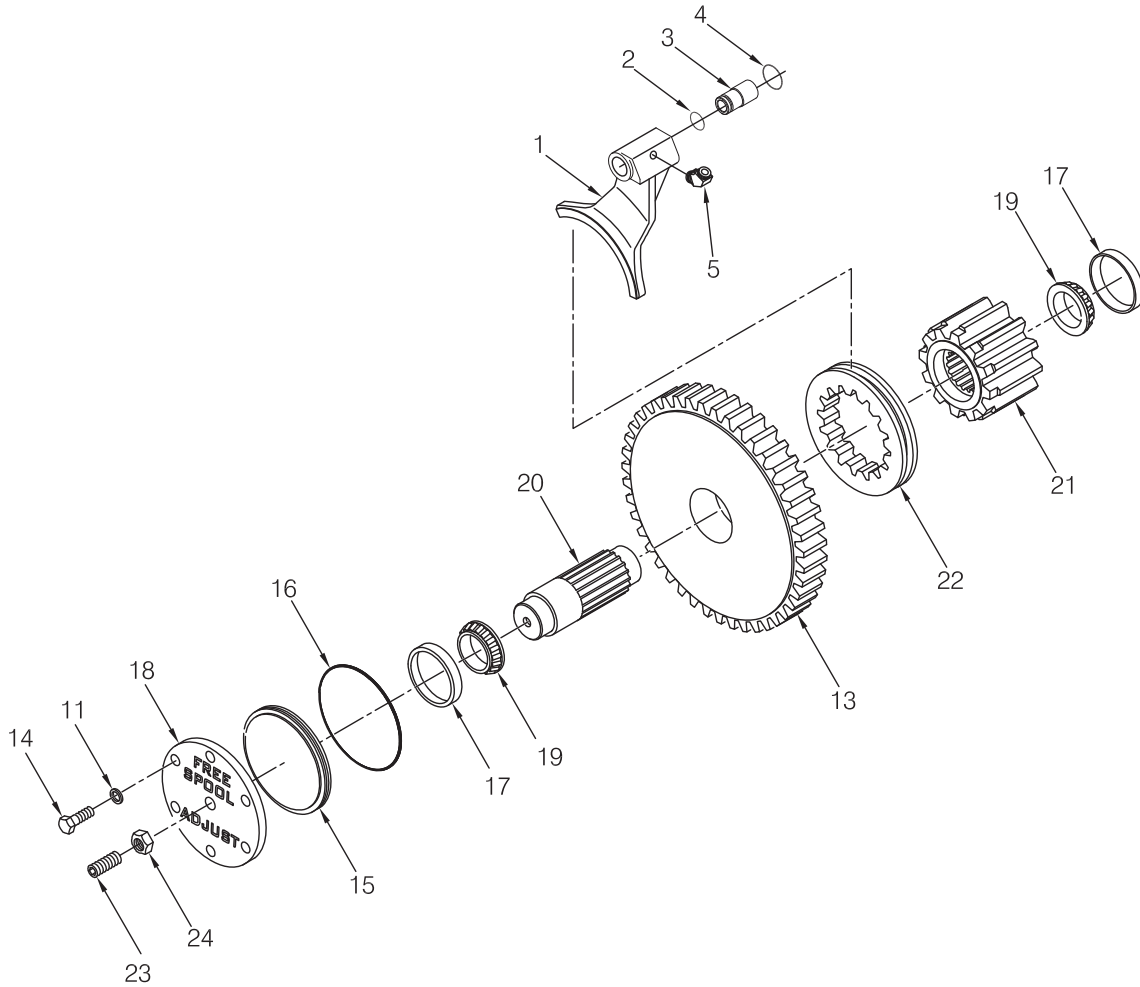
B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	151580W	Shifter	1	1	15	2302624W	Piston, Adjust	1	1
2	151583W	Stud, Ball	1	1	16	159940W	O-Ring	1	1
3	15906W	Washer	1	1	17	30059W	Cup, Bearing	2	2
4	6348W	Ball	1	1	18	2302625W	Cover	1	1
5	280985W	Spring	1	1	19	2302311W	Cone, Bearing	2	2
6	46578W	Plug	1	1	20	2305956W	Shaft, (2.75" OD)	1	1
7	67355W	Lockwire	AR	AR	21	*a 282148W	Gear, Pinion	1	1
8	151584W	Shaft, Crank	1	1		2312280	Gear, Pinion	1	1
9	203239W	Crank	1	1	22	*b 151588W	Clutch, Dental	1	1
10	18588W	Capscrew	1	1		2312269	Clutch, Dental	1	1
11	15158W	Washer	7	7	23	2304803W	Setscrew	1	1
12	85749W	Bolt, Shoulder	1	1	24	221717W	Nut	1	1
13	283434W	Gear (2.75" ID)	1	--					
13	283433W	Gear (2.75" ID)	--	1					
14	2302626W	Capscrew	6	6					
						*a	Service 282148W with 2312280		
						*b	Service 151588W with 2312269		

# Intermediate Gear Shaft, Electronic Controls

With Freespool

Used on S/N AW6G-1062 thru AW6G-1091



Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311390	5-1

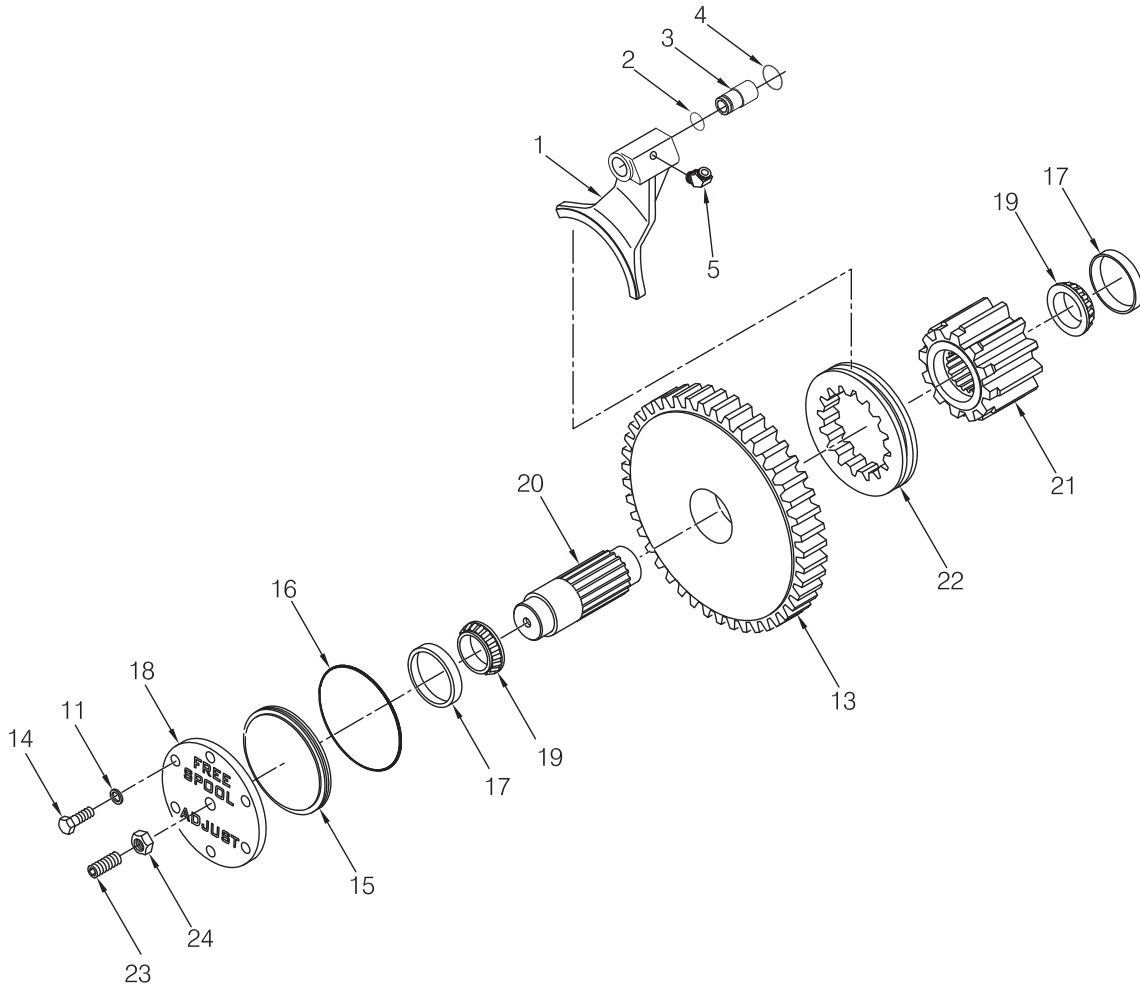
A - 45:1, 83:1 & 153:1

B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	2305099W	Shifter	1	1	17	30059W	Cup, Bearing	2	2
2	61056W	O-Ring	1	1	18	2302625W	Cover	1	1
3	2305097W	Piston, Freespool	1	1	19	30080W	Cone, Bearing	1	1
4	15862W	O-Ring	2	2	20	2305556W	Shaft, Intermediate	1	1
5	*a	Fitting	1	1	21	2302309W	Gear, Pinion	1	1
11	15158W	Washer	6	6	22	151588W	Clutch	1	1
13	283434W	Gear	1	--	23	2304803W	Setscrew	1	1
13	283433W	Gear	--	1	24	221717W	Nut	1	1
14	2302626W	Capscrew	6	6					
15	2302624W	Piston, Freespool Adjust	1	1					
16	159940W	O-Ring	1	1					
					*a	See Hydraulic Group, Electronic Controls			

# Intermediate Gear Shaft, Electronic Controls

With Freespool  
First Used on S/N AW6G-1092

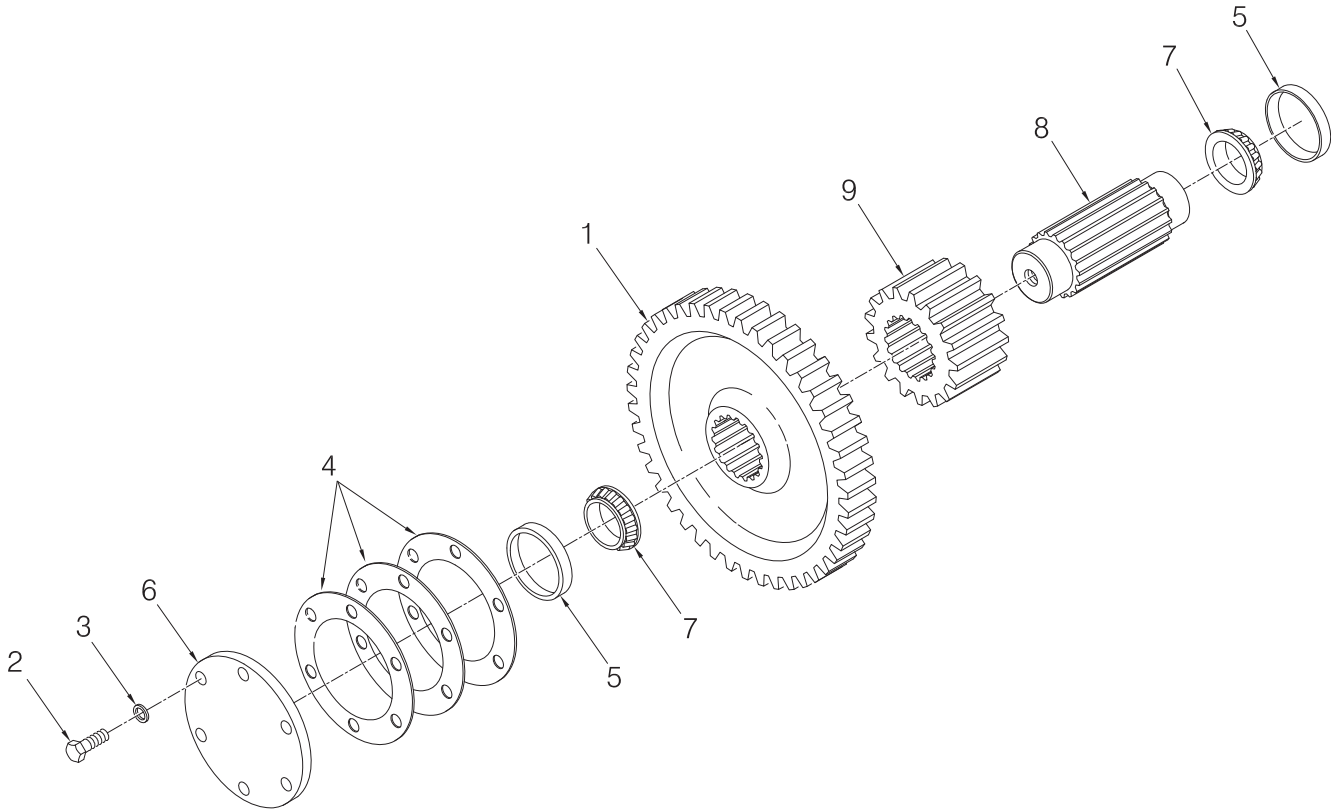


Recommended Service Kit		
Item	Kit No.	Section
16, 17, 19	2311390	5-1

A - 45:1, 83:1 & 153:1  
B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	2305099W	Shifter	1	1	19	2302311W	Cone, Bearing	1	1
2	61056W	O-Ring	1	1	20	2305956W	Shaft, Intermediate	1	1
3	2305097W	Piston, Freespool	1	1	21	*b 282148W	Gear, Pinion	1	1
4	15862W	O-Ring	2	2		2312280	Gear, Pinion	1	1
5	*a 16565W	Fitting	1	1	22	*c 151588W	Clutch, Dental	1	1
11	15158W	Washer	6	6		2312269	Clutch, Dental	1	1
13	283434W	Gear	1	--	23	2304803W	Setscrew	1	1
	283433W	Gear	--	1	24	221717W	Nut	1	1
14	2302626W	Capscrew	6	6					
15	2302624W	Piston, Freespool Adjust	1	1					
16	159940W	O-Ring	1	1					
17	30059W	Cup, Bearing	2	2					
18	2302625W	Cover	1	1					
						*a	See Hydraulic Group, Electronic Controls		
						*b	Service 282148W with 2312280		
						*c	Service 151588W with 2312269		

## Intermediate Gear Shaft Without Freespool

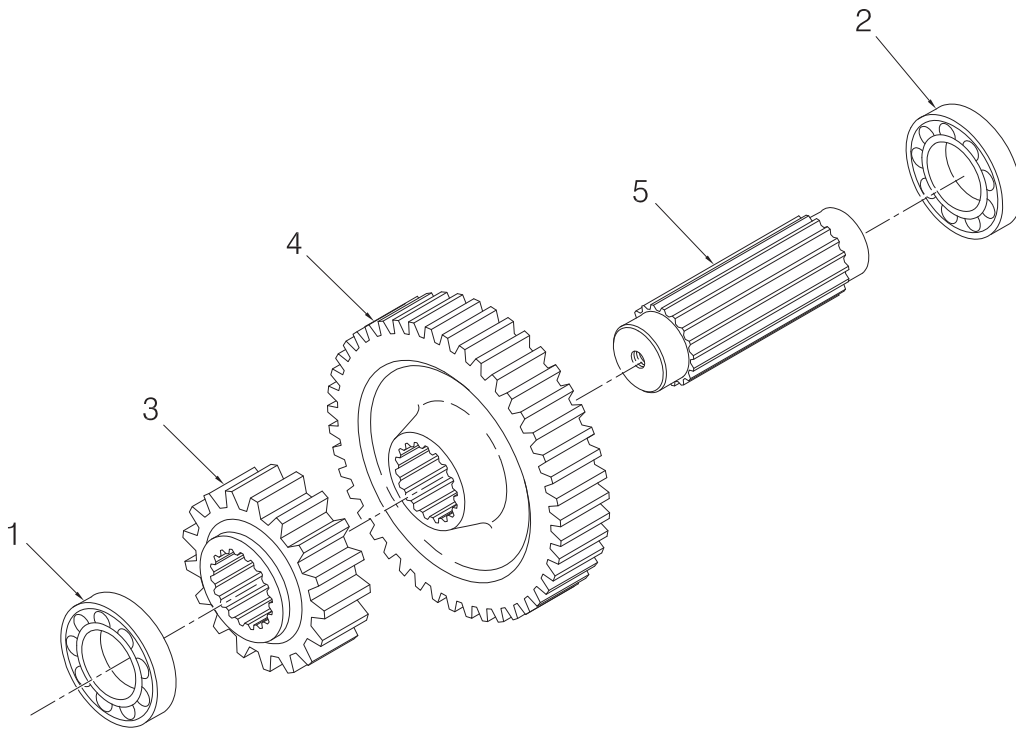


A - 45:1, 83:1 & 153:1  
B - 56:1 & 103:1

Recommended Service Kit		
Item	Kit No.	Section
5, 7	2311390	5-1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	96024W	Gear	1	--	5	149543W	Shim .020	AR	AR
	96031W	Gear	--	1		30059W	Cup, Roller Bearing	2	2
2	178402W	Capscrew	6	6	6	280262W	Cover	1	1
3	15158W	Washer	6	6	7	30080W	Cone, Roller Bearing	2	2
4	149541W	Shim .005	AR	AR	8	95972W	Shaft, Intermediate	1	1
	149542W	Shim .007	AR	AR	9	95973W	Gear	1	1

**Idler Gear Shaft**



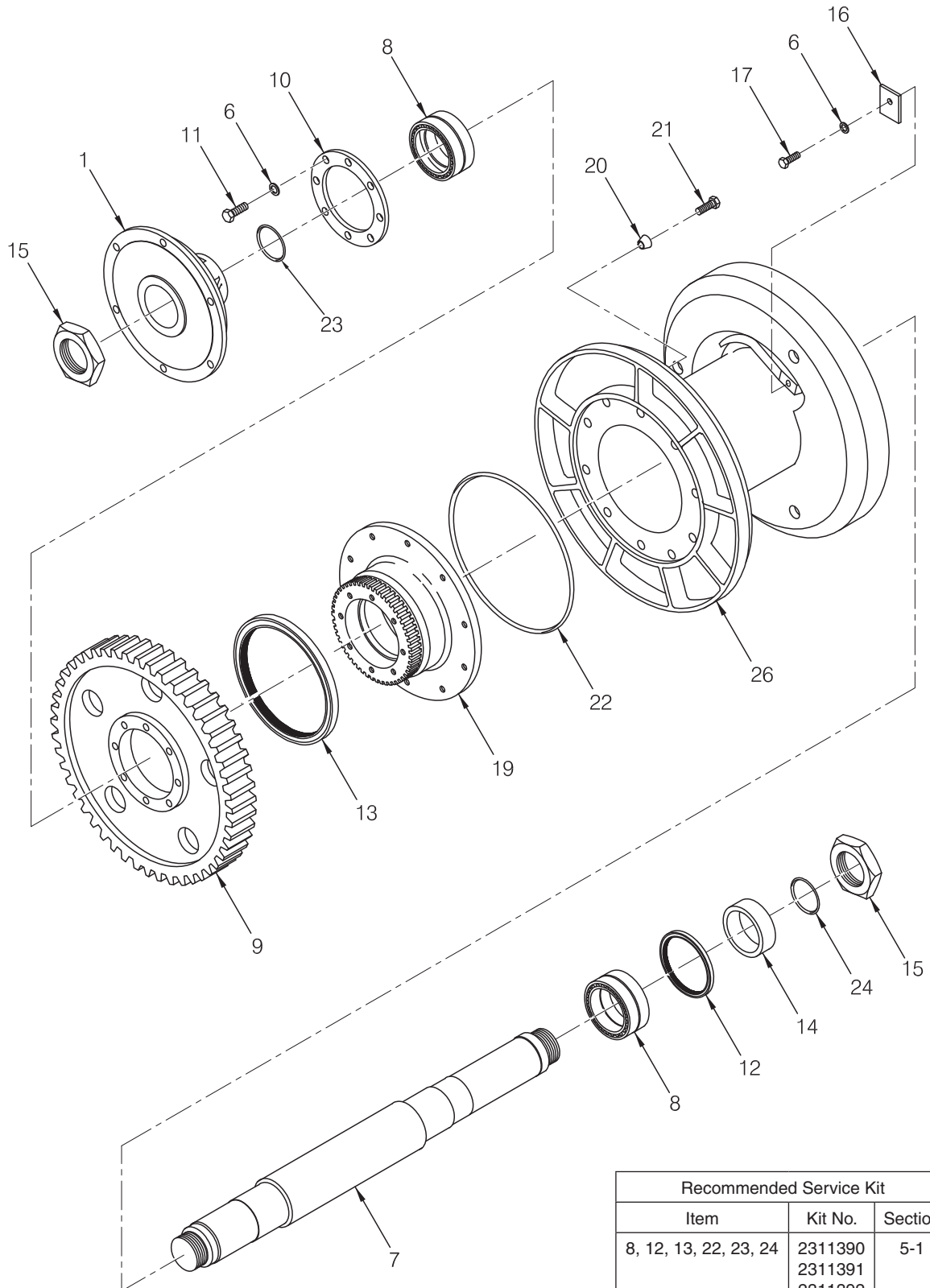
Recommended Service Kit		
Item	Kit No.	Section
1, 2	2311389	5-1

A - 45:1, 83:1 & 153:1  
 B - 56:1 & 103:1

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
1	43310W	Bearing	1	1	3	2304675W	Gear, Idler	--	1
2	43210W	Bearing	1	1	4	2300614W	Gear	1	1
3	2300617W	Gear, Idler	1	--	5	2300616W	Shaft, Idler	1	1

# Drum Shaft

Page 1 of 2



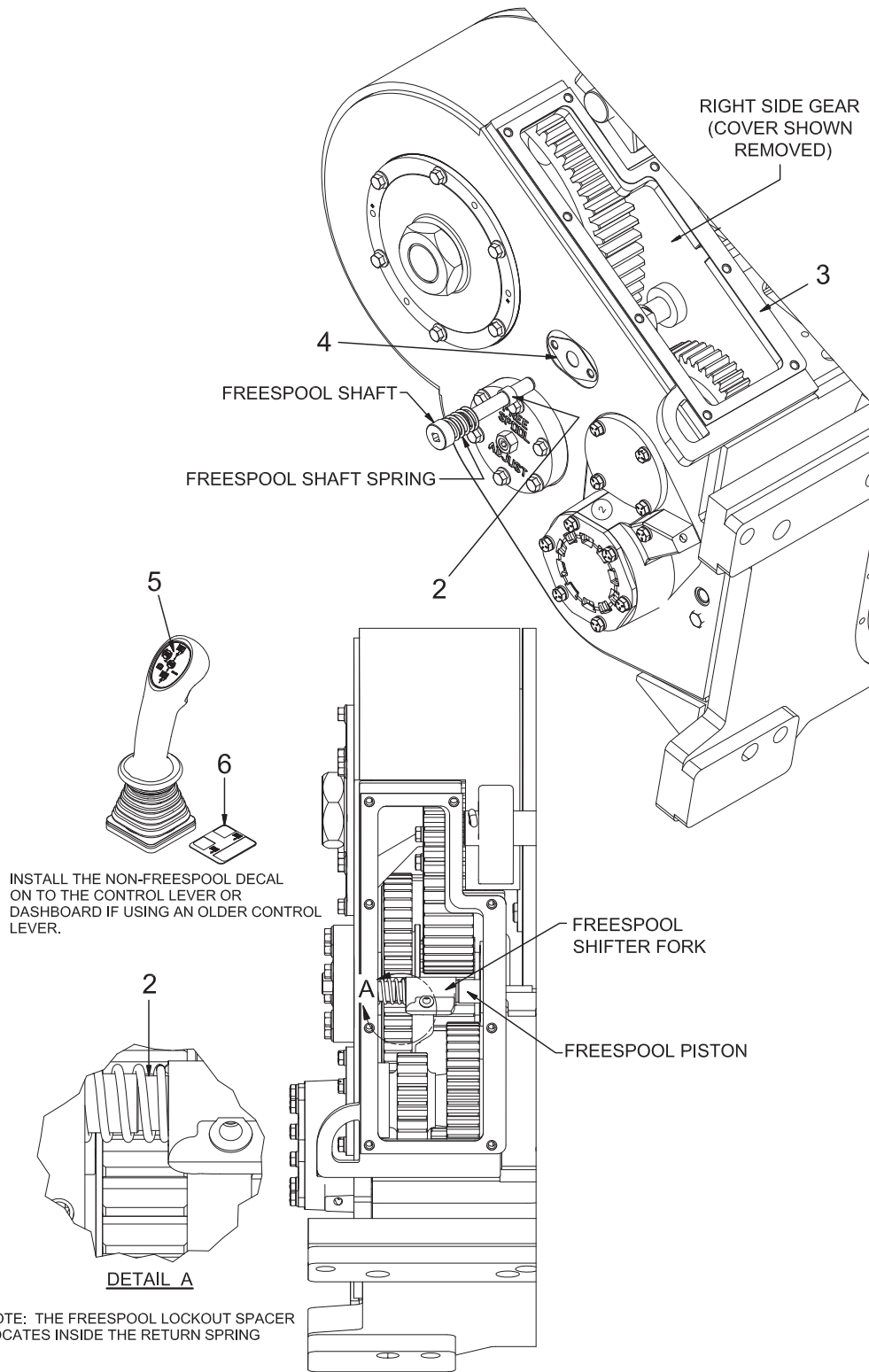
Recommended Service Kit		
Item	Kit No.	Section
8, 12, 13, 22, 23, 24	2311390	5-1
	2311391	
	2311392	
	2311393	



**Drum Shaft**

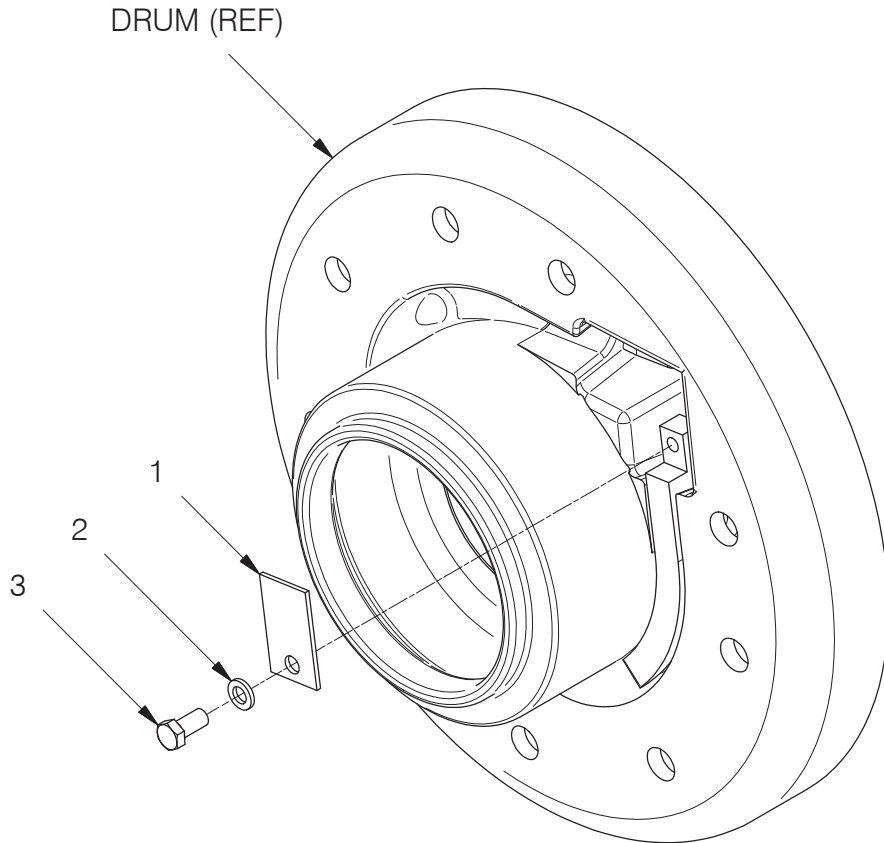
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	-----	Cover (1-2 thru 1-15)	Ref	20	53559W	Thimble	10
6	15158W	Washer	9	21	*d 141675W	Capscrew	10
7	2300632W	Shaft, Drum	1		*e 2310891	Capacrew	10
7A	*b 242838W	Shaft, Drum	1	22	133927W	Ring, Seal	1
8	230406W	Bearing, Roller	2	23	90263W	O-Ring	1
9	95977W	Gear, Drum	1	24	15881W	O-Ring	1
10	95978W	Plate, Retainer	1	26	*c 141676W	Drum, Over Wind (F) or (N)	1
11	221577W	Capscrew	8	26	*c 2312361	Drum, Under Wind (U)	1
12	44547W	Seal, Oil	1		*a	Requires 358674W Sealant	
13	141671W	Seal, Oil	1		*b	Included in 2303104W Extended Drum Shaft Kit	
14	172808W	Spacer	1		*c	(F), (N) or (U) Indicate Winch Internal Option	
15	*a 6607W	Nut	2			Codes. See Page 0-6 for Details.	
15A	*a,*b 242831W	Nut, Round	2		*d	Last Used on S/N AW6G-1720	
16	2301783W	Keeper, Ferrule	1		*e	First Used on S/N AW6G-1721	
17	16829W	Capscrew	1				
19	141674W	Adaptor	1				

# Freespool Lockout Kit



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314936</b>	<b>Kit, Freespool Lockout</b>	<b>1</b>				
1	2315166	. Drawing, Freespool Lockout Kit	1	4	151646W	. Gasket, Freespool	1
2	2314935	. Spacer	1	5	2314863	. Decal, Control Lever - w/o FS	1
3	2300693W	. Gasket, Top Cover - RH	1	6	2305250W	. Decal, Control Lever - PFR w/o FS	1

Wire Rope Lock



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2301783W	Keeper, Ferrule	1	3	16829W	Capscrew	1
2	15158W	Washer	1				

Intentionally Blank

## Hydraulics/Controls

### Power Controls

Control Lever . . . . .	3-92 thru 3-97
Control Lever Conversion Kit . . . . .	3-90 & 3-91
Control Valve . . . . .	3-52
Handling Gear . . . . .	3-53 thru 3-89
• Non-Freespool . . . . .	3-53 thru 3-61
• Case . . . . .	3-53
• Caterpillar . . . . .	3-54 thru 3-57
• Fiat-Hitachi . . . . .	3-58 & 3-59
• Komatsu . . . . .	3-60 & 3-61
• Freespool . . . . .	3-62 thru 3-89
• Case . . . . .	3-62
• Caterpillar . . . . .	3-63 thru 3-77
• Dresser/Dressta . . . . .	3-78 & 3-79
• Fiat-Hitachi . . . . .	3-80 thru 3-82
• John Deere . . . . .	3-83 thru 3-87
• Komatsu . . . . .	3-88 & 3-89
Hydraulic Group . . . . .	3-2 thru 3-51

### Electronic Controls

Common Parts . . . . .	3-176 & 3-177
Console Assembly . . . . .	3-146 & 3-147
Control Lever Replacement Kit . . . . .	3-178 & 3-179
Control Lever Conversion Kit . . . . .	3-174 & 3-175
E-Controls Conversion Kit . . . . .	3-170 thru 3-173
External Adaptor Cable Kit . . . . .	3-135
External Wiring Harness Repair Kit . . . . .	3-136
Handling Gear . . . . .	3-142 thru 3-169
• Case . . . . .	3-142 thru 3-149
• Caterpillar . . . . .	3-150 thru 3-159
• Dressa/Dressta . . . . .	3-160 & 3-161
• John Deere . . . . .	3-162 thru 3-165
• Komatsu . . . . .	3-166 thru 3-169
Hydraulic Group . . . . .	3-98 thru 3-129
Internal Wiring . . . . .	3-130 thru 3-134
Valve Manifold Assembly . . . . .	3-137 thru 3-141

### Common Parts

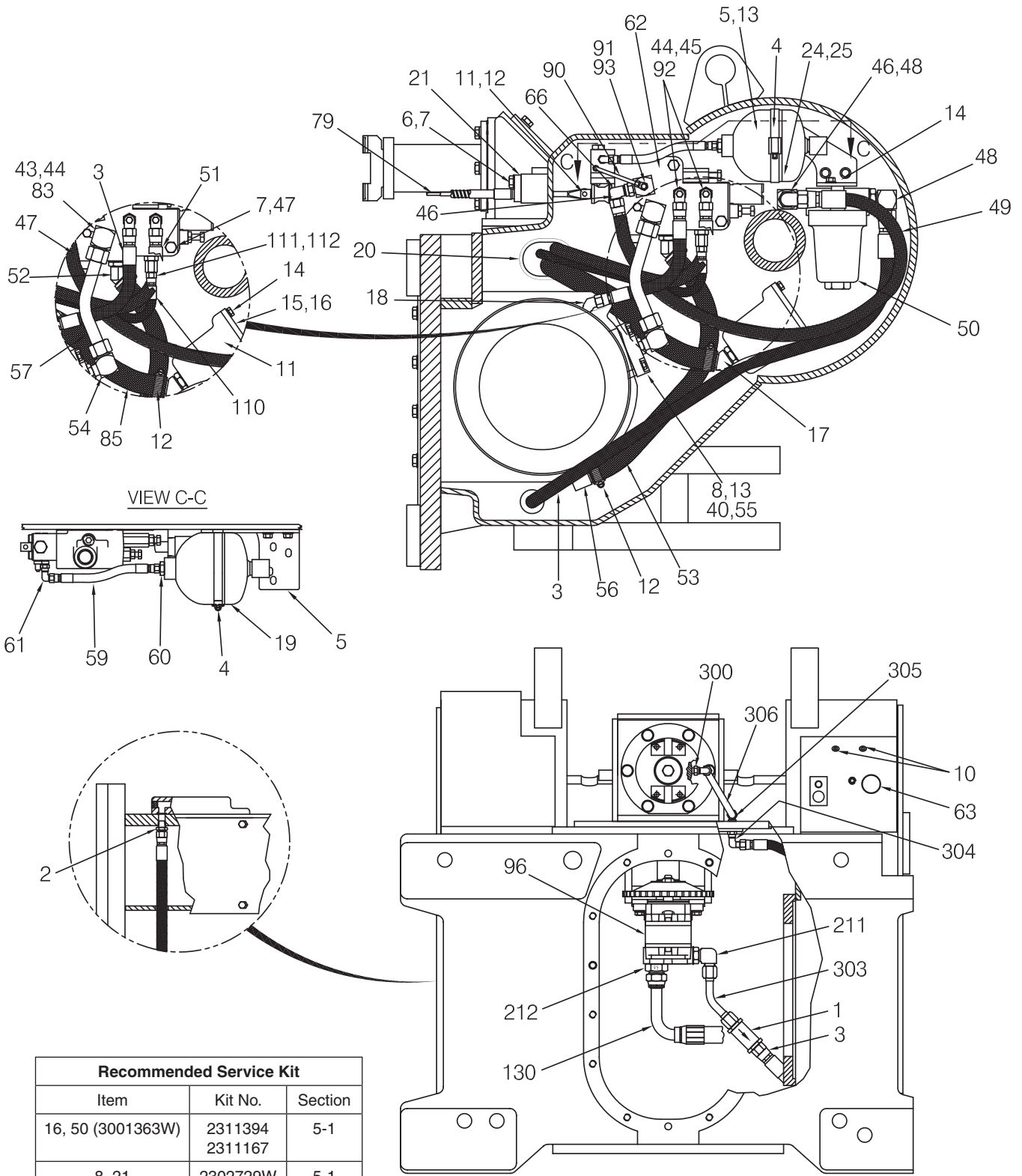
Fuel/Water Separator Relocation . . . . .	3-193 & 3-194
Hydraulic Pump . . . . .	3-180 thru 3-183
Plumbing Modifications . . . . .	3-184 thru 3-187
Tractor Filter Relocation . . . . .	3-188 thru 3-192

### Hydraulic Group, Power Controls

Case Quadtrac (R39)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311394 2311167	5-1
8, 21	2302729W	5-1

## Hydraulic Group, Power Controls

Case Quadtrac (R39)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	53	2300761W	Assembly, Hose	1
2	17315W	Fitting	1	54	16948W	Fitting	1
3	2300767W	Assembly, Hose	2	55	16828W	Capscrew	2
4	2302109W	Clamp	1	56	2300774W	Fitting	1
5	2305114W	Bracket, Mounting	1	57	2300762W	Assembly, Tube	1
6	16829W	Capscrew	1	58	226450W	Assembly, Valve	1
7	15158W	Washer	4	59	383892W	Assembly, Hose	1
8	196022W	Gasket	1	60	222381W	Fitting	1
10	2305987W	Setscrew	2	61	16987W	Fitting	1
11	219172W	Strainer	1	62	2300301W	Valve, Control (3-52)	1
12	209639W	Clamp	3	63	*b 2304823W	Plug	1
13	15156W	Washer	5	65	15158W	Washer	3
14	*a 1300780W	Screw, Flanged	8	66	2305986W	Setscrew	2
15	2300936W	Cover	1	79	-----	Cable (See Handling Gear pages) Ref	
16	2300935W	Gasket	1	83	14500W	Fitting	1
17	2302985W	Fitting	1	90	277663W	Assembly, Tube	1
18	16568W	Fitting	1	91	2301843W	Fitting	1
19	R16271	Accumulator	1	92	2300771W	Fitting	1
20	24257	Trim	AR	93	14500W	Fitting	1
21	303946W	Gasket	1	95	129563W	Clamp, Strap	1
40	279392W	Block	1	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
41	139W	Pin, Rod End	1	110	109002W	Assembly, Hose	1
42	15212W	Pin	1	111	17689W	Fitting	1
43	225712W	Fitting, Special	1	112	14713W	Fitting	1
44	16923W	Fitting	3	130	2305394W	Assembly, Hose	1
45	17777W	Fitting	2	211	17224W	Fitting	1
46	16989W	Fitting	2	212	16543W	Fitting	1
47	198385W	Capscrew	3	300	14500W	Fitting	1
48	16559W	Fitting	2	304	16987W	Fitting	1
49	2301844W	Assembly, Hose	1	305	16455W	Fitting	1
50	2301875W	Assembly, Filter	1	306	140288W	Assembly, Hose	1
	3001363W	. Element/O-Ring	1				
	55468W	. . O-Ring	1				
51	133943W	Assembly, Hose	1		*a Use 273338W Pipe Thread Sealant		
52	2300776W	Fitting	1		*b Use 318701W Adhesive		





## Hydraulic Group, Power Controls

Case Quadtrac (R39)

Used on S/N AW6G-1119 through S/N AW6G-1938

Page 2 of 2

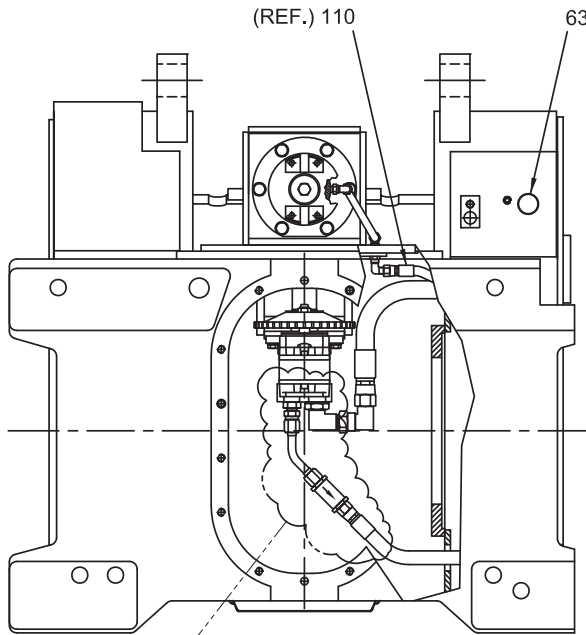
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	32	133943W	Assembly, Hose	1
2	17315W	Fitting	1	33	2300776W	Fitting	1
3	2300767W	Assembly, Hose	1	34	2300761W	Assembly, Hose	1
4	2302109W	Clamp	1	35	16948W	Fitting	1
5	2305114W	Bracket, Mounting	1	36	16828W	Capscrew	2
6	16829W	Capscrew	1	37	2300774W	Fitting	1
7	15158W	Washer	4	38	2300762W	Assembly, Tube	1
8	196022W	Gasket	1	39	226450W	Assembly, Valve	1
9	2305987W	Setscrew	2	40	383892W	Assembly, Hose	1
10	219172W	Strainer	1	41	222381W	Fitting	1
11	209639W	Clamp	3	42	16987W	Fitting	1
12	15156W	Washer	5	43	2300301W	Valve, Control (3-52)	1
13	*a 1300780W	Screw, Flanged	8	44	*b 2304823W	Plug	1
14	2300936W	Cover	1	45	15158W	Washer	3
15	2300935W	Gasket	1	46	2305986W	Setscrew	2
16	2302985W	Fitting	1	47	2300767W	Assembly, Hose	1
17	16568W	Fitting	1	48	-----	Cable (See Handling Gear pages) Ref	
18	R16271	Accumulator	1	49	277663W	Assembly, Tube	1
19	24257	Trim	AR	50	2301843W	Fitting	1
20	303946W	Gasket	1	51	2300771W	Assembly, Fitting	2
21	279392W	Block	1	52	14500W	Fitting	1
22	139W	Pin, Rod End	1	53	14668W	Fitting	1
23	15212W	Pin	1	54	*c 16445W	Fitting	1
24	225712W	Fitting	1	55	140288W	Assembly, Hose	1
25	16923W	Fitting	3	56	109002W	Assembly, Hose	1
26	17777W	Fitting	2	57	17689W	Fitting	1
27	16989W	Fitting	2	58	14713W	Fitting	1
28	198385W	Capscrew	3	60	2305394W	Assembly, Hose	1
29	16559W	Fitting	2	61	-----	Pump, Hydraulic (3-180 thru 3-183)	1
30	2301844W	Assembly, Hose	1				
31	2301875W	Assembly, Filter	1	*a	Use 273338W Pipe Thread Sealant		
	3001363W	. Element/O-Ring	1	*b	Use 318701W Adhesive		
	55468W	.. O-Ring	1	*c	Use 236308W Loctite		

# Hydraulic Group, Power Controls

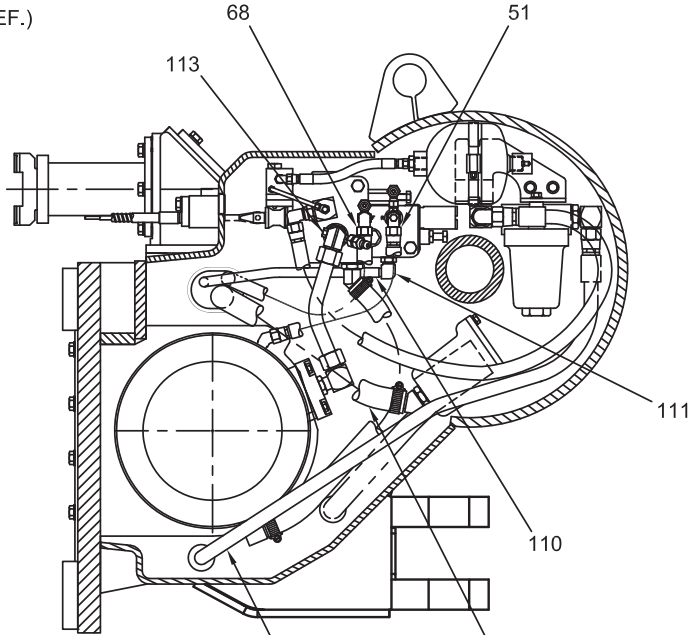
Case Quadtrac (R39), 1650L (R40)

First Used on S/N AW6G-1939

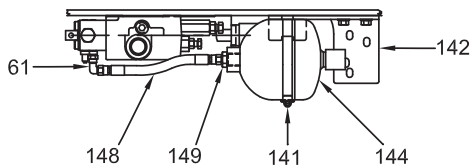
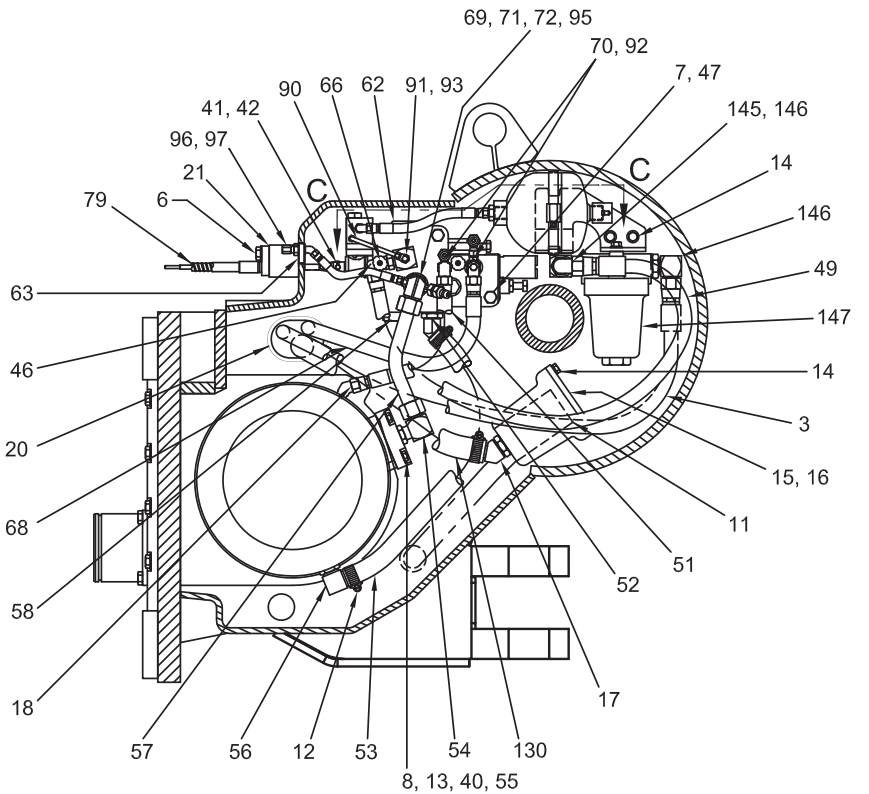
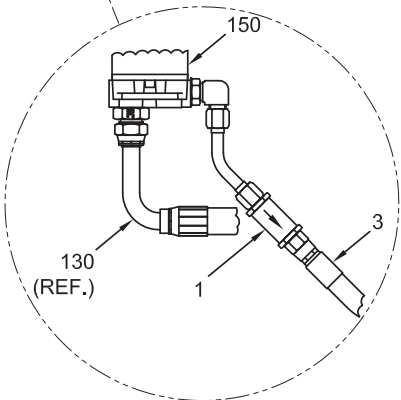
Page 1 of 2



**FRONT VIEW**  
PUMP HOSES



**LEFT SIDE VIEW**  
LUBE FOR DROP BOX



**VIEW C-C**

Recommended Service Kit		
Item	Kit No.	Section
16, 147 (3001363W)	2311167	5-1
8, 16, 21	2302729W	5-1

## Hydraulic Group, Power Controls

Case Quadtrac (R39), 1650L (R40)

First Used on S/N AW6G-1939

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	69	R330325	Coupler	1
3	2300767W	Assembly, Hose	1	70	2314853	Coupler	2
6	2303902W	Screw, Flanged	1	71	209790	Fitting	1
7	15158W	Washer	3	72	2314190	Fitting	1
8	196022W	Gasket	1	79	2305382W	Cable, Push Pull	1
11	219172W	Strainer	1	90	277663W	Assembly, Tube	1
12	2312581	Clamp	3	91	2301843W	Fitting	1
13	15156W	Washer	5	92	2300771W	Assembly, Fitting	2
14	*a 1300780W	Screw, Flanged	6	93	14500W	Fitting	1
15	2300936W	Cover	1	95	14668W	Fitting	1
16	2300935W	Gasket	1	96	*c 16463W	Fitting	1
17	2302985W	Fitting	1	97	140288W	Assembly, Hose	1
18	16568W	Fitting	1	110	109002W	Assembly, Hose	1
20	24257	Trim	AR	111	*d 17689W	Fitting	1
21	303946W	Gasket	1		*e 23396	Fitting	1
40	279392W	Block	1	113	*b 209511	Fitting	1
41	139W	Pin, Rod End	1	130	2305394W	Assembly, Hose	1
42	15212W	Pin	1	141	2302109W	Clamp	1
46	16989W	Fitting	1	142	2305144W	Bracket, Mounting	1
47	198385W	Capscrew	3	144	R16271	Accumulator	1
49	2301844W	Assembly, Hose	1	145	16989W	Fitting	1
51	133943W	Assembly, Hose	1	146	16559W	Fitting	2
52	2300776W	Fitting	1	147	2301875W	Assembly, Filter	1
53	2300761W	Assembly, Hose	1		3001363W	. Element/O-Ring	1
54	16948W	Fitting	1		55468W	. . O-Ring	1
55	16828W	Capscrew	2	148	383892W	Assembly, Hose	1
56	2300774W	Fitting	1	149	222381W	Fitting	1
57	2300762W	Assembly, Tube	1	150	2302963W	Assembly, Gear Pump (3-182)	1
58	226450W	Assembly, Valve	1		*a	Use 246108W Pipe Thread Sealant	
61	16987W	Fitting	1		*b	Use 257291W Adhesive	
62	2300301W	Valve, Control (3-52)	1		*c	Use 236308W Loctite	
63	*b 2304823W	Plug	1		*d	Last Used on S/N AW6G-1867	
66	2305986W	Setscrew	2		*e	First Used on S/N AW6G-1868	
68	2300767W	Assembly, Hose	1				

# Hydraulic Group, Power Controls

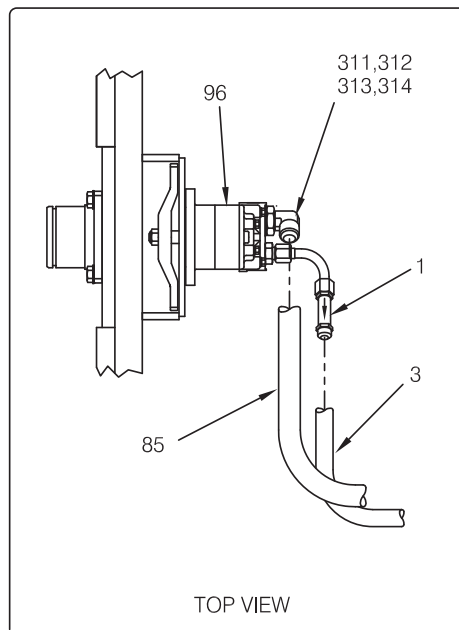
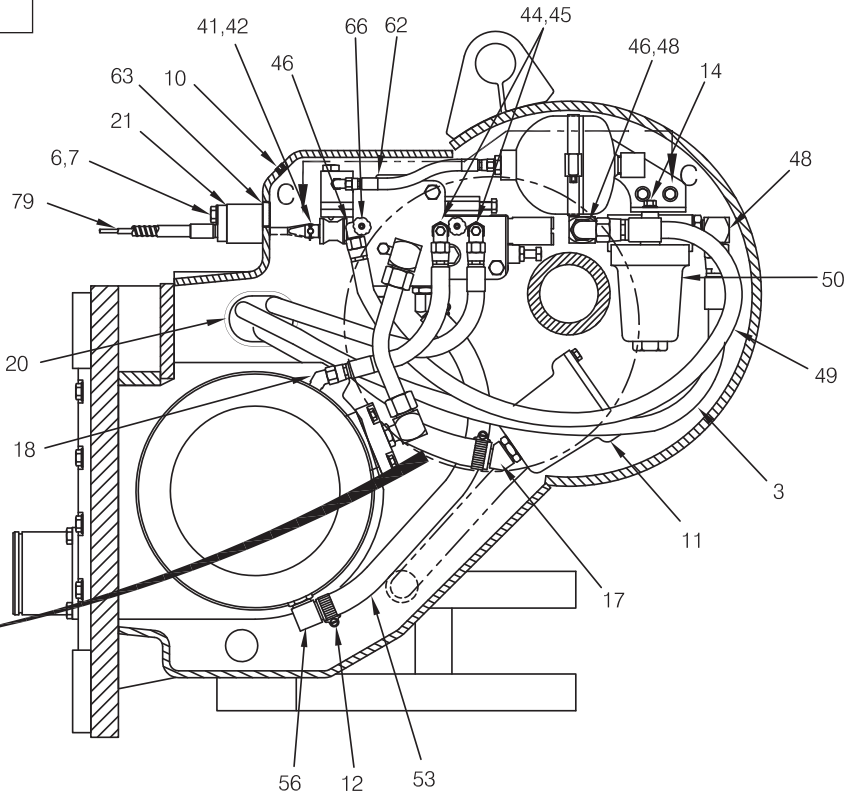
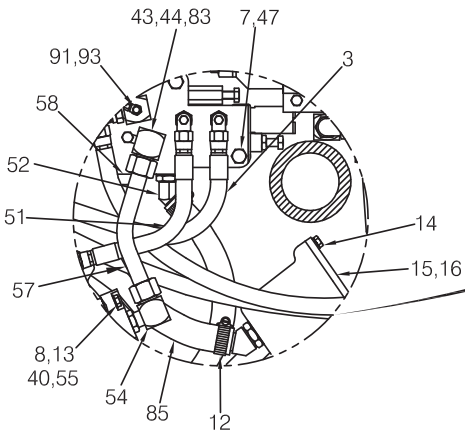
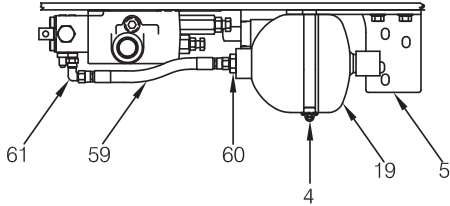
Case 1850K (R49)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311394 2311167	5-1
8, 21	2302729W	5-1

VIEW C-C



TOP VIEW

## Hydraulic Group, Power Controls

Case 1850K (R49)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

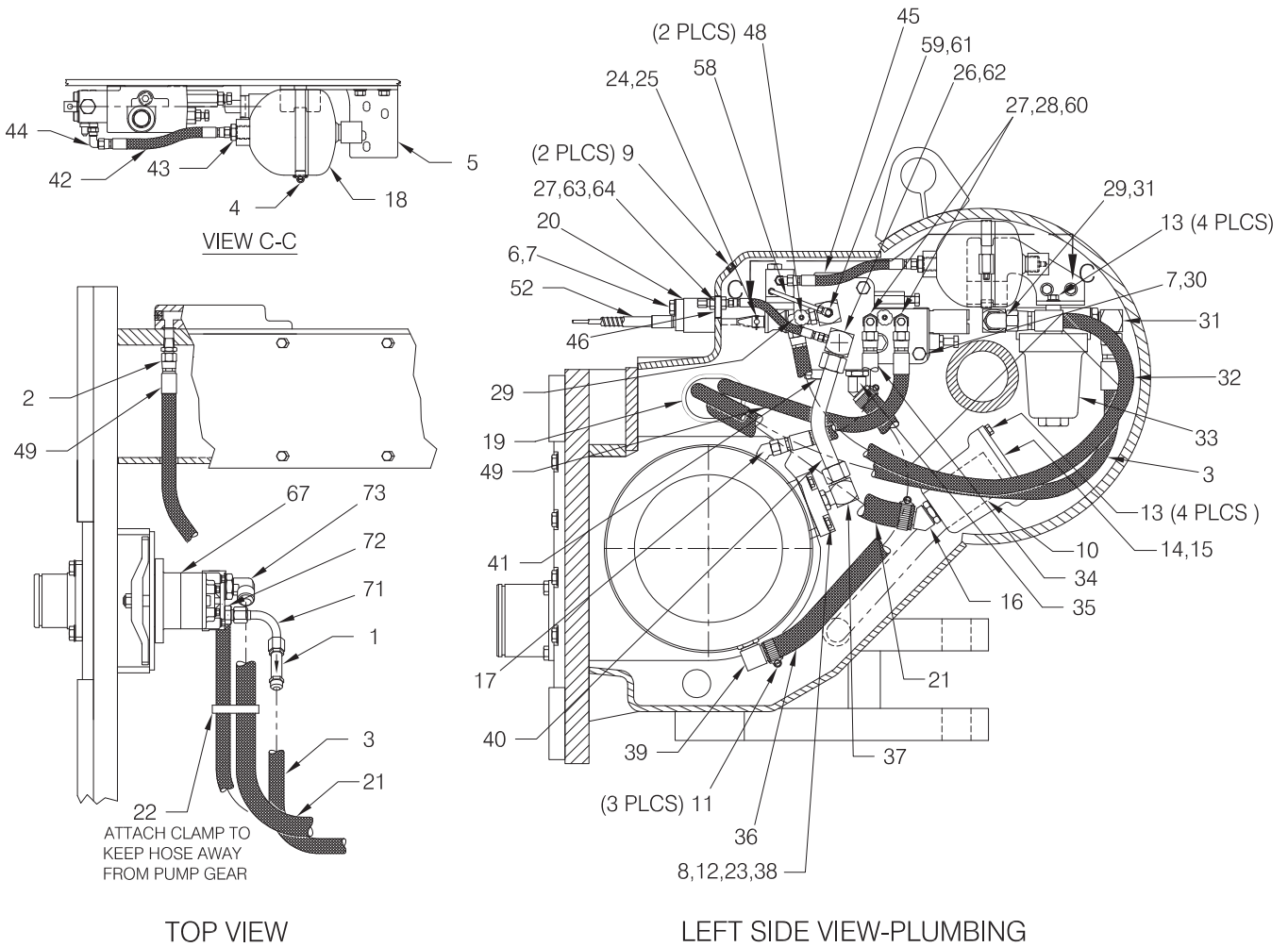
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	53	2300761W	Assembly, Hose	1
2	17315W	Fitting	1	54	16948W	Fitting	1
3	2300767W	Assembly, Hose	2	55	16828W	Capscrew	2
4	2302109W	Clamp	1	56	2300774W	Fitting	1
5	2305114W	Bracket, Mounting	1	57	2300762W	Assembly, Tube	1
6	16829W	Capscrew	1	58	226450W	Assembly, Valve	1
7	15158W	Washer	4	59	383892W	Assembly, Hose	1
8	196022W	Gasket	1	60	222381W	Fitting	1
10	2305987W	Setscrew	2	61	16987W	Fitting	1
11	219172W	Strainer	1	62	2300301W	Valve, Control (3-52)	1
12	209639W	Clamp	3	63	*b 2304823W	Plug	1
13	15156W	Washer	5	65	15158W	Washer	3
14	*a 1300780W	Screw, Flanged	8	66	2305986W	Setscrew	2
15	2300936W	Cover	1	79	-----	Cable (See Handling Gear pages) Ref	
16	2300935W	Gasket	1	85	230760W	Assembly, Hose	1
17	2302985W	Fitting	1	95	129563W	Clamp, Strap	1
18	16568W	Fitting	1	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
19	R16271	Accumulator	1	300	16909W	Fitting	1
20	24257	Trim	AR	301	2300759W	Assembly, Tube	1
21	303946W	Gasket	1	302	16561W	Fitting	1
40	279392W	Block	1	303	17224W	Fitting	1
41	139W	Pin, Rod End	1	304	2300778W	Assembly, Tube	1
42	15212W	Pin	1	305	83857W	Fitting	1
43	225712W	Fitting, Special	1	306	2300777W	Assembly, Tube	1
44	16923W	Fitting	3	307	14694W	Fitting	1
45	17777W	Fitting	2	308	173246W	Clamp	1
46	16989W	Fitting	2	309	16597W	Capscrew	2
47	198385W	Capscrew	3	310	181089W	Clamp	1
48	16559W	Fitting	2	311	16561W	Fitting	1
49	2301844W	Assembly, Hose	1	312	17224W	Fitting	1
50	2301875W	Assembly, Filter	1	313	201761W	Fitting	1
	3001363W	. Element/O-Ring	1	314	2301500W	Assembly, Tube	1
	55468W	. . O-Ring	1				
51	133943W	Assembly, Hose	1	*a	Use 273338W Pipe Thread Sealant		
52	2300776W	Fitting	1	*b	Use 318701W Thread Lock		

# Hydraulic Group, Power Controls

Case 1850K (R49)

First Used on S/N AW6G-1119

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
15, 33 (3001363W)	2311394W 2311167	5-1
8, 15, 20	2302729W	5-1

**Hydraulic Group, Power Controls**

Case 1850K (R49)

First Used on S/N AW6G-1119

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	34	133943W	Assembly, Hose	1
2	17315W	Fitting	1	35	2300776W	Fitting	1
3	2300767W	Assembly, Hose	1	36	2300761W	Assembly, Hose	1
4	2302109W	Clamp	1	37	16948W	Fitting	1
5	2305114W	Bracket, Mounting	1	38	16828W	Capscrew	2
6	16829W	Capscrew	1	39	2300774W	Fitting	1
7	15158W	Washer	4	40	2300762W	Assembly, Tube	1
8	196022W	Gasket	1	41	226450W	Assembly, Valve	1
9	2305987W	Setscrew	2	42	383892W	Assembly, Hose	1
10	219172W	Strainer	1	43	222381W	Fitting	1
11	209639W	Clamp	3	44	16987W	Fitting	1
12	15156W	Washer	5	45	2300301W	Valve, Control (3-52)	1
13	*a 1300780W	Screw, Flanged	8	46	*b 2304823W	Plug	1
14	2300936W	Cover	1	47	15158W	Washer	3
15	2300935W	Gasket	1	48	2305986W	Setscrew	2
16	2302985W	Fitting	1	49	2300767W	Assembly, Hose	1
17	16568W	Fitting	1	52	-----	Cable (See Handling Gear pages) Ref	
18	R16271	Accumulator	1	58	277663W	Assembly, Tube	1
19	24257	Trim	AR	59	2301843W	Fitting	1
20	303946W	Gasket	1	60	2300771W	Assembly, Fitting	2
21	2300760W	Assembly, Hose	1	61	14500W	Fitting	1
22	129563W	Clamp	1	62	14668W	Fitting	1
23	279392W	Block	1	63	*c 16445W	Fitting	1
24	139W	Pin, Rod End	1	64	140288W	Assembly, Hose	1
25	15212W	Pin	1	67	-----	Pump, Hydraulic (3-180 thru 3-183)	1
26	225712W	Fitting	1	71	2301684W	Assembly, Tube	1
27	16923W	Fitting	3	72	16909W	Fitting	1
28	17777W	Fitting	2	73	16561W	Fitting	1
29	16989W	Fitting	2				
30	198385W	Capscrew	3		*a Use 273338W Pipe Thread Sealant		
31	16559W	Fitting	2		*b Use 318701W Adhesive		
32	2301844W	Assembly, Hose	1		*c Use 236308W Loctite		
33	2301875W	Assembly, Filter	1				
	3001363W	. Element/O-Ring	1				
	55468W	.. O-Ring	1				

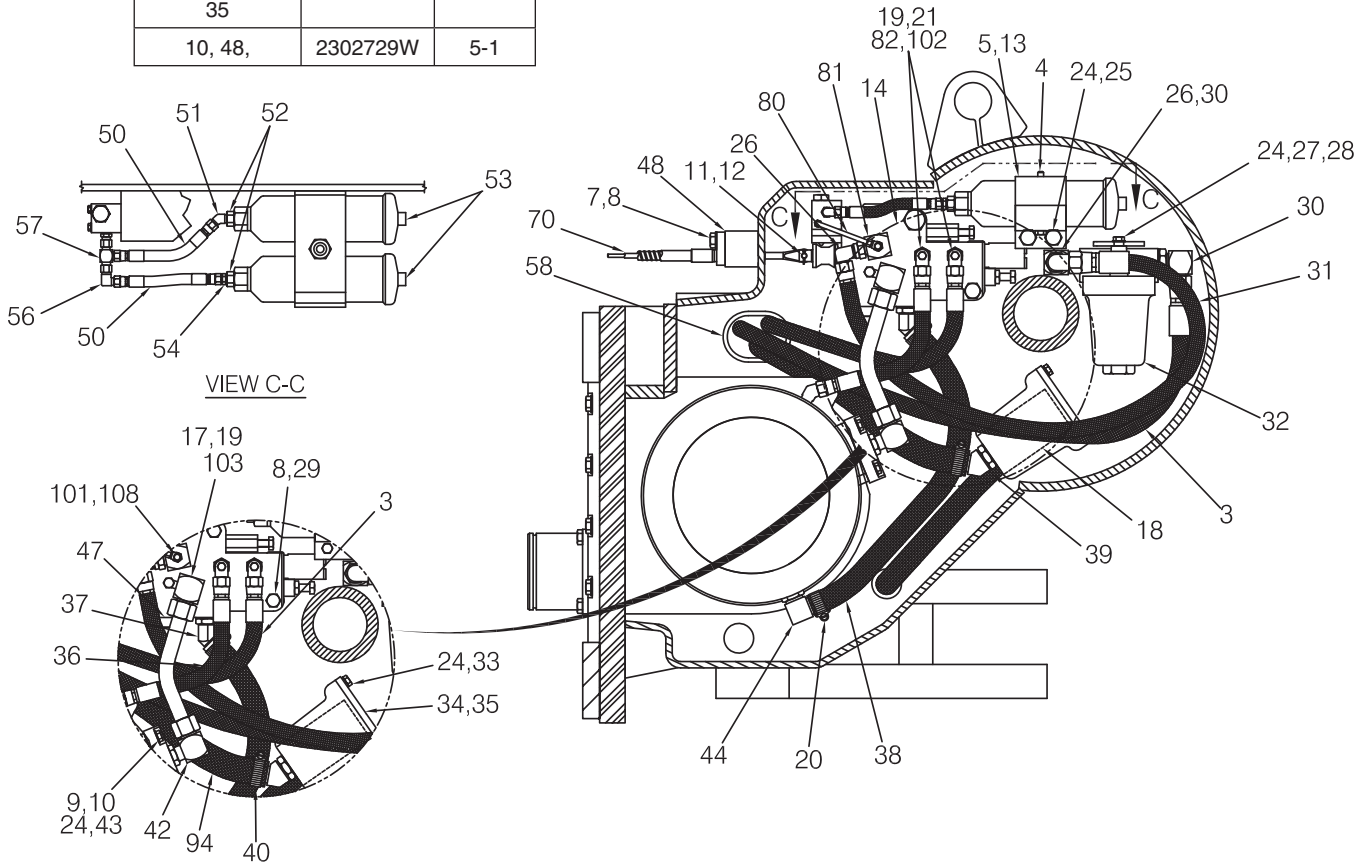
### Hydraulic Group, Power Controls

Caterpillar D6D, D6E, D6H, D6R Series I, II, III, and D6T (C43, C50, C71, C480, C481)

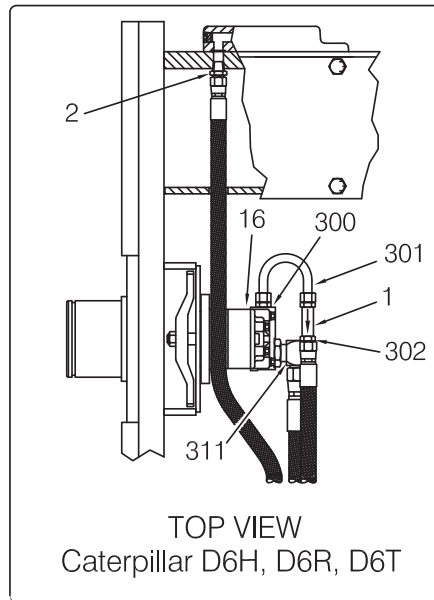
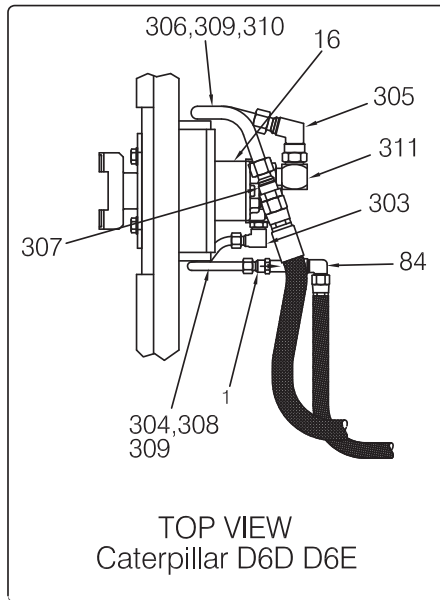
Last Used on S/N AW6G-1027

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
32(3001363W), 35	2311394	5-1
10, 48,	2302729W	5-1



VIEW C-C





**Hydraulic Group, Power Controls**

Caterpillar D6D, D6E, D6H, D6R Series I, II, III, and D6T (C43, C50, C71, C480, C481)

Last Used on S/N AW6G-1027

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	45	2300762W	Assembly, Tube	1
2	17315W	Fitting	1	46	16568W	Fitting	1
3	2300767W	Assembly, Hose	2	47	226450W	Assembly, Valve	1
4	18542W	Capscrew	1	48	303946W	Gasket	1
5	267487W	Bracket	1	50	217754W	Assembly, Hose	2
7	16829W	Capscrew	1	51	14539W	Fitting	1
8	15158W	Washer	4	52	327611W	Fitting	2
9	279392W	Block	1	53	*a 327610W	Accumulator	2
10	196022W	Gasket	1	54	14669W	Fitting	1
11	139W	Pin	1	56	16987W	Fitting	1
12	15212W	Pin	1	57	17059W	Fitting	1
13	267488W	Plate	1	58	24257	Trim	AR
14	2300301W	Valve, Control (3-52)	1	70	-----	Cable (See Handling Gear pages)	Ref
16	-----	Pump, Hydraulic (3-180 thru 3-183)	1	80	*c 277663W	Assembly, Tube	1
17	225712W	Fitting	1	81	*b,*c 2301843W	Fitting	1
18	219172W	Strainer	1	82	*b,*c 2300771W	Fitting	2
19	16923W	Fitting	3	84	*b 16989W	Fitting	1
20	127045W	Clamp	2	93	*c 14500W	Fitting	2
21	17777W	Fitting	2	94	*b,*c 2300760W	Assembly, Hose	1
23	344839W	Spacer	1	101	*b 2301843W	Fitting	1
24	15156W	Washer	11	102	*b 2300771W	Fitting	2
25	194090W	Capscrew	2	103	*b 14500W	Fitting	2
26	16989W	Fitting	2	300	16909W	Fitting	1
27	16598W	Capscrew	2	301	2300759W	Assembly, Tube	1
28	15176W	Washer	2	302	16561W	Fitting	1
29	198385W	Capscrew	3	303	17224W	Fitting	1
30	16559W	Fitting	2	304	2300778W	Assembly, Tube	1
31	2301844W	Assembly, Hose	1	305	83857W	Fitting	1
32	2301875W	Assembly, Filter	1	306	2300777W	Assembly, Tube	1
	3001363W	. Element/O-Ring	1	307	14694W	Fitting	1
	55468W	. . O-Ring	1	308	173246W	Clamp	1
33	16805W	Capscrew	4	309	16597W	Capscrew	2
34	2300936W	Cover	1	310	181089W	Clamp	1
35	2300935W	Gasket	1	311	16561W	Fitting	1
36	133943W	Assembly, Hose	1				
37	2300776W	Fitting	1		*a	Use 2300181W Charge Valve; Refer to Service Bulletin A0-Z-28 R4 in Section 7.	
38	2300761W	Assembly, Hose	1		*b	Caterpillar D6D, D6E (C43)	
39	276090W	Fitting	1		*c	Caterpillar D6H (C480, C481), Caterpillar D6R, D6T (C50, C71)	
40	130845W	Clamp	1				
42	16948W	Fitting	1				
43	16828W	Capscrew	2				
44	2300774W	Fitting	1				

### Hydraulic Group, Power Controls

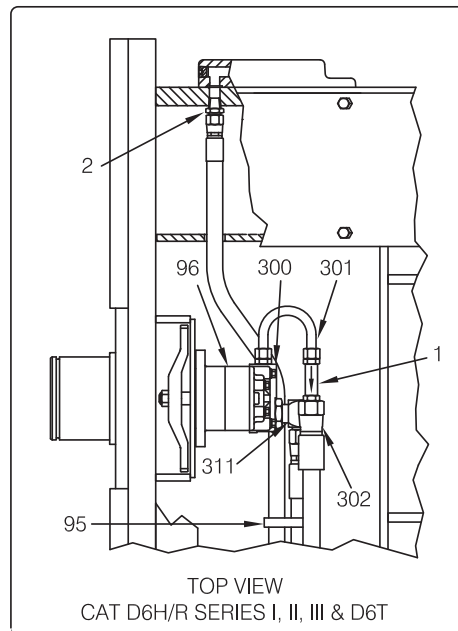
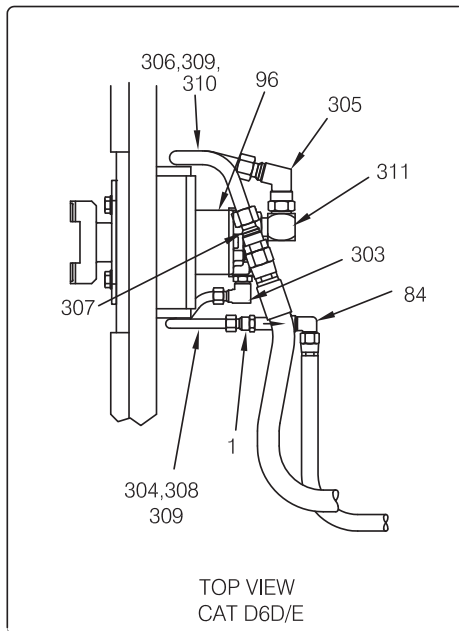
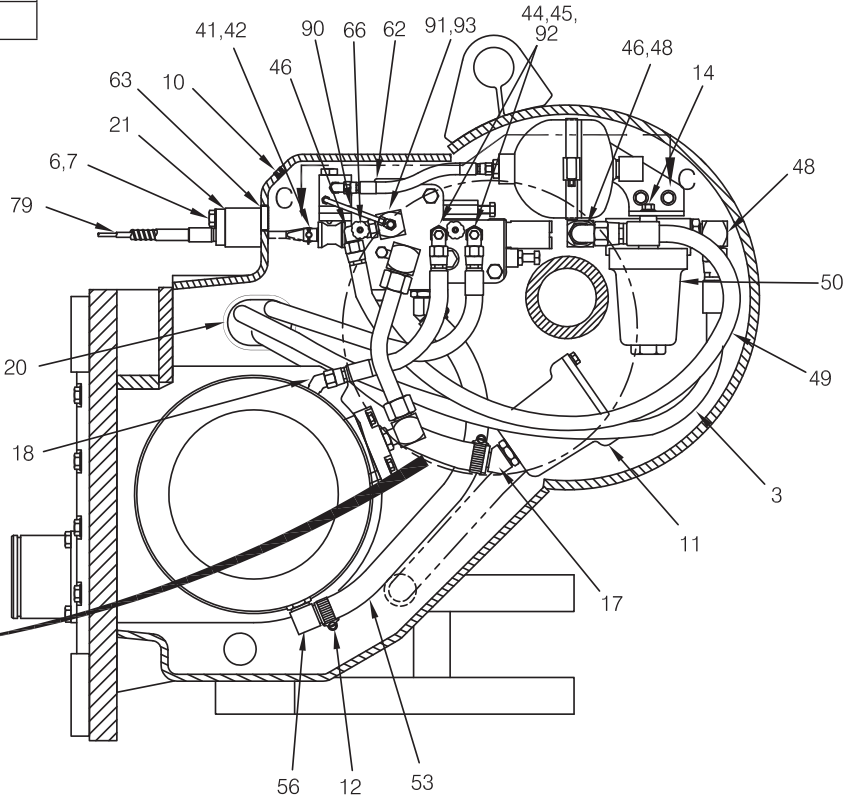
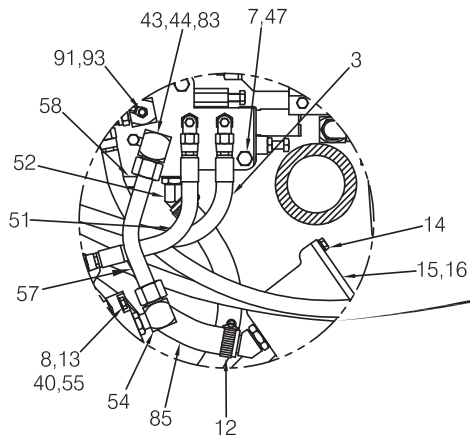
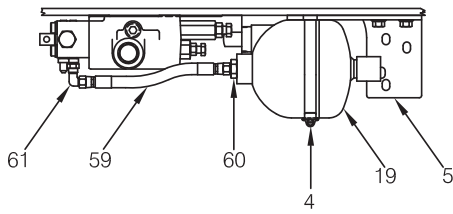
Caterpillar D6D, D6E, D6H, D6R Series I, II, III, and D6T (C43, C50, C71, C480, C481)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311167	5-1
8, 21	2302729W	5-1

VIEW C-C



**Hydraulic Group, Power Controls**

Caterpillar D6D, D6E, D6H, D6R Series I, II, III, and D6T (C43, C50, C71, C480, C481)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	55	16828W	Capscrew	2
2	17315W	Fitting	1	56	2300774W	Fitting	1
3	2300767W	Assembly, Hose	2	57	2300762W	Assembly, Tube	1
4	2302109W	Clamp	1	58	226450W	Assembly, Valve	1
5	2305114W	Bracket, Mounting	1	59	383892W	Assembly, Hose	1
6	16829W	Capscrew	1	60	222381W	Fitting	1
7	15158W	Washer	4	61	16987W	Fitting	1
8	196022W	Gasket	1	62	2300301W	Valve, Control (3-52)	1
10	2305987W	Setscrew	2	63	*b 2304823W	Plug	1
11	219172W	Strainer	1	65	15158W	Washer	3
12	209639W	Clamp	3	66	2305986W	Setscrew	2
13	15156W	Washer	5	79	-----	Cable (See Handling Gear pages) Ref	
14	*a 1300780W	Screw, Flanged	8	83	14500W	Fitting	1
15	2300936W	Cover	1	84	16989W	Fitting	1
16	2300935W	Gasket	1	85	230760W	Assembly, Hose	1
17	2302985W	Fitting	1	90	277663W	Assembly, Tube	1
18	16568W	Fitting	1	91	2301843W	Fitting	1
19	R16271	Accumulator	1	92	2300771W	Fitting	1
20	24257	Trim	AR	93	14500W	Fitting	1
21	303946W	Gasket	1	95	129563W	Clamp, Strap	1
40	279392W	Block	1	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
41	139W	Pin, Rod End	1	300	16909W	Fitting	1
42	15212W	Pin	1	301	2300759W	Assembly, Tube	1
43	225712W	Fitting, Special	1	302	16561W	Fitting	1
44	16923W	Fitting	3	303	17224W	Fitting	1
45	17777W	Fitting	2	304	2300778W	Assembly, Tube	1
46	16989W	Fitting	2	305	83857W	Fitting	1
47	198385W	Capscrew	3	306	2300777W	Assembly, Tube	1
48	16559W	Fitting	2	307	14694W	Fitting	1
49	2301844W	Assembly, Hose	1	308	173246W	Clamp	1
50	2301875W	Assembly, Filter	1	309	16597W	Capscrew	2
	3001363W	. Element/O-Ring	1	310	181089W	Clamp	1
	55468W	. . O-Ring	1	311	16561W	Fitting	1
51	133943W	Assembly, Hose	1				
52	2300776W	Fitting	1	*a	Use 273338W Pipe Thread Sealant		
53	2300761W	Assembly, Hose	1	*b	Use 318701W Thread Lock		
54	16948W	Fitting	1				

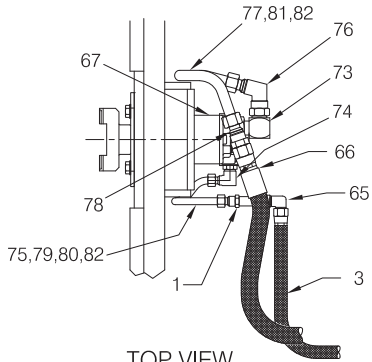
### Hydraulic Group, Power Controls

Caterpillar D6D, D6E, D6G, D6H, D6N, D6R Series I, II, III, and D6T

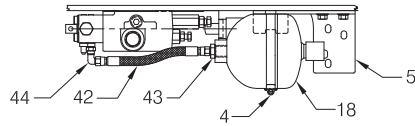
(C43, C72, C480, C481, C78, C81, C47, C50, C71)

Used on S/N AW6G-1119 through S/N AW6G-1938

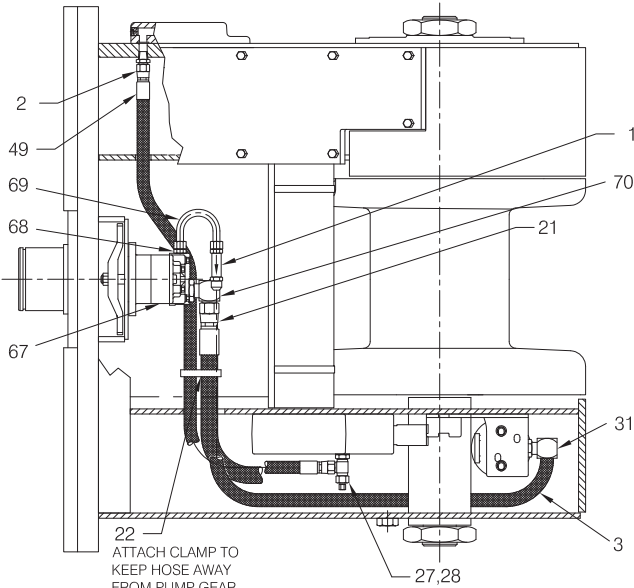
Page 1 of 2



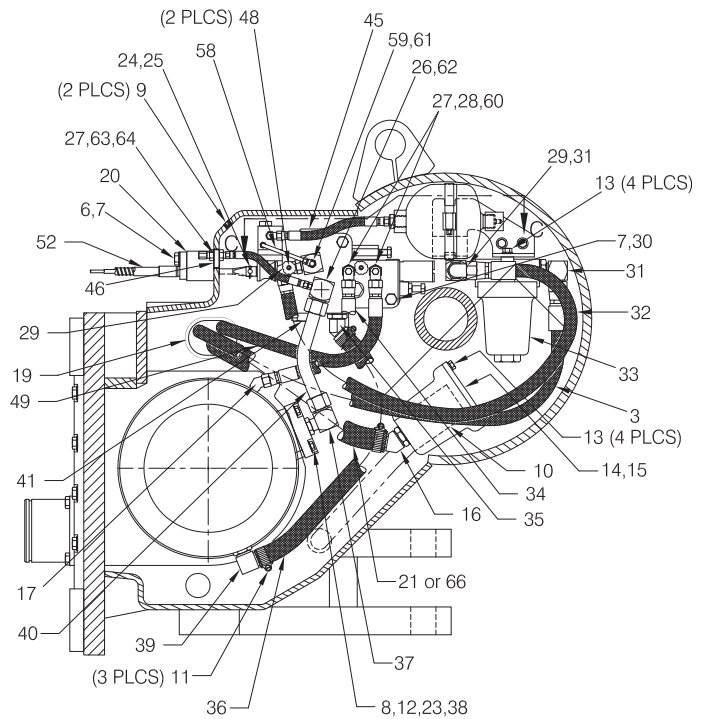
**TOP VIEW**  
FOR D6T (C71), D6R SERIES I, II, III (C50, C71)  
AND D6H (C480, C481) ONLY



**VIEW C-C**



**TOP VIEW**



**LEFT SIDE VIEW-PLUMBING**

Recommended Service Kit		
Item	Kit No.	Section
15, 33 (3001363W)	2311167	5-1
8, 15, 20	2302729W	5-1

**Hydraulic Group, Power Controls**

Caterpillar D6D, D6E, D6G, D6H, D6N, D6R Series I, II, III, and D6T

(C43, C72, C480, C481, C78, C81, C47, C50, C71)

Used on S/N AW6G-1119 through S/N AW6G-1938

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	40	2300762W	Assembly, Tube	1
2	17315W	Fitting	1	41	226450W	Assembly, Valve	1
3	2300767W	Assembly, Hose	1	42	383892W	Assembly, Hose	1
4	2302109W	Clamp	1	43	222381W	Fitting	1
5	2305114W	Bracket, Mounting	1	44	16987W	Fitting	1
6	16829W	Capscrew	1	45	2300301W	Valve, Control (3-52)	1
7	15158W	Washer	4	46	*b 2304823W	Plug	1
8	196022W	Gasket	1	47	15158W	Washer	3
9	2305987W	Setscrew	2	48	2305986W	Setscrew	2
10	219172W	Strainer	1	49	2300767W	Assembly, Hose	1
11	209639W	Clamp	3	52	-----	Cable (See Handling Gear pages) Ref	
12	15156W	Washer	5	58	277663W	Assembly, Tube	1
13	*a 1300780W	Screw, Flanged	8	59	2301843W	Fitting	1
14	2300936W	Cover	1	60	2300771W	Assembly, Fitting	2
15	2300935W	Gasket	1	61	14500W	Fitting	1
16	2302985W	Fitting	1	62	14668W	Fitting	1
17	16568W	Fitting	1	63	*c 16445W	Fitting	1
18	R16271	Accumulator	1	64	140288W	Assembly, Hose	1
19	24257	Trim	AR	65	16989W	Fitting	1
20	303946W	Gasket	1	66	2300760W	Assembly, Hose	1
21	*d 2300760W	Assembly, Hose	1	67	-----	Pump, Hydraulic (3-180 thru 3-183)	1
22	*d 129563W	Clamp	1	68	*d 16909W	Fitting	1
23	279392W	Block	1	69	*d 2300759W	Assembly, Tube	1
24	139W	Pin, Rod End	1	70	*d 16561W	Fitting	1
25	15212W	Pin	1	73	16561W	Fitting	1
26	225712W	Fitting	1	74	17224W	Fitting	1
27	16923W	Fitting	3	75	2300778W	Assembly, Tube	1
28	17777W	Fitting	2	76	83857W	Fitting	1
29	16989W	Fitting	2	77	2300777W	Assembly, Tube	1
30	198385W	Capscrew	3	78	14694W	Fitting	1
31	16559W	Fitting	2	79	136516W	Clamp	1
32	2301844W	Assembly, Hose	1	80	16597W	Capscrew	2
33	2301875W	Assembly, Filter	1	81	181089W	Clamp	1
	3001363W	. Element/O-Ring	1	82	15156W	Washer	2
	55468W	. . O-Ring	1				
34	133943W	Assembly, Hose	1		*a	Use 273338W Pipe Thread Sealant	
35	2300776W	Fitting	1		*b	Use 318701W Adhesive	
36	2300761W	Assembly, Hose	1		*c	Use 236308W Loctite	
37	16948W	Fitting	1		*d	Caterpillar D6H (C480), D6R Series I, II, III, and D6T (C50, C71)	
38	16828W	Capscrew	2				
39	2300774W	Fitting	1				

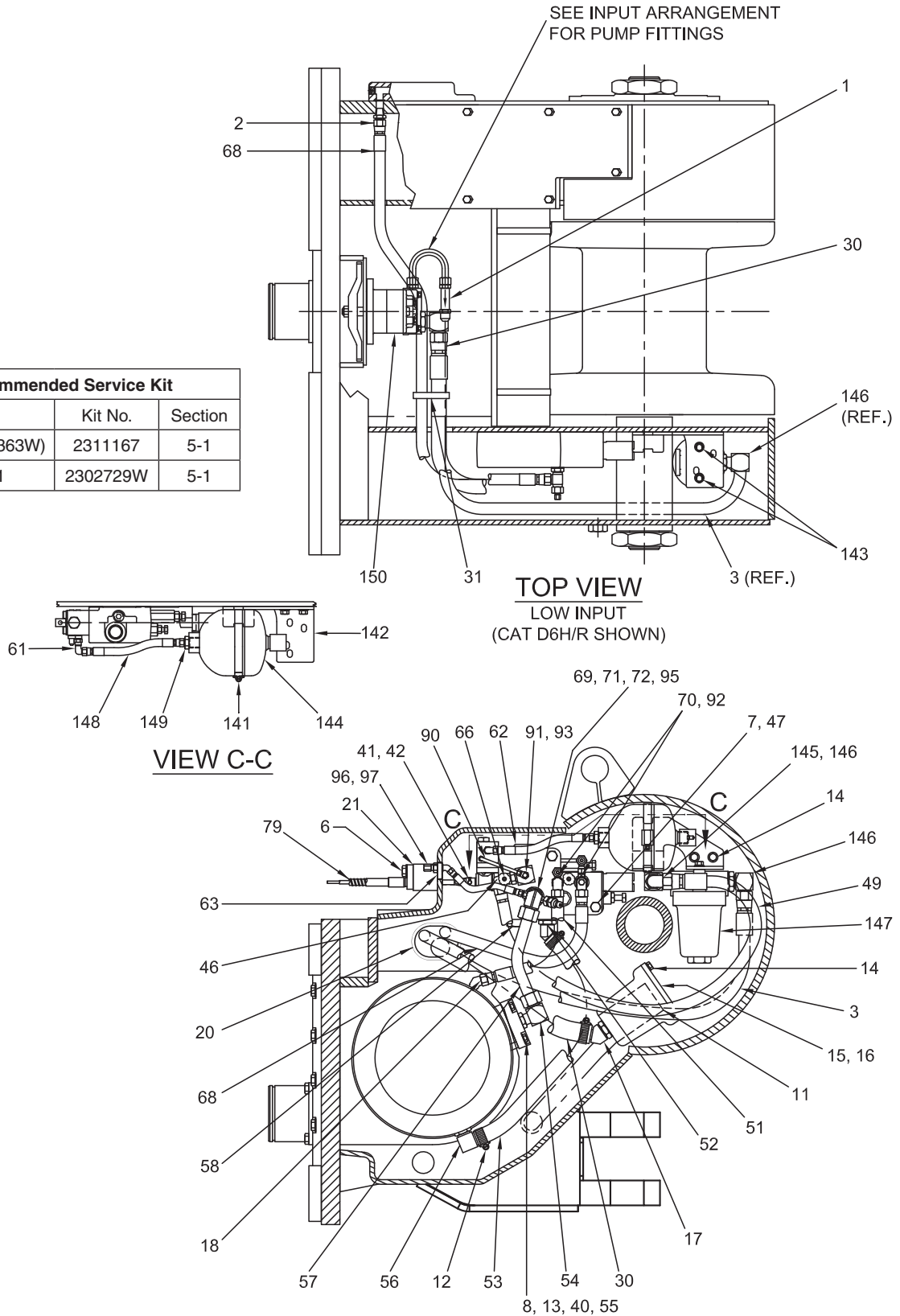
### Hydraulic Group, Power Controls

Caterpillar D6D, D6E, D6F PS (C43), D6N (C47), D6H PS (C480), D6H DD (C481),  
D6R PS (C50), D6R Series II, III, and D6T (C71), D6G PS (C73), D6N (C47, C78, C81, C810)

First Used on S/N AW6G-1939

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 147 (3001363W)	2311167	5-1
8, 16, 21	2302729W	5-1



### Hydraulic Group, Power Controls

Caterpillar D6D, D6E, D6F PS (C43), D6N (C47), D6H PS (C480), D6H DD (C481),  
D6R PS (C50), D6R Series II, III, and D6T (C71), D6G PS (C73), D6N (C47, C78, C81, C810)

First Used on S/N AW6G-1939

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	70	2314853	Coupler	2
2	17315W	Fitting	1	71	209790	Fitting	1
3	2300767W	Assembly, Hose	1	72	2314190	Fitting	1
6	2303902W	Screw, Flanged	1	79	See Chart Below	Cable, Push Pull	1
7	15158W	Washer	3	90	277663W	Assembly, Tube	1
8	196022W	Gasket	1	91	2301843W	Fitting	1
11	219172W	Strainer	1	92	2300771W	Assembly, Fitting	2
12	2312581	Clamp	3	93	14500W	Fitting	1
13	15156W	Washer	5	95	14668W	Fitting	1
14	*a 1300780W	Screw, Flanged	6	96	*c 16463W	Fitting	1
15	2300936W	Cover	1	97	140288W	Assembly, Hose	1
16	2300935W	Gasket	1	141	2302109W	Clamp	1
17	2302985W	Fitting	1	142	2305144W	Bracket, Mounting	1
18	16568W	Fitting	1	143	1300780W	Screw, Flanged	2
20	24257	Trim	AR	144	R16271	Accumulator	1
21	303946W	Gasket	1	145	16989W	Fitting	1
30	2300760W	Assembly, Hose	1	146	16559W	Fitting	2
31	129563W	Clamp	1	147	2301875W	Assembly, Filter	1
40	279392W	Block	1		3001363W	. Element/O-Ring	1
41	139W	Pin, Rod End	1		55468W	. . O-Ring	1
42	15212W	Pin	1	148	383892W	Assembly, Hose	1
46	16989W	Fitting	1	149	222381W	Fitting	1
47	198385W	Capscrew	3	150	2302963W	Assembly, Gear Pump (3-182)	1
49	2301844W	Assembly, Hose	1				
51	133943W	Assembly, Hose	1				
52	2300776W	Fitting	1				
53	2300761W	Assembly, Hose	1				
54	16948W	Fitting	1				
55	16828W	Capscrew	2				
56	2300774W	Fitting	1				
57	2300762W	Assembly, Tube	1				
58	226450W	Assembly, Valve	1				
61	16987W	Fitting	1				
62	2300301W	Valve, Control (3-52)	1				
63	*b 2304823W	Plug	1				
66	2305986W	Setscrew	2				
68	2300767W	Assembly, Hose	1				
69	R330325	Coupler	1				

Item 79 (Qty. 1) Push Pull Cables		
Part No.	Length (Inch)	Tractor
303941W	74	CAT D6D (C43) S/N 3X, 4X, 5X
303943W	91	CAT D6N (C47, C78, C81, C810)
303945W	96	CAT D6H (C480, C481), D6R Series I (C50), D6R Series II (C71)

*a	Use 246108W Pipe Thread Sealant
*b	Use 257291W Adhesive
*c	Use 236308W Loctite





## Hydraulic Group, Power Controls

Dresser/Dressta TD15E (H44, H45)

Last Used on S/N AW6G-1027

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	42	16948W	Fitting	1
2	17315W	Fitting	1	43	16828W	Capscrew	2
3	2300767W	Assembly, Hose	2	44	2300774W	Fitting	1
4	18542W	Capscrew	1	45	2300762W	Assembly, Tube	1
5	267487W	Bracket	1	46	16568W	Fitting	1
7	16829W	Capscrew	1	47	226450W	Assembly, Valve	1
8	15158W	Washer	4	48	303946W	Gasket	1
9	279392W	Block	1	50	217754W	Assembly, Hose	2
10	196022W	Gasket	1	51	14539W	Fitting	1
11	139W	Pin	1	52	327611W	Fitting	2
12	15212W	Pin	1	53	*a 327610W	Accumulator	2
13	267488W	Plate	1	54	14669W	Fitting	1
14	2300301W	Valve, Control (3-52)	1	56	16987W	Fitting	1
16	-----	Pump, Hydraulic (3-180 thru 3-183)	1	57	17059W	Fitting	1
17	225712W	Fitting	1	58	24257	Trim	AR
18	219172W	Strainer	1	70	-----	Cable (See Handling Gear pages)	Ref
19	16923W	Fitting	3	81	2301843W	Fitting	1
20	127045W	Clamp	2	82	2300771W	Fitting	2
21	17777W	Fitting	2	84	16989W	Fitting	1
23	344839W	Spacer	1	94	2300760W	Assembly, Hose	1
24	15156W	Washer	11	101	2301843W	Fitting	1
25	194090W	Capscrew	2	102	2300771W	Fitting	2
26	16989W	Fitting	2	103	14500W	Fitting	2
27	16598W	Capscrew	2	300	16909W	Fitting	1
28	15176W	Washer	2	301	2300759W	Assembly, Tube	1
29	198385W	Capscrew	3	302	16561W	Fitting	1
30	16559W	Fitting	2	303	17224W	Fitting	1
31	2301844W	Assembly, Hose	1	304	2300778W	Assembly, Tube	1
32	2301875W	Assembly, Filter	1	305	83857W	Fitting	1
	3001363W	. Element/O-Ring	1	306	2300777W	Assembly, Tube	1
	55468W	. . O-Ring	1	307	14694W	Fitting	1
33	16805W	Capscrew	4	308	173246W	Clamp	1
34	2300936W	Cover	1	309	16597W	Capscrew	2
35	2300935W	Gasket	1	310	181089W	Clamp	1
36	133943W	Assembly, Hose	1	311	16561W	Fitting	1
37	2300776W	Fitting	1				
38	2300761W	Assembly, Hose	1				
39	276090W	Fitting	1				
40	130845W	Clamp	1				
				*a	Use 2300181W Charge Valve; Refer to Service Bulletin A0-Z-28 R4 in Section 7.		

### Hydraulic Group, Power Controls

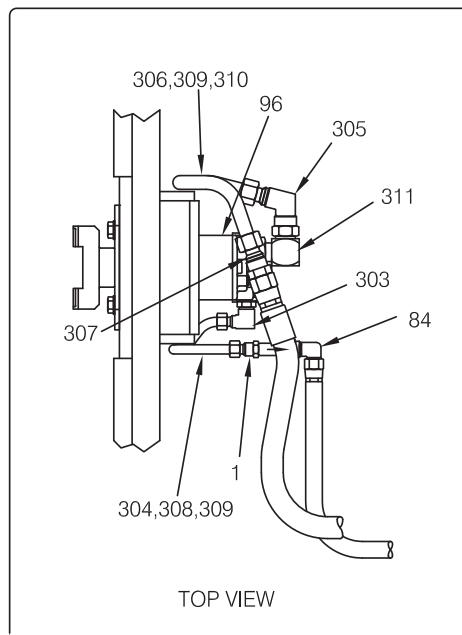
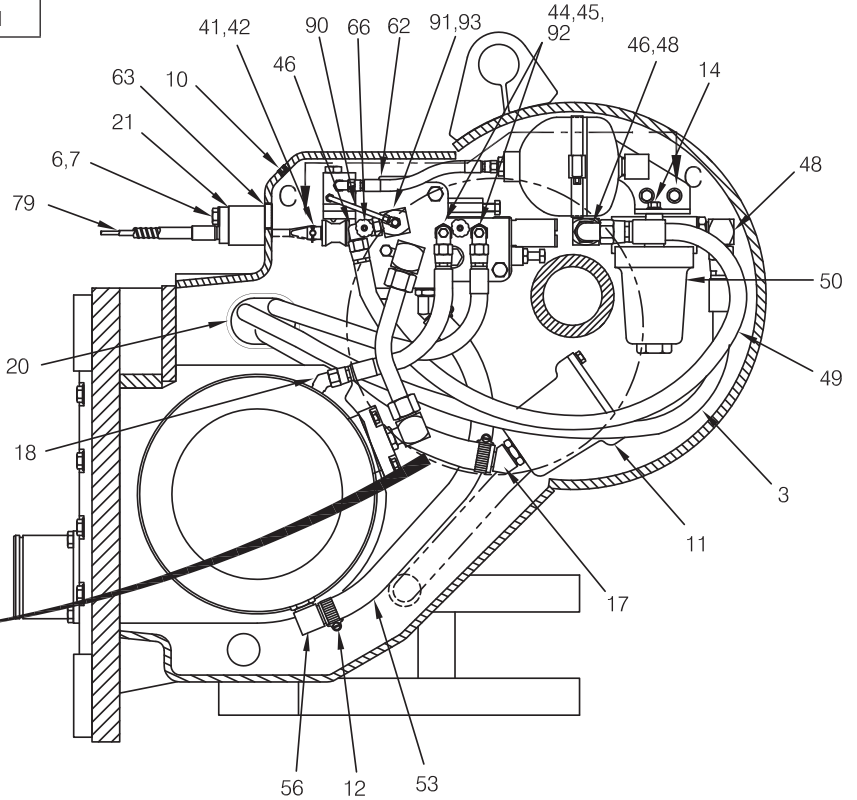
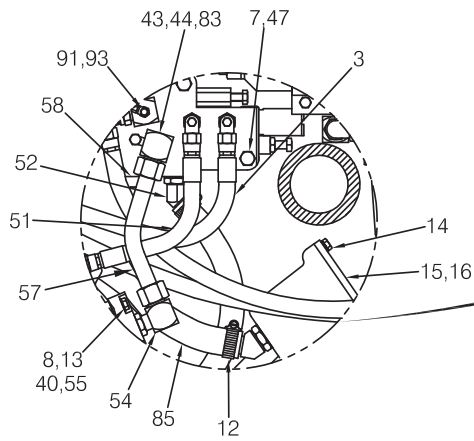
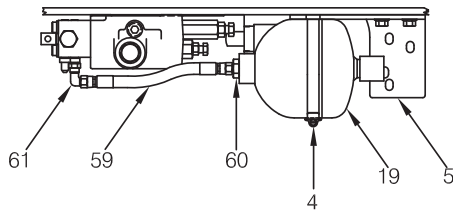
Dresser/Dressta TD15E, TD15H PS, TD15M (H44, H45, H46, H47)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311167	5-1
8, 16, 21	2302729W	5-1

VIEW C-C



### Hydraulic Group, Power Controls

Dresser/Dressta TD15E, TD15H PS, TD15M (H44, H45, H46, H47)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	56	2300774W	Fitting	1
2	17315W	Fitting	1	57	2300762W	Assembly, Tube	1
3	2300767W	Assembly, Hose	2	58	226450W	Assembly, Valve	1
4	2302109W	Clamp	1	59	383892W	Assembly, Hose	1
5	2305114W	Bracket, Mounting	1	60	222381W	Fitting	1
6	16829W	Capscrew	1	61	16987W	Fitting	1
7	15158W	Washer	4	62	2300301W	Valve, Control (3-52)	1
8	196022W	Gasket	1	63	*b 2304823W	Plug	1
10	2305987W	Setscrew	2	65	15158W	Washer	3
11	219172W	Strainer	1	66	2305986W	Setscrew	2
12	209639W	Clamp	3	79	-----	Cable (See Handling Gear pages) Ref	
13	15156W	Washer	5	83	14500W	Fitting	1
14	*a 1300780W	Screw, Flanged	8	84	16989W	Fitting	1
15	2300936W	Cover	1	85	230760W	Assembly, Hose	1
16	2300935W	Gasket	1	90	277663W	Assembly, Tube	1
17	2302985W	Fitting	1	91	2301843W	Fitting	1
18	16568W	Fitting	1	92	2300771W	Fitting	1
19	R16271	Accumulator	1	93	14500W	Fitting	1
20	24257	Trim	AR	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
21	303946W	Gasket	1	300	16909W	Fitting	1
40	279392W	Block	1	301	2300759W	Assembly, Tube	1
41	139W	Pin, Rod End	1	302	16561W	Fitting	1
42	15212W	Pin	1	303	17224W	Fitting	1
43	225712W	Fitting, Special	1	304	2300778W	Assembly, Tube	1
44	16923W	Fitting	3	305	83857W	Fitting	1
45	17777W	Fitting	2	306	2300777W	Assembly, Tube	1
46	16989W	Fitting	2	307	14694W	Fitting	1
47	198385W	Capscrew	3	308	173246W	Clamp	1
48	16559W	Fitting	2	309	16597W	Capscrew	2
49	2301844W	Assembly, Hose	1	310	181089W	Clamp	1
50	2301875W	Assembly, Filter	1	311	16561W	Fitting	1
	3001363W	. Element/O-Ring	1	312	17224W	Fitting	1
	55468W	. . O-Ring	1	313	201761W	Fitting	1
51	133943W	Assembly, Hose	1	314	2301500W	Assembly, Tube	1
52	2300776W	Fitting	1				
53	2300761W	Assembly, Hose	1		*a Use 273338W Pipe Thread Sealant		
54	16948W	Fitting	1		*b Use 318701W Thread Lock		
55	16828W	Capscrew	2				

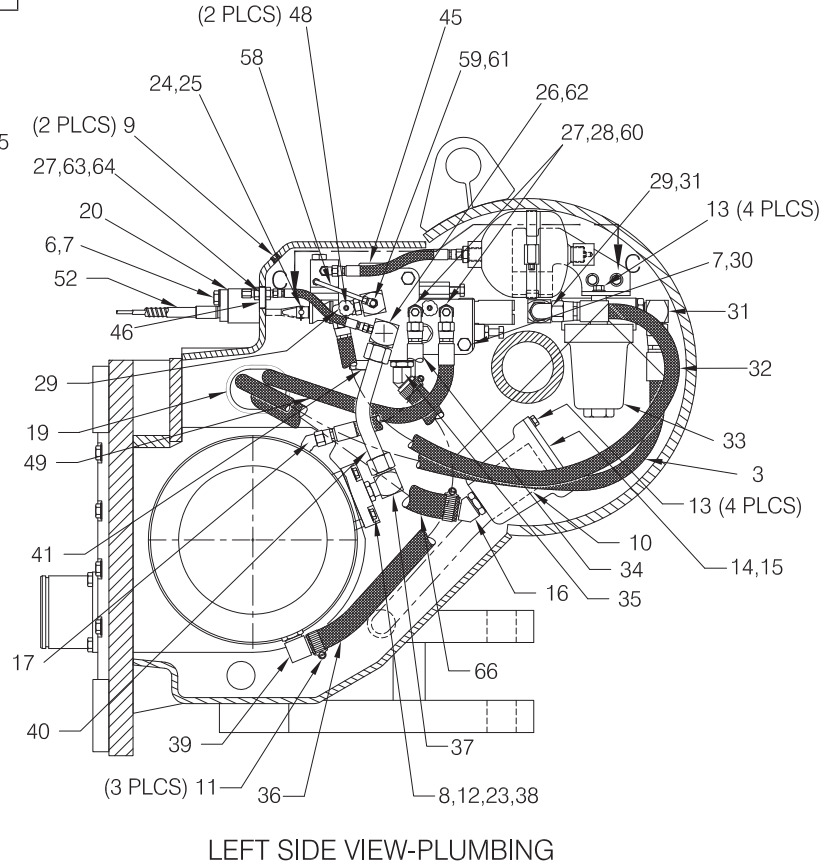
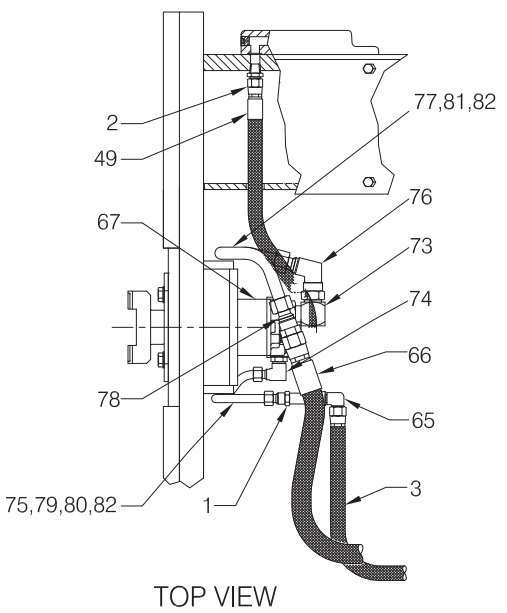
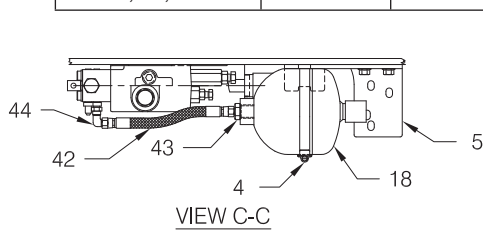
### Hydraulic Group, Power Controls

Dresser/Dressta TD15E, TD15H PS, TD15M (H44, H45, H46, H47)

Used on S/N AW6G-1119 through S/N AW6G-1938

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
15, 33 (3001363W)	2311167	5-1
8, 15, 20	2302729W	5-1



### Hydraulic Group, Power Controls

Dresser/Dressta TD15E, TD15H PS, TD15M (H44, H45, H46, H47)

Used on S/N AW6G-1119 through S/N AW6G-1938

Page 2 of 2

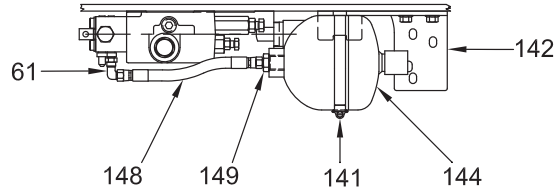
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	38	16828W	Capscrew	2
2	17315W	Fitting	1	39	2300774W	Fitting	1
3	2300767W	Assembly, Hose	1	40	2300762W	Assembly, Tube	1
4	2302109W	Clamp	1	41	226450W	Assembly, Valve	1
5	2305114W	Bracket, Mounting	1	42	383892W	Assembly, Hose	1
6	16829W	Capscrew	1	43	222381W	Fitting	1
7	15158W	Washer	4	44	16987W	Fitting	1
8	196022W	Gasket	1	45	2300301W	Valve, Control (3-52)	1
9	2305987W	Setscrew	2	46	*b 2304823W	Plug	1
10	219172W	Strainer	1	47	15158W	Washer	3
11	209639W	Clamp	3	48	2305986W	Setscrew	2
12	15156W	Washer	5	49	2300767W	Assembly, Hose	1
13	*a 1300780W	Screw, Flanged	8	52	-----	Cable (See Handling Gear pages)	Ref
14	2300936W	Cover	1	58	277663W	Assembly, Tube	1
15	2300935W	Gasket	1	59	2301843W	Fitting	1
16	2302985W	Fitting	1	60	2300771W	Assembly, Fitting	2
17	16568W	Fitting	1	61	14500W	Fitting	1
18	R16271	Accumulator	1	62	14668W	Fitting	1
19	24257	Trim	AR	63	*c 16445W	Fitting	1
20	303946W	Gasket	1	64	140288W	Assembly, Hose	1
23	279392W	Block	1	65	16989W	Fitting	1
24	139W	Pin, Rod End	1	66	2300760W	Assembly, Hose	1
25	15212W	Pin	1	67	-----	Pump, Hydraulic (3-180 thru 3-183)	1
26	225712W	Fitting	1	73	16561W	Fitting	1
27	16923W	Fitting	3	74	17224W	Fitting	1
28	17777W	Fitting	2	75	2300778W	Assembly, Tube	1
29	16989W	Fitting	2	76	83857W	Fitting	1
30	198385W	Capscrew	3	77	2300777W	Assembly, Tube	1
31	16559W	Fitting	2	78	14694W	Fitting	1
32	2301844W	Assembly, Hose	1	79	136516W	Clamp	1
33	2301875W	Assembly, Filter	1	80	16597W	Capscrew	2
	3001363W	. Element/O-Ring	1	81	181089W	Clamp	1
	55468W	. . O-Ring	1	82	15156W	Washer	2
34	133943W	Assembly, Hose	1				
35	2300776W	Fitting	1	*a	Use 273338W Pipe Thread Sealant		
36	2300761W	Assembly, Hose	1	*b	Use 318701W Adhesive		
37	16948W	Fitting	1	*c	Use 236308W Loctite		

### Hydraulic Group, Power Controls

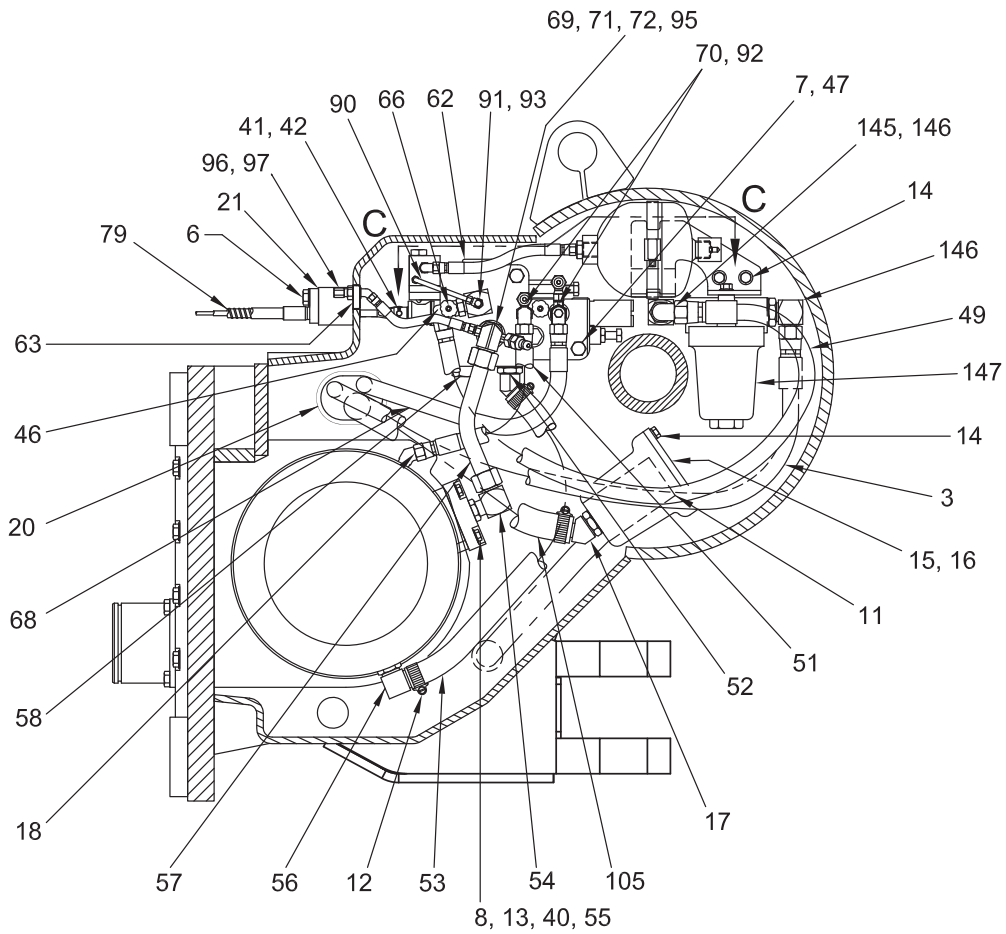
Dresser/Dressta TD15E PS (H44), TD15E DD (H45), TD15H Tier I PS (H46), TD15H Tier II/TD15M (H47)

First Used on S/N AW6G-1939

Page 1 of 2



VIEW C-C



Recommended Service Kit		
Item	Kit No.	Section
16, 147(3001363W)	2311167	5-1
8, 16, 21	2302729W	5-1

## Hydraulic Group, Power Controls

Dresser/Dressta TD15E PS (H44), TD15E DD (H45), TD15H Tier I PS (H46), TD15H Tier II/TD15M (H47)  
First Used on S/N AW6G-1939

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	2300767W	Assembly, Hose	1	68	2300767W	Assembly, Hose	1
6	2303902W	Screw, Flanged	1	69	R330325	Coupler	1
7	15158W	Washer	3	70	2314853	Coupler	2
8	196022W	Gasket	1	71	209790	Fitting	1
11	219172W	Strainer	1	72	2314190	Fitting	1
12	2312581	Clamp	3	79	303944W	Cable, Push Pull	1
13	15156W	Washer	5	90	277663W	Assembly, Tube	1
14	*a 1300780W	Screw, Flanged	6	91	2301843W	Fitting	1
15	2300936W	Cover	1	92	2300771W	Assembly, Fitting	2
16	2300935W	Gasket	1	93	14500W	Fitting	1
17	2302985W	Fitting	1	95	14668W	Fitting	1
18	16568W	Fitting	1	96	*c 16463W	Fitting	1
20	24257	Trim	AR	97	140288W	Assembly, Hose	1
21	303946W	Gasket	1	105	2300760W	Assembly, Hose	1
40	279392W	Block	1	141	2302109W	Clamp	1
41	139W	Pin, Rod End	1	142	2305144W	Bracket, Mounting	1
42	15212W	Pin	1	143	1300780W	Screw, Flanged	2
46	16989W	Fitting	1	144	R16271	Accumulator	1
47	198385W	Capscrew	3	145	16989W	Fitting	1
49	2301844W	Assembly, Hose	1	146	16559W	Fitting	2
51	133943W	Assembly, Hose	1	147	2301875W	Assembly, Filter	1
52	2300776W	Fitting	1		3001363W	. Element/O-Ring	1
53	2300761W	Assembly, Hose	1		55468W	. . O-Ring	1
54	16948W	Fitting	1	148	383892W	Assembly, Hose	1
55	16828W	Capscrew	2	149	222381W	Fitting	1
56	2300774W	Fitting	1	150	2302963W	Assembly, Gear Pump (3-182) (Not Shown Here)	1
57	2300762W	Assembly, Tube	1				
58	226450W	Assembly, Valve	1				
61	16987W	Fitting	1	*a	Use 246108W Pipe Thread Sealant		
62	2300301W	Valve, Control (3-52)	1	*b	Use 257291W Adhesive		
63	*b 2304823W	Plug	1	*c	Use 236308W Loctite		
66	2305986W	Setscrew	2				

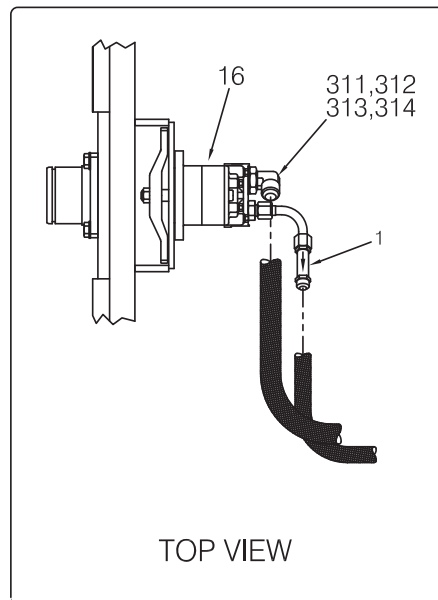
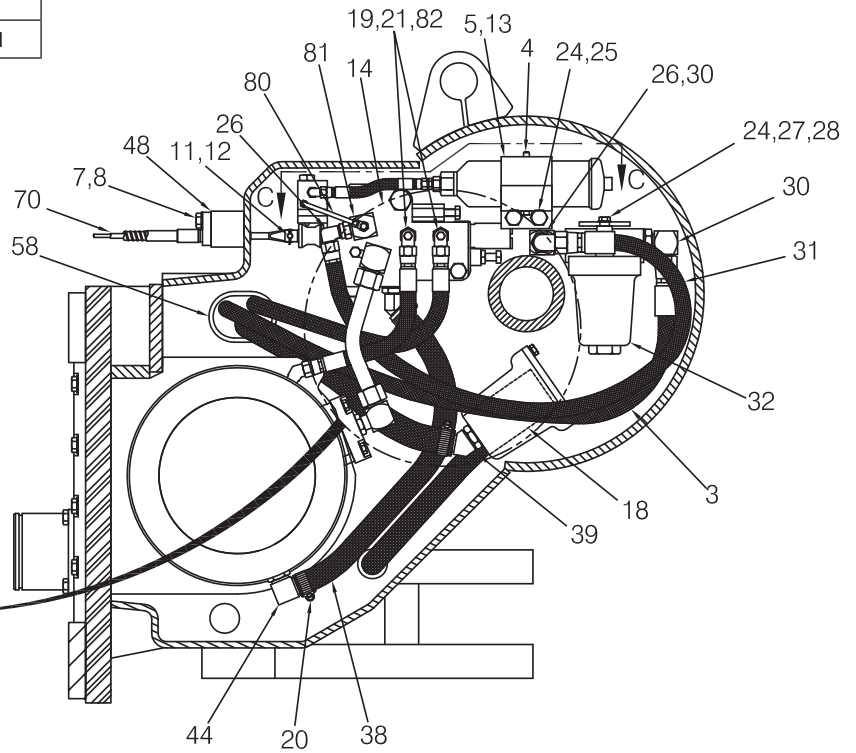
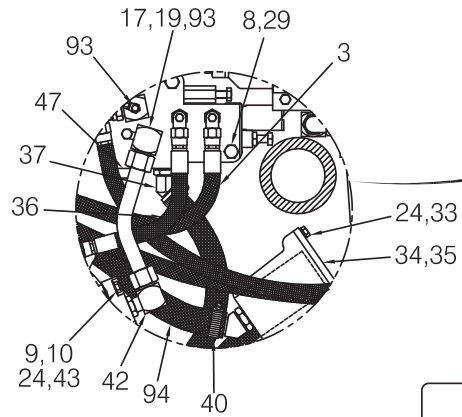
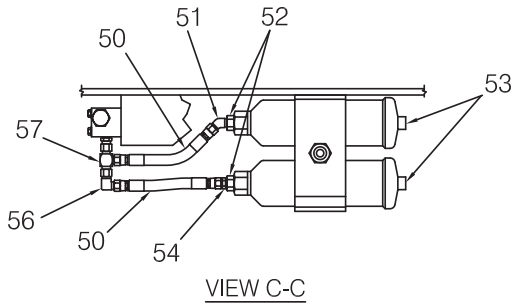
### Hydraulic Group, Power Controls

Fiat-Hitachi/New Holland FD/FH14E (A48)

Last Used on S/N AW6G-1027

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Recommended Service Kit		
Item	Kit No.	Section
32 (3001363W), 35	2311394	5-1
10, 48	2302729W	5-1







### Hydraulic Group, Power Controls

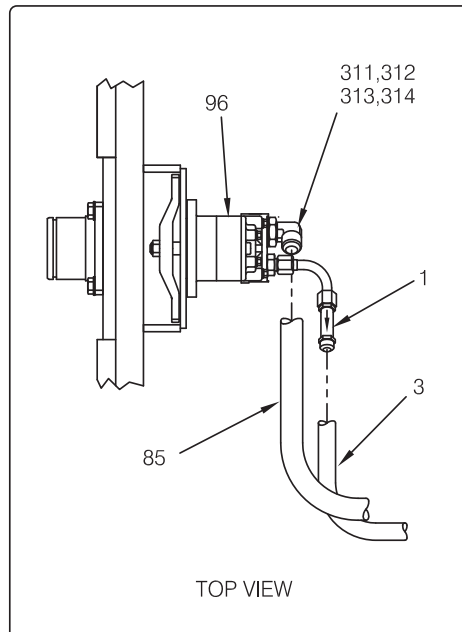
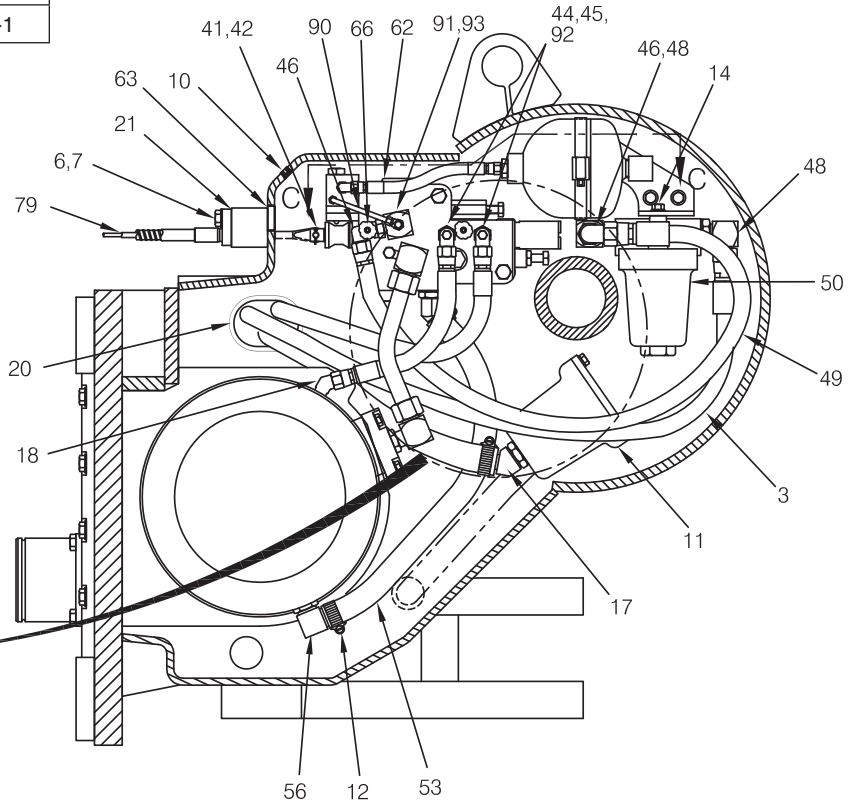
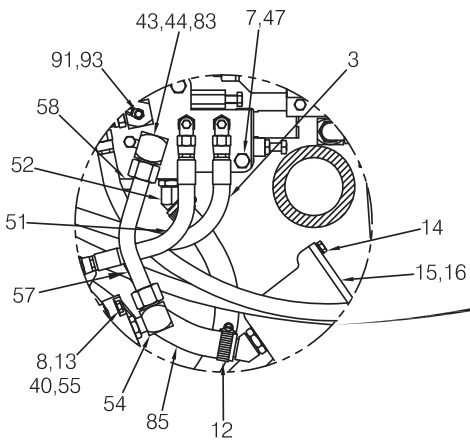
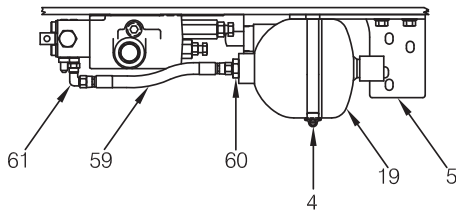
Fiat-Hitachi/New Holland FD/FH14E, FD 175/195, DX 175/195, DC180 (A48, A49)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311167	5-1
8, 21	2302729W	5-1

VIEW C-C



**Hydraulic Group, Power Controls**

Fiat-Hitachi/New Holland FD/FH14E, FD 175/195, DX 175/195, DC180 (A48, A49)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	55	16828W	Capscrew	2
2	17315W	Fitting	1	56	2300774W	Fitting	1
3	2300767W	Assembly, Hose	2	57	2300762W	Assembly, Tube	1
4	2302109W	Clamp	1	58	226450W	Assembly, Valve	1
5	2305114W	Bracket, Mounting	1	59	383892W	Assembly, Hose	1
6	16829W	Capscrew	1	60	222381W	Fitting	1
7	15158W	Washer	4	61	16987W	Fitting	1
8	196022W	Gasket	1	62	2300301W	Valve, Control (3-52)	1
10	2305987W	Setscrew	2	63	*b 2304823W	Plug	1
11	219172W	Strainer	1	65	15158W	Washer	3
12	209639W	Clamp	3	66	2305986W	Setscrew	2
13	15156W	Washer	5	79	-----	Cable (See Handling Gear pages) Ref	
14	*a 1300780W	Screw, Flanged	8	83	14500W	Fitting	1
15	2300936W	Cover	1	85	230760W	Assembly, Hose	1
16	2300935W	Gasket	1	90	277663W	Assembly, Tube	1
17	2302985W	Fitting	1	91	2301843W	Fitting	1
18	16568W	Fitting	1	92	2300771W	Fitting	1
19	R16271	Accumulator	1	93	14500W	Fitting	1
20	24257	Trim	AR	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
21	303946W	Gasket	1	300	16909W	Fitting	1
40	279392W	Block	1	301	2300759W	Assembly, Tube	1
41	139W	Pin, Rod End	1	302	16561W	Fitting	1
42	15212W	Pin	1	303	17224W	Fitting	1
43	225712W	Fitting, Special	1	304	2300778W	Assembly, Tube	1
44	16923W	Fitting	3	305	83857W	Fitting	1
45	17777W	Fitting	2	306	2300777W	Assembly, Tube	1
46	16989W	Fitting	2	307	14694W	Fitting	1
47	198385W	Capscrew	3	308	173246W	Clamp	1
48	16559W	Fitting	2	309	16597W	Capscrew	2
49	2301844W	Assembly, Hose	1	310	181089W	Clamp	1
50	2301875W	Assembly, Filter	1	311	16561W	Fitting	1
	3001363W	. Element/O-Ring	1	312	17224W	Fitting	1
	55468W	. . O-Ring	1	313	201761W	Fitting	1
51	133943W	Assembly, Hose	1	314	2301500W	Assembly, Tube	1
52	2300776W	Fitting	1				
53	2300761W	Assembly, Hose	1		*a Use 273338W Pipe Thread Sealant		
54	16948W	Fitting	1		*b Use 318701W Thread Lock		



**Hydraulic Group, Power Controls**

Fiat-Hitachi/New Holland FD14E, DX175/195, FD175/195 (A48); DC180 (A49)

Used on S/N AW6G-1119 through S/N AW6G-1938

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	34	133943W	Assembly, Hose	1
2	17315W	Fitting	1	35	2300776W	Fitting	1
3	2300767W	Assembly, Hose	1	36	2300761W	Assembly, Hose	1
4	2302109W	Clamp	1	37	16948W	Fitting	1
5	2305114W	Bracket, Mounting	1	38	16828W	Capscrew	2
6	16829W	Capscrew	1	39	2300774W	Fitting	1
7	15158W	Washer	4	40	2300762W	Assembly, Tube	1
8	196022W	Gasket	1	41	226450W	Assembly, Valve	1
9	2305987W	Setscrew	2	42	383892W	Assembly, Hose	1
10	219172W	Strainer	1	43	222381W	Fitting	1
11	209639W	Clamp	3	44	16987W	Fitting	1
12	15156W	Washer	5	45	2300301W	Valve, Control (3-52)	1
13	*a 1300780W	Screw, Flanged	8	46	*b 2304823W	Plug	1
14	2300936W	Cover	1	47	15158W	Washer	3
15	2300935W	Gasket	1	48	2305986W	Setscrew	2
16	2302985W	Fitting	1	49	2300767W	Assembly, Hose	1
17	16568W	Fitting	1	52	-----	Cable (See Handling Gear pages) Ref	
18	R16271	Accumulator	1	58	277663W	Assembly, Tube	1
19	24257	Trim	AR	59	2301843W	Fitting	1
20	303946W	Gasket	1	60	2300771W	Assembly, Fitting	2
21	2300760W	Assembly, Hose	1	61	14500W	Fitting	1
22	129563W	Clamp	1	62	14668W	Fitting	1
23	279392W	Block	1	63	*c 16445W	Fitting	1
24	139W	Pin, Rod End	1	64	140288W	Assembly, Hose	1
25	15212W	Pin	1	67	-----	Pump, Hydraulic (3-180 thru 3-183)	1
26	225712W	Fitting	1	71	2301684W	Assembly, Tube	1
27	16923W	Fitting	3	72	16909W	Fitting	1
28	17777W	Fitting	2	73	16561W	Fitting	1
29	16989W	Fitting	2				
30	198385W	Capscrew	3		*a Use 273338W Pipe Thread Sealant		
31	16559W	Fitting	2		*b Use 318701W Adhesive		
32	2301844W	Assembly, Hose	1		*c Use 236308W Loctite		
33	2301875W	Assembly, Filter	1				
	3001363W	. Element/O-Ring	1				
	55468W	. . O-Ring	1				



**Hydraulic Group, Power Controls**

Fiat-Hitachi/New Holland FD14E, DX175/195, FD175/195 (A48); DC180 (A49)

First Used on S/N AW6G-1939

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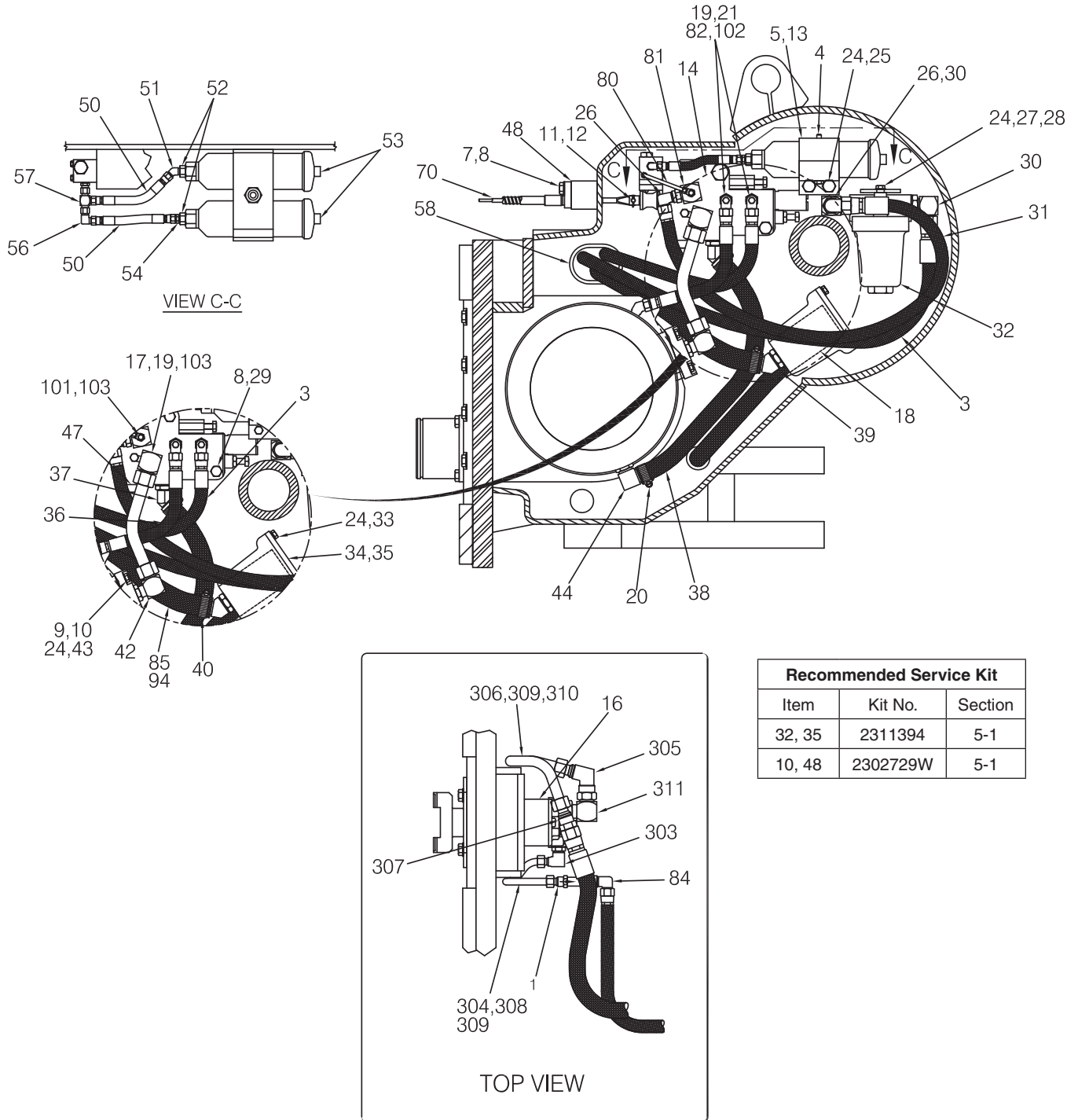
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	63	*b 2304823W	Plug	1
3	2300767W	Assembly, Hose	1	66	2305986W	Setscrew	2
6	2303902W	Screw, Flanged	1	68	2300767W	Assembly, Hose	1
7	15158W	Washer	3	69	R330325	Coupler	1
8	196022W	Gasket	1	70	2314853	Coupler	2
11	219172W	Strainer	1	71	209790	Fitting	1
12	2312581	Clamp	3	72	2314190	Fitting	1
13	15156W	Washer	5	79	303944W	Cable, Push Pull	1
14	*a 1300780W	Screw, Flanged	6	90	277663W	Assembly, Tube	1
15	2300936W	Cover	1	91	2301843W	Fitting	1
16	2300935W	Gasket	1	92	2300771W	Assembly, Fitting	2
17	2302985W	Fitting	1	93	14500W	Fitting	1
18	16568W	Fitting	1	95	14668W	Fitting	1
20	24257	Trim	AR	96	*c 16463W	Fitting	1
21	303946W	Gasket	1	97	140288W	Assembly, Hose	1
30	2300760W	Assembly, Hose	1	141	2302109W	Clamp	1
40	279392W	Block	1	142	2305144W	Bracket, Mounting	1
41	139W	Pin, Rod End	1	143	1300780W	Screw, Flanged	2
42	15212W	Pin	1	144	R16271	Accumulator	1
46	16989W	Fitting	1	145	16989W	Fitting	1
47	198385W	Capscrew	3	146	16559W	Fitting	2
49	2301844W	Assembly, Hose	1	147	2301875W	Assembly, Filter	1
51	133943W	Assembly, Hose	1		3001363W	. Element/O-Ring	1
52	2300776W	Fitting	1		55468W	. . O-Ring	1
53	2300761W	Assembly, Hose	1	148	383892W	Assembly, Hose	1
54	16948W	Fitting	1	149	222381W	Fitting	1
55	16828W	Capscrew	2	150	2302963W	Assembly, Gear Pump (3-182)	1
56	2300774W	Fitting	1				
57	2300762W	Assembly, Tube	1		*a	Use 246108W Pipe Thread Sealant	
58	226450W	Assembly, Valve	1		*b	Use 257291W Adhesive	
61	16987W	Fitting	1		*c	Use 236308W Loctite	
62	2300301W	Valve, Control (3-52)	1				

### Hydraulic Group, Power Controls

John Deere 750/850, 750B/C, 850B/C (E41, E42, E43, E44, E45, E46)

Last Used on S/N AW6G-1027

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**Hydraulic Group, Power Controls**

John Deere 750/850, 750B/C, 850B/C (E41, E42, E43, E44, E45, E46)

Last Used on S/N AW6G-1027

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	46	16568W	Fitting	1
2	17315W	Fitting	1	47	226450W	Assembly, Valve	1
3	2300767W	Assembly, Hose	2	48	303946W	Gasket	1
4	18542W	Capscrew	1	50	217754W	Assembly, Hose	2
5	267487W	Bracket	1	51	14539W	Fitting	1
7	16829W	Capscrew	1	52	327611W	Fitting	2
8	15158W	Washer	4	53	*a 327610W	Accumulator	2
9	279392W	Block	1	54	14669W	Fitting	1
10	196022W	Gasket	1	56	16987W	Fitting	1
11	139W	Pin	1	57	17059W	Fitting	1
12	15212W	Pin	1	58	24257	Trim	AR
13	267488W	Plate	1	70	-----	Cable (See Handling Gear pages)	Ref
14	2300301W	Valve, Control (3-52)	1	80	*c 2301512W	Tube Assembly	1
16	-----	Pump, Hydraulic (3-180 thru 3-183)	1	81	*c 138811W	Fitting	1
17	225712W	Fitting	1		*b 2301843W	Fitting	1
18	219172W	Strainer	1	82	*b 2300771W	Fitting	2
19	16923W	Fitting	3	83	*c 14581W	Fitting	1
20	127045W	Clamp	2	84	*b,*c 16989W	Fitting	1
21	17777W	Fitting	2	85	*c 2300760W	Assembly, Hose	1
23	344839W	Spacer	1	94	*b 2300760W	Assembly, Hose	1
24	15156W	Washer	11	101	*b 2301843W	Fitting	1
25	194090W	Capscrew	2	102	*b 2300771W	Fitting	2
26	16989W	Fitting	2	103	*b 14500W	Fitting	2
27	16598W	Capscrew	2	300	16909W	Fitting	1
28	15176W	Washer	2	301	2300759W	Assembly, Tube	1
29	198385W	Capscrew	3	302	16561W	Fitting	1
30	16559W	Fitting	2	303	17224W	Fitting	1
31	2301844W	Assembly, Hose	1	304	2300778W	Assembly, Tube	1
32	2301875W	Assembly, Filter	1	305	83857W	Fitting	1
	3001363W	. Element/O-Ring	1	306	2300777W	Assembly, Tube	1
	55468W	. . O-Ring	1	307	14694W	Fitting	1
33	16805W	Capscrew	4	308	173246W	Clamp	1
34	2300936W	Cover	1	309	16597W	Capscrew	2
35	2300935W	Gasket	1	310	181089W	Clamp	1
36	133943W	Assembly, Hose	1	311	16561W	Fitting	1
37	2300776W	Fitting	1				
38	2300761W	Assembly, Hose	1		*a	Uses 2300181W Charge Valve; Refer to Service Bulletin A0-Z-28 R4 in Section 7.	
39	276090W	Fitting	1				
40	130845W	Clamp	1		*b	John Deere 750, 750B (E41, E44), 850, 850B (E42, E43)	
42	16948W	Fitting	1		*c	John Deere 750C (E45), 850C (E46)	
43	16828W	Capscrew	2				
44	2300774W	Fitting	1				
45	2300762W	Assembly, Tube	1				

### Hydraulic Group, Power Controls

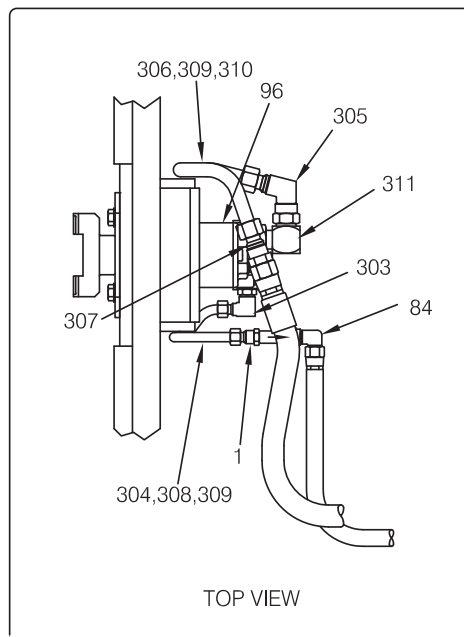
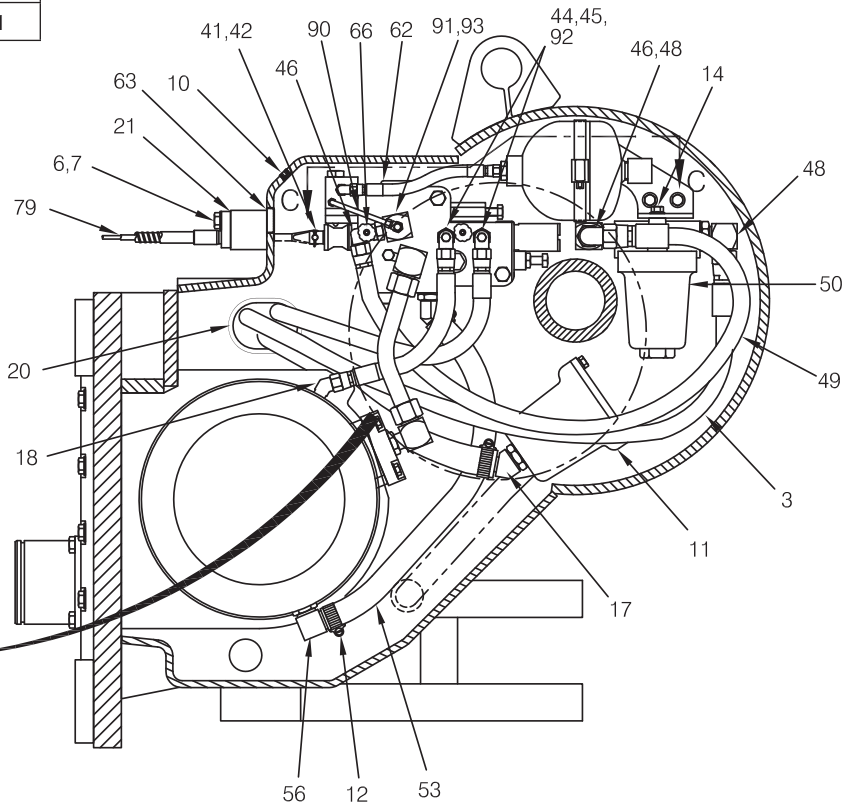
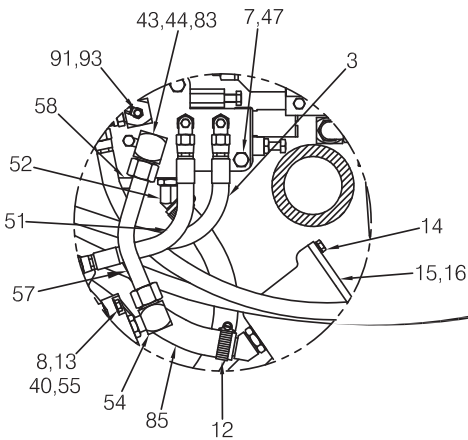
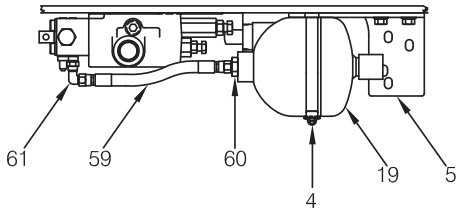
John Deere 750B w/o Cab (E41), 850B w/ Cab (E42), 850B w/o Cab (E43), 750B w/ Cab (E44),  
750C Series I & II (E45), 850C Series I & II (E46)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311167	5-1
8, 21	2302729W	5-1

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TOP VIEW

**Hydraulic Group, Power Controls**

John Deere 750B w/o Cab (E41), 850B w/ Cab (E42), 850B w/o Cab (E43), 750B w/ Cab (E44),  
750C Series I & II (E45), 850C Series I & II (E46)

Used on S/N AW6G-1028 through S/N AW6G-1118

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	60	222381W	Fitting	1
2	17315W	Fitting	1	61	16987W	Fitting	1
3	2300767W	Assembly, Hose	2	62	2300301W	Valve, Control (3-52)	1
4	2302109W	Clamp	1	63	*b 2304823W	Plug	1
5	2305114W	Bracket, Mounting	1	65	15158W	Washer	3
6	16829W	Capscrew	1	66	2305986W	Setscrew	2
7	15158W	Washer	4	79	-----	Cable (See Handling Gear pages) Ref	
8	196022W	Gasket	1	83	*d 14581W	Fitting	1
10	2305987W	Setscrew	2		*c 14500W	Fitting	1
11	219172W	Strainer	1	84	*d 16989W	Fitting	1
12	209639W	Clamp	3	85	230760W	Assembly, Hose	1
13	15156W	Washer	5	90	*c 277663W	Assembly, Tube	1
14	*a 1300780W	Screw, Flanged	8		*d 2301512W	Assembly, Tube	1
15	2300936W	Cover	1	91	*c 2301843W	Fitting	1
16	2300935W	Gasket	1		*d 138811W	Fitting	1
17	2302985W	Fitting	1	92	*c 2300771W	Fitting	1
18	16568W	Fitting	1		*d 2301510W	Fitting	1
19	R16271	Accumulator	1	93	*c 14500W	Fitting	1
20	24257	Trim	AR		*d 14581W	Fitting	1
21	303946W	Gasket	1	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
40	279392W	Block	1	300	16909W	Fitting	1
41	139W	Pin, Rod End	1	301	2300759W	Assembly, Tube	1
42	15212W	Pin	1	302	16561W	Fitting	1
43	225712W	Fitting, Special	1	303	17224W	Fitting	1
44	16923W	Fitting	3	304	2300778W	Assembly, Tube	1
45	17777W	Fitting	2	305	83857W	Fitting	1
46	16989W	Fitting	2	306	2300777W	Assembly, Tube	1
47	198385W	Capscrew	3	307	14694W	Fitting	1
48	16559W	Fitting	2	308	173246W	Clamp	1
49	2301844W	Assembly, Hose	1	309	16597W	Capscrew	2
50	2301875W	Assembly, Filter	1	310	181089W	Clamp	1
50	3001363W	. Element/O-Ring	1	311	16561W	Fitting	1
50	55468W	. . O-Ring	1	312	17224W	Fitting	1
51	133943W	Assembly, Hose	1	313	201761W	Fitting	1
52	2300776W	Fitting	1	314	2301500W	Assembly, Tube	1
53	2300761W	Assembly, Hose	1				
54	16948W	Fitting	1		*a	Use 273338W Pipe Thread Sealant	
55	16828W	Capscrew	2		*b	Use 318701W Thread Lock	
56	2300774W	Fitting	1		*c	John Deere 750, 750B (E41, E44), 850, 850B (E42, E43)	
57	2300762W	Assembly, Tube	1		*d	John Deere 750C Series I & II (E45), 850C Series I & II (E46)	
58	226450W	Assembly, Valve	1				
59	383892W	Assembly, Hose	1				



**Hydraulic Group, Power Controls**

John Deere 750B w/o Cab (E41), 850B w/ Cab (E42), 850B w/o Cab (E43), 750B w/ Cab (E44),  
750C Series I & II (E45), 850C Series I & II (E46)

Used on S/N AW6G-1119 through S/N AW6G-1938

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Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	45	2300301W	Valve, Control (3-52)	1
2	17315W	Fitting	1	46	*b 2304823W	Plug	1
3	2300767W	Assembly, Hose	1	47	15158W	Washer	3
4	2302109W	Clamp	1	48	2305986W	Setscrew	2
5	2305114W	Bracket, Mounting	1	49	2300767W	Assembly, Hose	1
6	16829W	Capscrew	1	50	*f 16989W	Fitting	1
7	15158W	Washer	4	51	*f 2300760W	Assembly, Hose	1
8	196022W	Gasket	1	52	-----	Cable (See Handling Gear pages) Ref	
9	2305987W	Setscrew	2	53	*e 2301512W	Assembly, Tube	1
10	219172W	Strainer	1	54	*e 138811W	Fitting	1
11	209639W	Clamp	3	55	*e 2301510W	Assembly, Fitting	2
12	15156W	Washer	5	56	*e 14581W	Fitting	1
13	*a 1300780W	Screw, Flanged	8	57	*e 2305987W	Setscrew	1
14	2300936W	Cover	1	58	*g 277663W	Assembly, Tube	1
15	2300935W	Gasket	1	59	*g 2301843W	Fitting	1
16	2302985W	Fitting	1	60	*g 2300771W	Assembly, Fitting	2
17	16568W	Fitting	1	61	*g 14500W	Fitting	1
18	R16271	Accumulator	1	62	*g 14668W	Fitting	1
19	24257	Trim	AR	63	*g, *c 16445W	Fitting	1
20	303946W	Gasket	1	64	*g 140288W	Assembly, Hose	1
23	279392W	Block	1	65	*d 16989W	Fitting	1
24	139W	Pin, Rod End	1	66	*d 2300760W	Assembly, Hose	1
25	15212W	Pin	1	67	-----	Pump, Hydraulic (3-180 thru 3-183)	1
26	225712W	Fitting	1	73	16561W	Fitting	1
27	16923W	Fitting	3	74	17224W	Fitting	1
28	17777W	Fitting	2	75	2300778W	Assembly, Tube	1
29	16989W	Fitting	2	76	83857W	Fitting	1
30	198385W	Capscrew	3	77	2300777W	Assembly, Tube	1
31	16559W	Fitting	2	78	14694W	Fitting	1
32	2301844W	Assembly, Hose	1	79	136516W	Clamp	1
33	2301875W	Assembly, Filter	1	80	16597W	Capscrew	2
33	3001363W	. Element/O-Ring	1	81	181089W	Clamp	1
33	55468W	. . O-Ring	1	82	15156W	Washer	2
34	133943W	Assembly, Hose	1				
35	2300776W	Fitting	1		*a	Use 273338W Pipe Thread Sealant	
36	2300761W	Assembly, Hose	1		*b	Use 318701W Adhesive	
37	16948W	Fitting	1		*c	Use 236308W Loctite	
38	16828W	Capscrew	2		*d	John Deere 750 (E41, E44), 850B (E42, E43)	
39	2300774W	Fitting	1		*e	John Deere 750 (E41, E44), 850C Series I & II (E46)	
40	2300762W	Assembly, Tube	1		*f	John Deere 750C Series II (E45), 850C Series II (E46)	
41	226450W	Assembly, Valve	1		*g	All Except John Deere 750C Series II (E45), 850C Series II (E46)	
42	383892W	Assembly, Hose	1				
43	222381W	Fitting	1				
44	16987W	Fitting	1				



### Hydraulic Group, Power Controls

John Deere 750B w/o Cab (E41), 850B w/ Cab (E42), 850B w/o Cab (E43), 750B w/ Cab (E44),  
750C Series I & II (E45), 850C Series I & II (E46)

First Used on S/N AW6G-1939

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	82	*f 2301510W	Assembly, T-Fitting	2
3	2300767W	Assembly, Hose	1	84	*f 2305987W	Setscrew	1
6	2303902W	Screw, Flanged	1	85	*f 14668W	Fitting	1
7	15158W	Washer	3	90	277663W	Assembly, Tube	1
8	196022W	Gasket	1	91	2301843W	Fitting	1
11	219172W	Strainer	1	92	2300771W	Assembly, Fitting	2
12	2312581	Clamp	3	93	14500W	Fitting	1
13	15156W	Washer	5	95	14668W	Fitting	1
14	*a 1300780W	Screw, Flanged	6	96	*c 16463W	Fitting	1
15	2300936W	Cover	1	97	140288W	Assembly, Hose	1
16	2300935W	Gasket	1	104	*e 16989W	Fitting	1
17	2302985W	Fitting	1	105	*e 2300760W	Assembly, Hose	1
18	16568W	Fitting	1	141	2302109W	Clamp	1
20	24257	Trim	AR	142	2305144W	Bracket, Mounting	1
21	303946W	Gasket	1	143	1300780W	Screw, Flanged	2
40	279392W	Block	1	144	R16271	Accumulator	1
41	139W	Pin, Rod End	1	145	16989W	Fitting	1
42	15212W	Pin	1	146	16559W	Fitting	2
46	16989W	Fitting	1	147	2301875W	Assembly, Filter	1
47	198385W	Capscrew	3		3001363W	. Element/O-Ring	1
49	2301844W	Assembly, Hose	1		55468W	. . O-Ring	1
51	133943W	Assembly, Hose	1	148	383892W	Assembly, Hose	1
52	2300776W	Fitting	1	149	222381W	Fitting	1
53	2300761W	Assembly, Hose	1	150	2302963W	Assembly, Gear Pump (3-182)	1
54	16948W	Fitting	1				
55	16828W	Capscrew	2				
56	2300774W	Fitting	1				
57	2300762W	Assembly, Tube	1				
58	226450W	Assembly, Valve	1				
61	16987W	Fitting	1				
62	2300301W	Valve, Control (3-52)	1				
63	*b 2304823W	Plug	1				
66	2305986W	Setscrew	2				
68	2300767W	Assembly, Hose	1				
69	R330325	Coupler	1				
70	2314853	Coupler	2				
71	209790	Fitting	1				
72	2314190	Fitting	1				
75	*d 16989W	Fitting	1				
76	*d 2300760	Assembly, Hose	1				
79	See Chart Below	Cable, Push Pull	1				
80	*f 2301512W	Assembly, Tube	1				
81	*f 138811W	Fitting	1				

Item 79 (Qty. 1) Push Pull Cables		
Part No.	Length (Inch)	Tractor
303941W	74	JD 750B w/o Cab (E41), JD 850B w/o Cab (E43)
303944W	96	JD 750B w/ Cab (E44), JD 850B w/ Cab (E42)

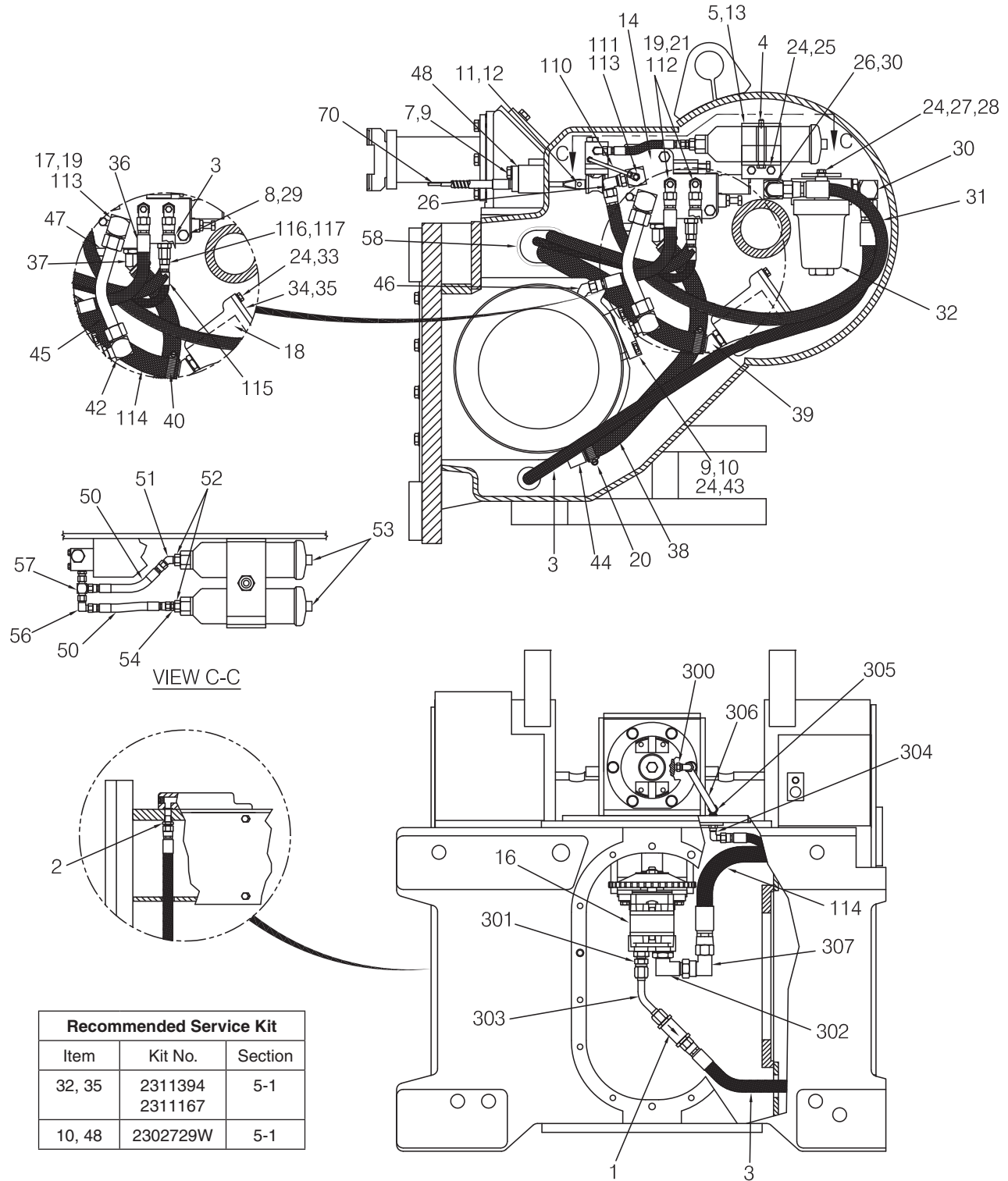
*a	Use 246108W Pipe Thread Sealant
*b	Use 257291W Adhesive
*c	Use 236308W Loctite
*d	Used on John Deere 750C Series I & II (E45)
*e	Used on John Deere 750B/850B (E41, E42, E43, E44)
*f	Used on John Deere 750C Series I & II (E45), 850C Series I & II (E46)

### Hydraulic Group, Power Controls

Komatsu D65EX-12, D65EX-15 (K46)

Last Used on S/N AW6G-1027

Page 1 of 2



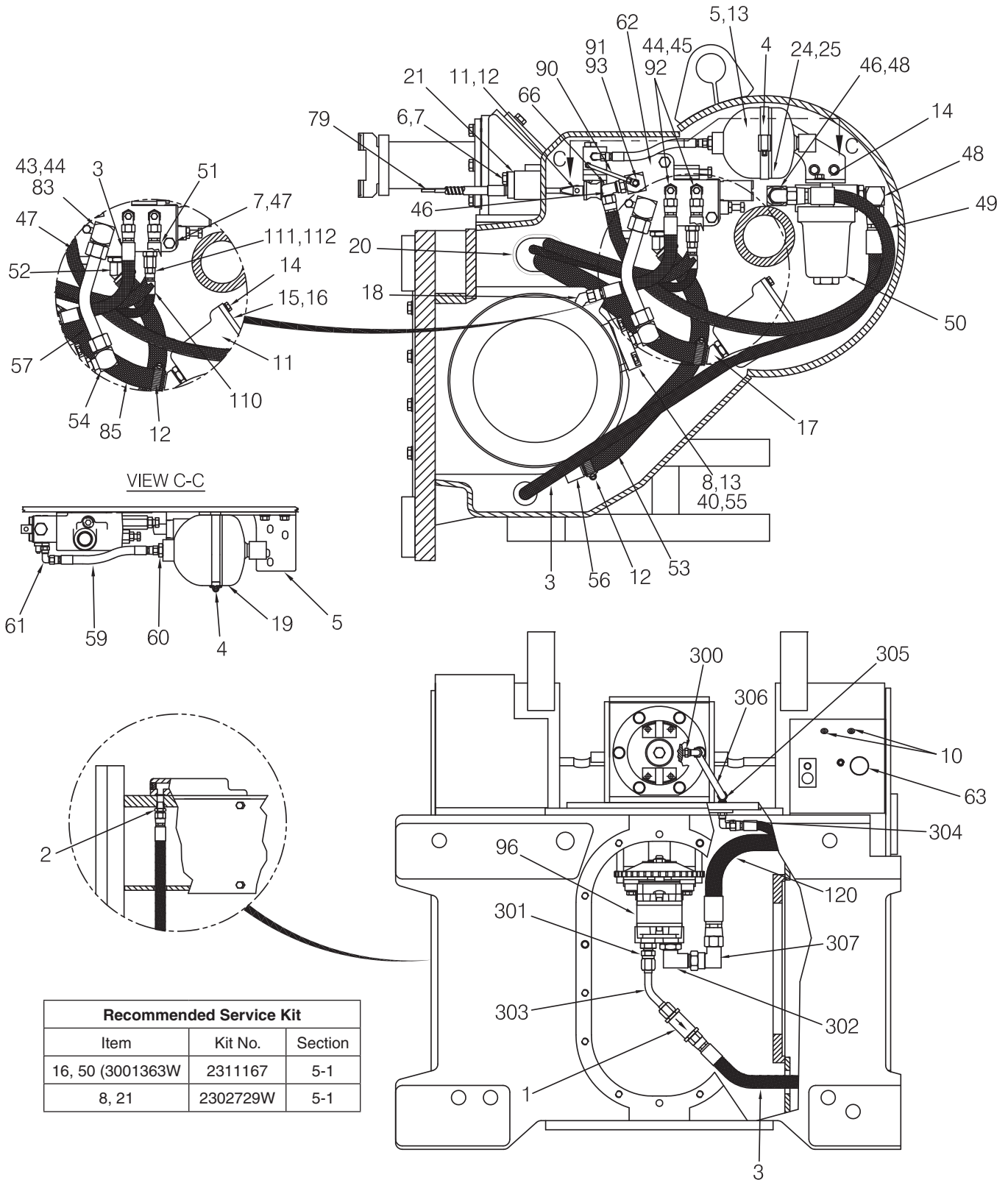
Recommended Service Kit		
Item	Kit No.	Section
32, 35	2311394 2311167	5-1
10, 48	2302729W	5-1





### Hydraulic Group, Power Controls

Komatsu D61EX-12/15, D65EX-12/15 (K47, K46)  
 Used on S/N AW6G-1028 through S/N AW6G-1118  
 Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
16, 50 (3001363W)	2311167	5-1
8, 21	2302729W	5-1

## Hydraulic Group, Power Controls

Komatsu D61EX-12/15, D65EX-12/15 (K47, K46)  
 Used on S/N AW6G-1028 through S/N AW6G-1118  
 Page 2 of 2

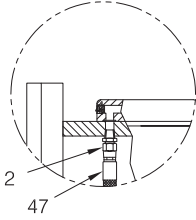
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	54	16948W	Fitting	1
2	17315W	Fitting	1	55	16828W	Capscrew	2
3	2300767W	Assembly, Hose	2	56	2300774W	Fitting	1
4	2302109W	Clamp	1	57	2300762W	Assembly, Tube	1
5	2305114W	Bracket, Mounting	1	58	226450W	Assembly, Valve	1
6	16829W	Capscrew	1	59	383892W	Assembly, Hose	1
7	15158W	Washer	4	60	222381W	Fitting	1
8	196022W	Gasket	1	61	16987W	Fitting	1
10	2305987W	Setscrew	2	62	2300301W	Valve, Control (See 3-52)	1
11	219172W	Strainer	1	63	*b 2304823W	Plug	1
12	209639W	Clamp	3	65	15158W	Washer	3
13	15156W	Washer	5	66	2305986W	Setscrew	2
14	*a 1300780W	Screw, Flanged	8	79	-----	Cable (See Handling Gear pages) Ref	
15	2300936W	Cover	1	83	14500W	Fitting	1
16	2300935W	Gasket	1	90	277663W	Assembly, Tube	1
17	2302985W	Fitting	1	91	2301843W	Fitting	1
18	16568W	Fitting	1	92	2300771W	Fitting	1
19	R16271	Accumulator	1	93	14500W	Fitting	1
20	24257	Trim	AR	95	129563W	Clamp, Strap	1
21	303946W	Gasket	1	96	-----	Pump, Hydraulic (3-180 thru 3-183)	1
40	279392W	Block	1	110	109002W	Assembly, Hose	1
41	139W	Pin, Rod End	1	111	17689W	Fitting	1
42	15212W	Pin	1	112	14713W	Fitting	1
43	225712W	Fitting, Special	1	120	*c 2301646W	Assembly, Hose	1
44	16923W	Fitting	3	300	14500W	Fitting	1
45	17777W	Fitting	2	301	16909W	Fitting	1
46	16989W	Fitting	2	302	16561W	Fitting	1
47	198385W	Capscrew	3	303	2302240W	Assembly, Hose	1
48	16559W	Fitting	2	304	16987W	Fitting	1
49	2301844W	Assembly, Hose	1	305	16455W	Fitting	1
50	2301875W	Assembly, Filter	1	306	140288W	Assembly, Hose	1
	3001363W	. Element/O-Ring	1	307	83857W	Fitting	1
	55468W	. . O-Ring	1				
51	133943W	Assembly, Hose	1		*a	Use 273338W Pipe Thread Sealant	
52	2300776W	Fitting	1		*b	Use 318701W Adhesive	
53	2300761W	Assembly, Hose	1		*c	Komatsu D65EX-12, D65EX-15 (K46) Only	

### Hydraulic Group, Power Controls

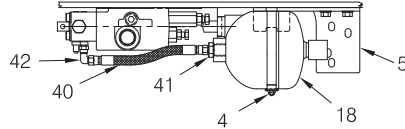
Komatsu D61EX-12/15 (K47), D65EX-12/15 (K46)

Used on S/N AW6G-1119 through AW6G-1938

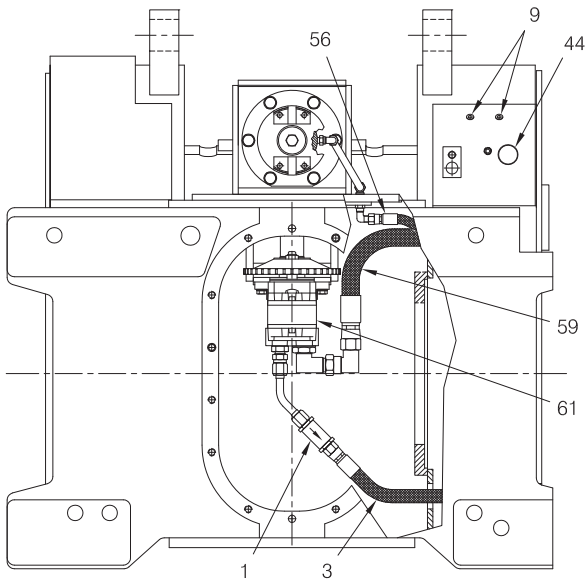
Page 1 of 2



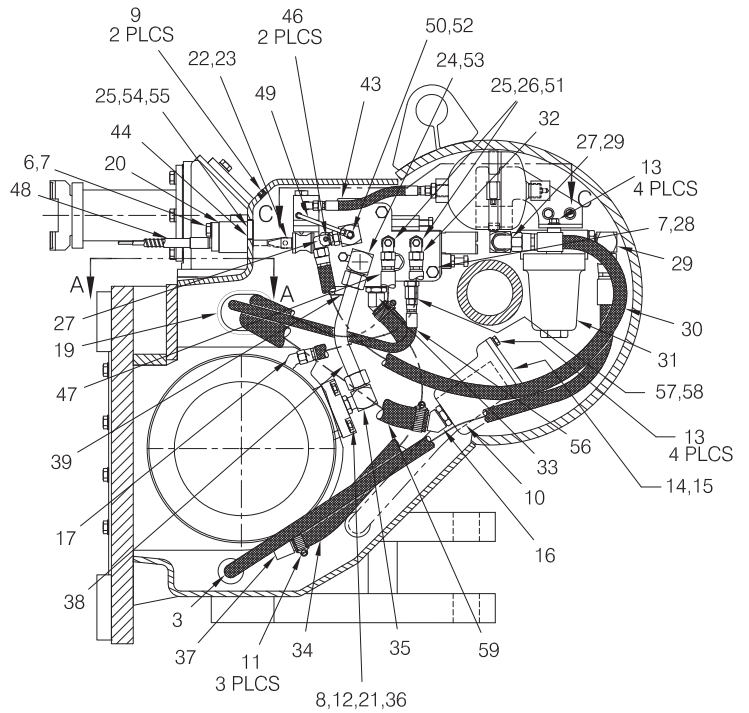
VIEW A-A



VIEW C-C



FRONT VIEW



LEFT SIDE VIEW

Recommended Service Kit		
Item	Kit No.	Section
15, 31 (3001363W)	2311167	5-1
8, 15, 20	2302729W	5-1

**Hydraulic Group, Power Controls**

Komatsu D61EX-12/15 (K47), D65EX-12/15 (K46)

Used on S/N AW6G-1119 through AW6G-1938

Page 2 of 2

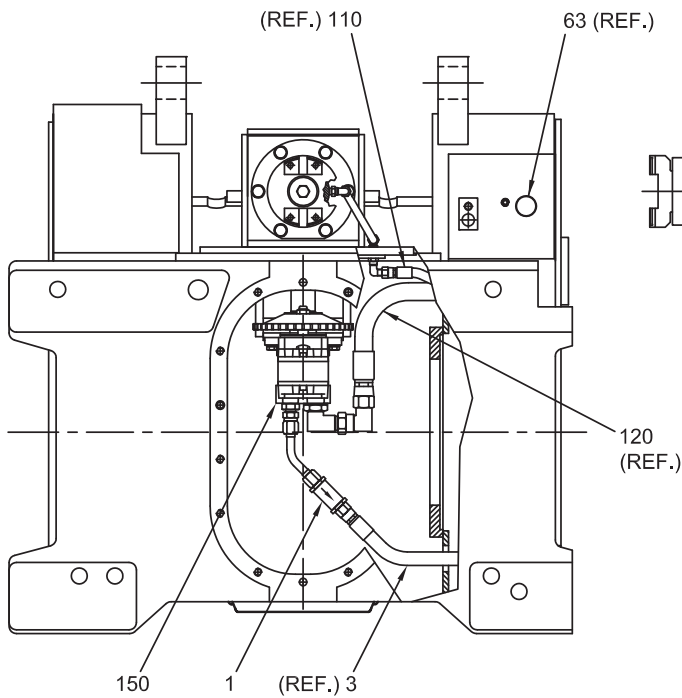
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	35	16948W	Fitting	1
2	17315W	Fitting	1	36	16828W	Capscrew	2
3	2300767W	Assembly, Hose	1	37	2300774W	Fitting	1
4	2302109W	Clamp	1	38	2300762W	Assembly, Tube	1
5	2305114W	Bracket, Mounting	1	39	226450W	Assembly Valve	1
6	16829W	Capscrew	1	40	383892W	Assembly, Hose	1
7	15158W	Washer	4	41	222381W	Fitting	1
8	196022W	Gasket	1	42	16987W	Fitting	1
9	2305987W	Setscrew	2	43	2300301W	Valve, Control (3-52)	1
10	219172W	Strainer	1	44	*b 2304823W	Plug	1
11	209639W	Clamp	3	45	15158W	Washer	3
12	15156W	Washer	5	46	2305986W	Setscrew	2
13	*a 1300780W	Screw, Flanged	8	47	2300767W	Assembly, Hose	1
14	2300936W	Cover	1	48	-----	Cable (See Handling Gear pages) Ref	
15	2300935W	Gasket	1	49	277663W	Assembly, Tube	1
16	2302985W	Fitting	1	50	2301843W	Fitting	1
17	16568W	Fitting	1	51	2300771W	Assembly, Fitting	2
18	R16271	Accumulator	1	52	14500W	Fitting	1
19	24257	Trim	AR	53	14668W	Fitting	1
20	303946W	Gasket	1	54	*c, *e 16445W	Fitting	1
21	279392W	Block	1		*c, *f 16463W	Fitting	1
22	139W	Pin, Rod End	1	55	140288W	Assembly, Hose	1
23	15212W	Pin	1	56	109002W	Assembly, Hose	1
24	225712W	Fitting	1	57	17689W	Fitting	1
25	16923W	Fitting	3	58	14713W	Fitting	1
26	17777W	Fitting	2	59	*d 2301646W	Assembly, Hose	1
27	16989W	Fitting	2	61	-----	Pump, Hydraulic (3-180 thru 3-183)	1
28	198385W	Capscrew	3				
29	16559W	Fitting	2	*a	Use 273338W Pipe Thread Sealant		
30	2301844W	Assembly, Hose	1	*b	Use 318701W Adhesive		
31	2301875W	Assembly, Filter	1	*c	Use 236308W Loctite		
	3001363W	. Element/O-Ring	1	*d	Komatsu D61EX-12/15 (K47), D65EX-12/15 (K46)		
	55468W	. . O-Ring	1	*e	Last Used on S/N AW6G-1402		
32	133943W	Assembly, Hose	1	*f	First Used on S/N AW6G-1403 (Komatsu D65EX-12/15 (K46))		
33	2300776W	Fitting	1				
34	2300761W	Assembly, Hose	1				

### Hydraulic Group, Power Controls

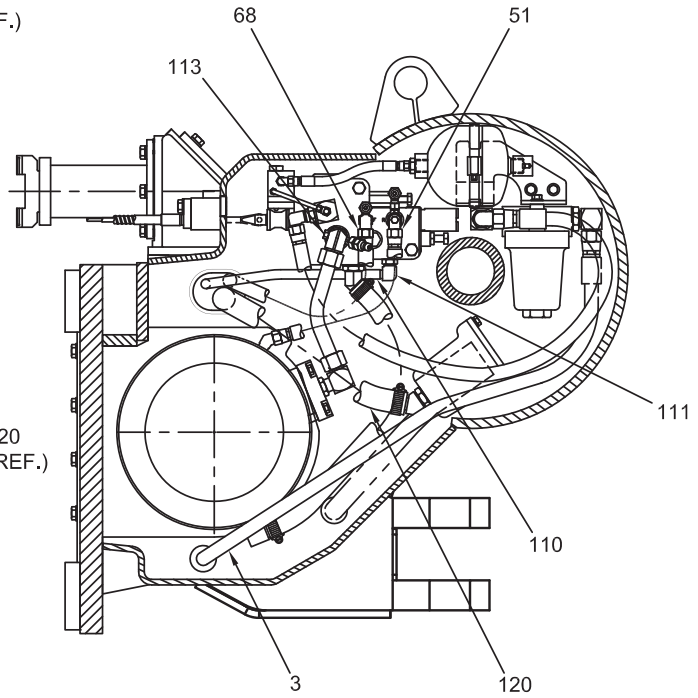
Komatsu D61EX-12/15 (K47), D65EX-12/15 (K46)

First Used on S/N AW6G-1939

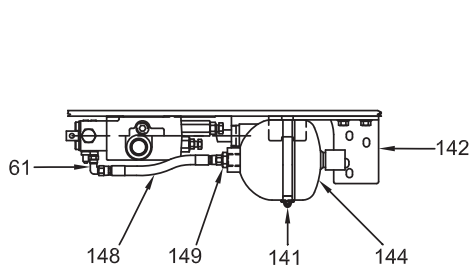
Page 1 of 2



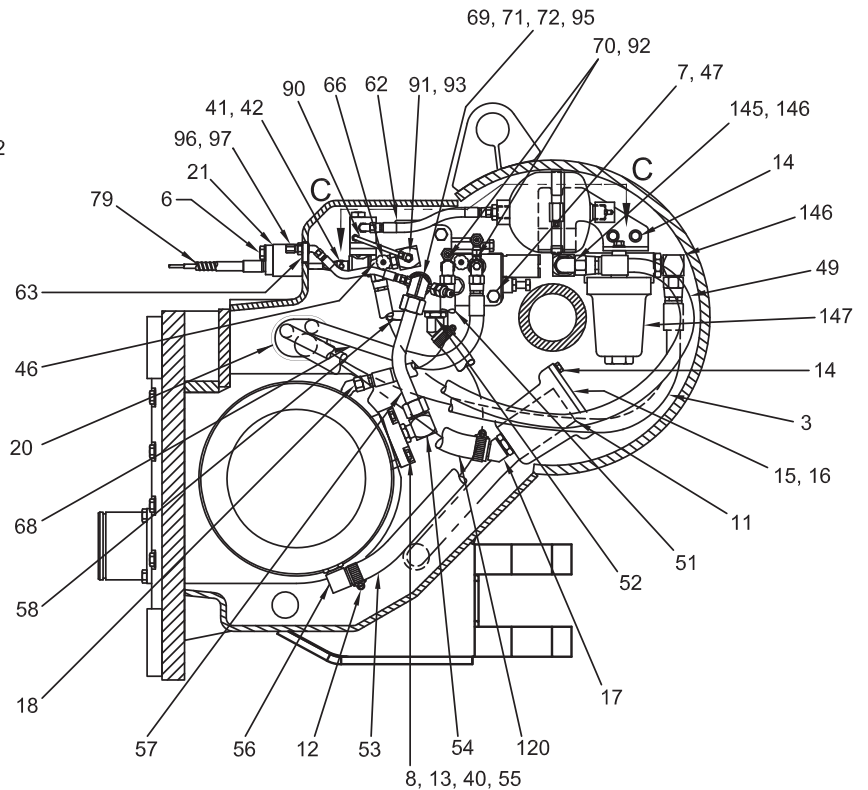
**FRONT VIEW**  
PUMP HOSES



**LEFT SIDE VIEW**  
LUBE FOR DROP BOX



**VIEW C-C**



Recommended Service Kit		
Item	Kit No.	Section
16, 147 (3001363W)	2311167	5-1
8, 16, 21	2302729W	5-1

**Hydraulic Group, Power Controls**

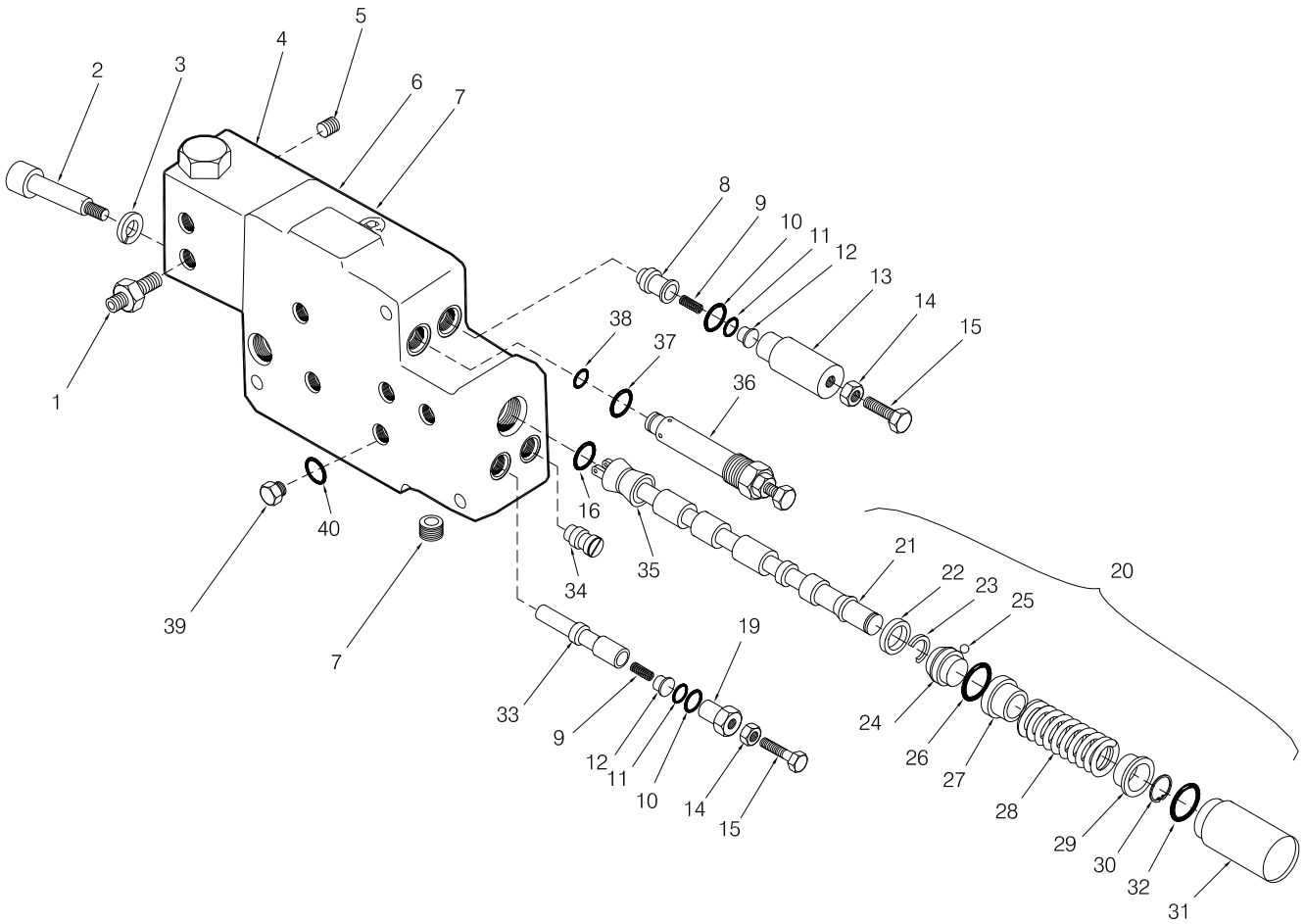
Komatsu D61EX-12/15 (K47), D65EX-12/15 (K46)

First Used on S/N AW6G-1939

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	69	R330325	Coupler	1
3	2300767W	Assembly, Hose	1	70	2314853	Coupler	2
6	2303902W	Screw, Flanged	1	71	209790	Fitting	1
7	15158W	Washer	3	72	2314190	Fitting	1
8	196022W	Gasket	1	79	2305382W	Cable, Push Pull	1
11	219172W	Strainer	1	90	277663W	Assembly, Tube	1
12	2312581	Clamp	3	91	2301843W	Fitting	1
13	15156W	Washer	5	92	2300771W	Assembly, Fitting	2
14	*a 1300780W	Screw, Flanged	6	93	14500W	Fitting	1
15	2300936W	Cover	1	95	14668W	Fitting	1
16	2300935W	Gasket	1	96	*c 16463W	Fitting	1
17	2302985W	Fitting	1	97	140288W	Assembly, Hose	1
18	16568W	Fitting	1	110	109002W	Assembly, Hose	1
20	24257	Trim	AR	111	*d 17689W	Fitting	1
21	303946W	Gasket	1	*e 23396	Fitting	1	
40	279392W	Block	1	113	*b 209511	Fitting	1
41	139W	Pin, Rod End	1	120	2301646W	Assembly, Hose	1
42	15212W	Pin	1	141	2302109W	Clamp	1
46	16989W	Fitting	1	142	2305144W	Bracket, Mounting	1
47	198385W	Capscrew	3	144	R16271	Accumulator	1
49	2301844W	Assembly, Hose	1	145	16989W	Fitting	1
51	133943W	Assembly, Hose	1	146	16559W	Fitting	2
52	2300776W	Fitting	1	147	2301875W	Assembly, Filter	1
53	2300761W	Assembly, Hose	1		3001363W	. Element/O-Ring	1
54	16948W	Fitting	1		55468W	. . O-Ring	1
55	16828W	Capscrew	2	148	383892W	Assembly, Hose	1
56	2300774W	Fitting	1	149	222381W	Fitting	1
57	2300762W	Assembly, Tube	1	150	2302963W	Assembly, Gear Pump (3-182)	1
58	226450W	Assembly, Valve	1		*a	Use 246108W Pipe Thread Sealant	
61	16987W	Fitting	1		*b	Use 257291W Adhesive	
62	2300301W	Valve, Control (3-52)	1		*c	Use 236308W Loctite	
63	*b 2304823W	Plug	1		*d	Last Used on S/N AW6G-1867	
66	2305986W	Setscrew	2		*e	First Used on S/N AW6G-1868	
68	2300767W	Assembly, Hose	1				

Control Valve, Power Controls

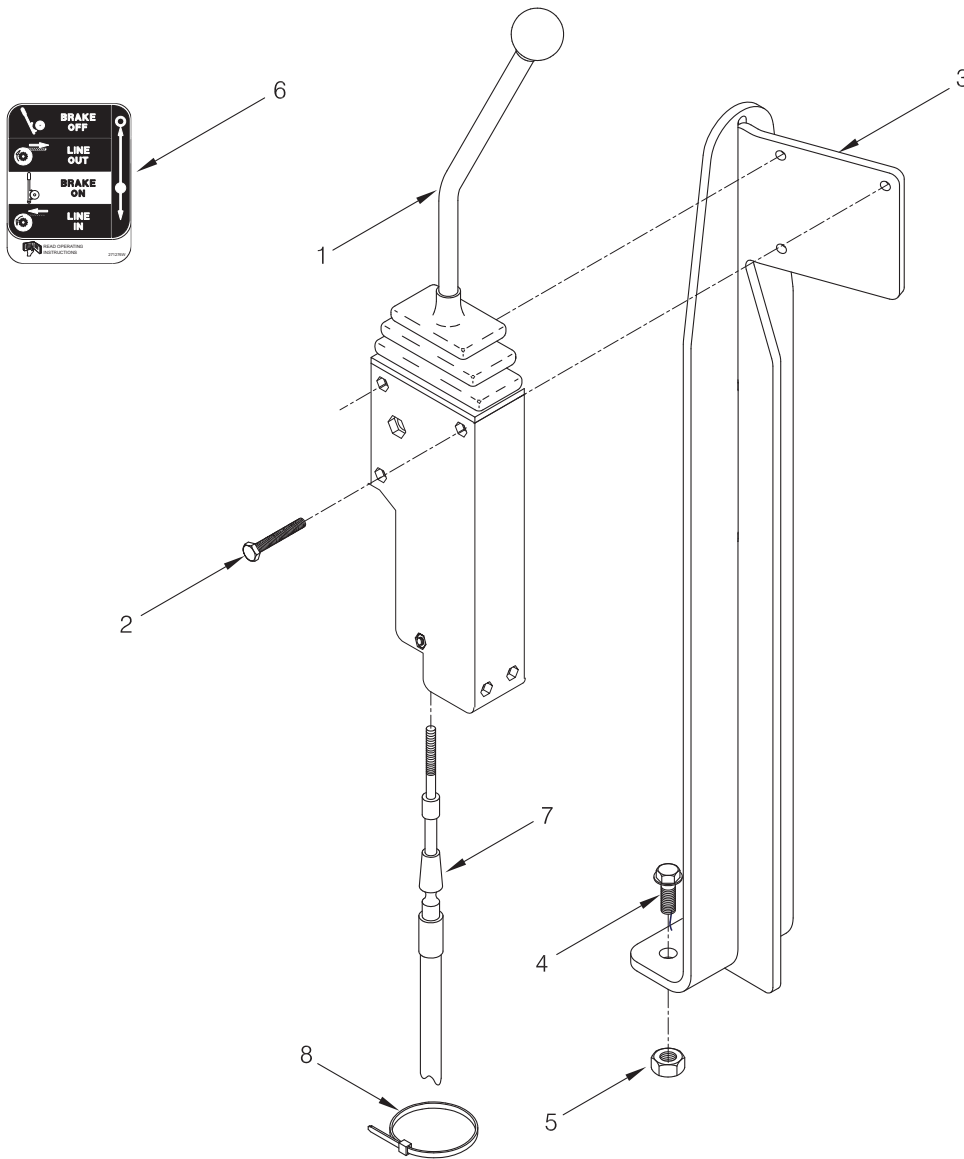


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2300301W</b>	<b>Valve, Control</b>					
1	14668W	. Fitting	2	23	196000W	.. Ring	1
2	241778W	. Screw	2	24	195997W	.. Retainer, Detent	1
3	15156W	. Lockwasher	2	25	170987W	.. Ball	8
4	267018W	. Valve	1	26	118365W	.. O-Ring	1
5	15483W	. Fitting	2	27	238992W	.. Spacer	1
6	2303001W	. Body, Valve	1	28	2303923W	.. Spring, Spool	1
7	15962W	. Fitting	2	29	166905W	.. Retainer, Spring	1
8	196006W	. Spool, Forward Mod	1	30	196002W	.. Ring, Snap	1
9	195992W	. Spring, Relief	2	31	196009W	.. Cap, Spool	1
10	16484W	. O-Ring	2	32	39376W	. O-Ring	1
11	15860W	. O-Ring	2	33	196003W	. Spool, Reverse Mod	1
12	195993W	. Plug	2	34	15314W	. Fitting	1
13	226445W	. Fitting	1	35	279397W	. Cam	1
14	15027W	. Nut, Jam	2	35	68370W	. Pin, Slotted	1
15	195995W	. Capscrew	2	36	2300308W	. Relief	1
16	118361W	. O-Ring	1	37	16484W	.. O-Ring	1
19	196004W	. Fitting	1	38	265787W	.. O-Ring	1
20	262088W	. Spool, PFR	1	39	14595W	. Fitting	1
21	258217W	.. Spool, W 21	1	40	209744	.. O-Ring	1
22	258220W	.. Ring	1				



# Handling Gear, Power Controls

Case Quadtrac (R39)  
without Freespool



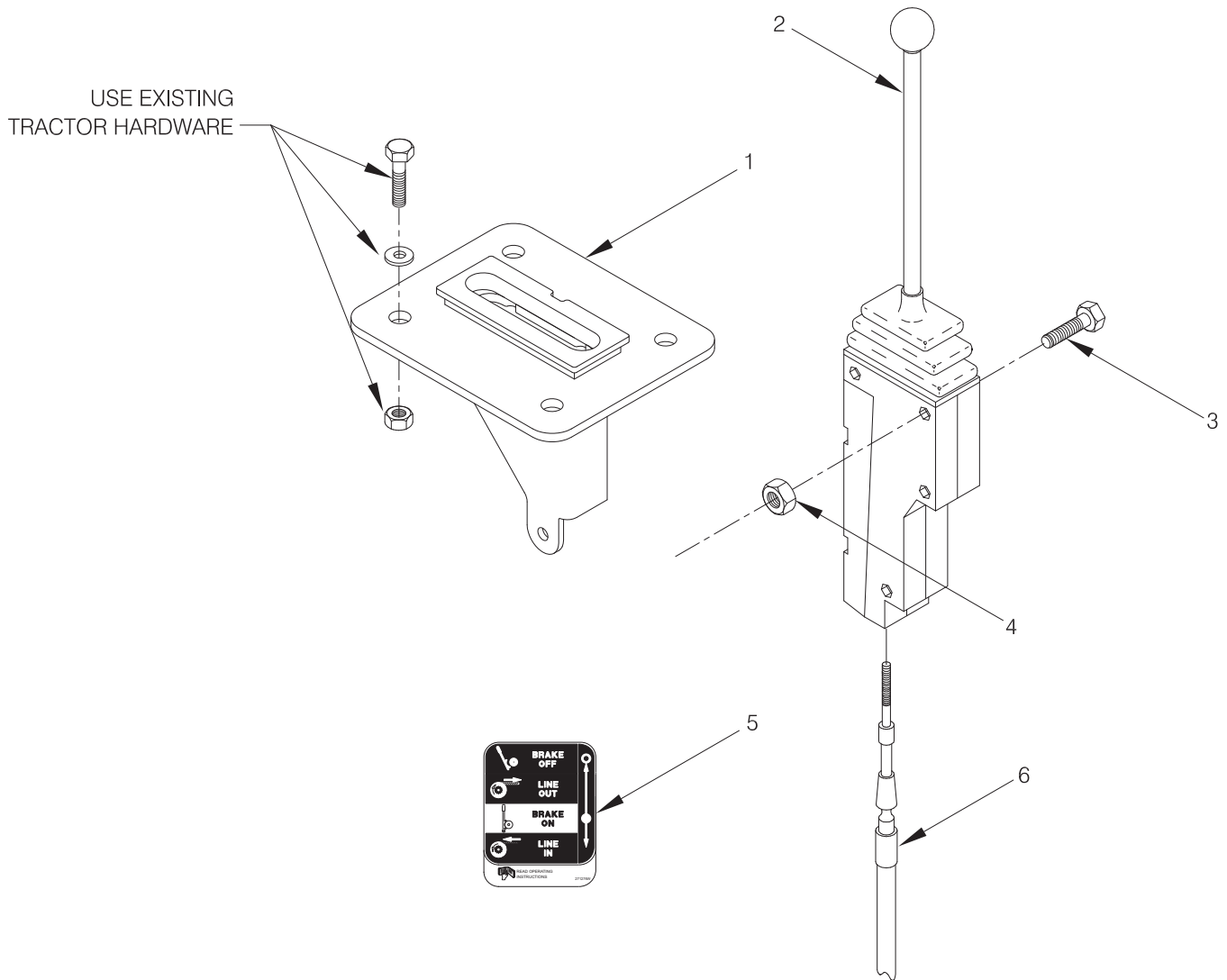
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2304820W	Assembly, Control Lever (3-93)	1	5	156133W	Nut	2
2	2304380W	Capscrew	3	6	277276W	Decal	1
3	2305451W	Bracket, Control Lever	1	7	2305382W	Cable, Control	1
4	174413W	Screw, Flanged	2	8	137852W	Clamp, Strap	AR



# Handling Gear, Power Controls

Caterpillar D6G (C73)

without Freespool



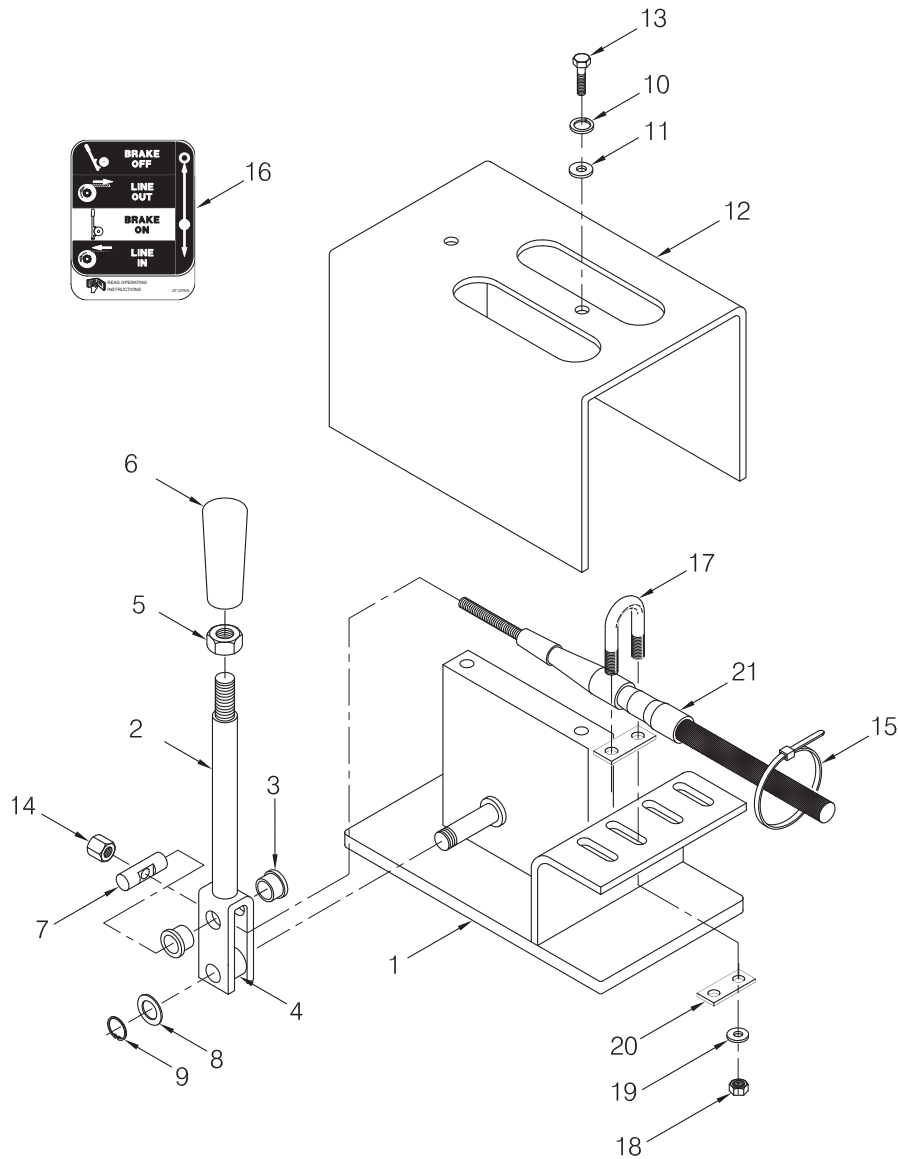
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2306034W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2306033W	. Bracket, Control Lever	1	4	15113W	. Nut	3
2	2303982W	. Assembly, Control Lever (3-93)	1	5	277276W	Decal	1
3	18127W	. Capscrew	3	6	303942W	Cable, Control	1

# Handling Gear, Power Controls

Caterpillar D6H (C480, C481)

without Freespool

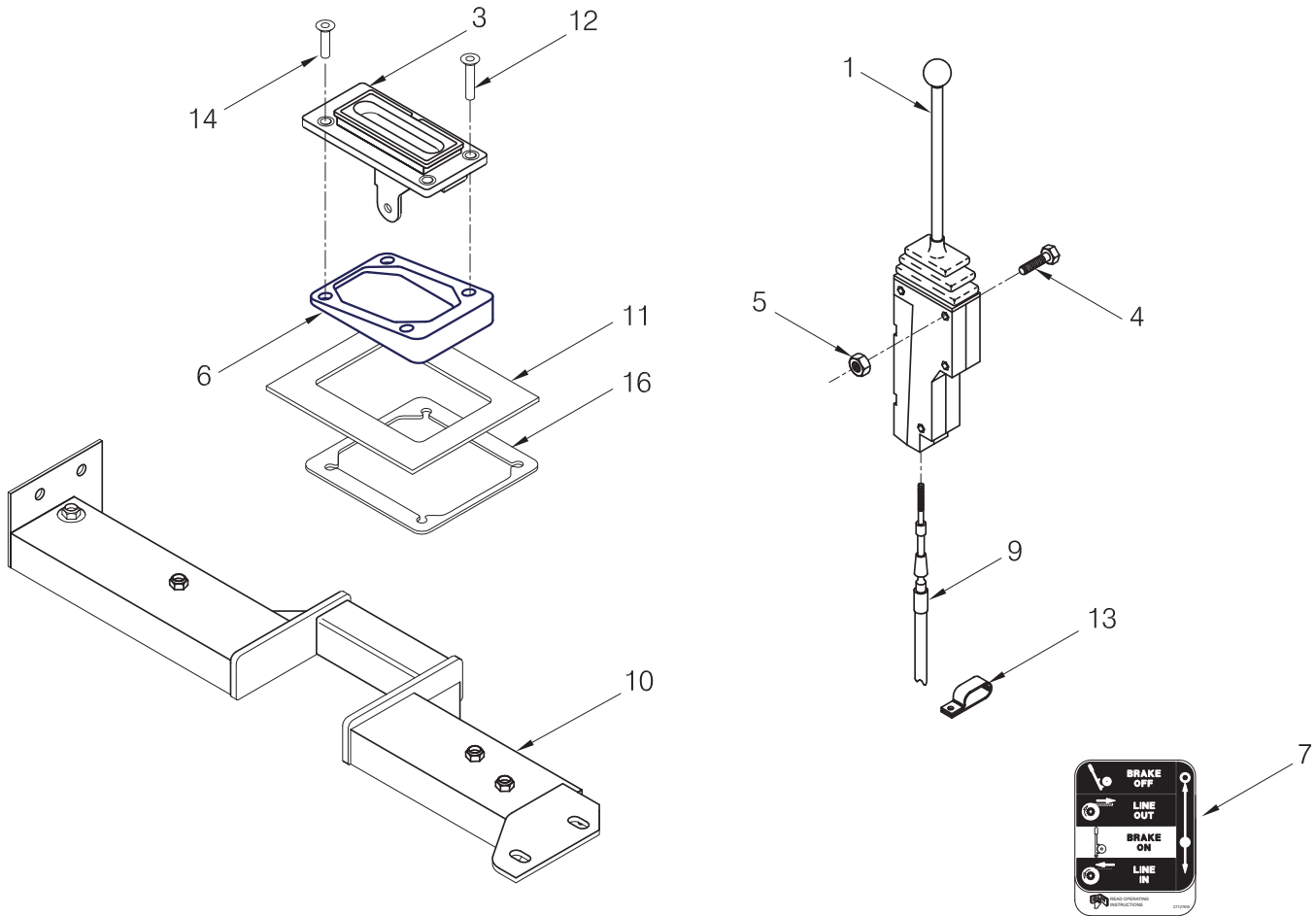
Last Used on S/N AW6G-1026



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2302501W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	381199W	. Bracket	1	13	16836W	. Capscrew	2
2	276036W	. Lever	1	14	2301487W	. Nut, Tall	1
3	196144W	. Bushing	2	15	129563W	Strap, Tie	1
4	276043W	. Bushing	1	16	277276W	Decal, Control Lever	1
5	15030W	. Nut	1	17	*a NSS	U-Bolt	1
6	196469W	. Knob	1	18	*a NSS	Nut	2
7	196128W	. Pin	1	19	*a NSS	Washer	2
8	15135W	. Washer	1	20	*a NSS	Spacer	2
9	190930W	. Ring, Snap	1	21	303941W	Cable, Control	1
10	15155W	. Lockwasher	2				
11	18515W	. Washer	2				
12	332822W	. Cover	1				
				*a	Included in 2300995W U-Bolt Kit		

### Handling Gear, Power Controls

Caterpillar D6R (C50), D6R Series II, III, & D6T (C71)  
without Freespool  
First Used on S/N AW6G-1027



A - D6R (C50)  
B - D6R Series II, III & D6T (C71)

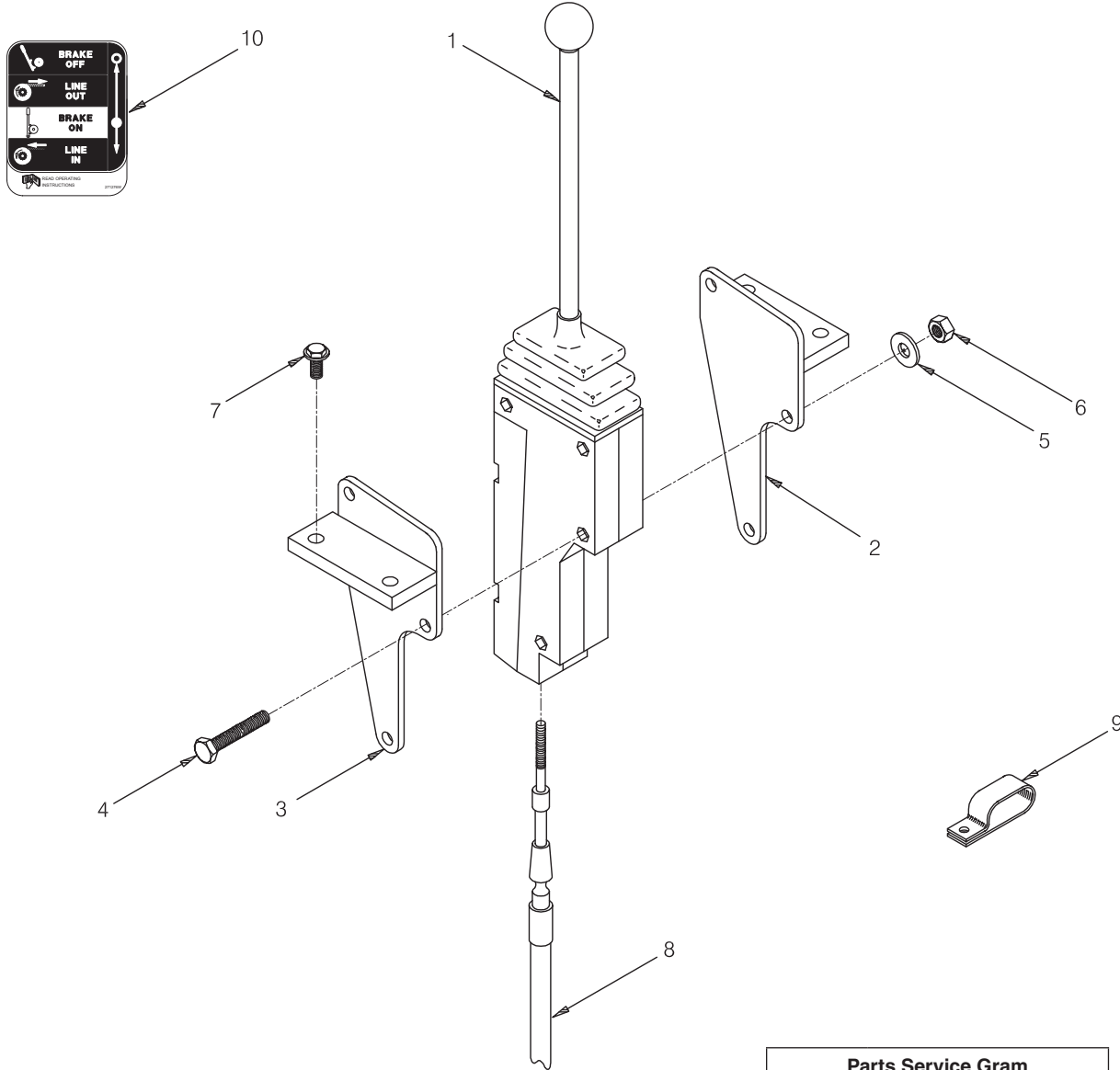
Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
	<b>2304557W</b>	<b>Assembly, Control Lever</b>	1	--					
	<b>2305202W</b>	<b>Assembly, Control Lever</b>	--	1					
1	2303982W	. Lever, Control (3-93)	1	1	11	2304569W	Gasket	1	1
3	2304552W	. Bracket	1	--	12	2304868W	Capscrew	2	--
	2305201W	. Bracket	--	1	12	2305199W	Capscrew	--	2
4	*a 18127W	. Capscrew	3	3	13	129563W	Clamp, Strap	2	2
5	15113W	. Nut	3	3	14	18738W	Capscrew	2	--
6	2304867W	Spacer	1	1	14	296162W	Capscrew	--	2
7	277276W	Decal, Control Lever	1	1	16	2305203W	Gasket	--	1
9	303941W	Cable, Control	1	1					
10	2304571W	Assembly, Channel	1	1					
					*a	Use 358674W Sealant			

# Handling Gear, Power Controls

Fiat-Hitachi/New Holland FD/FH14E (A48)

without Freespool

Last Used on S/N AW6G-1021

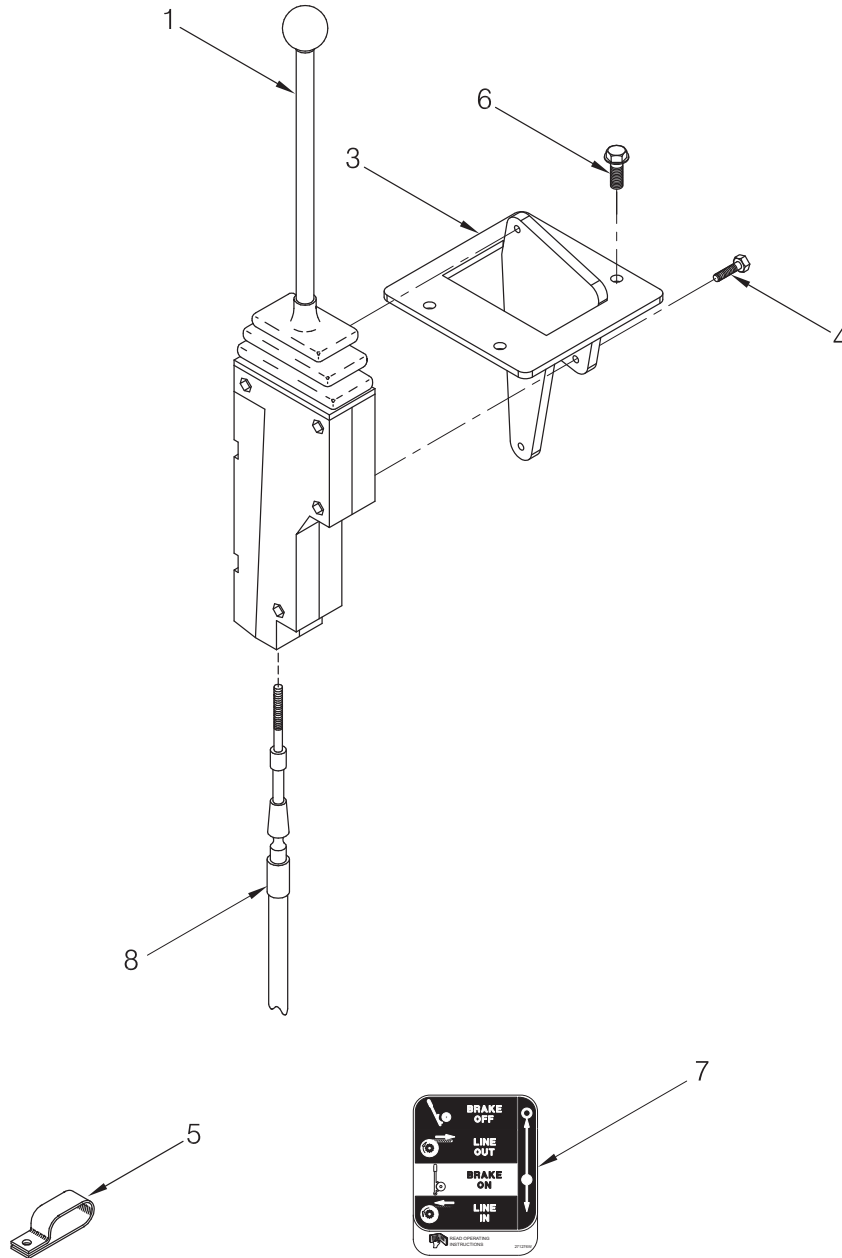


Parts Service Gram	
Item	Gram
All	Contact your dealer

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2301271W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	1300785W	. Assembly, Control Lever (3-92)	1	6	15055W	. Nut	3
2	1308437W	. Bracket, RH	1	7	397161W	Cap screw	4
3	1308436W	. Bracket, LH	1	8	303945W	Cable, Control	1
4	18513W	. Capscrew	3	9	110322W	Clamp	2
5	15155W	. Washer	3	10	277276W	Decal	1

### Handling Gear, Power Controls

Fiat-Hitachi/New Holland FD/FH14E, FD 175/195, DX 175/195 (A48)  
 without Freespool  
 First Used on S/N AW6G-1022

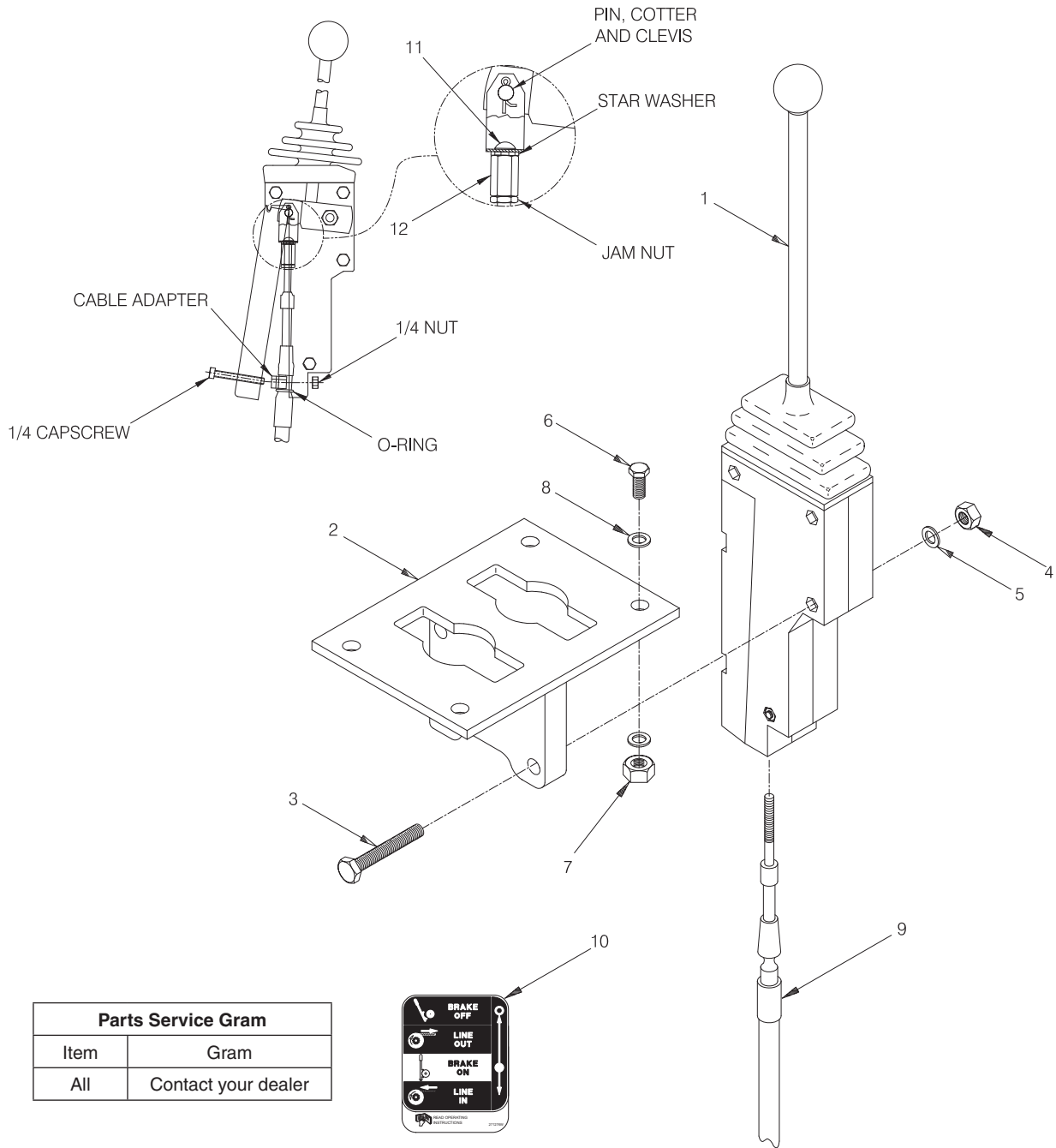


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2304330W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2303984W	. Assembly, Control Lever (3-93)	1	6	397161W	Screw, Flanged	4
3	2304395W	. Bracket	1	7	277276W	Decal	1
4	2304380W	. Capscrew	3	8	303945W	Cable, Control	1
5	110322W	Clamp	2				

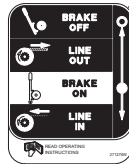
# Handling Gear, Power Controls

D65EX-12, D65EX-15 (K46)

without Freespool



Parts Service Gram	
Item	Gram
All	Contact your dealer

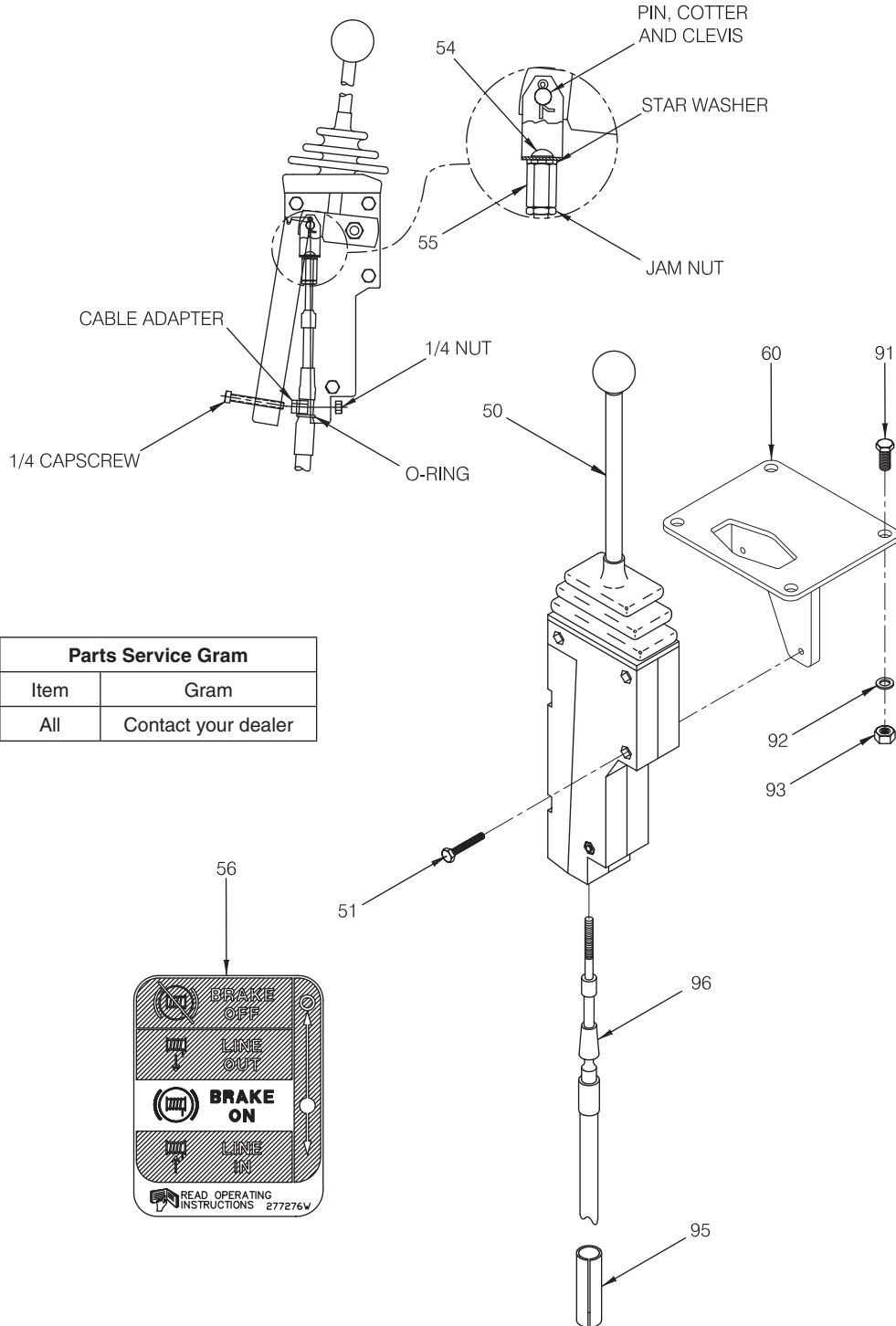


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a, *c 1300785W	Assembly, Control Lever (See 3-92)	1	8	15134W	Washer	8
	*a, *d 2303984W	Assembly, Control Lever (See 3-93)	1	9	303944W	Cable	1
2	*c 2301030W	Bracket	1	10	277276W	Decal	1
	*d 2304304W	Bracket	1	11	18717W	Capscrew	1
3	*c 18518W	Capscrew	3	12	383881W	Nut, Tall	1
	*d 2304380W	Capscrew	3				
4	*c 191534W	Locknut	3		*a	Protective Trim P/N 2301055 Added	
5	*c 18515W	Washer	3		*b	Requires 230064W Sealant Kit	
6	*b 16805W	Capscrew	4		*c	Last Used on S/N AW6G-1021	
7	221707W	Nut	4		*d	First Used on S/N AW6G-1022	



# Handling Gear, Power Controls

Komatsu D61EX-12, D61EX-15 (K47)  
without Freespool

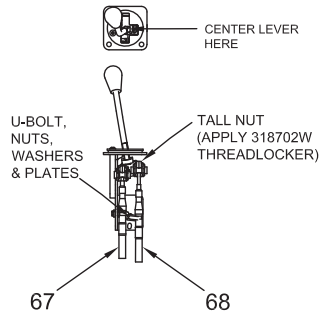


Parts Service Gram	
Item	Gram
All	Contact your dealer

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
50	2303984W	Assembly, Control Lever (3-93)	1	91	16828W	Capscrew	4
51	2304380W	Capscrew	3	92	15134W	Washer	8
54	18717W	Capscrew	1	93	221707W	Nut	4
55	383881W	Nut, Tall	1	94	2301055W	Trim, Protective (Not Shown)	1.5 ft
56	277276W	Decal, Control Lever PFR w/o FS	1	95	2303039W	Guard, Cable	1
60	2314425	Bracket, Control Lever	1	96	303944W	Cable, Control	1
90	137852W	Clamp, Strap (Not Shown)	4				

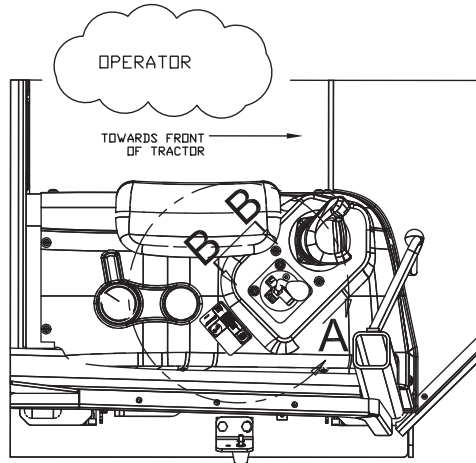
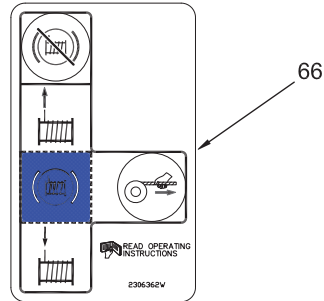
# Handling Gear, Power Controls

Case 1650L (R40), 1850K (R49)  
with Freespool

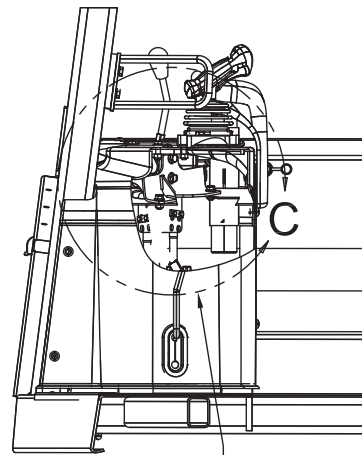


## SECTION B-B

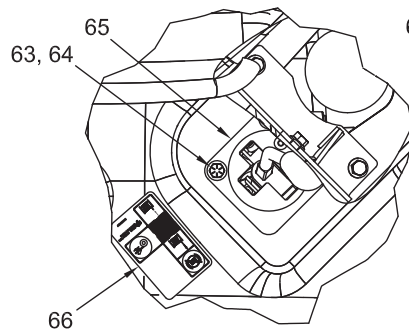
DETAIL VIEW OF CONTROL LEVER & CABLES



RIGHT HAND SIDE OF CONSOLE  
POWER CONTROLS  
CONTROL LEVER INSTALLATION

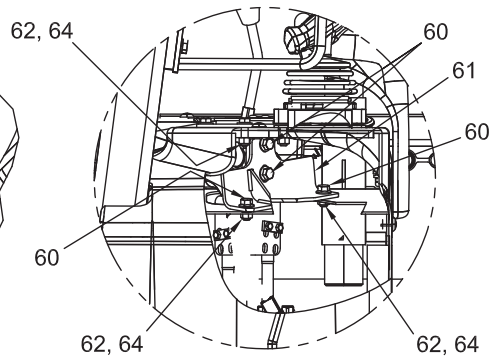


RIGHT HAND SIDE OF CONSOLE  
VIEWED TOWARD BACK OF TRACTOR



## DETAIL A

CUTOUT VIEW TO SHOW CONTROL LEVER  
REINFORCEMENT BRACKET

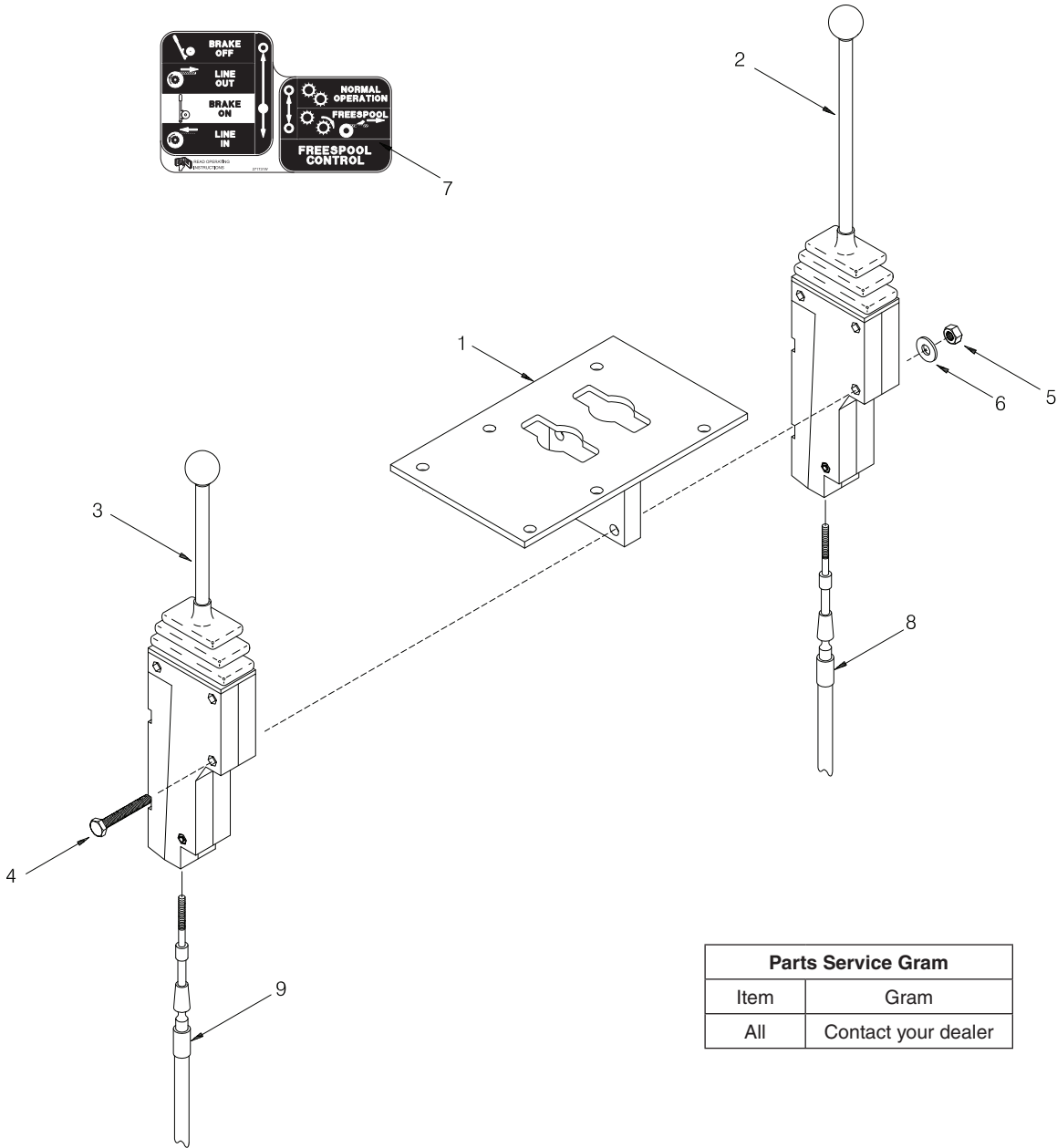


## DETAIL C

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
60	134803W	Screw, Flange	4	65	2310105	Assembly, Control Lever (3-96)	1
61	2310108	Bracket	1	66	2306362W	Decal	1
62	221707W	Nut	5	67	303944W	Cable, Control	1
63	221499W	Capcrew	3	68	303942W	Cable, Freespool	1
64	15134W	Washer	8				

# Handling Gear, Power Controls

Caterpillar D6D, D6E (C43)  
with Freespool



Parts Service Gram	
Item	Gram
All	Contact your dealer

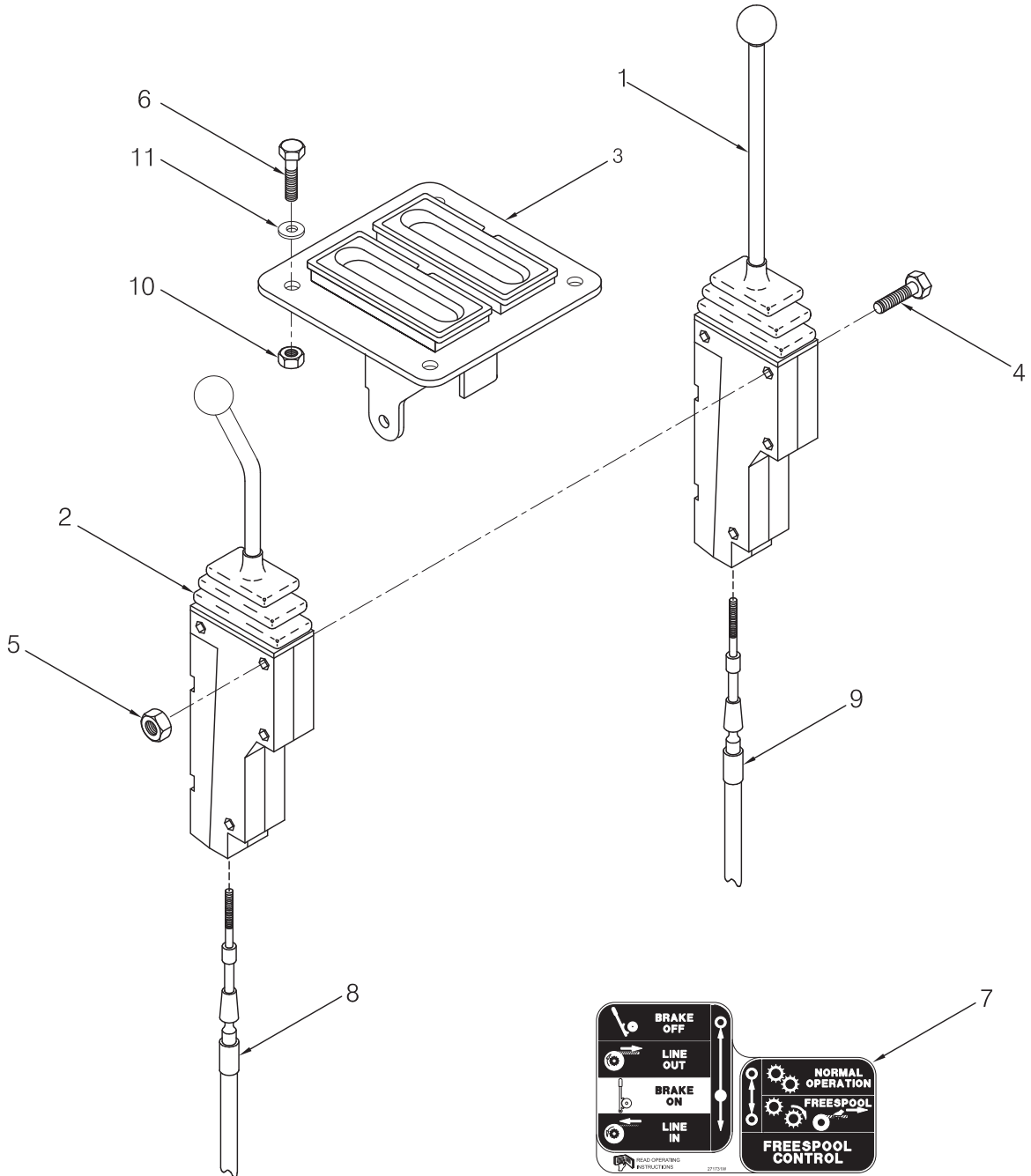
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 2300326W	Bracket	1		2304380W	Capscrew	6
	2304506W	Bracket	1	5	*a 191534W	Nut	3
2	*a 1300785W	Assembly, Control Lever (3-92)	1	6	*a 18515W	Washer	3
	2303984W	Assembly, Control Lever (3-93)	1	7	271731W	Decal	1
3	*a 383880W	Assembly, Control Lever - Freespool (3-92)	1	8	303941W	Cable, Control	1
	2303982W	Assembly, Control Lever - Freespool (3-93)	1	9	303938W	Cable, Freespool	1
4	*a 18528W	Capscrew	3		*a	Last Used on S/N AW6G-1021	

# Handling Gear, Power Controls

Caterpillar D6G (C73)

with Freespool

Page 1 of 2



## Handling Gear, Power Controls

Caterpillar D6G (C73)

with Freespool

Page 2 of 2

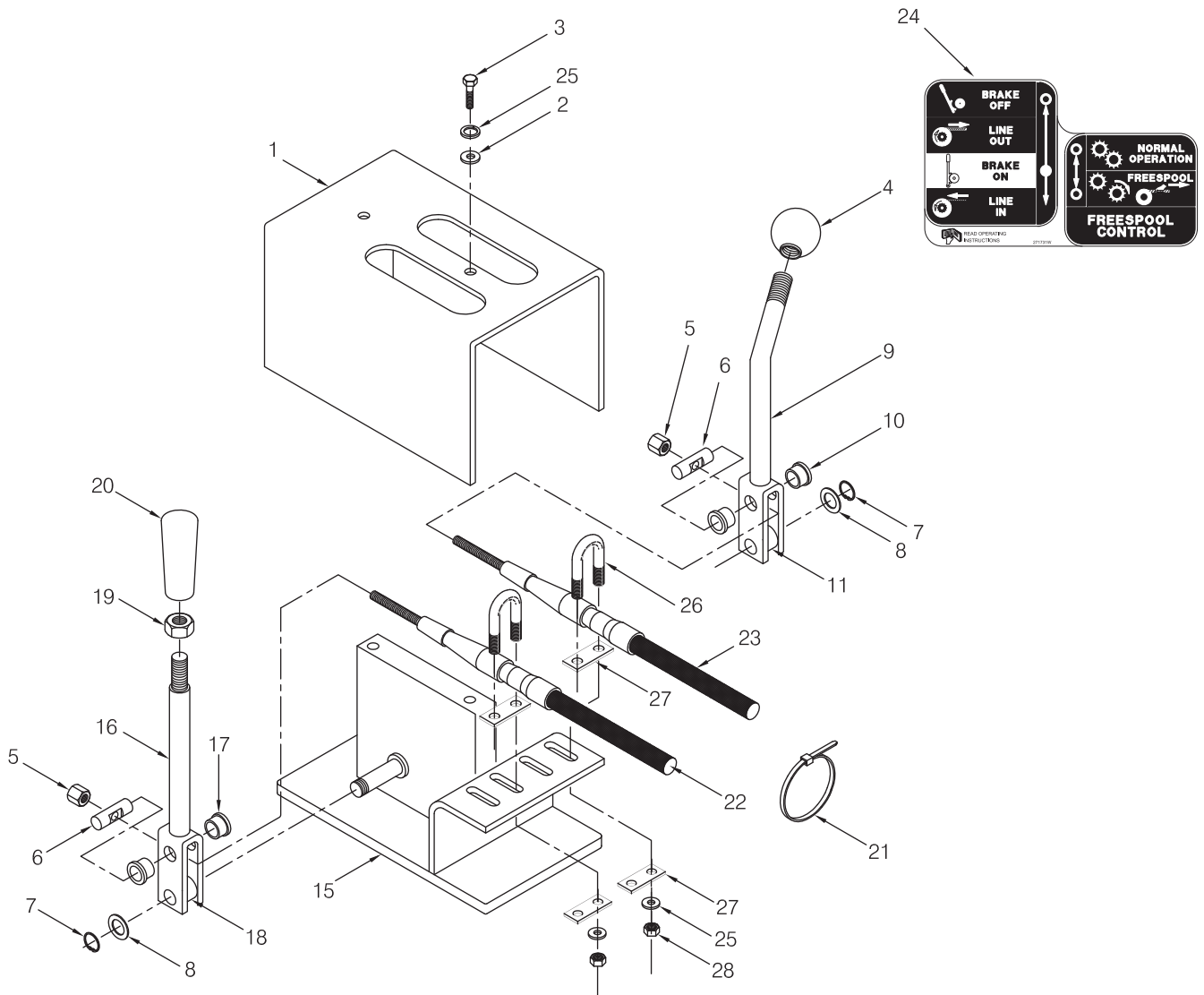
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2304565W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2303982W	. Assembly, Control Lever (3-93)	1	6	16338W	Capscrew	4
2	2303986W	. Assembly, Control Lever - Freespool (3-93)	1	7	271731W	Decal	1
3	2304566W	, Bracket, Control Lever	1	8	303939W	Cable, Freespool	1
4	2304382W	. Capscrew	3	9	303942W	Cable, Control	1
5	15113W	. Nut	3	10	15054W	Nut	4
				11	15154W	Washer	4

# Handling Gear, Power Controls

Caterpillar D6H (C480, C481)

with Freespool

Page 1 of 2



**Handling Gear, Power Controls**

Caterpillar D6H (C480, C481)

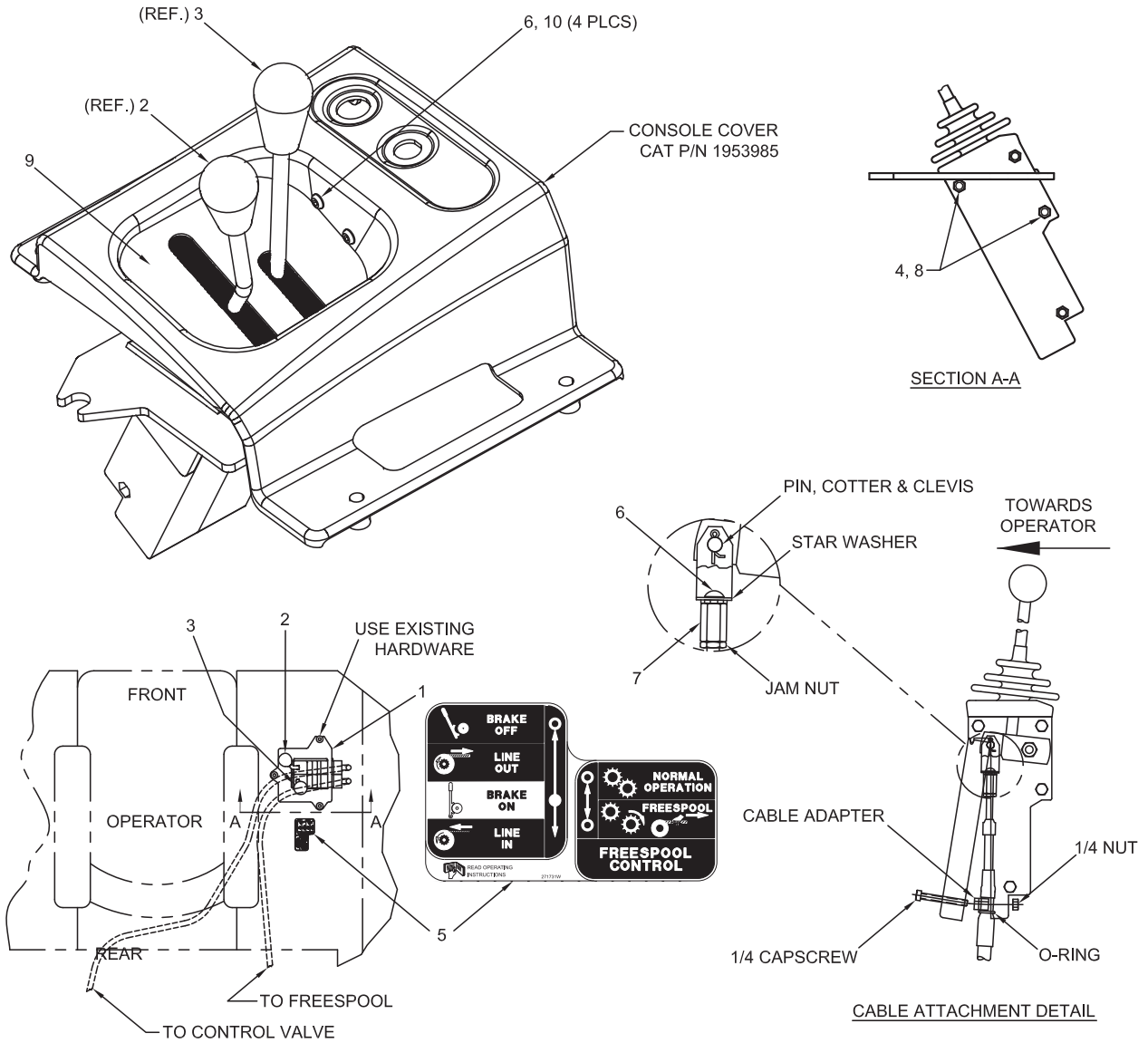
with Freespool

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>383150W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	332822W	. Cover	1	18	276043W	.. Bushing	1
2	18515W	. Washer	2	19	15030W	. Nut	1
3	16836W	Capscrew	2	20	2303105W	. Knob	1
4	243189W	. Knob	1	21	129563W	Clamp, Strap	1
5	2301487W	. Locknut	2	22	303944W	Cable, Control	1
6	196128W	. Pin	2	23	303942W	Cable, Freespool	1
7	190930W	. Ring, Snap	2	24	271731W	Decal	1
8	15155W	. Washer	2	25	*a NSS	Lockwasher	6
9	276037W	. Lever	1	26	*a NSS	U-Bolt	2
10	196144W	.. Bushing	2	27	*a NSS	Spacer	4
11	276043W	.. Bushing	1	28	*a NSS	Nut	4
15	381199W	. Bracket	1				
16	276036W	. Lever	1		*a	Included in 2300995W U-Bolt Kit	
17	196144W	.. Bushing	2			(Quantity 2 Kits Used in This Installation)	

# Handling Gear, Power Controls

Caterpillar D6N (C47) with Freespool  
for Tractors with Mechanical Controls





**Handling Gear, Power Controls**Caterpillar D6N (C47) with Freespool  
for Tractors with Mechanical Controls

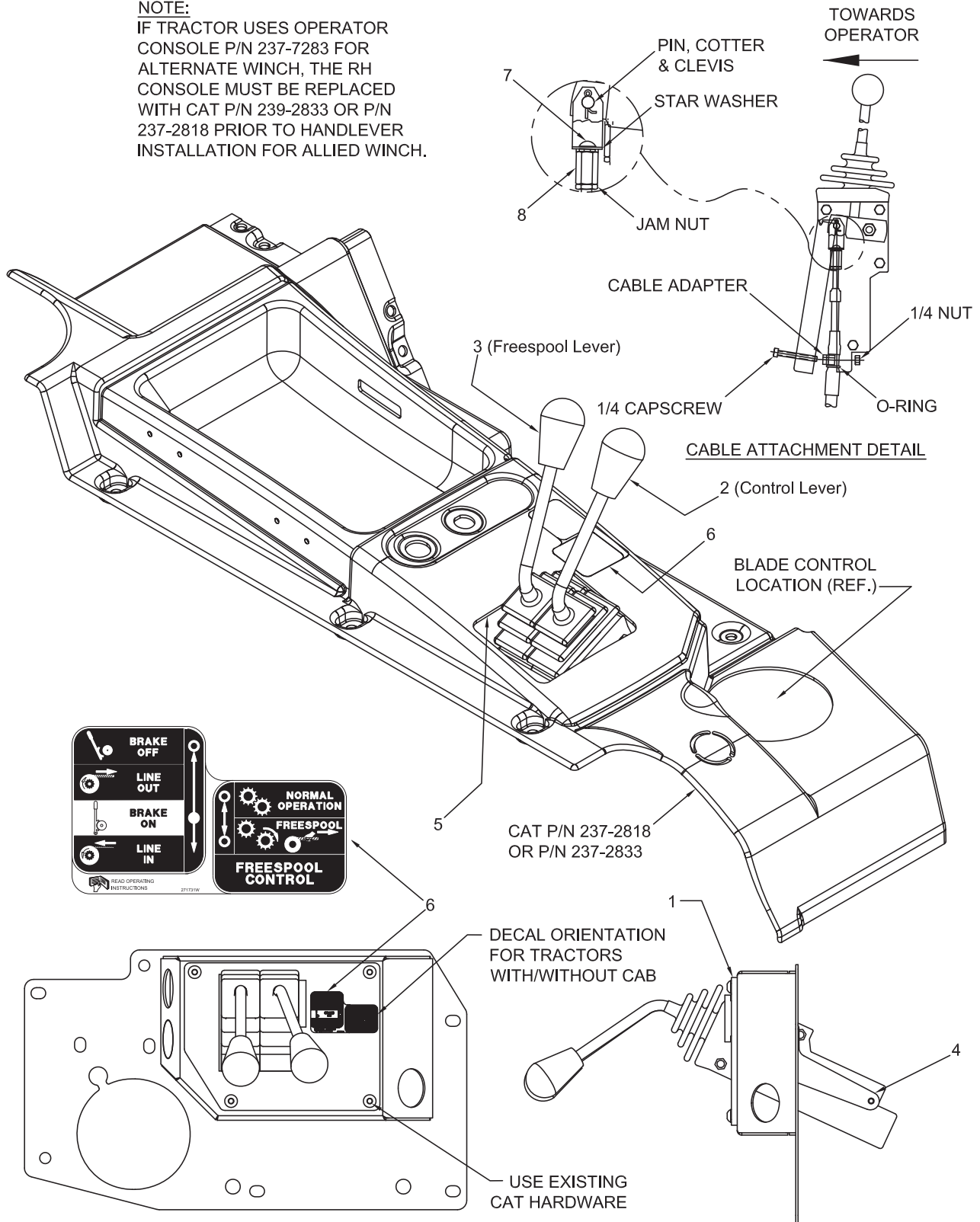
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2305612W	Bracket	1	9	2305977W	Plate, Cover	1
2	2305979W	Assembly, Control Lever (3-93)	1	10	15004W	Nut	4
3	2305978W	Assembly, Control Lever - Freespool (3-93)	1	11	137852W	Clamp, Strap (Not Shown)	AR
4	*a 2301054W	Capscrew	2	12	2303437W	Decal (ISO Standard Only, Not Shown)	1
5	271731W	Decal	1	13	303939W	Cable, Control (Not Shown)	1
6	*a 18717W	Capscrew	6	14	303942W	Cable, Freespool (Not Shown)	1
7	383881W	Nut, Tall	2				
8	15054W	Nut	2	*a	Use 318702W Thread Lock		

### Handling Gear, Power Controls

For Tractors with Pilot Hydraulic Controls, with or without Cab  
 Caterpillar D6N (C78) with Freespool  
 Page 1 of 2

**NOTE:**  
 IF TRACTOR USES OPERATOR  
 CONSOLE P/N 237-7283 FOR  
 ALTERNATE WINCH, THE RH  
 CONSOLE MUST BE REPLACED  
 WITH CAT P/N 239-2833 OR P/N  
 237-2818 PRIOR TO HANDLEVER  
 INSTALLATION FOR ALLIED WINCH.



**Handling Gear, Power Controls**

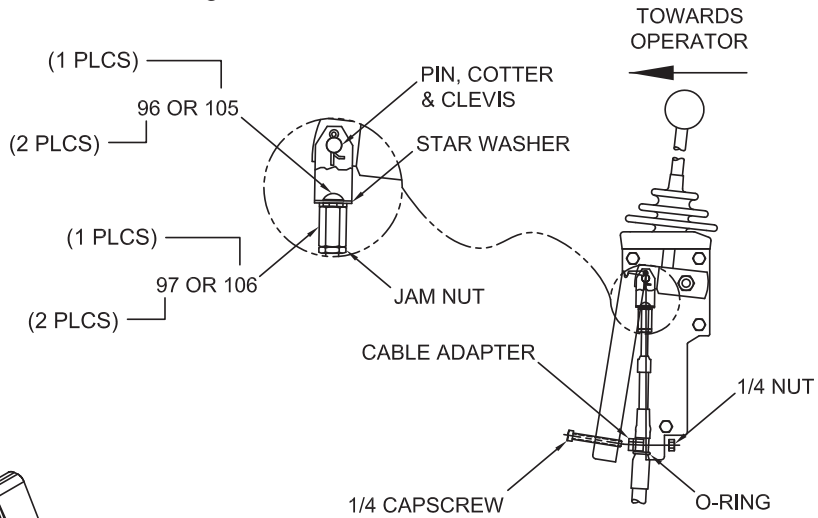
For Tractors with Pilot Hydraulic Controls, with or without Cab  
 Caterpillar D6N (C78) with Freespool  
 Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2306661W	Bracket	1	11	137852W	Clamp, Strap (Not Shown)	AR
2	2306703W	Assembly, Control Lever	1	12	2303437W	Decal (ISO Standard Only, Not Shown)	1
3	2306704W	Assembly, Control Lever - Freespool	1	13	303939W	Cable, Control (Not Shown)	1
4	2304381W	Capscrew	2	14	303942W	Cable, Freespool (Not Shown)	1
5	225871	Trim	1.67 ft				
6	271731W	Decal	1				
7	*a 18717W	Capscrew	2		*a Use 318702W Thread Lock		
8	383881W	Nut, Tall	2				

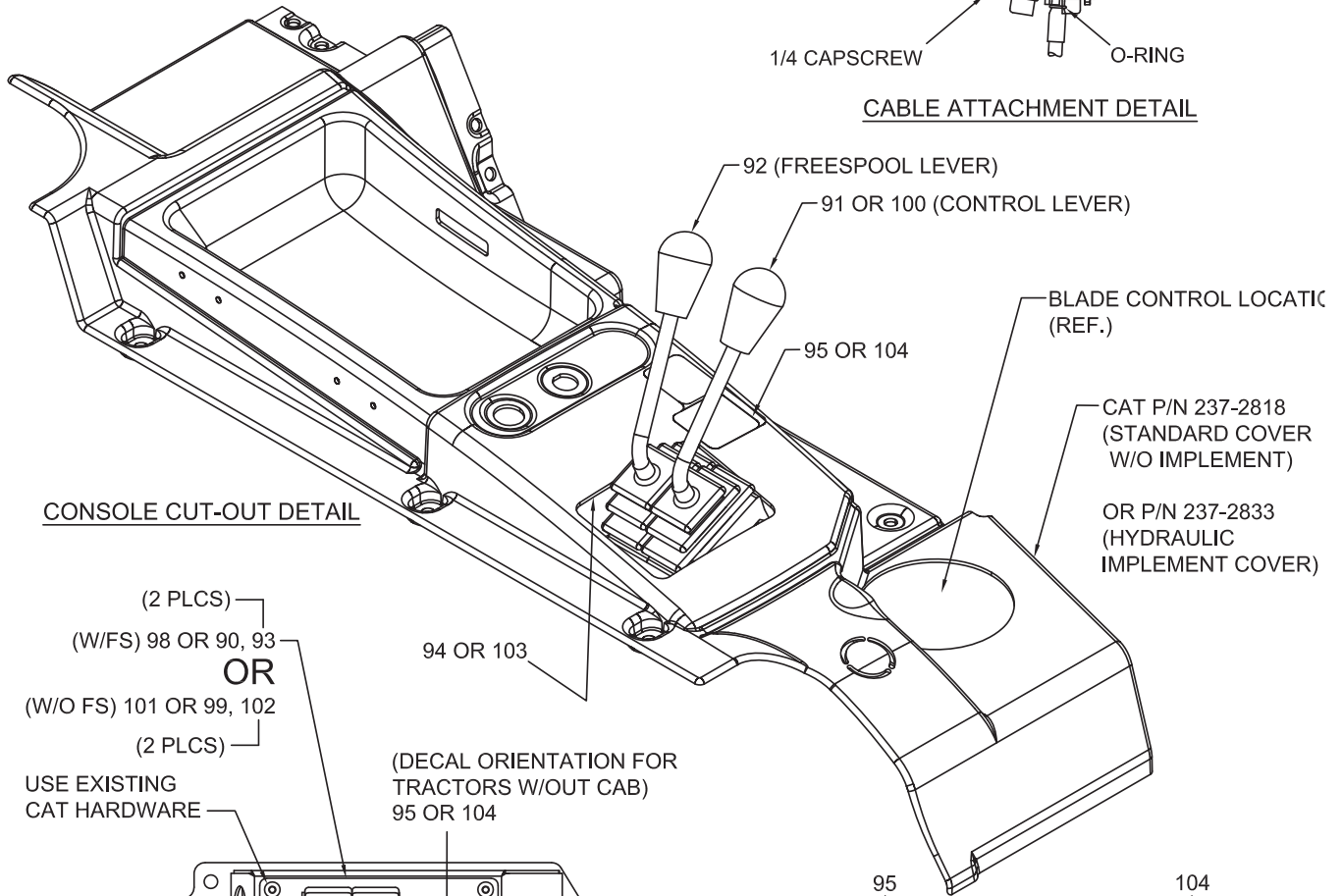
# Handling Gear, Power Controls

For Tractors with Pilot Hydraulic Controls, with or without Cab  
 Caterpillar D6N (C81)  
 Page 1 of 2

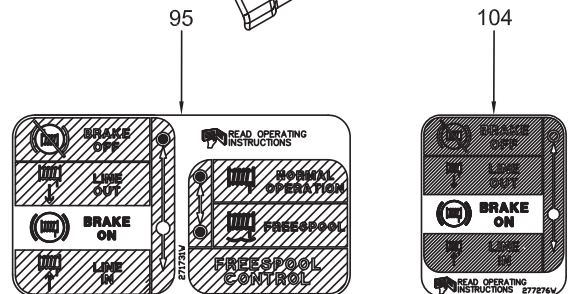
**NOTE:**  
 IF TRACTOR USES OPERATOR CONSOLE P/N 237-7283 FOR ALTERNATE WINCH, THE RH CONSOLE MUST BE REPLACED WITH CAT P/N 239-2833 OR P/N 237-2818 PRIOR TO CONTROL LEVER INSTALLATION FOR ALLIED WINCH.



CABLE ATTACHMENT DETAIL



CONSOLE SHOWN WITH FREESPOOL



CONTROL LEVER DECALS

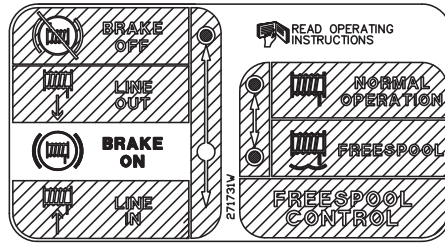
## Handling Gear, Power Controls

For Tractors with Pilot Hydraulic Controls, with or without Cab  
Caterpillar D6N (C81)  
Page 2 of 2

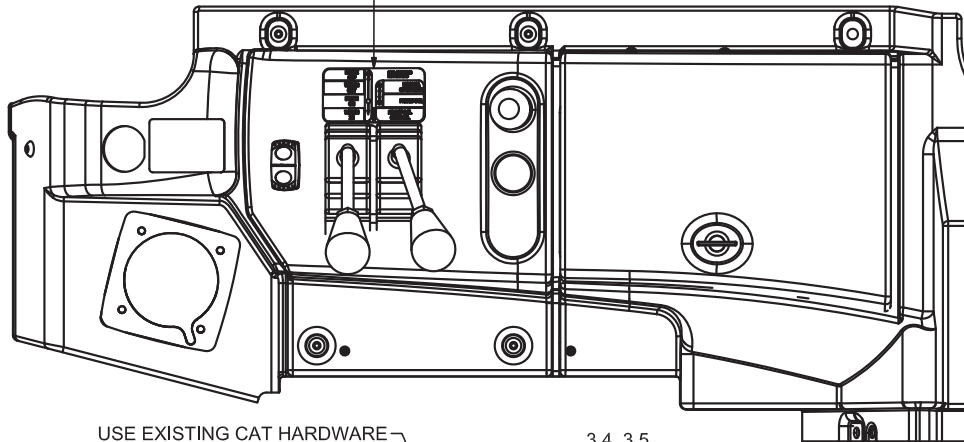
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
90	*a 2306661W	Bracket	1	101	*b 2314472	Bracket	1
91	*a 2306703W	Assembly, Control Lever (3-93)	1	102	*b 2304380W	Capscrew	2
92	*a 2306704W	Assembly, Control Lever - Freespool (3-93)	1	103	*b 225871	Trim	1.67 ft
93	*a 2304381W	Capscrew	2	104	*b 227276W	Decal	1
94	*a 225871	Trim	1.67 ft	105	*b, *c 18717W	Capscrew	1
95	*a 271731W	Decal	1	106	*b 383881W	Nut, Tall	1
96	*a, *c 18717W	Capscrew	2	107	*a, *b 303939W	Cable, Control (Not Shown)	1
97	*a 383881W	Nut, Tall	2	108	*a 303942W	Cable, Freespool (Not Shown)	1
98	*a 2314138	Bracket	1		*a	With Freespool	
99	*b 2314466	Bracket	1		*b	Without Freespool	
100	*b 2306703W	Lever, Control	1		*c	Use 318702W Thread Lock	

# Handling Gear, Power Controls

For Tractors with & without Ripper or Dual Controls  
Caterpillar D6N (C810)  
Page 1 of 2

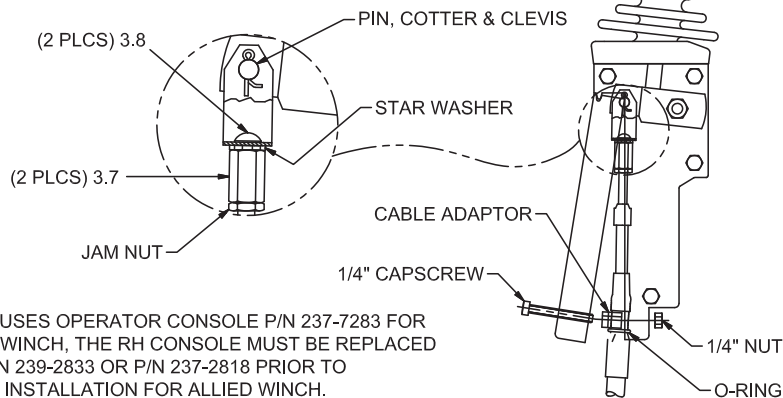
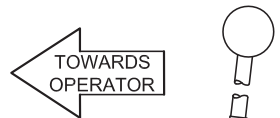
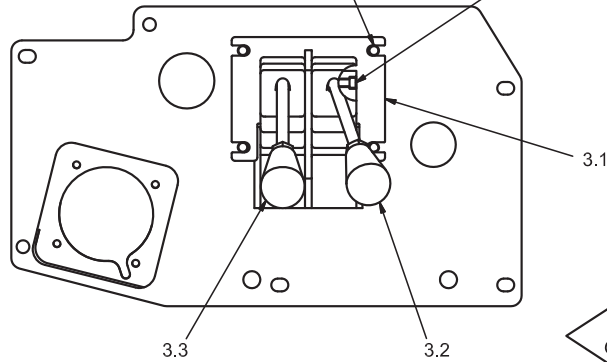


3.6



USE EXISTING CAT HARDWARE

3.4, 3.5



NOTE: IF TRACTOR USES OPERATOR CONSOLE P/N 237-7283 FOR ALTERNATE WINCH, THE RH CONSOLE MUST BE REPLACED WITH CAT P/N 239-2833 OR P/N 237-2818 PRIOR TO HANDLEVER INSTALLATION FOR ALLIED WINCH.

CAT P/N 237-2818 - STANDARD COVER W/O IMPLEMENT.  
CAT P/N 237-2833 - HYDRAULIC IMPLEMENT COVER.

**Handling Gear, Power Controls**  
 For Tractors with & without Ripper or Dual Controls  
 Caterpillar D6N (C810)  
 Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3.1	2314643	Mount, Control Lever	1	3.5	221703W	Nut	3
3.2	2306704W	Assembly, Control Lever - Freespool (3-93)	1	3.6	271731W	Decal	1
3.3	2306703W	Assembly, Control Lever (3-93)	1	3.7	383881W	Nut, Tall	2
3.4	2304878W	Capscrew	3	3.8	18717W	Capscrew	2
				3.9	225871	Trim, Edge (Not Shown)	1.67 ft

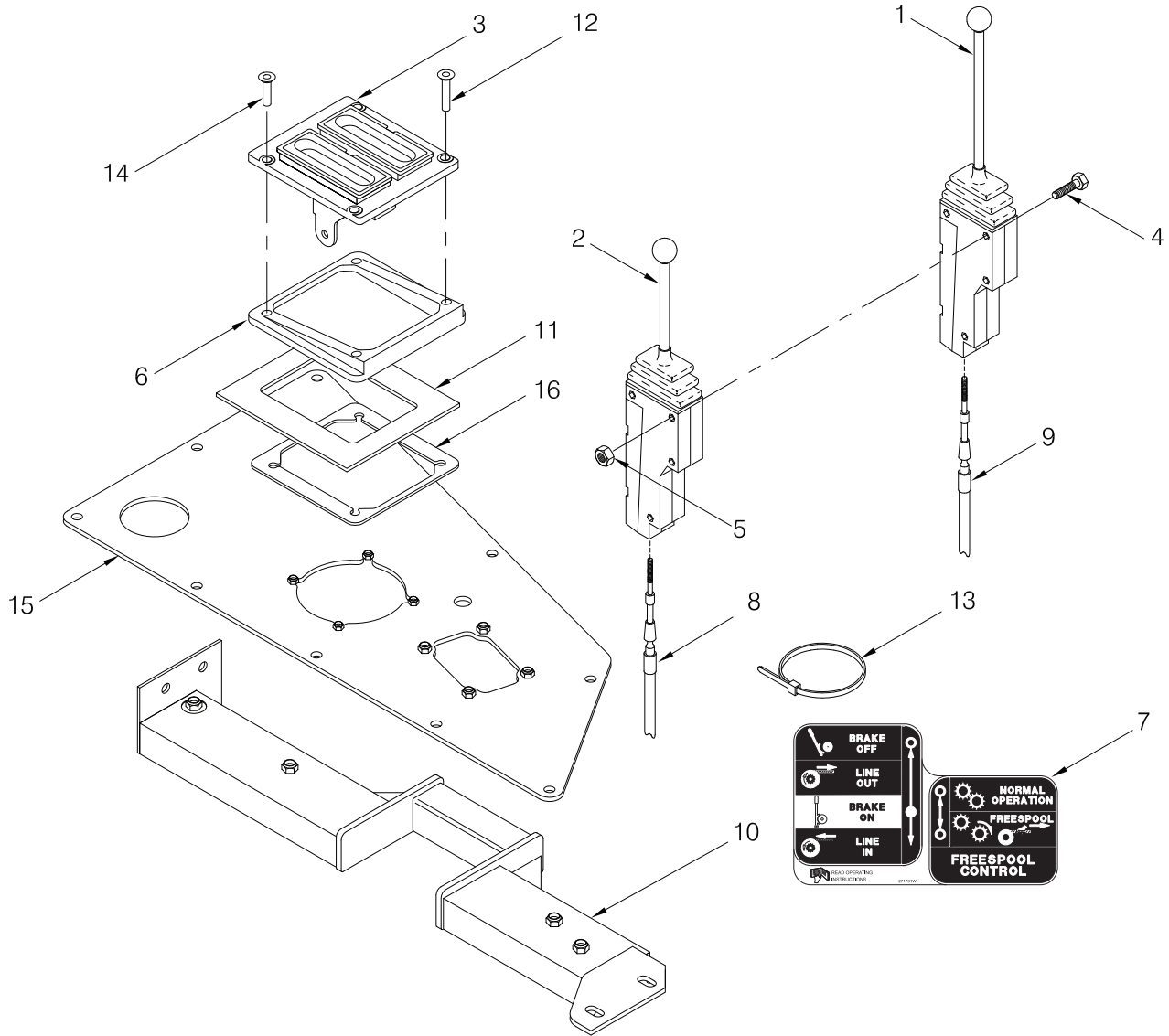
### Handling Gear, Power Controls

Caterpillar D6R (C50), D6R Series II & III; D6T (C71)

with Freespool

First Used on S/N AW6G-1027

Page 1 of 2





**Handling Gear, Power Controls**  
 Caterpillar D6R (C50), D6R Series II & III; D6T (C71)  
 with Freespool  
 First Used on S/N AW6G-1027  
 Page 2 of 2

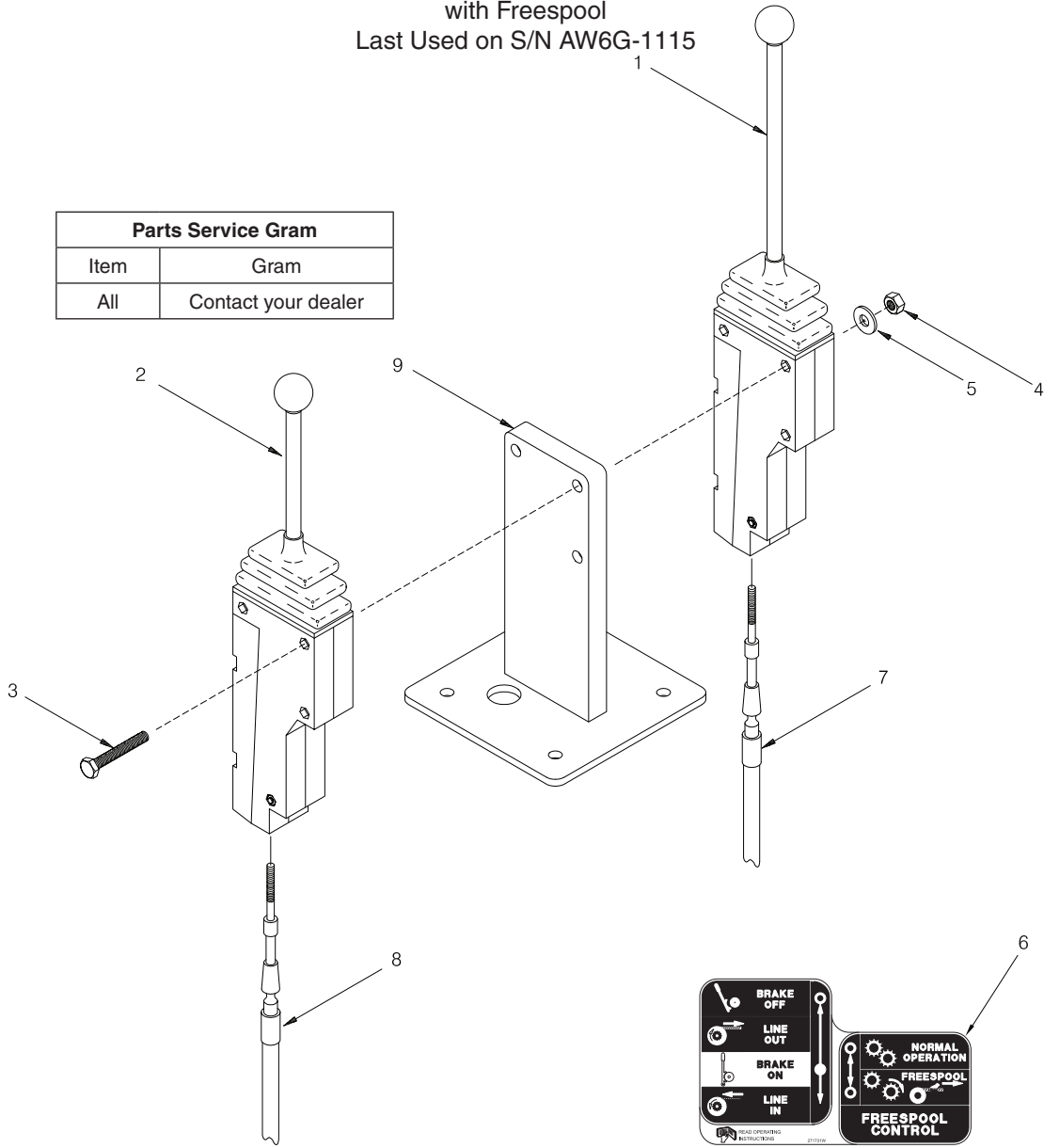
A - D6R (C50)  
 B - D6R Series II & III; D6T (C71)

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
	<b>2304899W</b>	<b>Assembly, Control Lever</b>	<b>1</b>	<b>1</b>					
1	2303982W	. Assembly, Control Lever (3-93)	1	1	11	2304569W	Gasket	1	1
2	2303986W	. Assembly, Control Lever - Freespool (3-93)	1	1	12	2304881W	Capcrew	2	--
3	2304898W	. Bracket, Control Lever	1	1	12	2305199W	Capcrew	--	1
4	*a 2304878W	. Capcrew	2	2	13	129563W	Clamp, Strap	2	2
5	15113W	. Nut	2	2	14	18723W	Capcrew	2	--
6	2304879W	Spacer	1	1	14	296162W	Capcrew	--	2
7	271731W	Decal	1	1	15	2304577W	Cover	1	--
8	303942W	Cable, Freespool	1	1	16	2305203W	Gasket	--	1
9	303944W	Cable, Control	1	1	17	2301055W	Trim, Vinyl (Not shown)	ARAR	
10	2304571W	Assembly, Channel	1	--		*a	Use 358674W Sealant		

### Handling Gear, Power Controls

Dresser/Dressta TD15E PS (H44), TD15E DD (H45), TD15H PS (H46), TD15H Tier II and TD15M (H47)  
with Freespool  
Last Used on S/N AW6G-1115

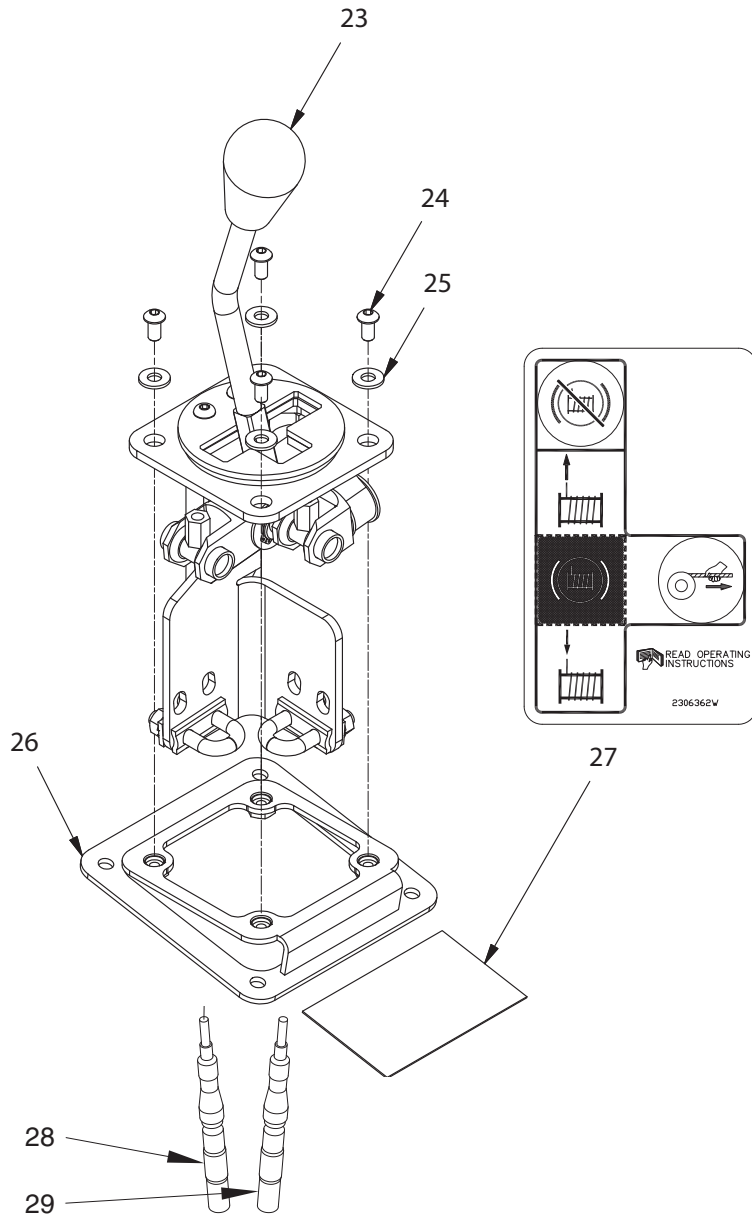
Parts Service Gram	
Item	Gram
All	Contact your dealer



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 1300785W	Assembly, Control Lever (3-92)	1	5	*a 18515W	Washer	3
	*b 2303984W	Assembly, Control Lever (3-93)	1		6	271731W	Decal
2	*a 383880W	Assembly, Control Lever - Freespool (3-92)	1	7	303944W	Cable, Control	1
	*b 2303982W	Assembly, Control Lever - Freespool (3-93)	1	8	303942W	Cable, Freespool	1
3	*a 18528W	Capscrew	3	9	*a 2300369W	Bracket	1
	*b 2304380W	Capscrew	6		*b 2304387W	Bracket	1
4	*a 191534W	Nut	3	*a	Last Used on S/N AW6G-1021		
				*b	First Used on S/N AW6G-1022		

### Handling Gear, Power Controls

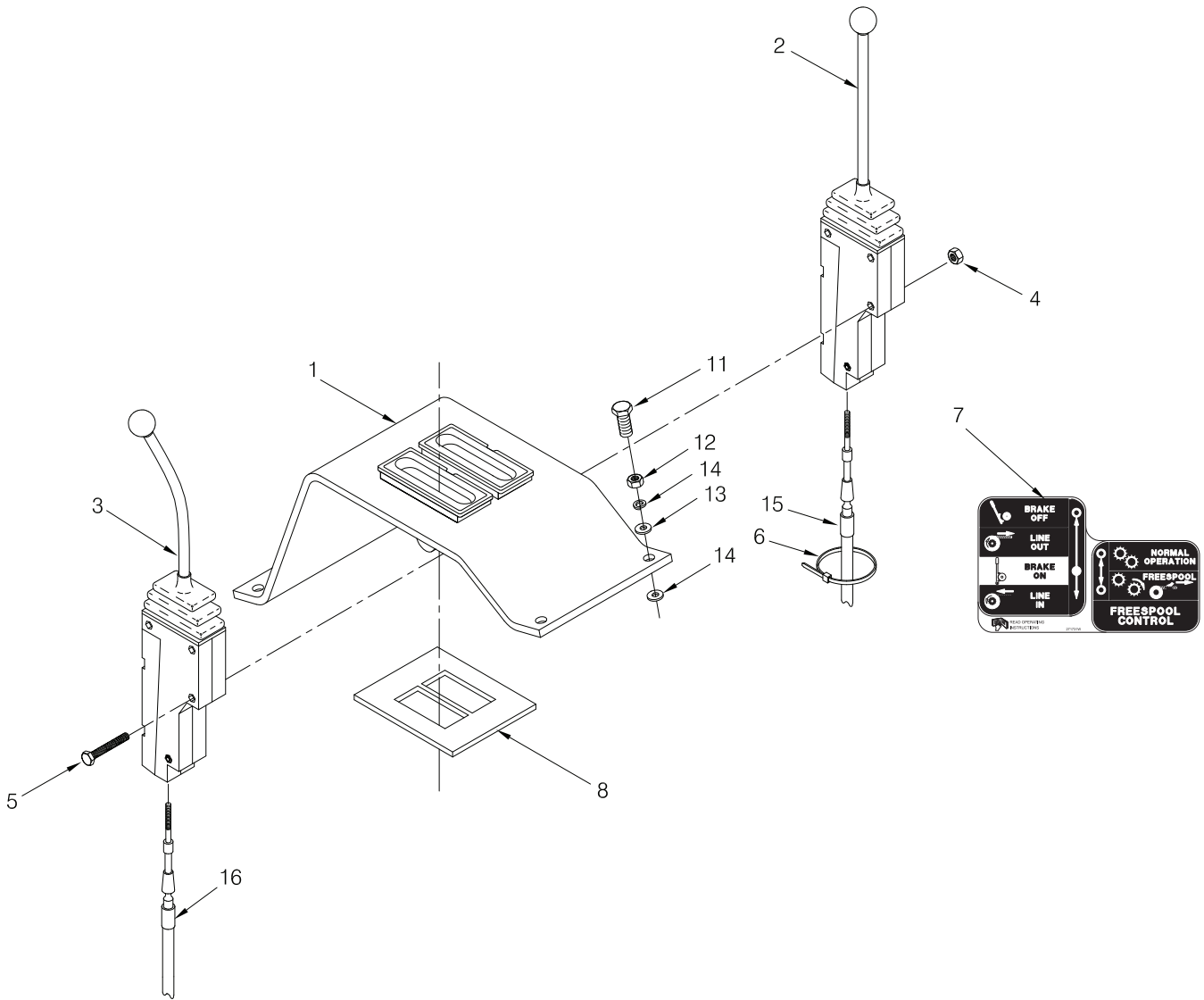
Dresser/Dressta TD15E PS (H44), TD15E DD (H45), TD15H PS (H46), TD15H Tier II and TD15M (H47)  
with Freespool  
First Used on S/N AW6G-1116



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
23	2305303W	Assembly, Control Lever (3-95)	1	28	303944W	Cable, Control	1
	*a 2310118	Assembly, Control Lever (3-97)	1	29	303942W	Cable, Freespool	1
24	Y25G-0408	Capscrew	4				
25	15127W	Washer	4				
26	2310116	Bracket	1				
27	2306362W	Decal	1				
				*a		Service all H44, H45, H46 and H47 with 2310118 to replace 2305303W	

# Handling Gear, Power Controls

Fiat-Hitachi/New Holland DC180 (A49)  
with Freespool



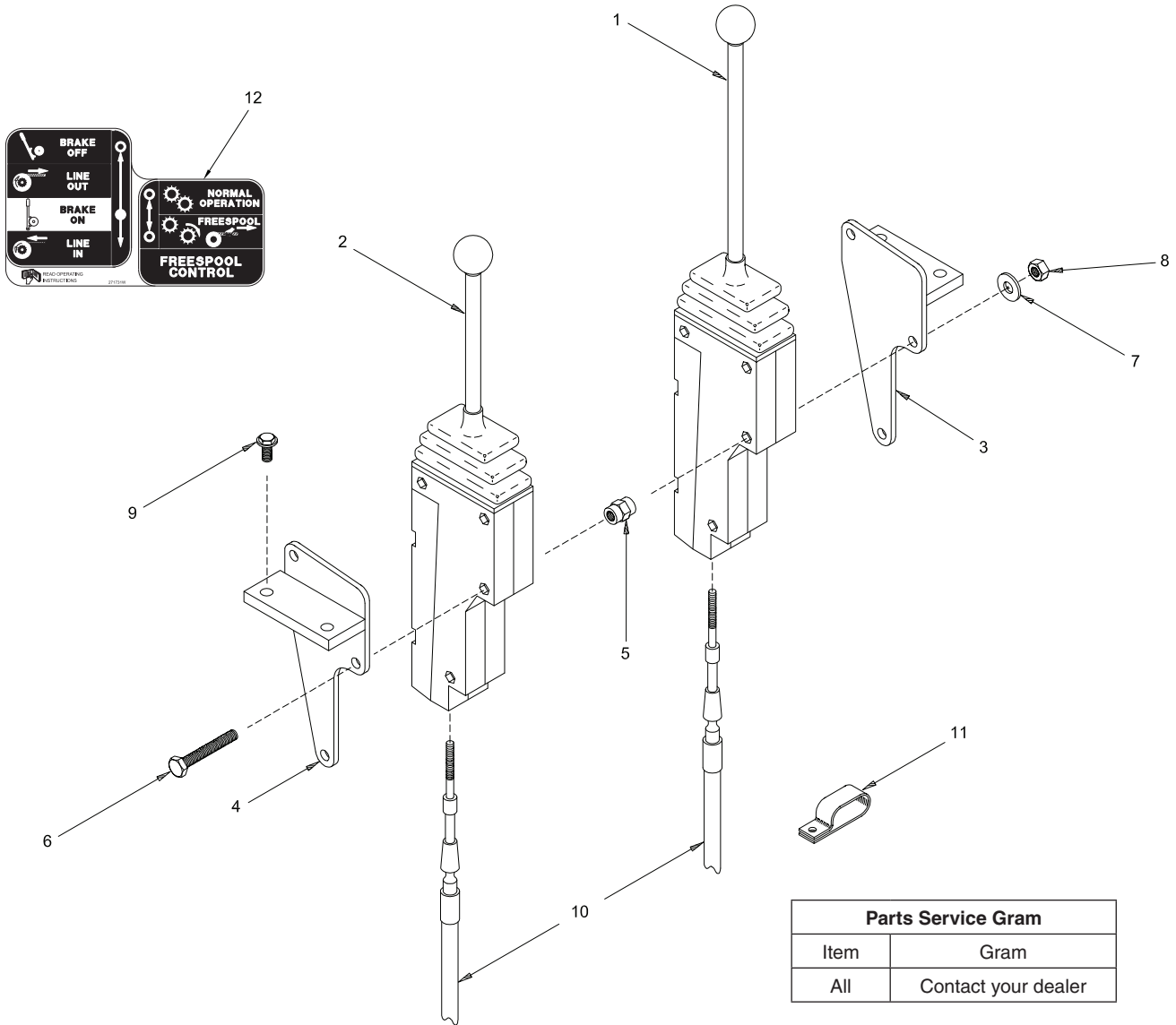
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2304807W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2304806W	. Bracket, Control Lever	1	8	2304570W	Gasket	1
2	2303982W	. Assembly, Control Lever (3-93)	1	10	225871W	Trim (Not shown)	2 Ft
3	2303986W	. Assembly, Control Lever - Freespool (3-93)	1	11	18497W	Capscrew	4
4	2304878W	. Capscrew	3	12	15055W	Nut	4
5	15113W	. Nut	3	13	18515W	Washer	8
6	110322W	Clamp	AR	14	15155W	Lockwasher	4
7	271731W	Decal	1	15	303945W	Cable, Control	1
				16	303945W	Cable, Freespool	1

# Handling Gear, Power Controls

Fiat-Hitachi/New Holland FD/FH 14E (A48)

with Freespool

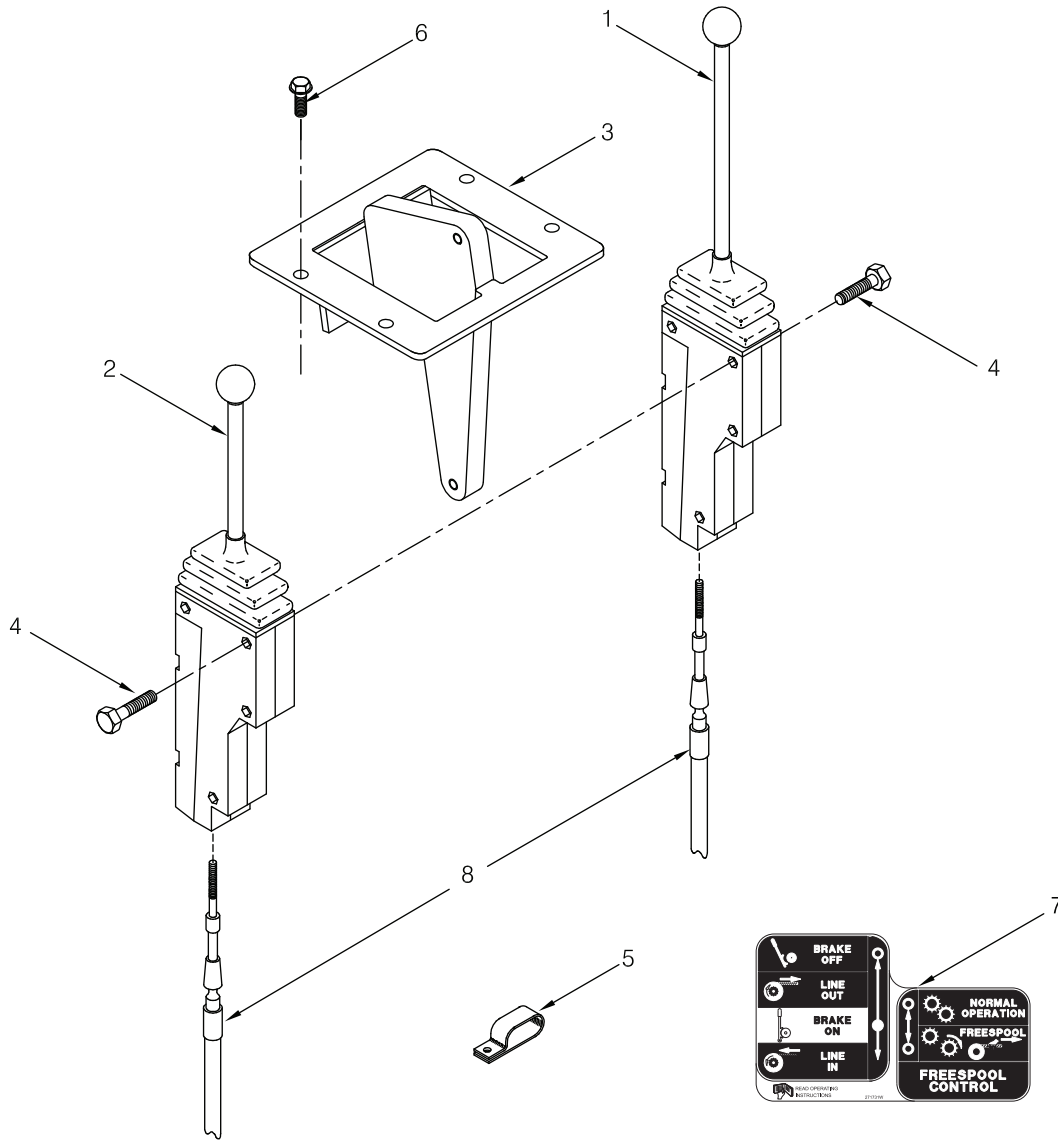
Last Used on S/N AW6G-1021



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>1321651W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	1300785W	. Assembly, Control Lever (3-92)	1	7	15155W	. Washer	3
2	383880W	. Assembly, Control Lever - Freespool (3-92)	1	8	15055W	. Nut	3
3	1308437W	. Bracket, RH	1	9	397161W	Capscrew	4
4	1308436W	. Bracket, LH	1	10	303945W	Cable, Control	2
5	16168W	. Spacer	3	11	110322W	Clamp	2
6	18530W	. Capscrew	3	12	271731W	Decal	1

### Handling Gear, Power Controls

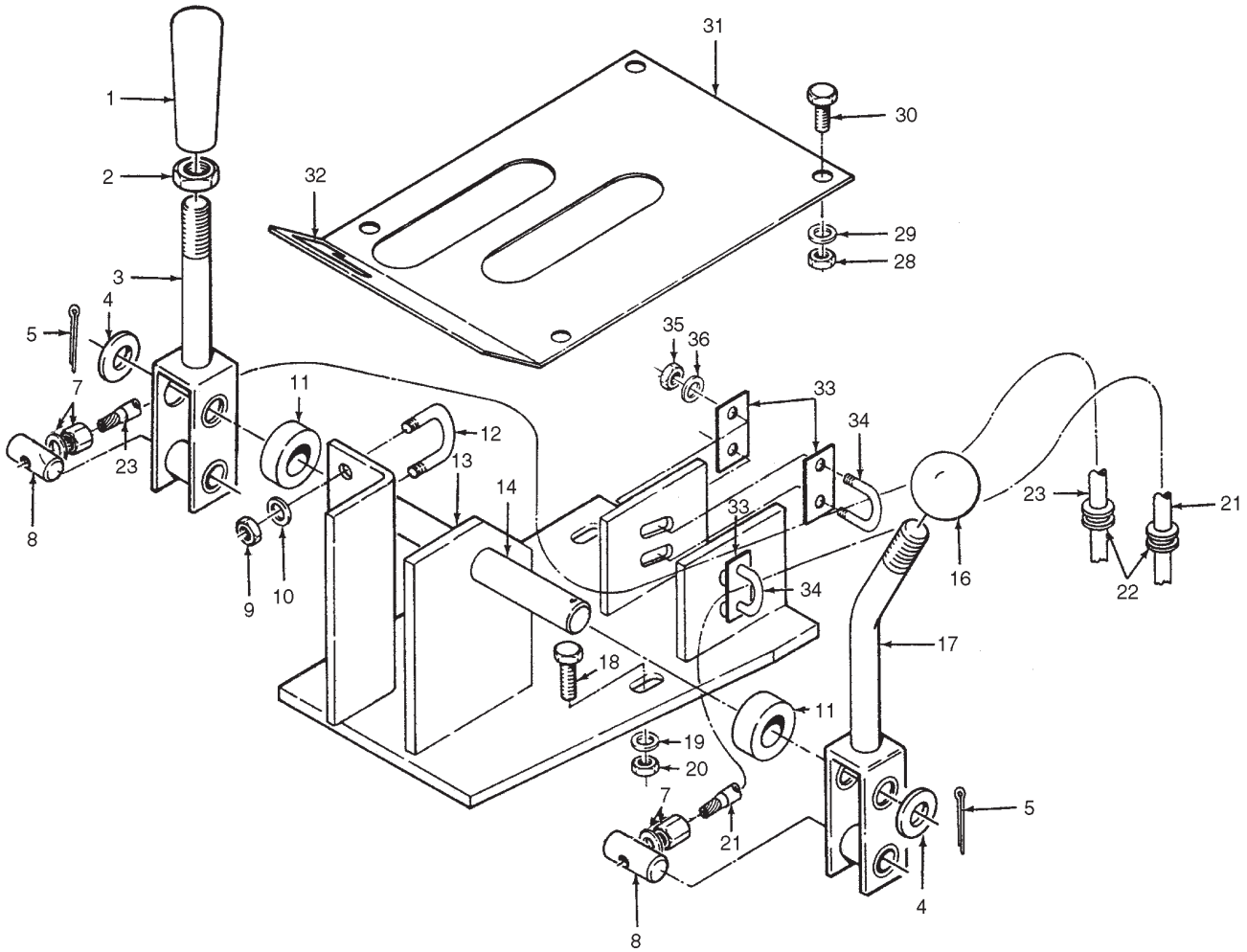
Fiat-Hitachi/New Holland FD/FH 14E, FD 175/195, DX 175/195 (A48)  
with Freespool  
First Used on S/N AW6G-1022



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2304329W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2303984W	. Assembly, Control Lever (3-93)	1	5	110322W	Clamp	2
2	2303982W	. Assembly, Control Lever - Freespool (3-93)	1	6	397161W	Screw, Flanged	4
3	2304394W	. Bracket	1	7	271731W	Decal	1
4	2304380W	. Capscrew	6	8	303945W	Cable, Control	2

## Handling Gear, Power Controls

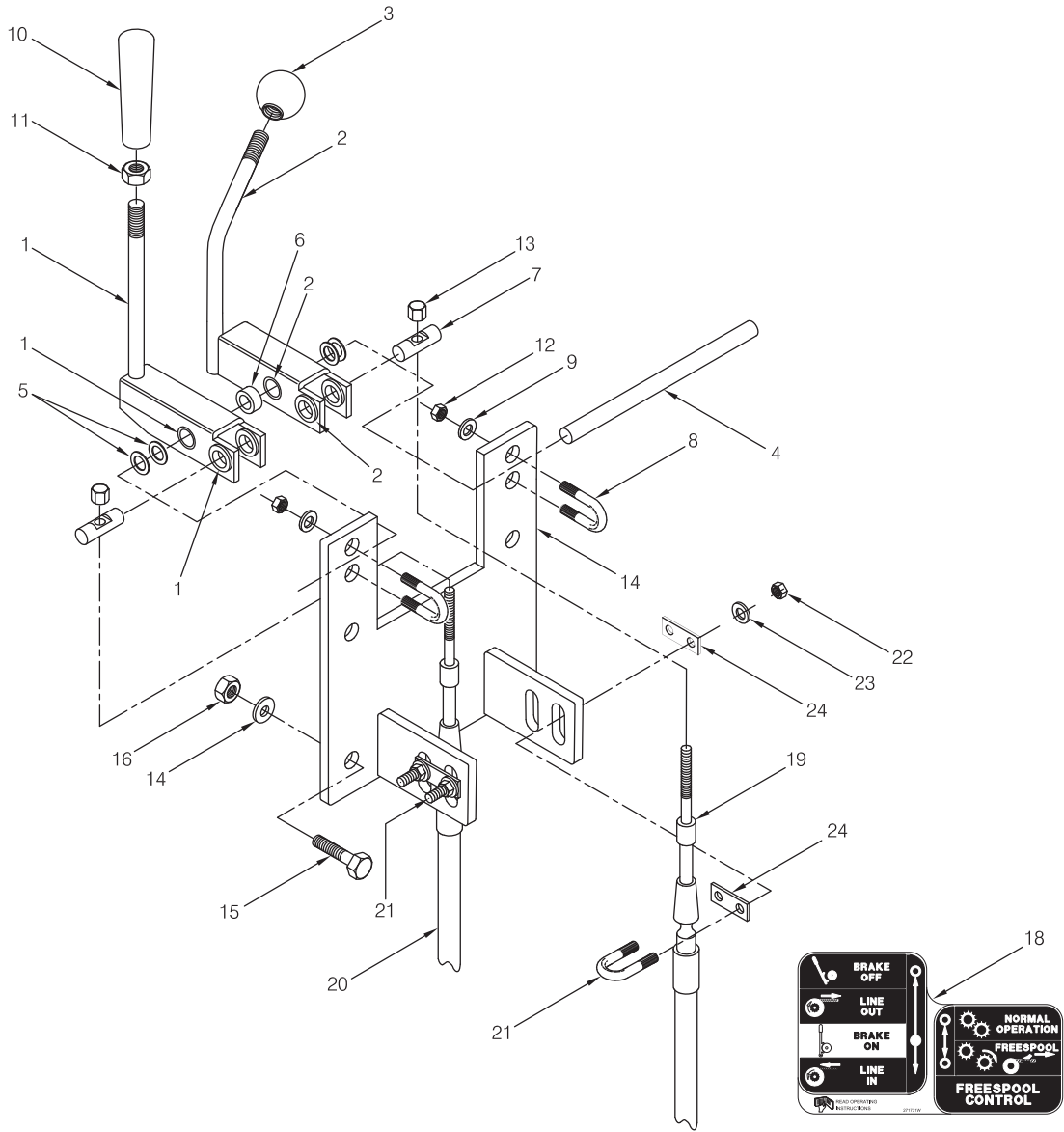
John Deere 750, 750B, 850, 850B with Cab (E42, E44)  
with Freespool



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>336855W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	196469W	. Knob	1	18	18497W	Cap screw	3
2	15030W	. Nut, Jam	1	19	15155W	Lockwasher	3
3	335468W	. Lever	1	20	15055W	Nut	3
	196144W	.. Bushing	2	21	303942W	Cable, Freespool	1
	276043W	.. Bushing	1	22	69727W	Grommet	2
4	15135W	. Washer	2	23	303944W	Cable, Control	1
5	15225W	. Pin, Cotter	2	28	15054W	Nut	4
7	2301487W	. Locknut	2	29	15154W	Lockwasher	4
8	196128W	. Pin	2	30	18460W	Cap screw	4
9	15055W	. Nut	6	31	388613W	Cover	1
10	15155W	. Lockwasher	6	32	271731W	Decal	1
11	391016W	. Washer	2	33	*a	NSS Spacer	4
12	196129W	. U-Bolt	1	34	*a	NSS U-Bolt	2
13	336854W	. Bracket	1	35	*a	NSS Nut	4
14	335470W	. Pin	1	36	*a	NSS Washer	4
16	243189W	. Knob	1				
17	336858W	. Lever	1				
	196144W	.. Bushing	2				
	276043W	.. Bushing	1				
				*a	Included in 2300995W U-Bolt Kit (Quantity 2 Kits Used in This Installation)		

# Handling Gear, Power Controls

John Deere 750 750B 850 850B without Cab (E41, E43)  
with Freespool

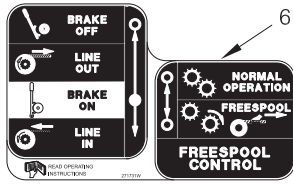


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>264052W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	276031W	. Assembly, Lever	1	12	15055W	. Nut	4
	196144W	.. Bushing	2	13	2301487W	. Nut	2
	276043W	.. Bushing	1	14	261567W	. Bracket	1
2	276032W	. Assembly, Lever	1	15	16805W	Screw, Flanged	4
	196144W	.. Bushing	2	16	15056W	Nut	4
	276043W	.. Bushing	1	17	15156W	Washer	4
3	243189W	. Knob	1	18	271731W	Decal	1
4	276081W	. Pin	1	19	303938W	Cable, Freespool	1
5	15135W	. Washer	4	20	303941W	Cable, Control	1
6	77418W	. Spacer	1	21	*a NSS	U-Bolt	2
7	196128W	. Pin	2	22	*a NSS	Nut	2
8	196129W	. U-Bolt	2	23	*a NSS	Washer	2
9	15155W	. Washer	4	24	*a NSS	Spacer	2
10	196469W	. Knob	1				
11	15030W	. Nut	1		*a	Included in 2300995W U-Bolt Kit (2 Required)	

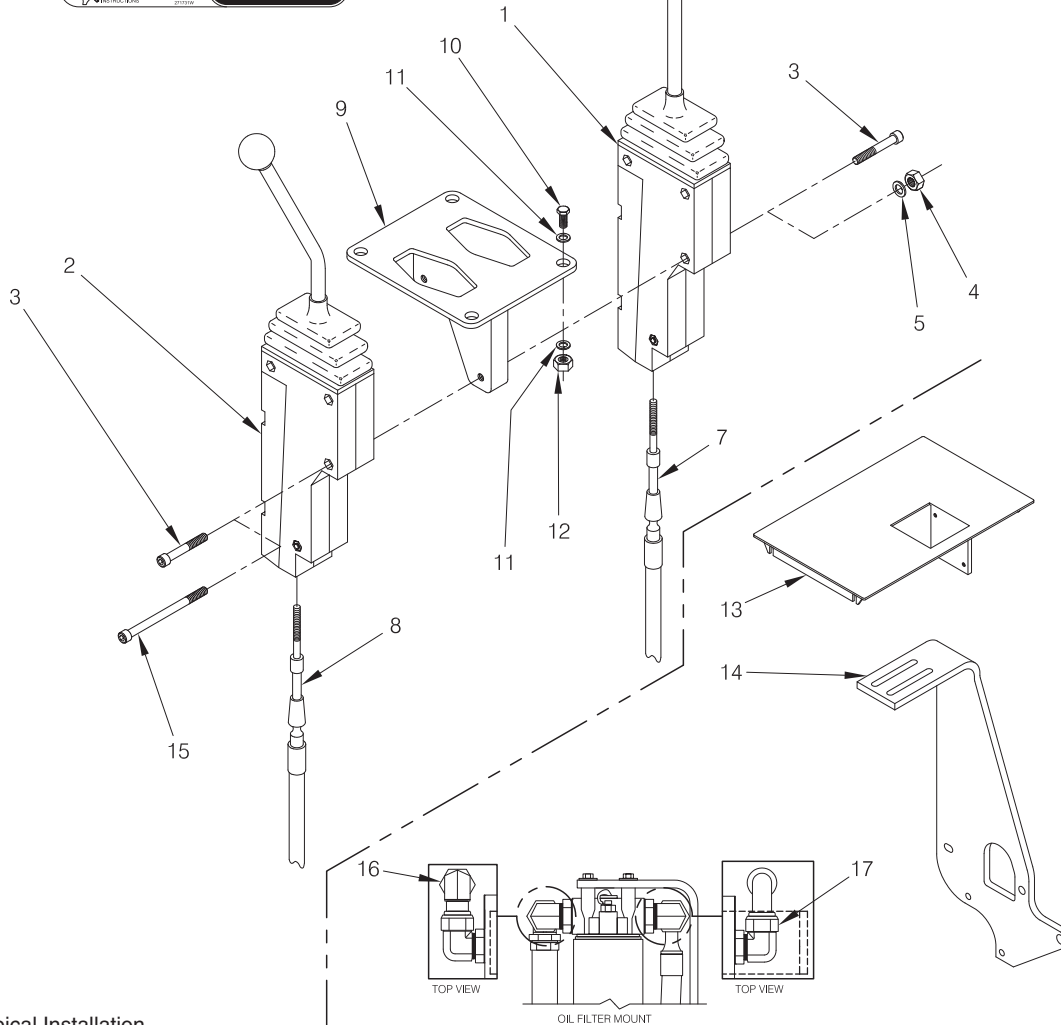


# Handling Gear, Power Controls

John Deere 750C Series I & II (E45), 850C Series I & II (E46)  
with Freespool



Parts Service Gram	
Item	Gram
All	Contact your dealer



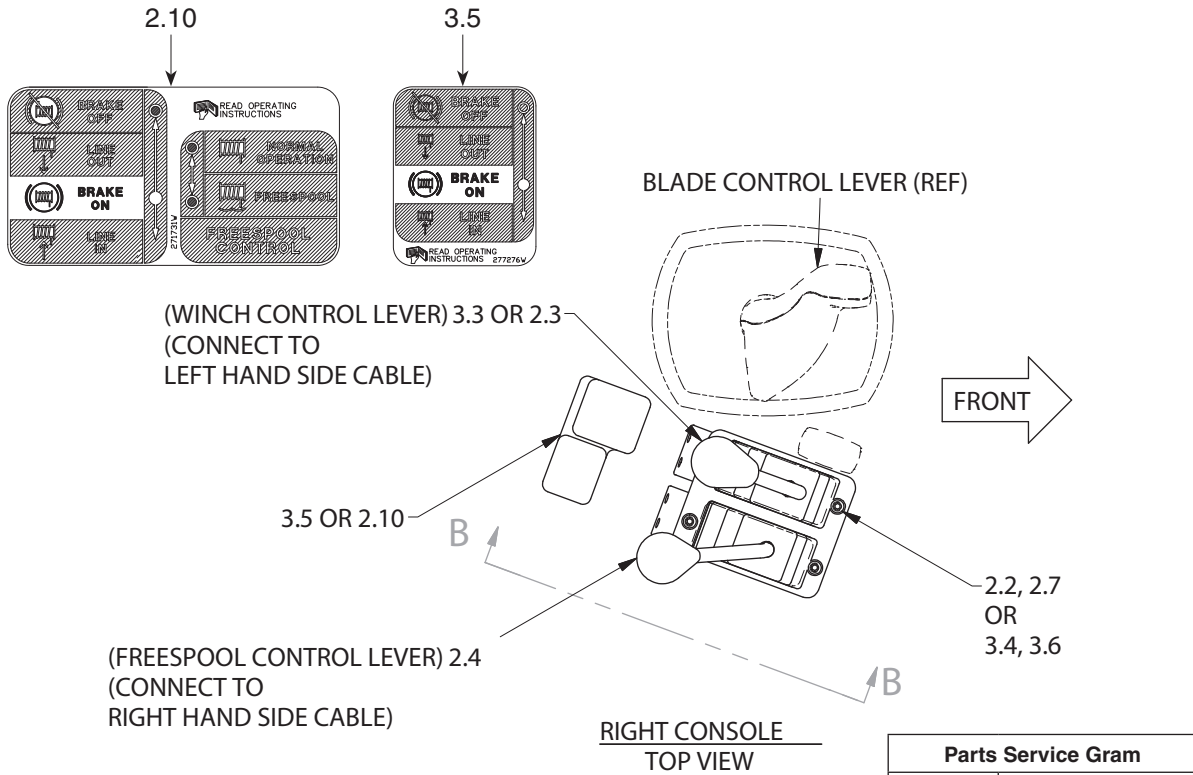
A - Typical Installation  
B - Optional Lunchbox Tray Installation

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty			
			A	B				A	B		
1	*b	1300785W	Assembly, Control Lever (3-92)	1	1	10	*a	16828W	Capscrew	4	4
		2303984W	Assembly, Control Lever (3-93)	1	1	11		15134W	Washer	8	8
2	*b	2301845W	Assembly, Control Lever - Freespool (3-94)	1	1	12		221707W	Nut	4	4
		2303986W	Assembly, Control Lever - Freespool (3-93)	1	1	13	*b	2301834W	Bracket, Control Lever	--	1
3	*a,*b	18526W	Capscrew	3	3	13	*c	2304508W	Bracket, Control Lever	--	1
	*c	2304380W	Capscrew	6	6	14		2303040W	Bracket, Filter	--	1
						15	*c	2304381W	Capscrew	--	3
4	*b	191534W	Nut	3	3	16		R833276W	Fitting	--	1
5	*b	18515W	Washer	3	3	17		R833806W	Fitting	--	1
6		271731W	Decal	1	1		*a		Use 318702W Thread Lock		
7		303945W	Cable, Control	1	1		*b		Last Used on S/N AW6G-1021		
8		303945W	Cable, Freespool	1	1		*c		First Used on S/N AW6G-1022		
9	*b	2301030W	Bracket	1	1						
	*c	2304304W	Bracket	1	1						

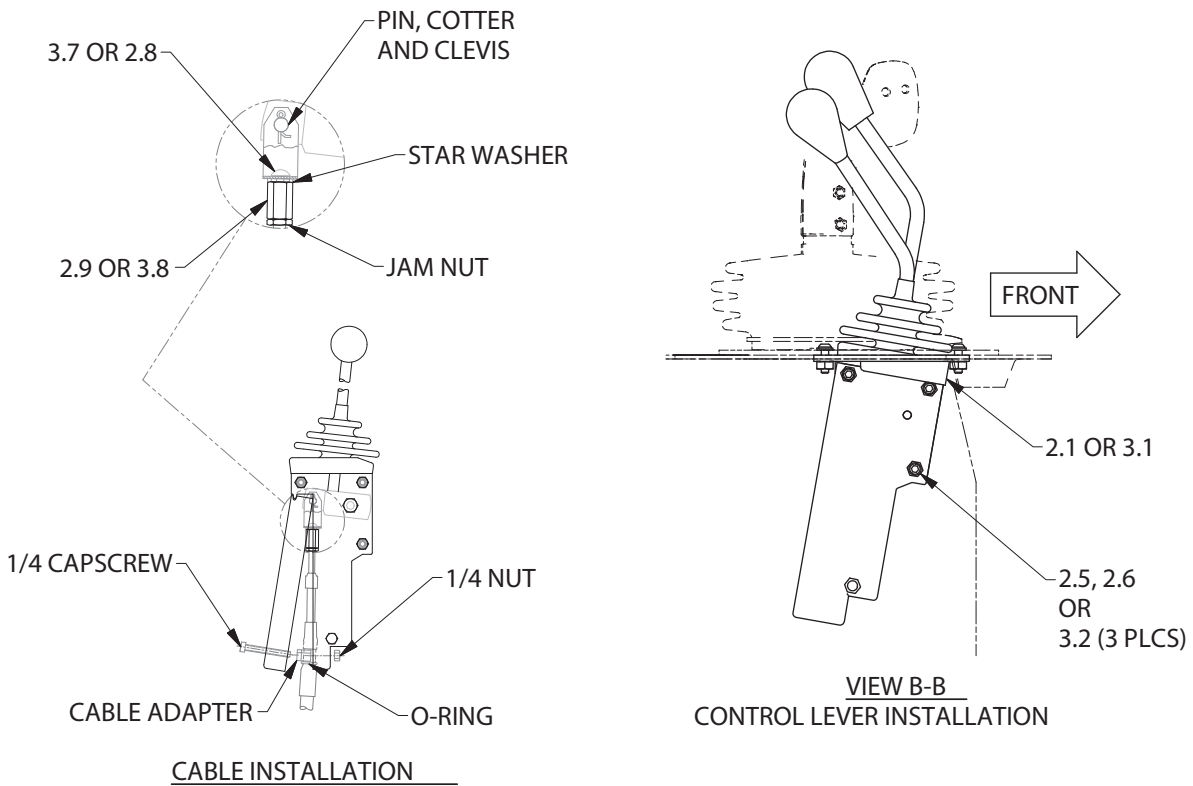
# Handling Gear, Power Controls

John Deere 850K (E460)

Page 1 of 2



Parts Service Gram	
Item	Gram
All	A3-C-7 R3 (See Section 7)



**Handling Gear, Power Controls**

John Deere 850K (E460)

Page 2 of 2

A - With Freespool  
 B - Without Freespool

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
2.1	2313329	Bracket, Control Lever	1	--	3.1	2314428	Bracket, Control Lever	--	1
2.2	296160W	Capscrew	4	--	3.2	2304380W	Capscrew	--	3
2.3	2304820W	Assembly, Control Lever (3-93)	1	--	3.3	2304820W	Assembly, Control Lever (3-93)	--	1
2.4	2313339	Assembly, Control Lever (3-93)	1	--	3.4	296160W	Capscrew	--	4
2.5	2313340	Capscrew	3	--	3.5	277276W	Decal	--	1
2.6	302399W	Nut	3	--	3.6	296417W	Washer	--	4
2.7	296417W	Washer	4	--	3.7	18717W	Capscrew	--	1
2.8	18717W	Capscrew	2	--	3.8	383881	Nut, Tall	--	1
2.9	383881W	Nut, Tall	2	--					
2.10	271731W	Decal	1	--					

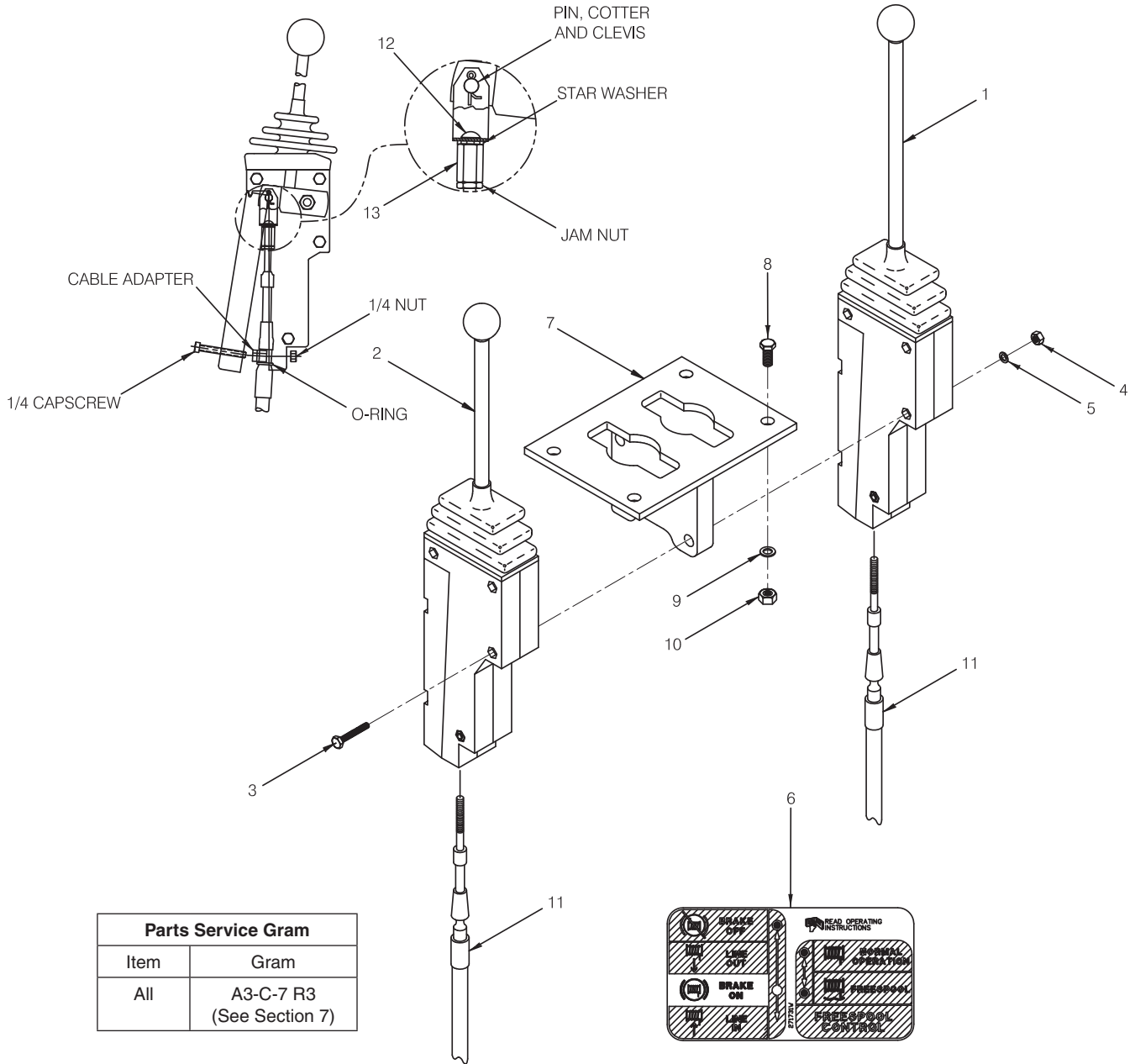
# Handling Gear, Power Controls

Komatsu D61EX-12, D61EX-15 (K47)

D65EX-12, D65EX-15 (K46)

with Freespool

Page 1 of 2



## Handling Gear, Power Controls

Komatsu D61EX-12, D61EX-15 (K47)

D65EX-12, D65EX-15 (K46)

with Freespool

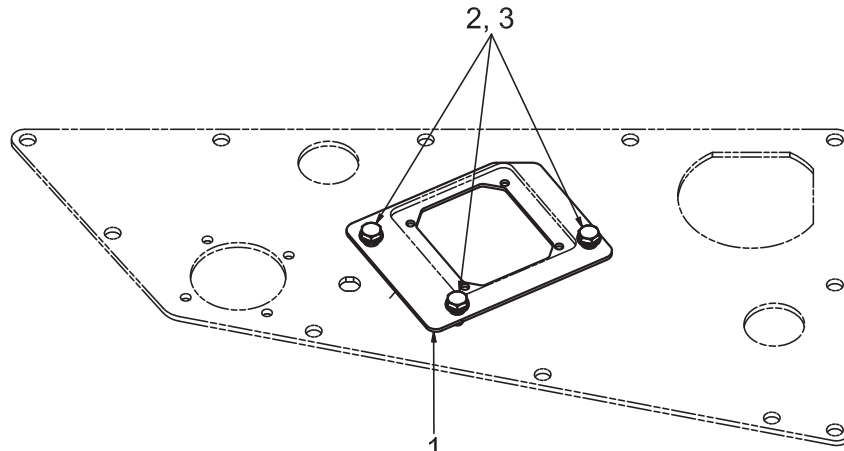
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	*a 1300785W	Assembly, Control Lever (3-92)	1	7	*a 2301030W	Bracket	1
	*b 2303984W	Assembly, Control Lever (3-93)	1		*b 2304304W	Bracket	1
2	*a 383880W	Assembly, Control Lever - Freespool (3-92)	1	8	16805W	Capscrew	4
	*b 2303982W	Assembly, Control Lever - Freespool (3-93)	1	9	15134W	Washer	8
3	*a 2301054W	Capscrew	3	10	221707W	Nut	4
	*b 2304380W	Capscrew	6	11	303944W	Cable, Control	2
4	*a 221703W	Nut	3	12	18717W	Capscrew	2
5	*a 15127W	Washer	3	13	383881W	Nut, Tall	2
6	271731W	Decal	1		*a	Last Used on S/N AW6G-1021	
					*b	First Used on S/N AW6G-1022	

# Control Lever Conversion Kit, Power Controls

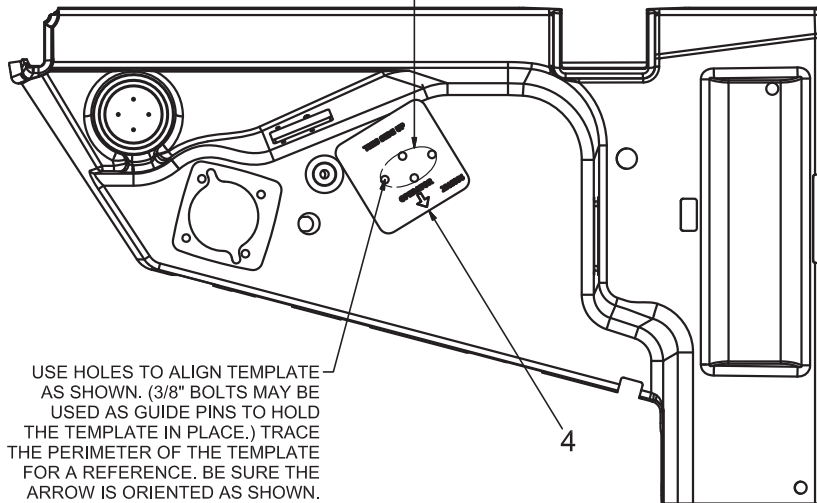
Caterpillar D6T (Tier III to Tier 4i)

Page 1 of 2

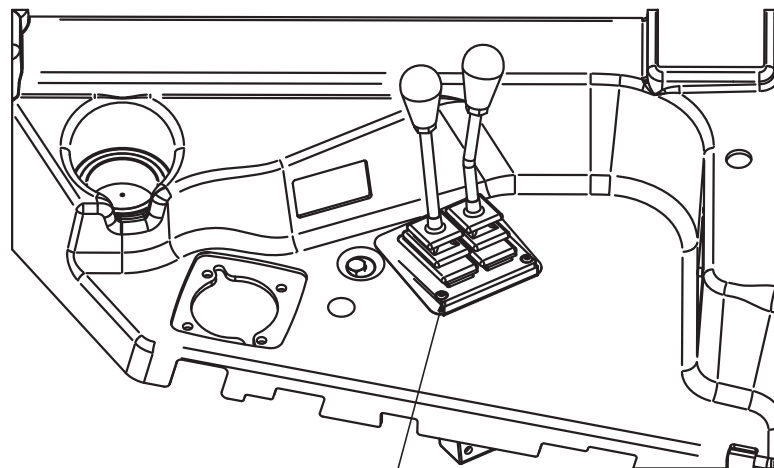


1  
(REMOVE PLASTIC CONSOLE AND MOUNT UNDER CONSOLE SUB-PLATE)

EXISTING CAT GEOMETRY SHOWN AS REFERENCE



USE HOLES TO ALIGN TEMPLATE AS SHOWN. (3/8" BOLTS MAY BE USED AS GUIDE PINS TO HOLD THE TEMPLATE IN PLACE.) TRACE THE PERIMETER OF THE TEMPLATE FOR A REFERENCE. BE SURE THE ARROW IS ORIENTED AS SHOWN.



ASSEMBLE CONTROLS AS SHOWN IN INSTALLATION DRAWING

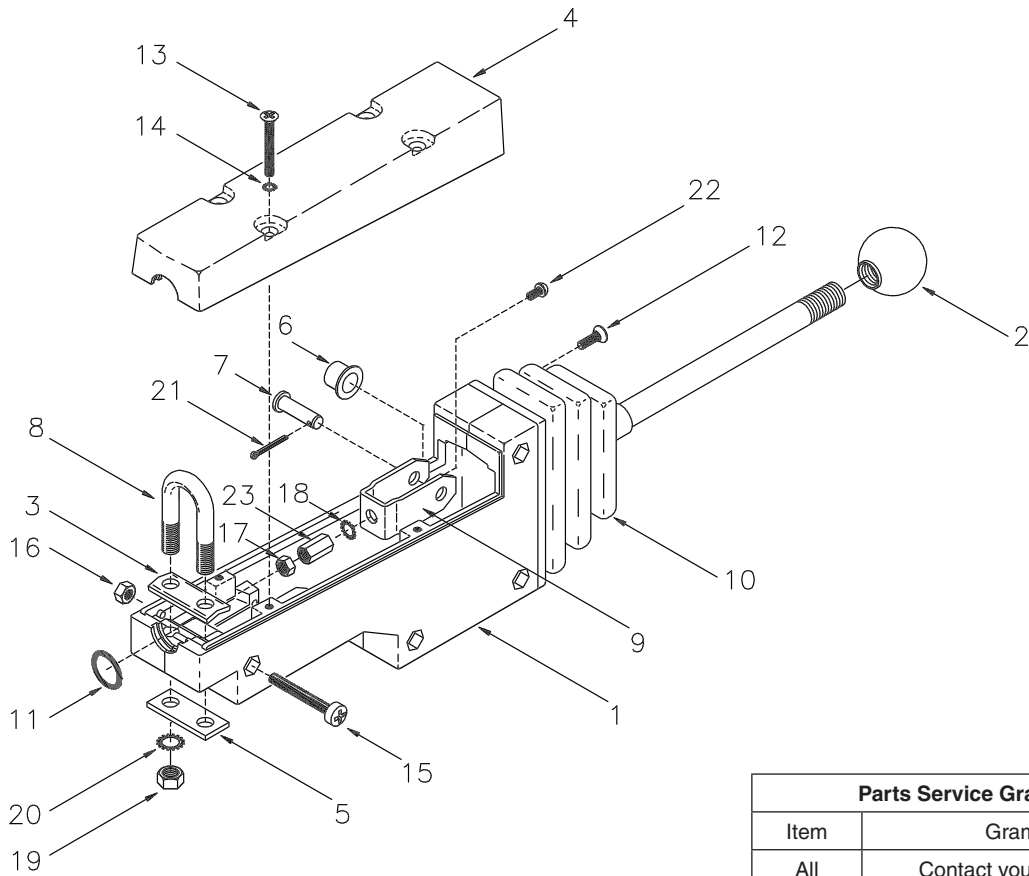
**Control Lever Conversion Kit, Power Controls**

Caterpillar D6T (Tier III to Tier 4i)

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314976</b>	<b>Kit, D6T Tire 4i Control Lever Parts1</b>					
	2314977	. Drawing, Installation (Not Shown)	1	3	293628W	. Capscrew	3
1	2313956	. Mounting, Control Lever	1	4	2315356	. Template, Console	1
2	296420W	. Washer	3				

Control Lever, Power Controls

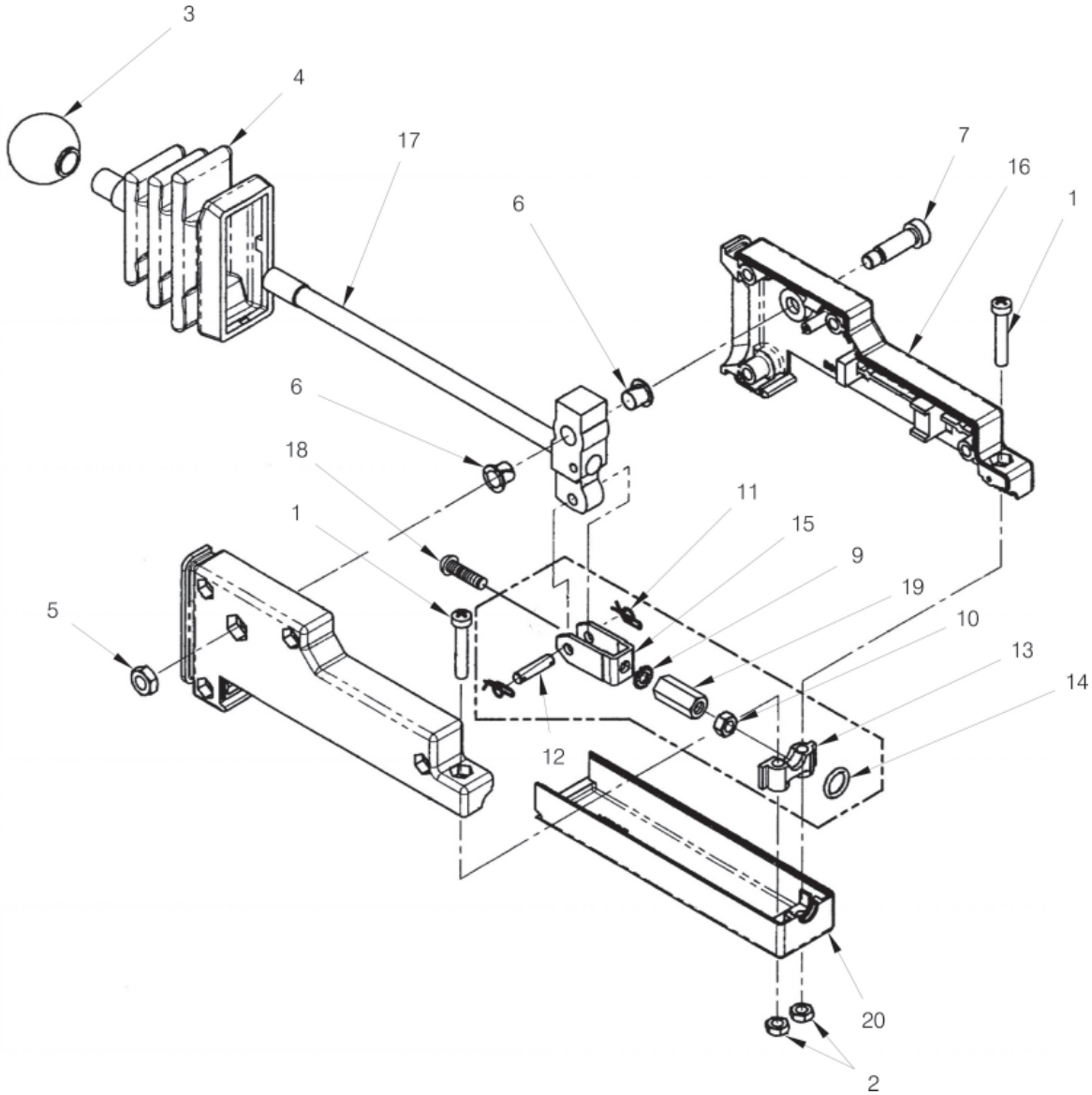


Parts Service Gram	
Item	Gram
All	Contact your dealer

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>1300785W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
	<b>2301785W</b>	<b>Assembly, Control Lever - Freespool</b>	<b>1</b>				
	<b>383880W</b>	<b>Assembly, Control Lever - Freespool</b>	<b>1</b>				
1	NSS	. Housing	1	13	1306002W	. Screw	4
2	1302049W	. Knob	1	14	221867W	. Lockwasher, Star	4
3	1302048W	. Clamp, Cable	1	15	1306001W	. Screw	1
4	1302047W	. Cover	1	16	15024W	. Nut	1
5	1302046W	. Clamp, Base	1	17	15004W	. Nut	1
6	1302045W	. Bearing	2	18	15923W	. Washer	1
7	1302044W	. Pin, Clevis	1	19	15005W	. Nut	2
8	1302043W	. U-Bolt	1	20	15932W	. Lockwasher	2
9	1302042W	. Clevis	1	21	1302039W	. Pin, Cotter	1
10	1302041W	. Boot	1	22	18717W	Cap screw, Button Head	1
11	1302040W	. O-Ring	1	23	383881W	Nut, Tall	1
12	1306003W	. Screw	4				

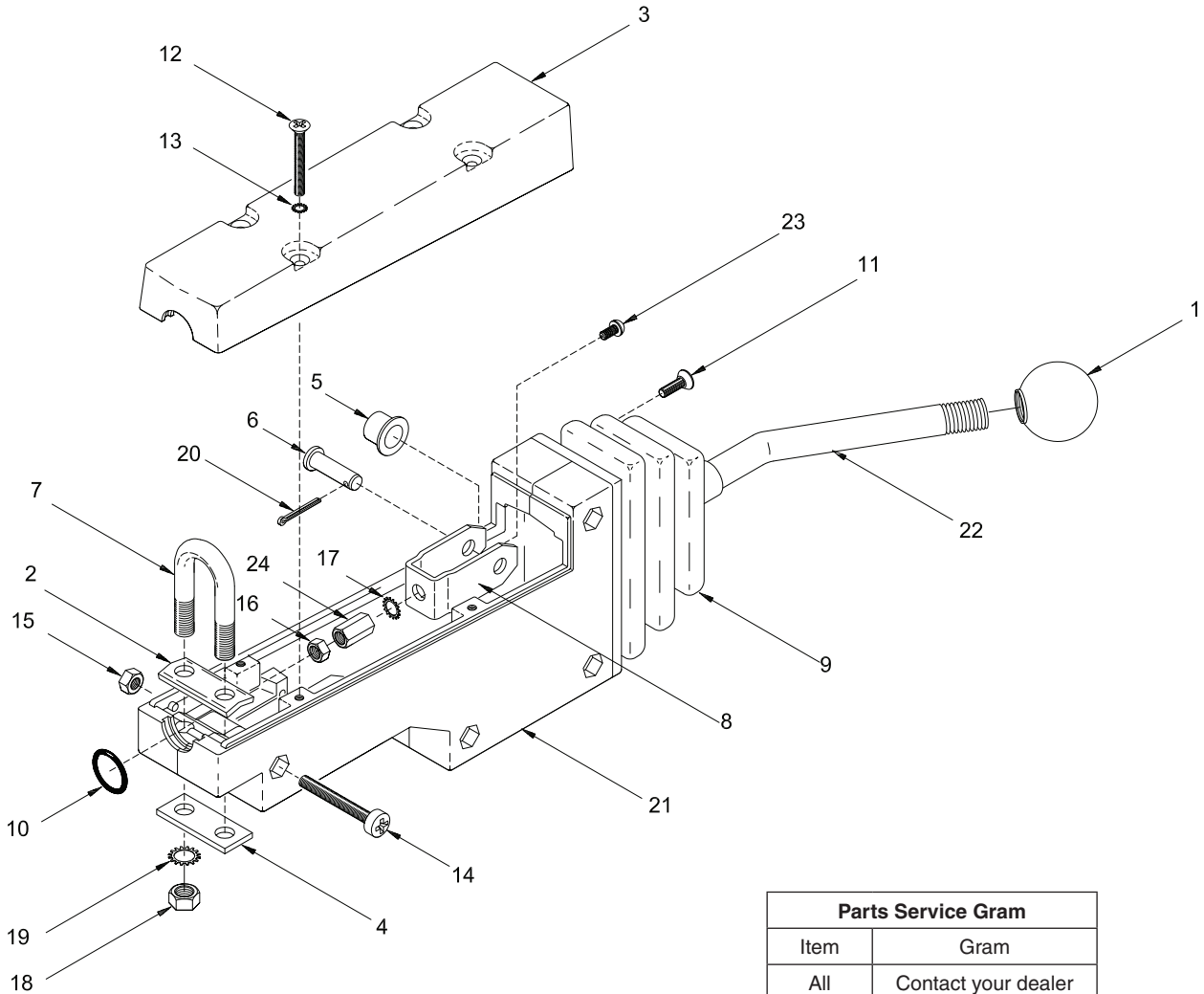


Control Lever, Power Controls



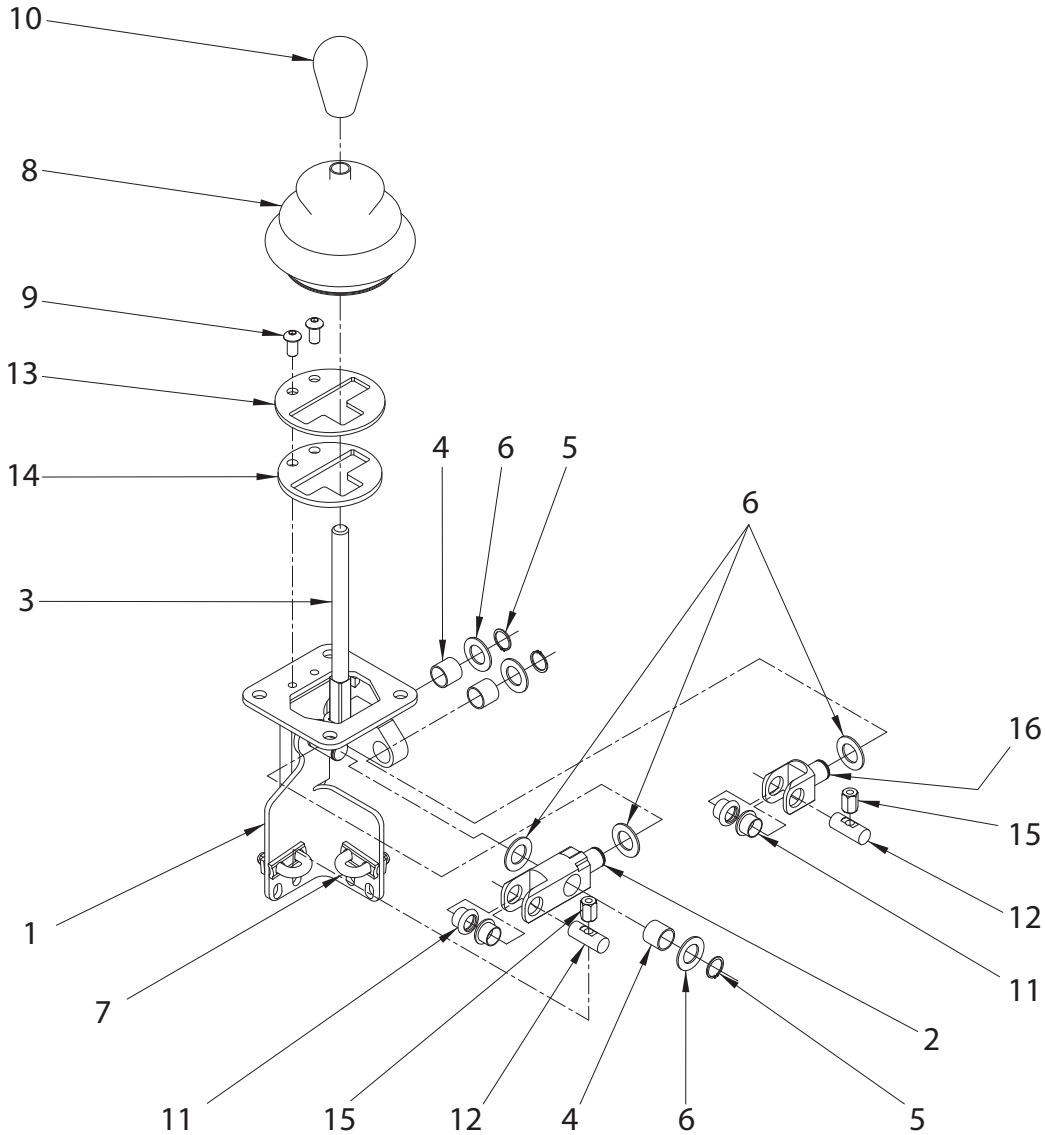
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	2303982W	Assembly, Control Lever	1				
	2303984W	Assembly, Control Lever	1				
	2303986W	Assembly, Control Lever	1				
	2304330W	Assembly, Control Lever	1				
	2304557W	Assembly, Control Lever	1				
	2304820W	Assembly, Control Lever	1				
	2305202W	Assembly, Control Lever	1				
	2305978W	Assembly, Control Lever	1				
	2305979W	Assembly, Control Lever	1				
	2306703W	Assembly, Control Lever	1				
	2306704W	Assembly, Control Lever	1				
	2313339	Assembly, Control Lever	1				
1	*a	-----	2	12	*b	-----	1
2	*a	-----	2	13	*b	-----	1
3		2304339W	1	14	*b	-----	1
4		2304340W	1	15	*b	-----	1
5		2304341W	1	16		NSS	1
6		2304342W	2	17		NSS	1
7		2304343W	1	18	*c	18717W	1
9	*b	-----	1	19		383881W	1
10	*b	-----	1	20		2304604W	1
11	*b	-----	2				
					*a	Included in 2304338W Hardware Kit	
					*b	Included in 2305023W Cable Attaching Hardware Kit	
					*c	Use 318702W Thread Lock	

Control Lever, Power Controls



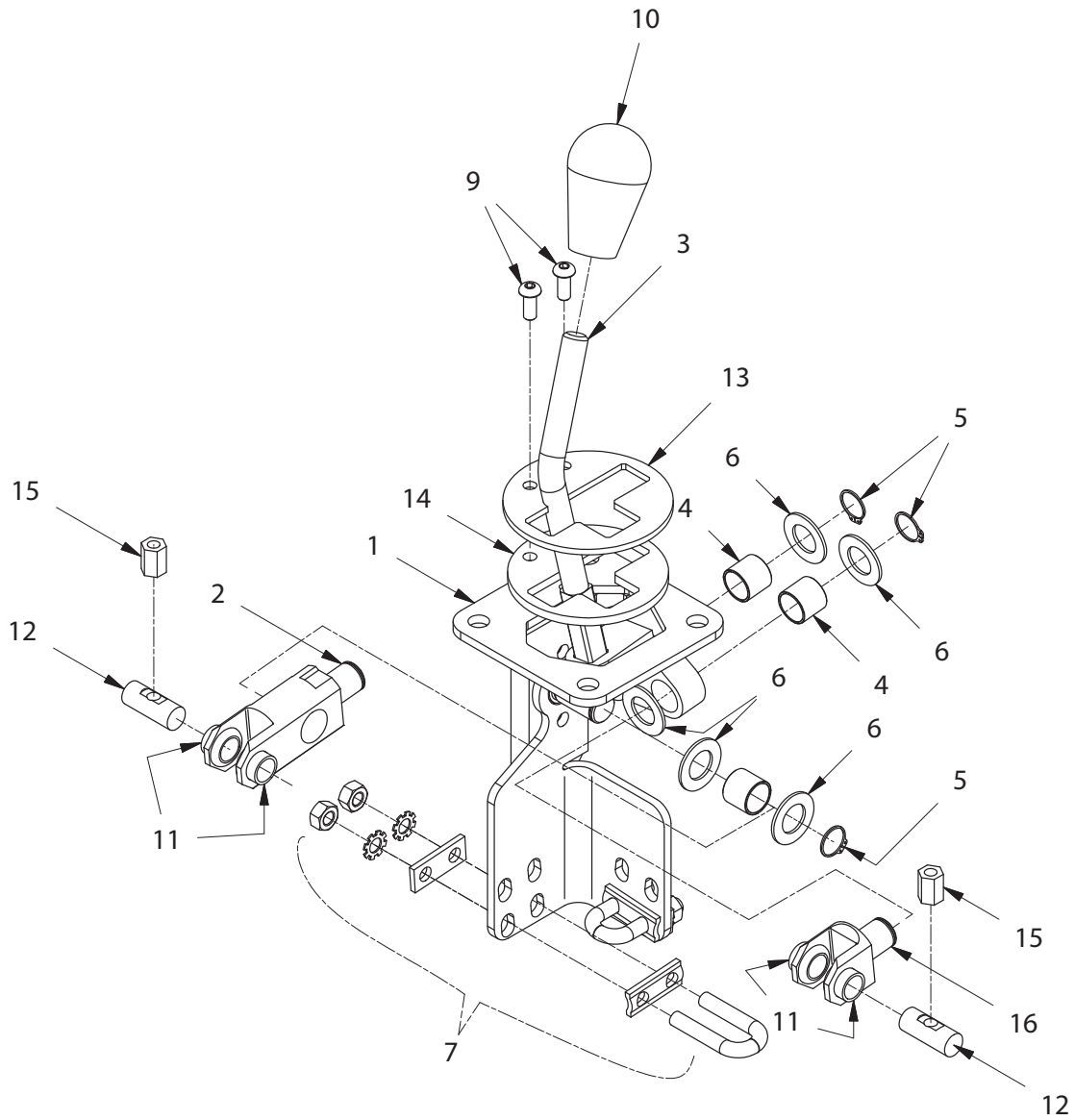
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2301845W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	1302049W	. Knob	1	14	1306001W	. Screw	1
2	1302048W	. Clamp, Cable	1	15	15024W	. Nut	1
3	1302047W	. Cover	1	16	15004W	. Nut	1
4	1302046W	. Clamp, Base	1	17	15923W	. Washer	1
5	1302045W	. Bearing	2	18	15005W	. Nut	2
6	1302044W	. Pin, Clevis	1	19	15932W	. Lockwasher	2
7	1302043W	. U-Bolt	1	20	1302039W	. Pin	1
8	1302042W	. Clevis	1	21	NSS	. Housing	1
9	1302041W	. Boot	1	22	NSS	. Lever	1
10	1302040W	. O-Ring	1	23	*a 18717W	Capscrew, Button Head	1
11	1306003W	. Screw	4	24	*a 383881W	Nut, Tall	1
12	1306002W	. Screw	4				
13	221867W	. Lockwasher, Star	4		*a	Uses 230064W Loctite Kit	

Control Lever, Power Controls



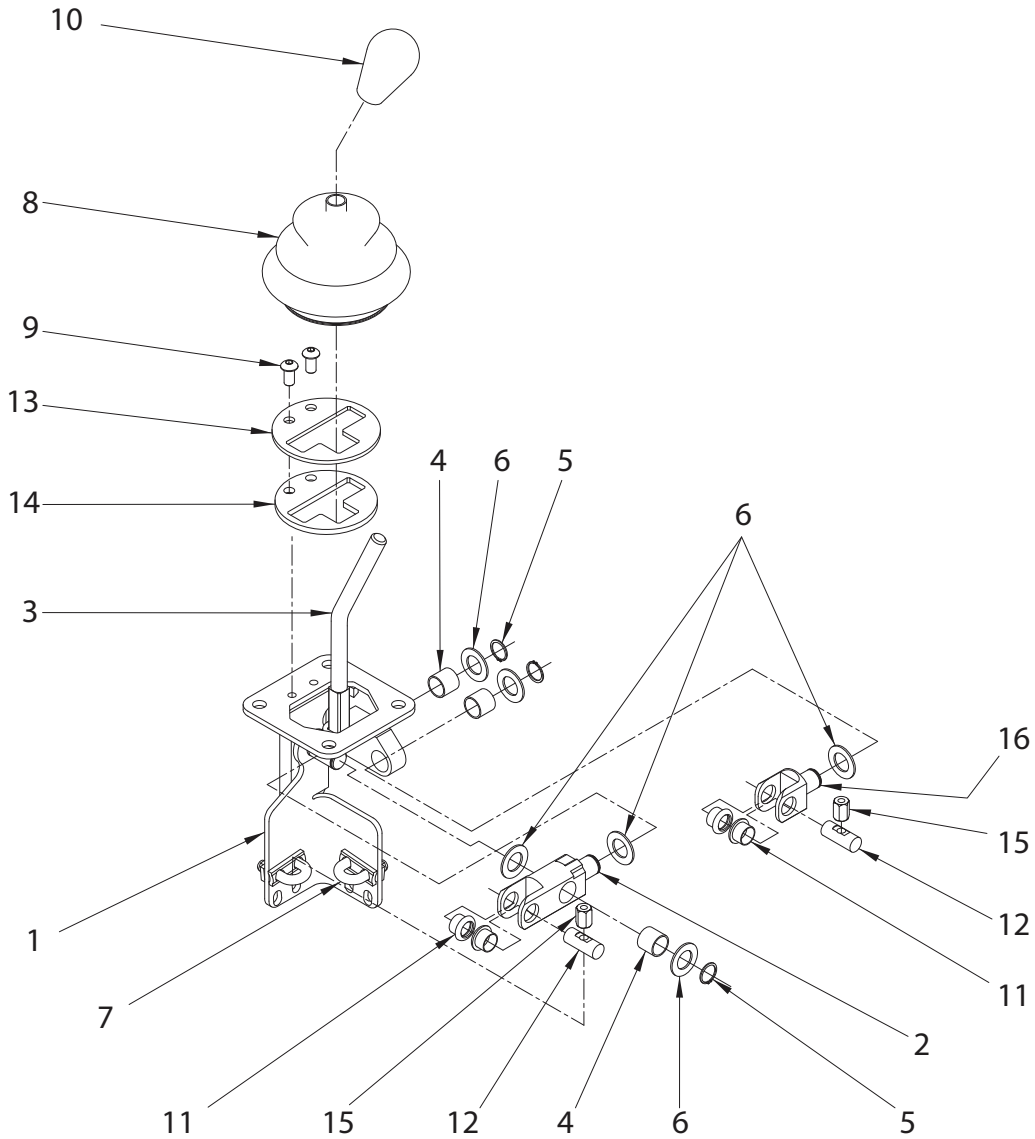
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2305303W</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2312189	. Bracket, Vertical Control Lever	1	10	2304339W	. Knob	1
2	2305296W	. Pivot, Main	1	11	*a 2307974W	. Bushing	4
3	2305297W	. Bracket, Pivot	1	12	196128W	. Pin	2
4	2305302W	. Bushing	3	13	2312188	. Plate, Gate	1
5	58903W	. Ring, Snap	3	14	2312232	. Plate, Spacer	1
6	2301634W	. Washer, Thrust	6	15	2301487W	. Nut, Tall	2
7	2300995W	. Clamp Kit, U-Bolt	2	16	2305301W	. Pivot, Aux	1
8	228131	. Boot	1				
9	Y25G-0410	. Capscrew	2		*a Use 257291W Adhesive		

Control Lever, Power Controls



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2310105</b>	<b>Assembly, Control Lever</b>	<b>1</b>	8	228131	. Boot (Not Shown)	1
1	2312189	. Bracket, Vertical	1	9	Y25G-0410	. Capscrew	2
2	2305296W	. Pivot, Main	1	10	2304339W	. Knob	1
3	2310106	. Bracket, Pivot	1	11	*a 2307974W	. Bushing	4
4	2305302W	. Bushing	3	12	196128W	. Pin	2
5	58903W	. Ring, Snap	3	13	2312188	. Plate, Gate	1
6	2301634W	. Washer, Thrust	6	14	2312232	. Plate, Spacer	1
7	2300995W	. Kit, U-Bolt Clamp	2	15	2301487	. Nut, Tall	2
	NSS	.. U-Bolt	1	16	2305301W	. Pivot, Aux.	1
	NSS	.. Plate, Cup	1				
	NSS	.. Plate	1				
	NSS	.. Washer, Star	2				
	NSS	.. Nut	2				
				*a	Use 257291W Adhesive in Two Places for Retention		

Control Lever, Power Controls



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2310118</b>	<b>Assembly, Control Lever</b>	<b>1</b>				
1	2312189	. Bracket, Vertical Control Lever	1	10	2304339W	. Knob	1
2	2305296W	. Pivot, Main	1	11	*a 2307974W	. Bushing	4
3	2310117	. Bracket, Pivot	1	12	196128W	. Pin	2
4	2305302W	. Bushing	3	13	2312188	. Plate, Gate	1
5	58903W	. Ring, Snap	3	14	2312232	. Plate, Spacer	1
6	2301634W	. Washer, Thrust	6	15	2301487W	. Nut, Tall	2
7	2300995W	. Clamp Kit, U-Bolt	2	16	2305301W	. Pivot, Aux	1
8	228131	. Boot	1				
9	Y25G-0410	. Capscrew	2		*a Use 257291W Adhesive		

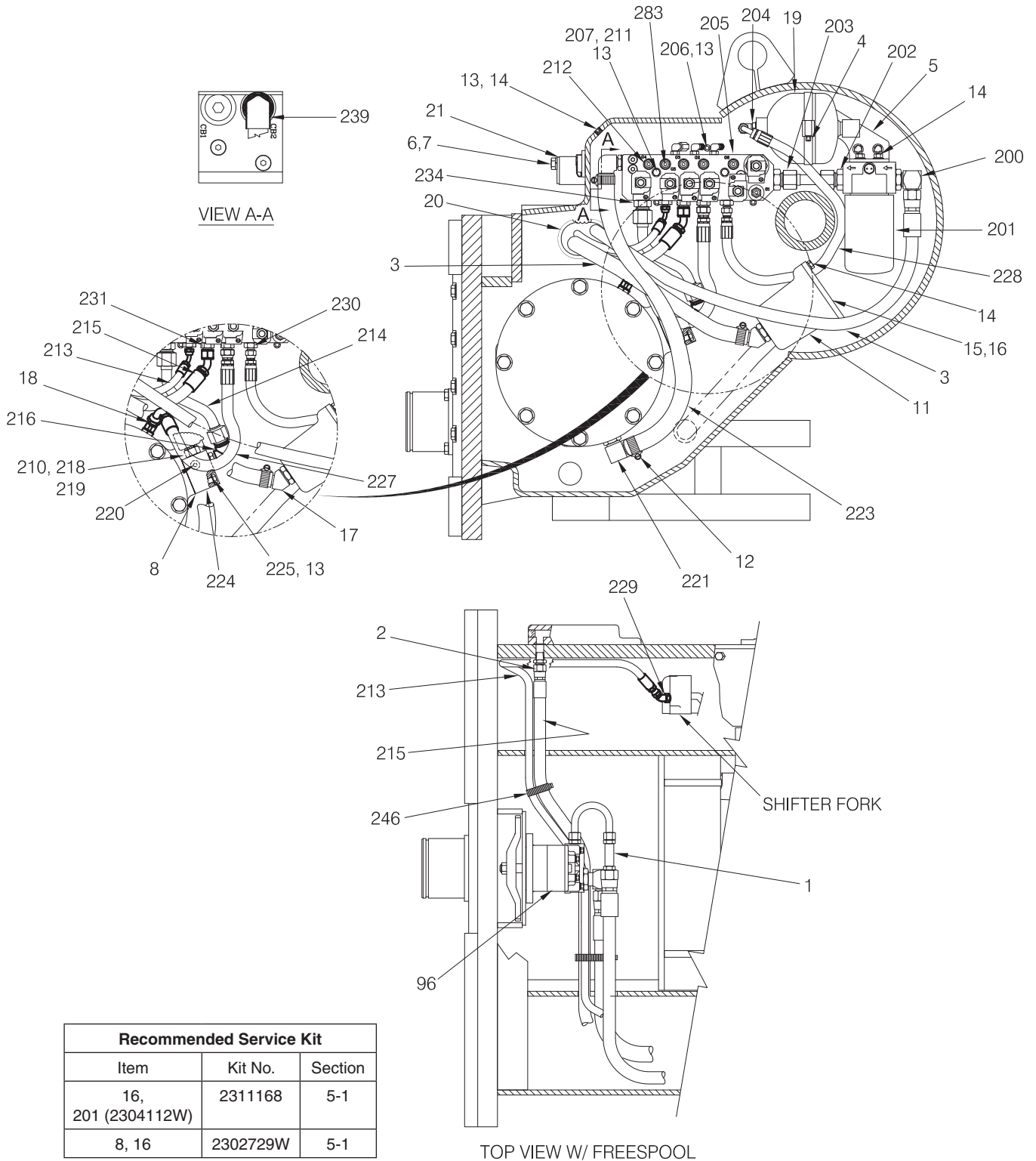
### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)

Last Used on S/N AW6G-1287

(Except S/N AW6G-1271)

Page 1 of 2



FREESPOOL CONFIGURATION SHOWN

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)

Last Used on S/N AW6G-1287

(Except S/N AW6G-1271)

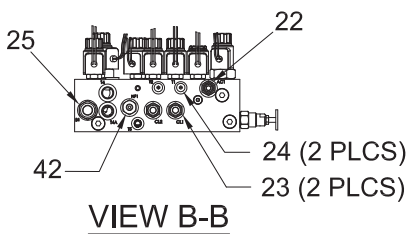
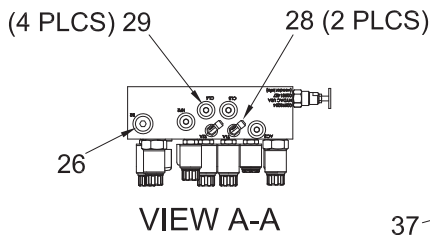
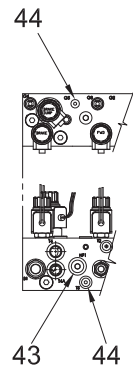
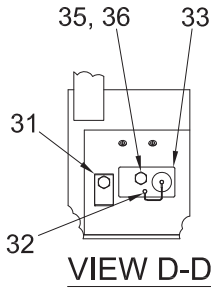
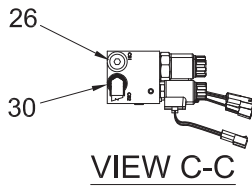
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	206	2305987W	Setscrew	3
2	17315W	Fitting	1	207	18524W	Capscrew	2
3	2300767W	Assembly, Hose	1	210	2304845W	Washer, Tab	1
4	2302109W	Clamp	1	211	18515W	Washer	2
5	2305114W	Bracket, Mounting	1	212	2304825W	Fitting	5
6	16829W	Capscrew	1	213	2305560W	Assembly, Hose	1
7	15158W	Washer	4	214	2305481W	Assembly, Tube	1
8	196022W	Gasket	1	215	2305559W	Assembly, Hose	1
11	219172W	Strainer	1	216	111331W	Fitting	1
12	209639W	Clamp	3	218	R15005	Coil, 24V	1
13	15156W	Washer	5	219	2305260W	Valve	1
14	*a 1300780W	Screw, Flanged	8	220	222443W	Fitting	1
15	2300936W	Cover	1	221	2305561W	Fitting	1
16	2300935W	Gasket	1	223	2305558W	Assembly, Hose	1
17	2302985W	Fitting	1	224	2305056W	Dump, Valve Manifold	1
18	16568W	Fitting	1	225	16379W	Capscrew	2
19	R16271	Accumulator	1	227	2303739W	Assembly, Hose	1
20	24257	Trim	AR	228	2305407W	Assembly, Hose	1
21	303946W	Gasket	1	229	16565W	Fitting	1
85	2300760W	Assembly, Hose	1	230	16745W	Fitting	1
96	-----	Pump, Hydraulic (3-180 thru 3-183)	1	231	16541W	Fitting	2
200	138811W	Fitting	1	234	142682W	Fitting	1
201	2304111W	Assembly, Filter	1	239	181957W	Fitting	1
	2304112W	. Element, Filter	1	246	129563W	Clamp, Strap	1
	2304862W	. Switch, Pressure	1	283	*b 2304825W	Fitting	1
	2305132W	. Head, Filter	1	283	222442W	Fitting	1
202	16543W	Fitting	2				
203	2305113W	Assembly, Tube - Inlet	1		*a Use 273338W Pipe Thread Sealant		
204	110174W	Fitting	1		*b Used on Winches With Freespool		
205	2303889W	Assembly, Valve Manifold (3-137)	1				

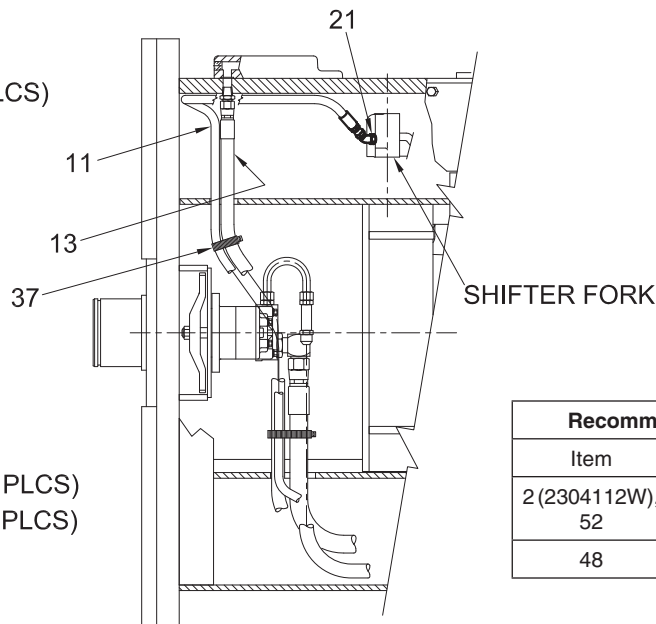
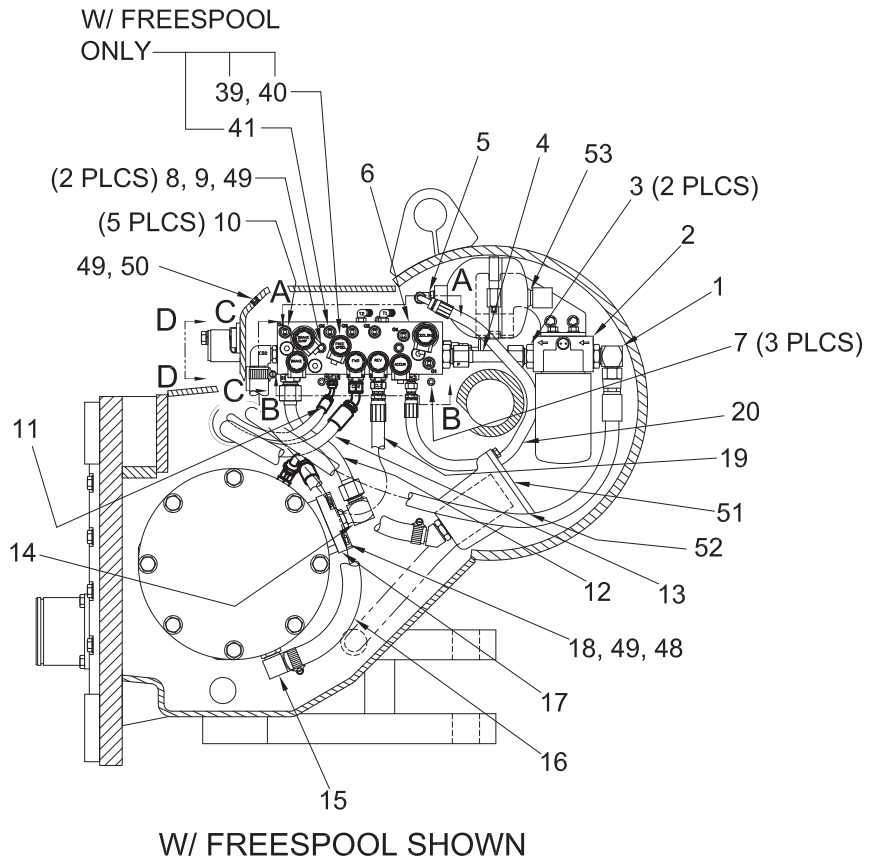
### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)  
 Used Only on S/N AW6G-1271,  
 and on S/N AW6G-1288 through S/N AW6G-1452

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**W/ FREESPOOL**



Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

**E-CONTROLS W/ FREESPOOL**

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.



**Hydraulic Group, Electronic Controls**

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)

Used Only on S/N AW6G-1271,

and on S/N AW6G-1288 through S/N AW6G-1452

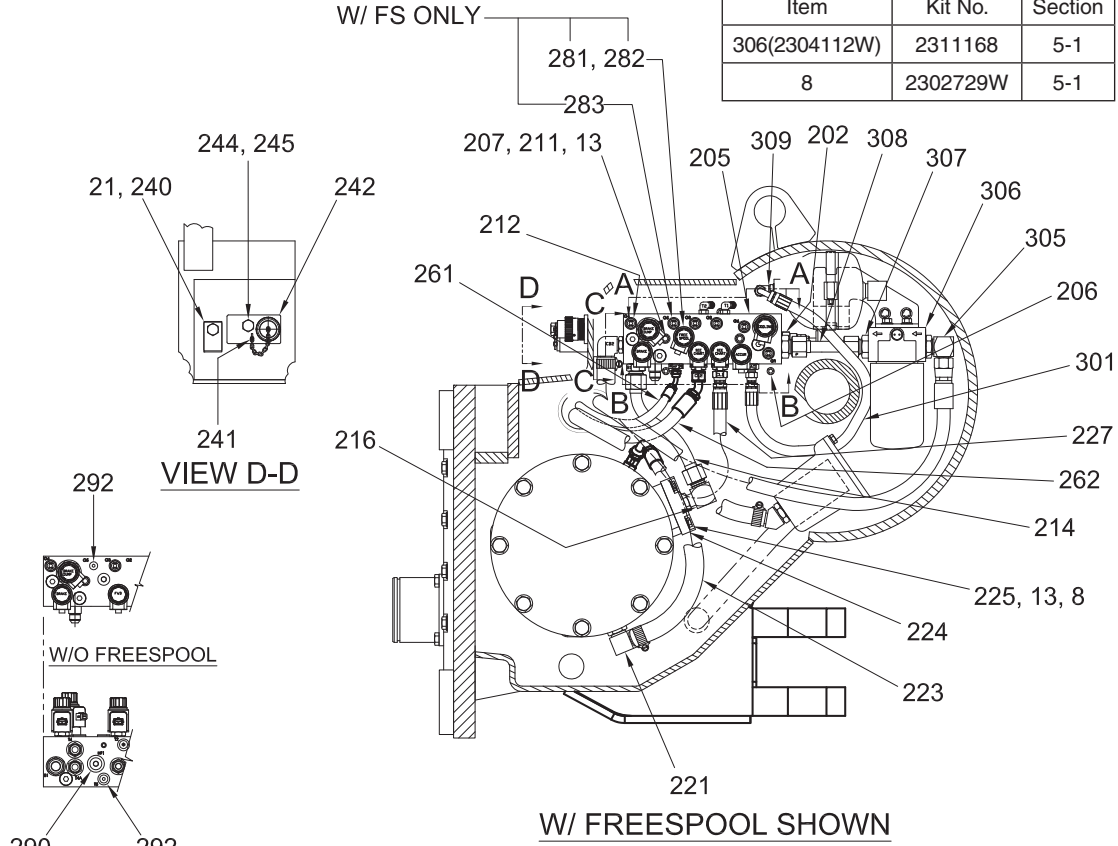
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Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	138811W	Fitting	1	26	233693W	Fitting	2
2	2304111W	Assembly, Filter	1	28	16556W	Fitting	2
	2304112W	. Element, Filter	1	29	235691W	Fitting	4
	2304862W	. Switch, Pressure	1	30	181957W	Fitting, Hose	1
	2305132W	. Head, Filter	1	31	2304366W	Plate, Cover	1
3	16543W	Fitting	2	32	16602W	Screw	1
4	2306736W	Assembly, Tube - Inlet	1	33	*c 2304503W	Retainer, Connector	1
5	110174W	Fitting	1	35	178403W	Capscrew	1
6	2306547W	Assembly, Valve Manifold (3-138)	1	36	15158W	Washer	1
7	2305987W	Setscrew	3	37	129563W	Clamp, Strap	1
8	18526W	Capscrew	2	38	2303901W	Harness, Internal (Not Shown)	1
9	18515W	Washer	2	39	*a 2307769W	Valve, Cartridge	1
10	2304825W	Fitting	5	40	*a 2307770W	Valve Coil, 24V	1
11	2305560W	Assembly, Hose	1	41	*a 2304825W	Fitting	1
12	2306739W	Assembly, Tube	1	42	*a 222381W	Fitting	1
13	2305559W	Assembly, Hose	1	43	*b 235691W	Fitting	1
14	222402W	Fitting	1	44	*b 222442W	Fitting	2
15	2305561W	Fitting, Hose	1	45	*b 2304877W	Plug - 2 Term (Not Shown)	1
16	2305558W	Assembly, Hose	1	48	196022W	Gasket	1
17	279392W	Block	1	49	15156W	Washer	5
18	16828W	Capscrew	2	50	1300780W	Screw, Flanged	8
19	2303739W	Assembly, Hose	1	51	2300936W	Cover	1
20	2305407W	Assembly, Hose	1	52	2300935W	Gasket	1
21	16565W	Fitting	1	53	R16271	Accumulator, Hydraulic	1
22	16745W	Fitting	1				
23	16541W	Fitting	2		*a	Used on Winches With Freespool	
24	222442W	Fitting	2		*b	Used on Winches Without Freespool	
25	142682W	Fitting	1		*c	Use 236308W Loctite	

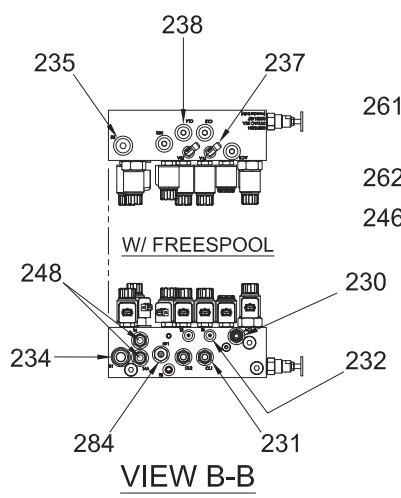
### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)  
 Used on S/N AW6G-1453 through S/N AW6G-1517  
 Page 1 of 2

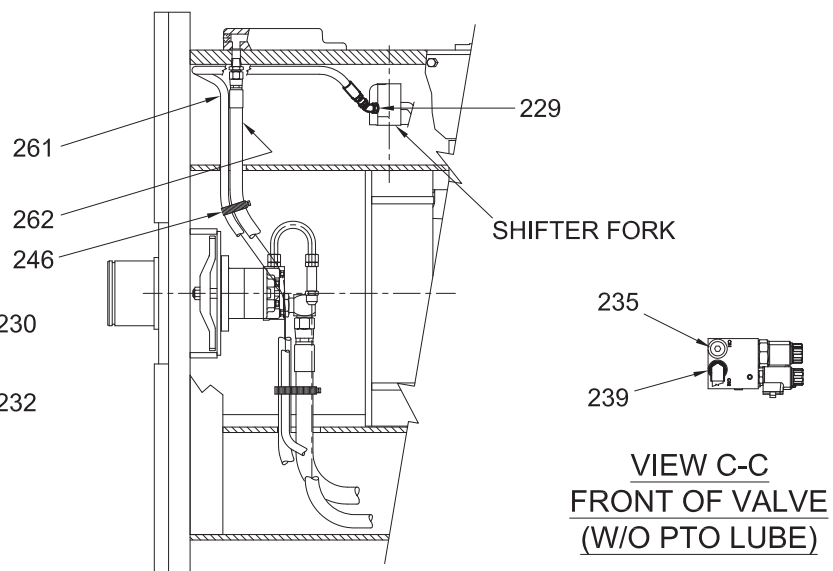
Recommended Service Kit		
Item	Kit No.	Section
306(2304112W)	2311168	5-1
8	2302729W	5-1



VIEW B-B



VIEW B-B



VIEW C-C  
 FRONT OF VALVE  
 (W/O PTO LUBE)

E-CONTROLS W/ FREESPOOL

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)

Used on S/N AW6G-1453 through S/N AW6G-1517

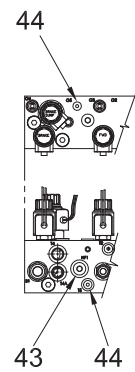
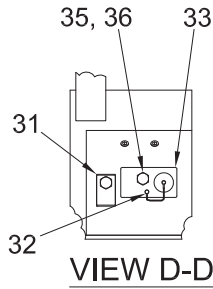
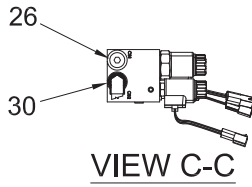
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Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	242	*c 2311807	Connector, Retainer	1
13	15156W	Washer	5	244	178403W	Capscrew	1
21	303946W	Gasket	1	245	15158W	Washer	1
202	16543W	Fitting	1	246	129563W	Clamp, Strap	1
205	2306547W	Assembly, Valve Manifold (3-138)	1	248	2313404	Valve, Check	1
206	2305987W	Setscrew	3	261	*a 2305560W	Assembly, Hose	1
207	18526W	Capscrew	2	262	*a 2305559W	Assembly, Hose	1
211	18515W	Washer	2	281	*a 2307769W	Valve, Cartridge	1
212	2304825W	Fitting	5	282	*a 2311558	Coil, Valve - 24V	1
214	2306739W	Assembly, Tube	1	283	*a 2304825W	Fitting	1
216	222402W	Fitting	1	284	*a 222381W	Fitting	1
221	2305561W	Fitting	1	290	*b 235691W	Fitting	1
223	2305558W	Assembly, Hose	1	292	*b 222442W	Fitting	2
224	279392W	Block	1	301	2302109W	Clamp	1
225	16828W	Capscrew	2	305	138811W	Fitting	1
227	2303739W	Assembly, Hose	1	306	2304111W	Assembly, Filter	1
229	16565W	Fitting	1		2304112W	. Element, Filter	1
230	16745W	Fitting	1		2304862W	. Switch, Pressure	1
231	16541W	Fitting	2		2305132W	. Head, Filter	1
232	222442W	Fitting	2	307	16543W	Fitting	1
234	142682W	Fitting	1	308	2306736W	Assembly, Tube - Inlet	1
235	233693W	Fitting	2	309	110174W	Fitting	1
237	16556W	Fitting	2				
238	235691W	Fitting	4		*a	Used on Winches With Freespool	
239	181957W	Fitting	1		*b	Used on Winches Without Freespool	
240	2304366W	Plate, Cover	1		*c	Use 236308W Loctite	
241	16602W	Screw	1				

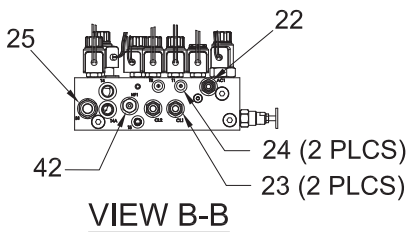
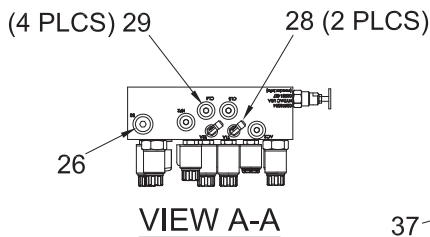
### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)  
Used on S/N AW6G-1518 through S/N AW6G-1763

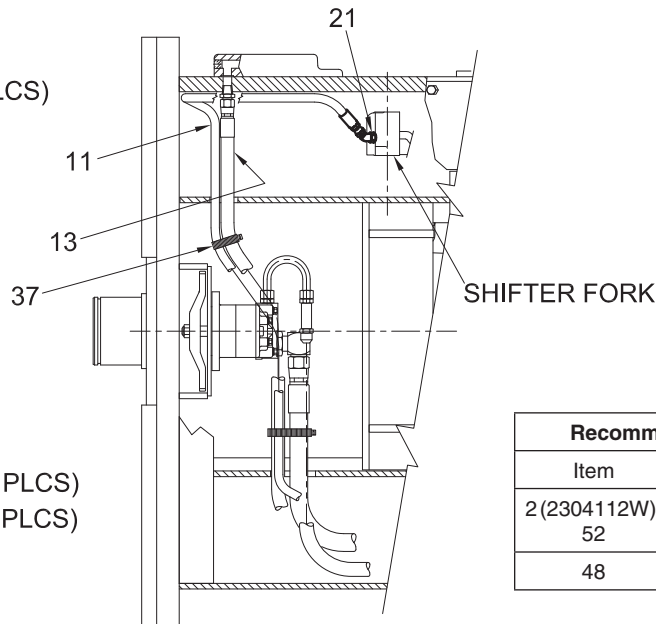
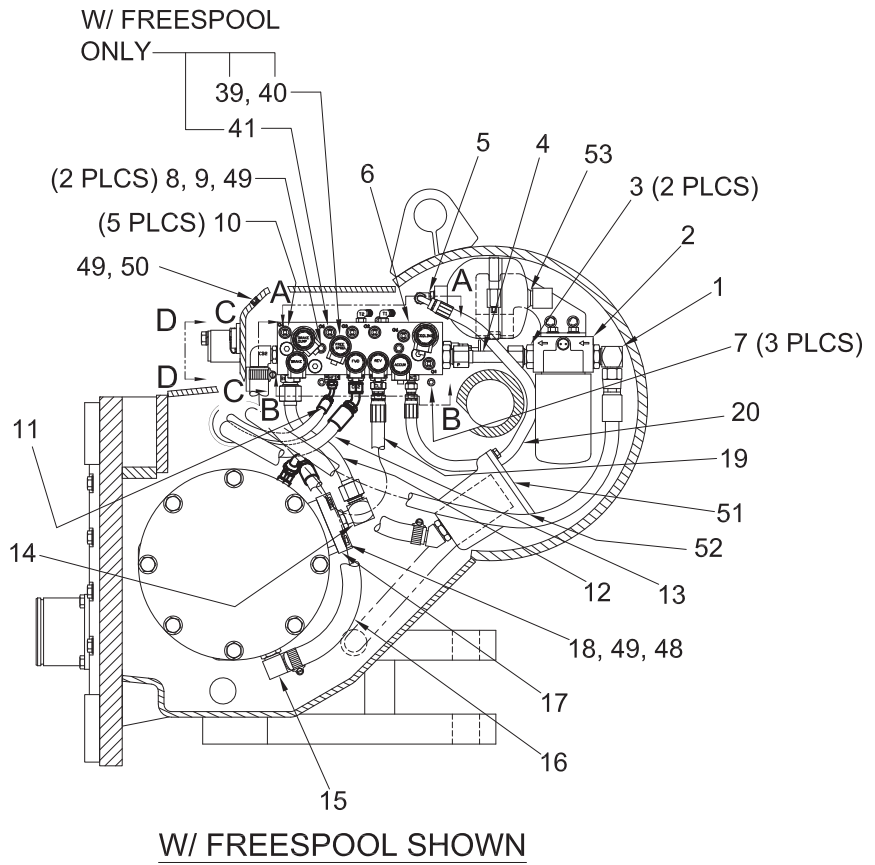
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W/O FREESPOOL



W/ FREESPOOL



### E-CONTROLS W/ FREESPOOL

Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) &amp; Case Quadtrac (R39)

Used on S/N AW6G-1518 through S/N AW6G-1763

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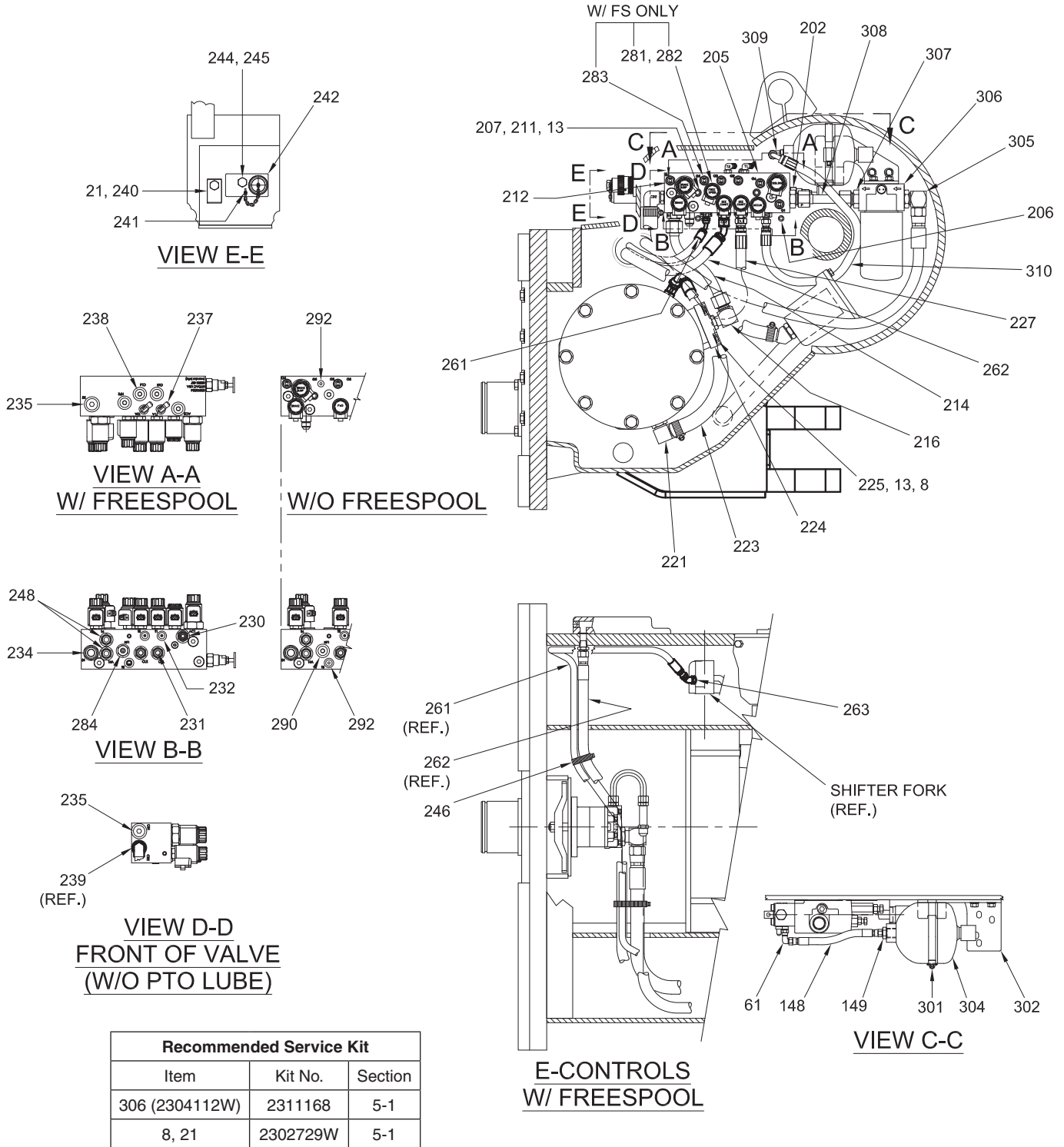
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	138811W	Fitting	1	26	233693W	Fitting	2
2	2304111W	Assembly, Filter	1	28	16556W	Fitting	2
	2304112W	. Element, Filter	1	29	235691W	Fitting	4
	2304862W	. Switch, Pressure	1	30	181957W	Fitting, Hose	1
	2305132W	. Head, Filter	1	31	2304366W	Plate, Cover	1
3	16543W	Fitting	2	32	16602W	Screw	1
4	2306736W	Assembly, Tube - Inlet	1	33	*c 2304503W	Retainer, Connector	1
5	110174W	Fitting	1	35	178403W	Capscrew	1
6	2306547W	Assembly, Valve Manifold (3-138)	1	36	15158W	Washer	1
7	2305987W	Setscrew	3	37	129563W	Clamp, Strap	1
8	18526W	Capscrew	2	38	2310627	Harness, Internal (Not Shown)	1
9	18515W	Washer	2	39	*a 2307769W	Valve, Cartridge	1
10	2304825W	Fitting	5	40	*a 2307770W	Coil, Valve - 24V	1
11	2305560W	Assembly, Hose	1	41	*a 2304825W	Fitting	1
12	2306739W	Assembly, Tube	1	42	*a 222381W	Fitting	1
13	2305559W	Assembly, Hose	1	43	*b 235691W	Fitting	1
14	222402W	Fitting	1	44	*b 222442W	Fitting	2
15	2305561W	Fitting, Hose	1	45	*b 2304877W	Plug - 2 Term (Not Shown)	1
16	2305558W	Assembly, Hose	1	48	196022W	Gasket	1
17	279392W	Block	1	49	15156W	Washer	5
18	16828W	Capscrew	2	50	1300780W	Screw, Flanged	8
19	2303739W	Assembly, Hose	1	51	2300936W	Cover	1
20	2305407W	Assembly, Hose	1	52	2300935W	Gasket	1
21	16565W	Fitting	1	53	R16271	Accumulator, Hydraulic	1
22	16745W	Fitting	1				
23	16541W	Fitting	2		*a	Used on Winches With Freespool	
24	222442W	Fitting	2		*b	Used on Winches Without Freespool	
25	142682W	Fitting	1		*c	Use 236308W Loctite	

### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)

Used on S/N AW6G-1764 through S/N AW6G-2018

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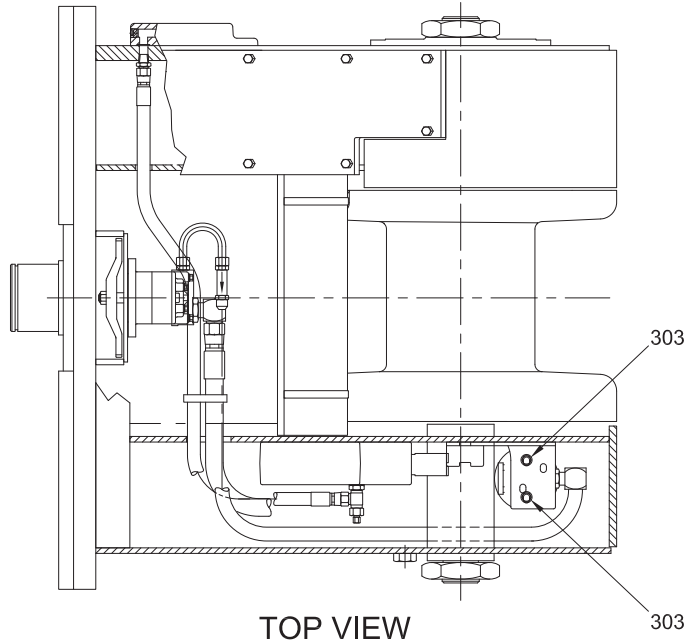


See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

### Hydraulic Group, Electronic Controls

All Except Komatsu D65EX-12/15 (K46), D61EX-12/15 (K47) & Case Quadtrac (R39)  
Used on S/N AW6G-1764 through S/N AW6G-2018

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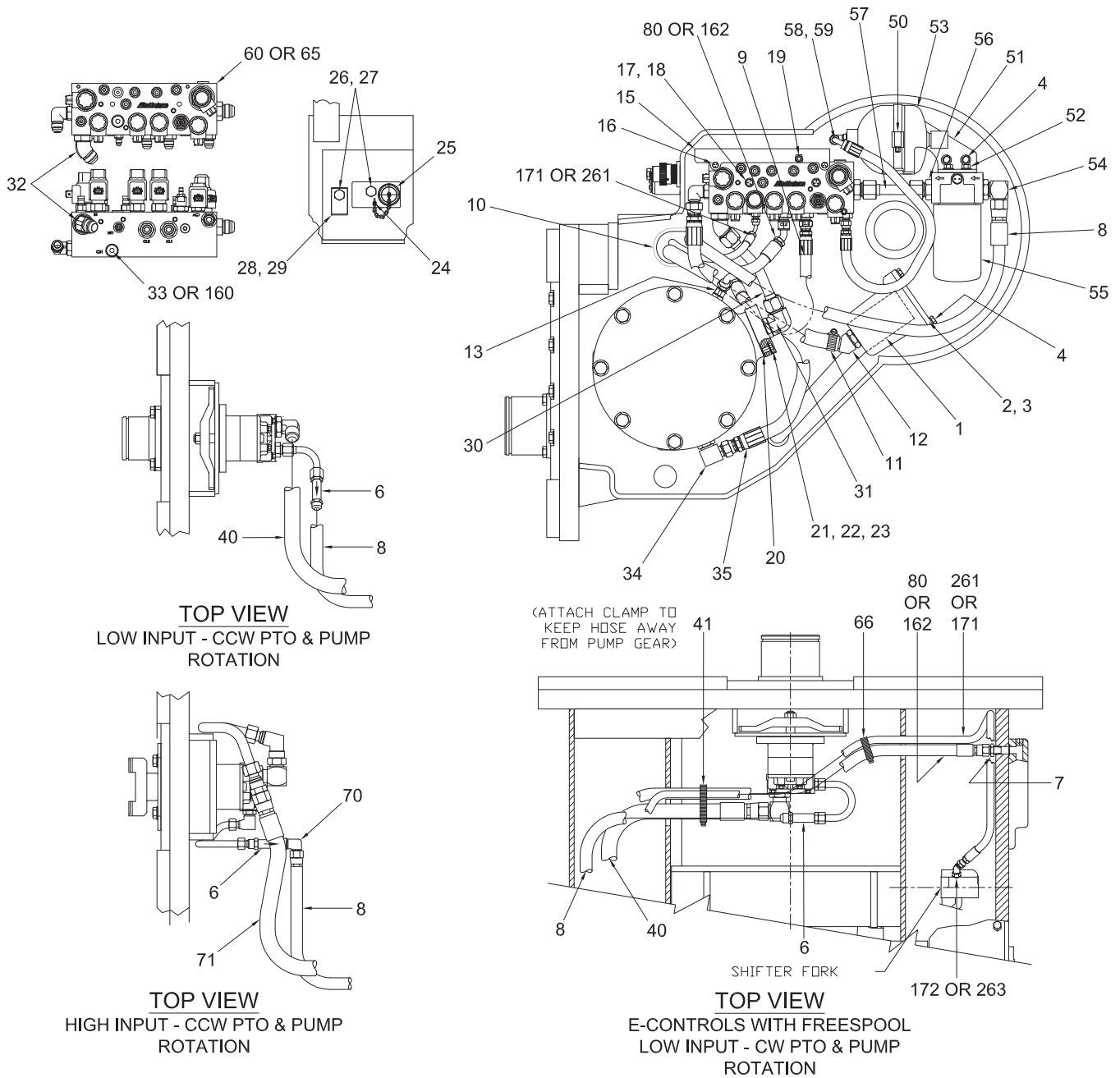


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	245	15158W	Washer	1
13	15156W	Washer	2	246	129563W	Clamp, Strap	1
21	303946W	Gasket	1	247	2311443	Harness, Internal (Not Shaown)	1
61	16987W	Fitting	1	248	2313404	Valve, Check	2
148	383982W	Assembly, Hose	1	261	2305560W	Assembly, Hose	1
149	222381W	Fitting	1	262	2305559W	Assembly, Hose	1
202	16543W	Fitting	1	263	16565W	Fitting	1
205	2311887	Assembly, Manifold Valve (3-139)	1	281	*b 2307769W	Valve, Cartridge	1
206	2305987W	Setscrew	3	282	*b 2311558	Coil, Valve - 24V	1
207	18526W	Capscrew	2	283	*b 2304825W	Fitting, QC Test	1
211	18515W	Washer	2	284	*b 222381W	Fitting	1
212	2304825W	Fitting, QC Test	5	290	*c 235691W	Fitting	1
214	2306739W	Assembly, Tube	1	292	*c 222442W	Fitting	2
216	222402W	Fitting	1	293	2312259	Plug, 2-Term (Not Shown)	1
221	2305561W	Fitting	1	301	2302109W	Clamp	1
223	2305558W	Assembly, Hose	1	302	2305114W	Bracket, Mounting	1
224	279392W	Block	1	303	1300780W	Screw, Flange	2
225	16828W	Capscrew	2	304	R16271	Accumulator, Hydraulic	1
227	2303739W	Assembly, Hose	1	305	138811W	Fitting	1
230	16745W	Fitting	1	306	2304111W	Assembly, Filter	1
231	16541W	Fitting	2		2304112W	. Element, Filter	1
232	222442W	Fitting	2		2304862W	. Switch, Pressure	1
234	142682W	Fitting	1		2305132W	. Head, Filter	1
235	233693W	Fitting	2	307	16543W	Fitting	1
237	16556W	Fitting	2	308	2306736W	Assembly, Tube - Inlet	1
238	235691W	Fitting	4	309	110174W	Fitting	1
239	181957W	Fitting	1	310	2305407W	Assembly, Hose	1
240	2304366W	Plate, Cover	1				
241	16602W	Screw	1	*a	Use 236308W Loctite		
242	*a 2311807	Retainer, Connector	1	*b	Used on Winches With Freespool		
244	178403W	Capscrew	1	*c	Used on Winches Without Freespool		

# Hydraulic Group, Electronic Controls

First Used on S/N AW6G-2019

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Recommended Service Kit		
Item	Kit No.	Section
55 (2304112W)	2311168	5-1
3, 20, 29	2302729W	5-1

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.



## Hydraulic Group, Electronic Controls

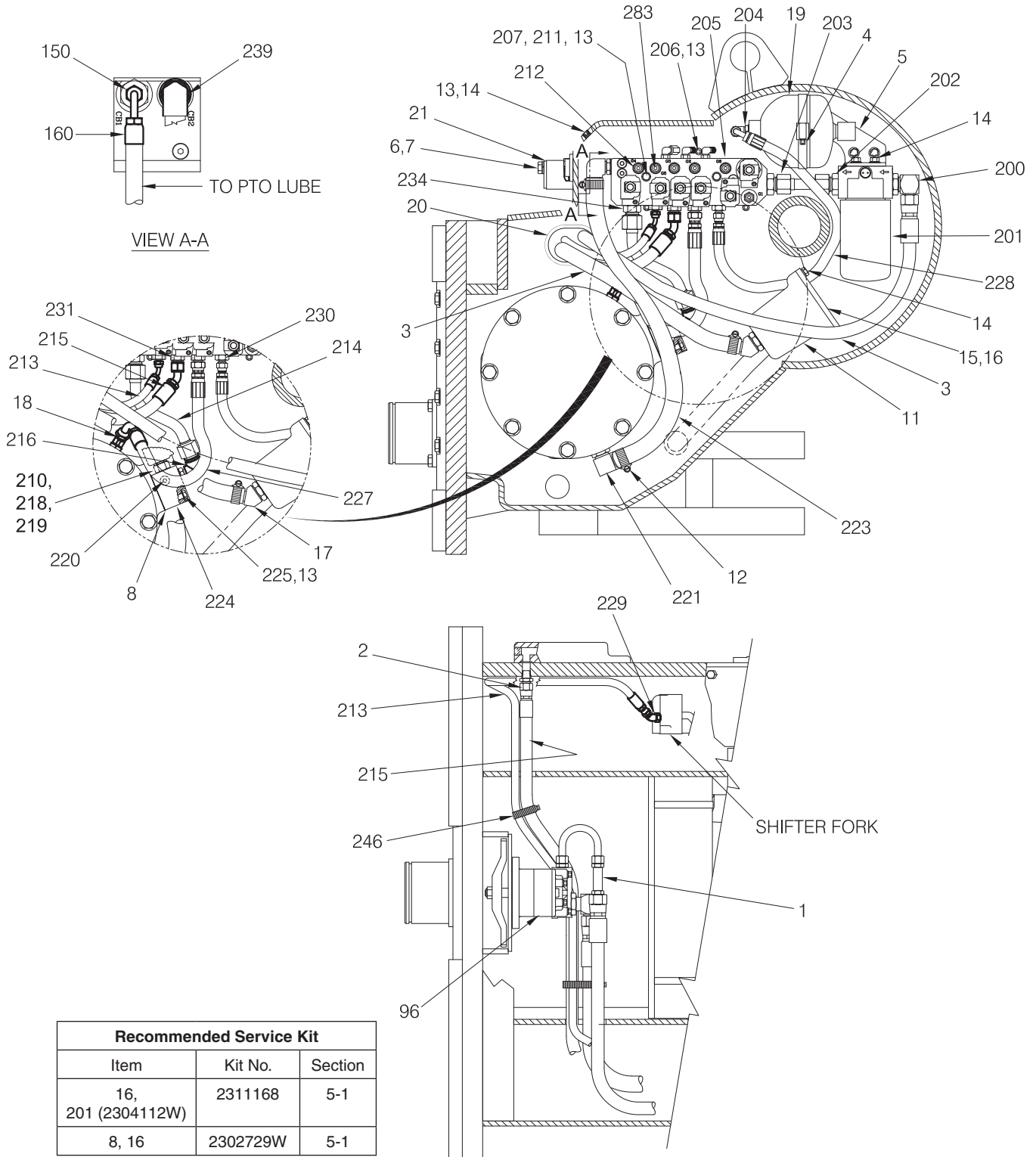
First Used on S/N AW6G-2019

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	219172W	Strainer	1	52	1300780W	Screw, Flanged	2
2	2300936W	Cover	1	53	R16271	Accumulator	1
3	2300935W	Gasket	1	54	138811W	Fitting	1
4	1300780W	Screw, Flanged	4	55	2304111W	Assembly, Filter	1
6	2300758W	Valve, Check	1		2304112W	. Element, Filter	1
7	17315W	Fitting	1		2304862W	. Switch, Pressure	1
8	2300767W	Assembly, Hose	1		2305132W	. Head, Filter	1
9	2303739W	Assembly, Hose	1	56	16543W	Fitting	1
10	24257	Trim, Edge	12"	57	2306736W	Assembly, Tube - Inlet	1
11	2312581	Clamp	1	58	110174W	Fitting	1
12	2302985W	Fitting	1	59	2305407W	Assembly, Hose	1
13	16568W	Fitting	1	60	2315717	Assembly, Manifold - Non Freespool	1
15	2315822	Guard, Splash	1		(3-140)		
16	133469W	Capscrew	2	65	2315945	Assembly, Manifold - Freespool	1
17	18526W	Capscrew	2		(3-141)		
18	18518W	Washer	2	66	129563W	Tie, Cable (Black)	1
19	2305987W	Setscrew	3	70	*b 16989W	Fitting	1
20	196022W	Gasket	1	71	*b 2300760W	Assembly, Hose	1
21	279392W	Block	1	80	*c 2305559W	Assembly, Hose	1
22	16828W	Capscrew	2	160	*d 17753W	Fitting	1
23	15134W	Washer	2	162	*d 2310666	Assembly, Hose	1
24	16602W	Screw	1	171	*d 2310667	Assembly, Hose	1
25	2311807	Retainer, Connector	1	172	*d 16565W	Fitting	1
26	178403W	Capscrew	2	261	*c 2305560W	Assembly, Hose	1
27	15158W	Washer	2	263	*c 16565W	Fitting	1
28	2304366W	Plate, Cover	1				
29	303946W	Gasket	1		*a	Used on CASE 1850K (R49);	
30	2315998	Assembly, Tube - Brake	1			CAT D6H (C480/C481)/D6R I & II (C71);	
31	222402W	Fitting	1			F/H FD14E, FD175 & 195, DX175 & 195 (A48),	
32	16570W	Fitting	1			DC-180 (A49);	
33	222443W	Fitting	1		*b	Used on JD750C II (E45) & 850C II (E46)	
34	201776W	Fitting	1		*c	Used on all winches with Freespool	
35	2316025	Assembly, Hose	1			except KOM D61 (K47), D65 (K46)	
40	*a 2300760W	Assembly, Hose	1			& CASE Quadtrac (R39)	
41	*a 129563W	Tie, Cable (Black)	1		*d	Used on KOM D61EX-12 (K47), D65EX-12 (K46)	
50	2302109W	Clamp	1			& CASE Quadtrac (R39)	
51	2305114W	Bracket, Mounting	1				

# Hydraulic Group, Electronic Controls

Case Quadtrac (R39)  
 Last Used on S/N AW6G-1287  
 (Except S/N AW6G-1271)  
 Page 1 of 2



TOP VIEW W/ FREESPOOL  
 FREESPOOL CONFIGURATION SHOWN

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

Case Quadtrac (R39)  
 Last Used on S/N AW6G-1287  
 (Except S/N AW6G-1271)  
 Page 2 of 2

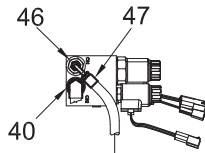
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	205	2303889W	Assembly, Valve Manifold (3-137)	1
2	17315W	Fitting	1	206	2305987W	Setscrew	3
3	2300767W	Assembly, Hose	1	207	18524W	Capscrew	2
4	2302109W	Clamp	1	210	2304845W	Washer, Tab	1
5	2305114W	Bracket, Mounting	1	211	18515W	Washer	2
6	16829W	Capscrew	1	212	2304825W	Fitting	5
7	15158W	Washer	4	213	2305560W	Assembly, Hose	1
8	196022W	Gasket	1	214	2305481W	Assembly, Tube	1
11	219172W	Strainer	1	215	2305559W	Assembly, Hose	1
12	209639W	Clamp	3	216	111331W	Fitting	1
13	15156W	Washer	5	218	R15005	Coil, 24V	1
14	*a 1300780W	Screw, Flanged	8	219	2305260W	Valve	1
15	2300936W	Cover	1	220	222443W	Fitting	1
16	2300935W	Gasket	1	221	2305561W	Fitting	1
17	2302985W	Fitting	1	223	2305558W	Assembly, Hose	1
18	16568W	Fitting	1	224	2305056W	Dump, Valve Manifold	1
19	R16271	Accumulator	1	225	16379W	Capscrew	2
20	24257	Trim	AR	227	2303739W	Assembly, Hose	1
21	303946W	Gasket	1	228	2305407W	Assembly, Hose	1
85	2305394W	Assembly, Hose	1	229	16565W	Fitting	1
96	-----	Pump, Hydraulic (3-180 thru 3-183)	1	230	16745W	Fitting	1
150	17756W	Fitting	1	231	16541W	Fitting	2
160	2305586W	Assembly, Hose	1	234	142682W	Fitting	1
200	138811W	Fitting	1	239	181957W	Fitting	1
201	2304111W	Assembly, Filter	1	246	129563W	Clamp, Strap	1
	2304112W	. Element, Filter	1	283	*b 2304825W	Fitting	1
	2304862W	. Switch, Pressure	1	283	222442W	Fitting	1
	2305132W	. Head, Filter	1				
202	16543W	Fitting	2	*a	Use 273338W Pipe Thread Sealant		
203	2305113W	Assembly, Tube - Inlet	1	*b	Used on Winches With Freespool		
204	110174W	Fitting	1				

# Hydraulic Group, Electronic Controls

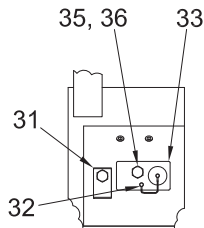
Case Quadtrac (R39)

Used Only on S/N AW6G-1271,  
and on S/N AW6G-1288 through S/N AW6G-1452

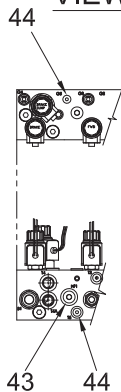
Page 1 of 2



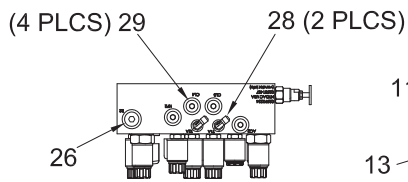
TO PTO LUBE  
**VIEW C-C**



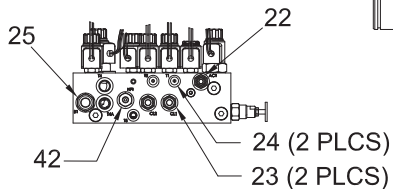
**VIEW D-D**



W/O FREESPOOL

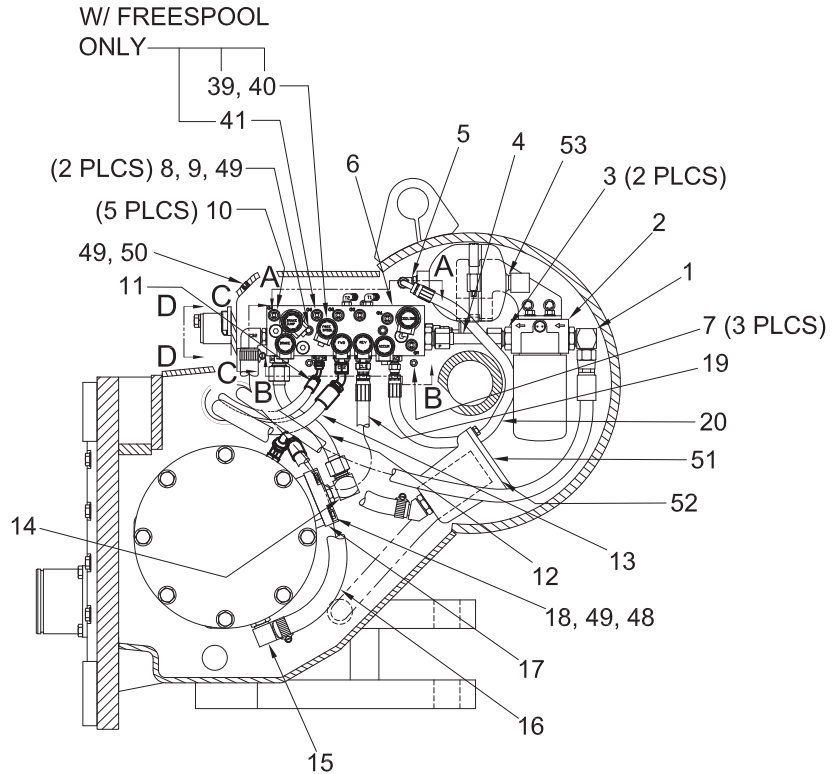


**VIEW A-A**

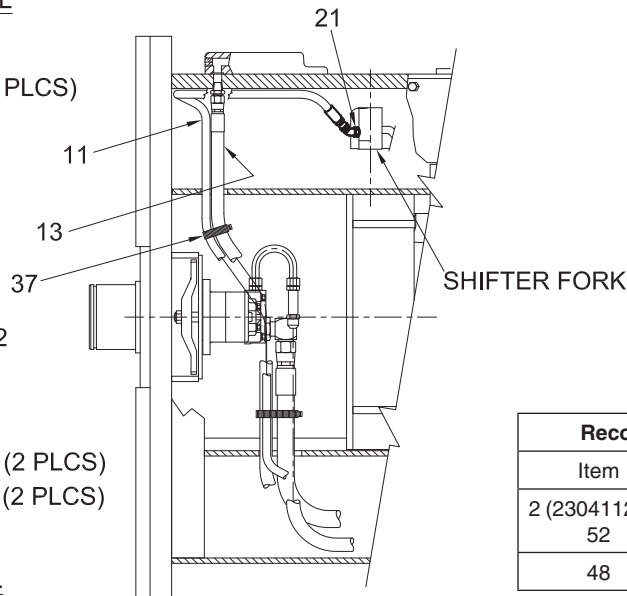


**VIEW B-B**

W/ FREESPOOL



W/ FREESPOOL SHOWN



Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

E-CONTROLS W/ FREESPOOL

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.



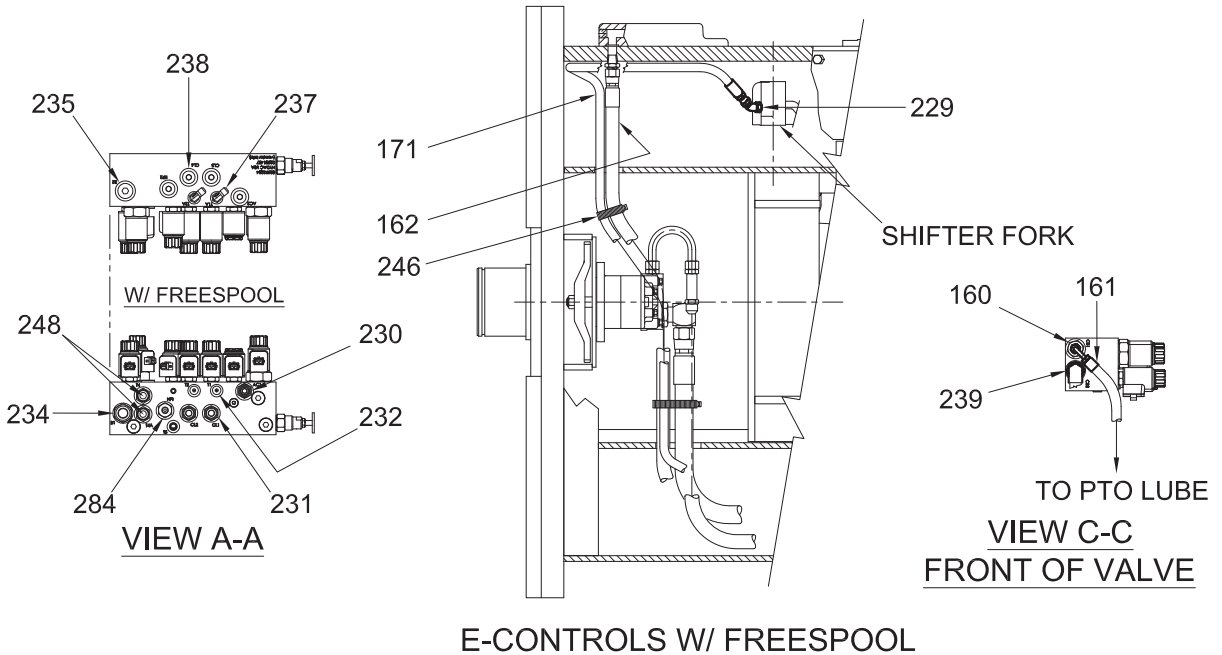
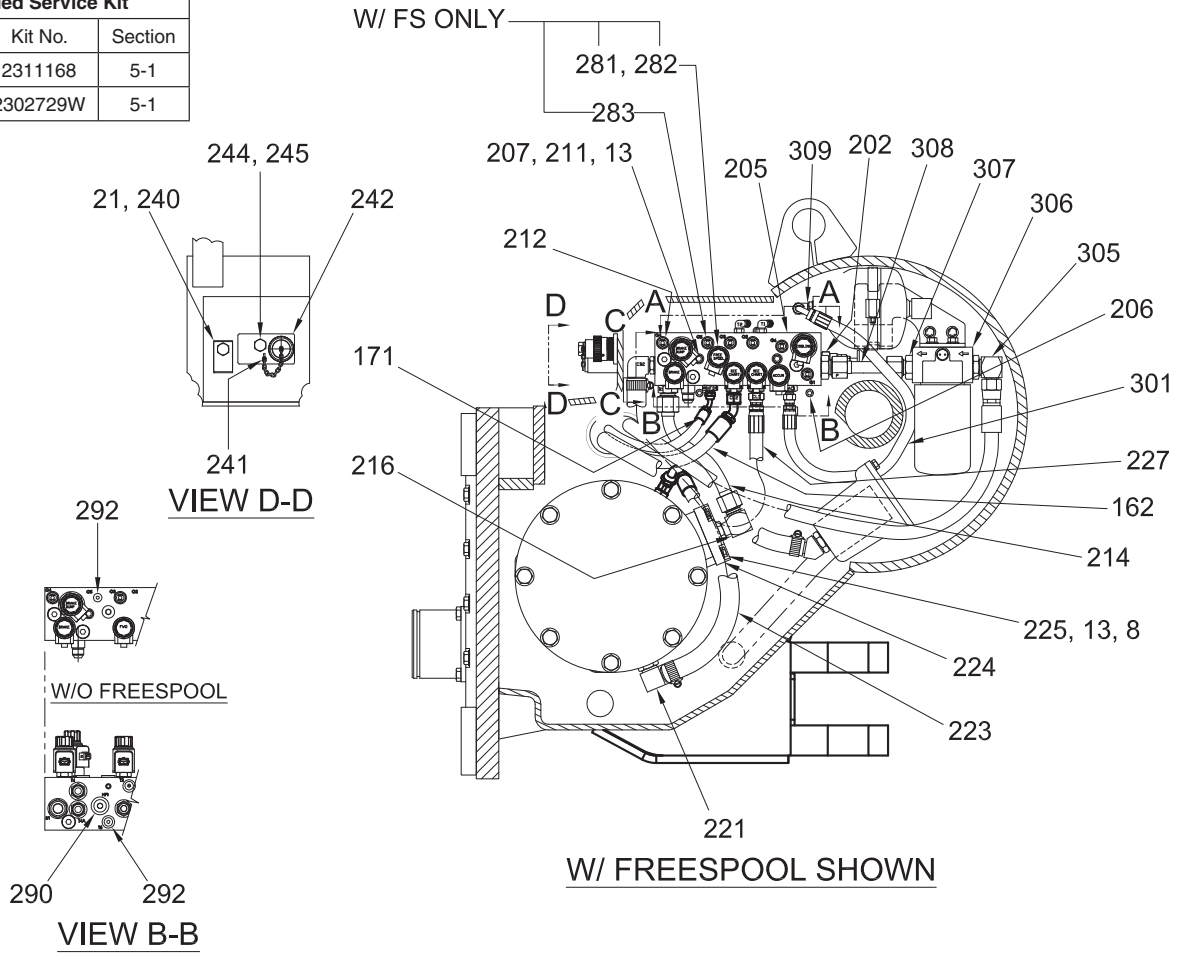
# Hydraulic Group, Electronic Controls

Case Quadtrac (R39)

Used S/N AW6G-1453 through S/N AW6G-1517

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
306 (2304112W)	2311168	5-1
8	2302729W	5-1



See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

## Hydraulic Group - Electronic Controls

Case Quadtrac (R39)

Used S/N AW6G-1453 thru S/N AW6G-1517

Page 2 of 2

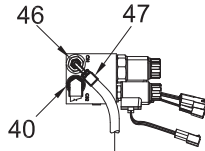
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	239	181957W	Fitting	1
13	15156W	Washer	5	240	2304366W	Plate, Cover	1
21	303946W	Gasket	1	241	16602W	Screw	1
160	17756W	Fitting	1	242	*c 2311807	Connector, Retainer	1
161	2305586W	Assembly, Hose	1	244	178403W	Capscrew	1
162	2310666	Assembly, Hose	1	245	15158W	Washer	1
171	2310667	Assembly, Hose	1	246	129563W	Clamp, Strap	1
202	16543W	Fitting	1	248	2313404	Valve, Check	1
205	2311887	Assembly, Valve Manifold (3-99)	1	281	*a 2307769W	Valve, Cartridge	1
206	2305987W	Setscrew	3	282	*a 2311558	Coil, Valve - 24V	1
207	18526W	Capscrew	2	283	*a 2304825W	Fitting	1
211	18515W	Washer	2	284	*a 222381W	Fitting	1
212	2304825W	Fitting	5	290	*b 235691W	Fitting	1
214	2306739W	Assembly, Tube	1	292	*b 222442W	Fitting	2
216	222402W	Fitting	1	301	2302109W	Clamp	1
221	2305561W	Fitting	1	305	138811W	Fitting	1
223	2305558W	Assembly, Hose	1	306	2304111W	Assembly, Filter	1
224	279392W	Block	1		2304112W	. Element, Filter	1
225	16828W	Capscrew	2		2304862W	. Switch, Pressure	1
227	2303739W	Assembly, Hose	1		2305132W	. Head, Filter	1
229	16565W	Fitting	1	307	16543W	Fitting	1
230	16745W	Fitting	1	308	2306736W	Assembly, Tube - Inlet	1
231	16541W	Fitting	2	309	110174W	Fitting	1
232	222442W	Fitting	2				
234	142682W	Fitting	1		*a	Used on Winches With Freespool	
235	233693W	Fitting	2		*b	Used on Winches Without Freespool	
237	16556W	Fitting	2		*c	Use 236308W Sealant, Loctite Ultra Blue	
238	235691W	Fitting	4				

# Hydraulic Group, Electronic Controls

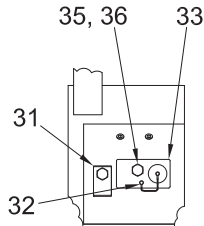
Case Quadtrac (R39)

Used on S/N AW6G-1518 through S/N AW6G-1763

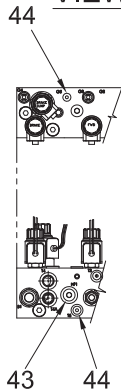
Page 1 of 2



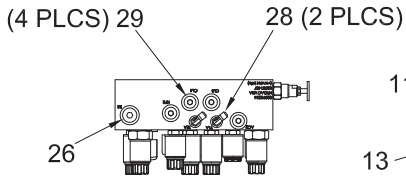
TO PTO LUBE  
VIEW C-C



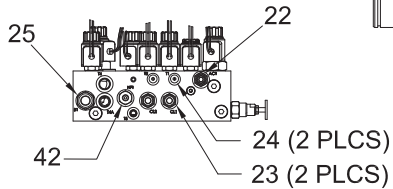
VIEW D-D



W/O FREESPOOL

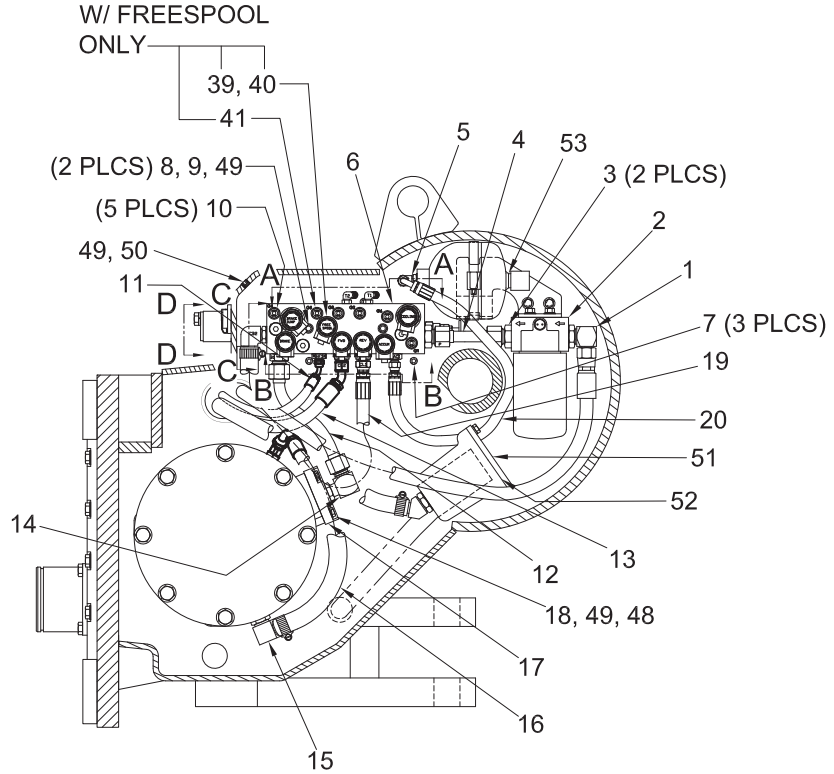


VIEW A-A

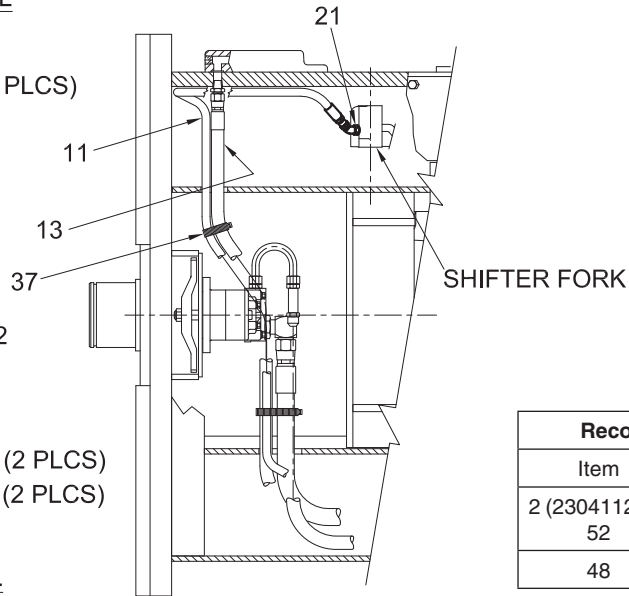


VIEW B-B

W/ FREESPOOL



W/ FREESPOOL SHOWN



E-CONTROLS W/ FREESPOOL

Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.



**Hydraulic Group, Electronic Controls**

Case Quadtrac (R39)

Used on S/N AW6G-1518 through S/N AW6G-1763

Page 2 of 2

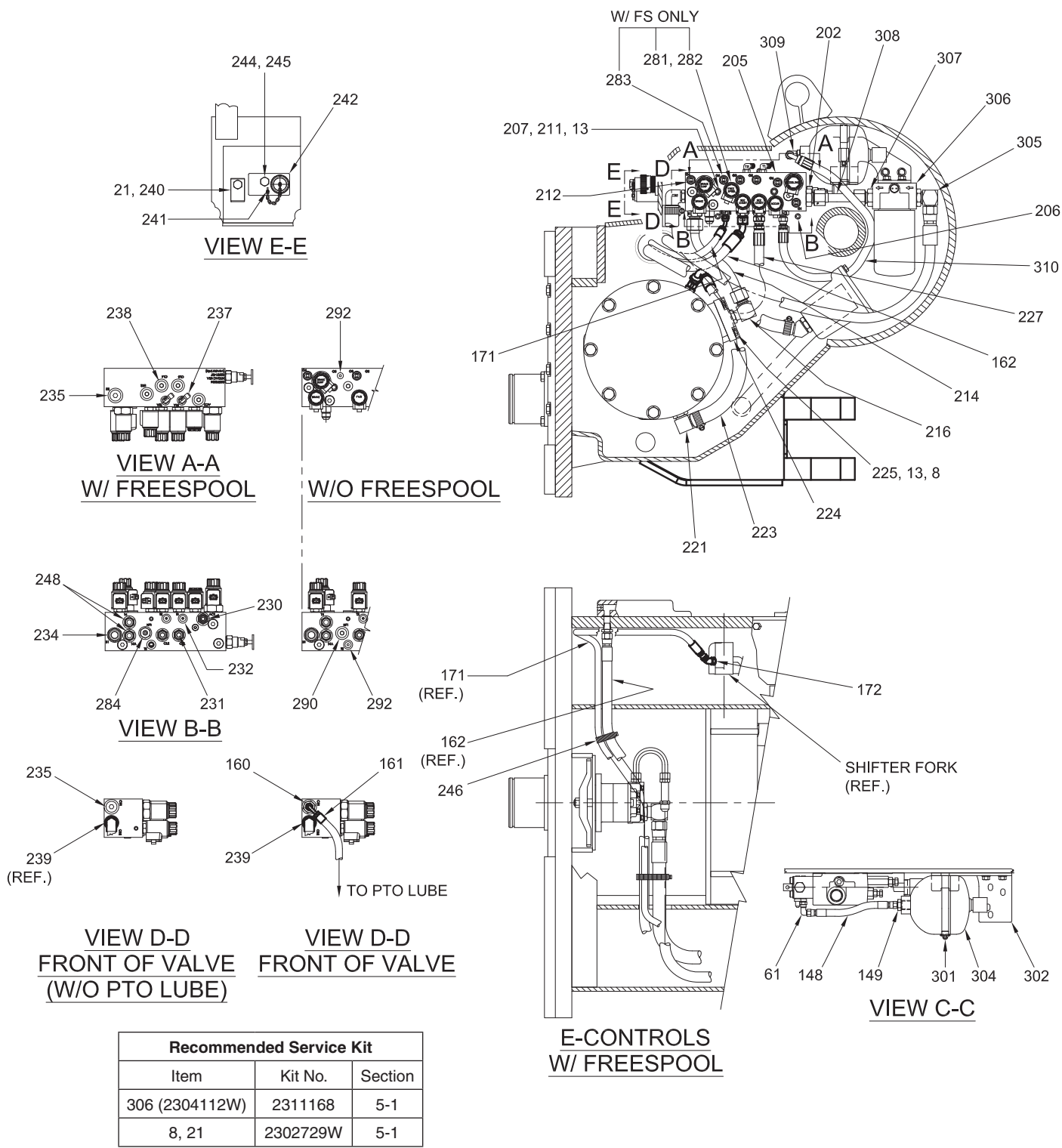
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	138811W	Fitting	1	28	16556W	Fitting	2
2	2304111W	Assembly, Filter	1	29	235691W	Fitting	4
	2304112W	. Element, Filter	1	30	181957W	Fitting, Hose	1
	2304862W	. Switch, Pressure	1	31	2304366W	Plate, Cover	1
	2305132W	. Head, Filter	1	32	16602W	Screw	1
3	16543W	Fitting	2	33	*c 2304503W	Retainer, Connector	1
4	2306736W	Assembly, Tube - Inlet	1	35	178403W	Capscrew	1
5	110174W	Fitting	1	36	15158W	Washer	1
6	2306547W	Assembly, Valve Manifold (3-138)	1	37	129563W	Clamp, Strap	1
7	2305987W	Setscrew	3	38	2310627	Harness, Internal (Not Shown)	1
8	18526W	Capscrew	2	39	*a 2307769W	Valve, Cartridge	1
9	18515W	Washer	2	40	*a 2307770W	Coil, Valve - 24V	1
10	2304825W	Fitting	5	41	*a 2304825W	Fitting	1
11	2305560W	Assembly, Hose	1	42	*a 222381W	Fitting	1
12	2306739W	Assembly, Tube	1	43	*b 235691W	Fitting	1
13	2305559W	Assembly, Hose	1	44	*b 222442W	Fitting	2
14	222402W	Fitting	1	45	*b 2304877W	Plug - 2 Term (Not Shown)	1
15	2305561W	Fitting, Hose	1	46	17756W	Fitting	1
16	2305558W	Assembly, Hose	1	47	2305586W	Assembly, Hose	1
17	279392W	Block	1	48	196022W	Gasket	1
18	16828W	Capscrew	2	49	15156W	Washer	5
19	2303739W	Assembly, Hose	1	50	1300780W	Screw, Flanged	8
20	2305407W	Assembly, Hose	1	51	2300936W	Cover	1
21	16565W	Fitting	1	52	2300935W	Gasket	1
22	16745W	Fitting	1	53	R16271	Accumulator, Hydraulic	1
23	16541W	Fitting	2				
24	222442W	Fitting	2		*a	Used on Winches With Freespool	
25	142682W	Fitting	1		*b	Used on Winches Without Freespool	
26	233693W	Fitting	2		*c	Use 236308W Loctite	

# Hydraulic Group, Electronic Controls

Case Quadtrac (R39)

Used on S/N AW6G-1764 through S/N AW6G-2018

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
306 (2304112W)	2311168	5-1
8, 21	2302729W	5-1

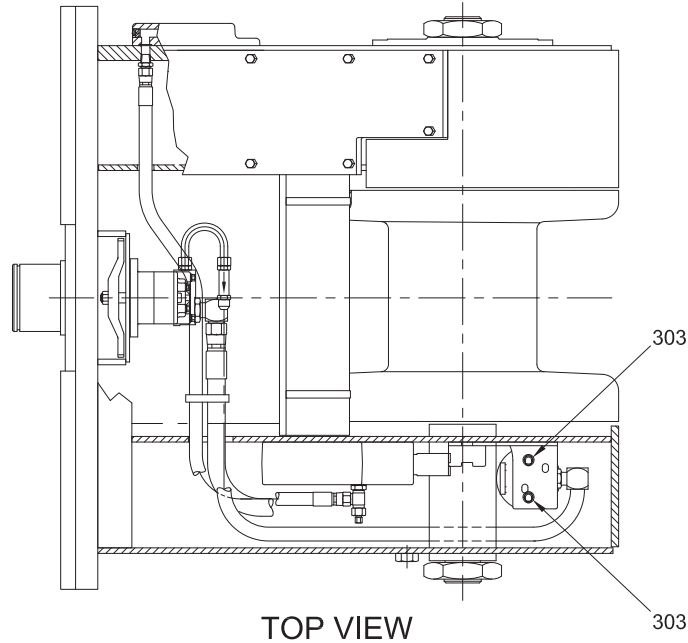
See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

## Hydraulic Group, Electronic Controls

Case Quadtrac (R39)

Used on S/N AW6G-1764 through S/N AW6G-2018

Page 2 of 2



TOP VIEW

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	240	2304366W	Plate, Cover	1
13	15156W	Washer	2	241	16602W	Screw	1
21	303946W	Gasket	1	242	*a 2311807	Retainer, Connector	1
61	16987W	Fitting	1	244	178403W	Capscrew	1
148	383982W	Assembly, Hose	1	245	15158W	Washer	1
149	222381W	Fitting	1	246	129563W	Clamp, Strap	1
160	17756W	Fitting	1	247	2311443	Harness, Internal (Not Shown)	1
161	2305586W	Assembly, Hose	1	248	2313404	Valve, Check	2
162	2310666	Assembly, Hose	1	281	*b 2307769W	Valve, Cartridge	1
171	2310667	Assembly, Hose	1	282	*b 2311558	Coil, Valve - 24V	1
172	16565W	Fitting	1	283	*b 2304825W	Fitting, QC Test	1
202	16543W	Fitting	1	284	*b 222381W	Fitting	1
205	2311887	Assembly, Manifold Valve (3-139)	1	290	*c 235691W	Fitting	1
206	2305987W	Setscrew	3	292	*c 222442W	Fitting	2
207	18526W	Capscrew	2	293	2312259	Plug, 2-Term (Not Shown)	1
211	18515W	Washer	2	301	2302109W	Clamp	1
212	2304825W	Fitting, QC Test	5	302	2305114W	Bracket, Mounting	1
214	2306739W	Assembly, Tube	1	303	1300780W	Screw, Flanged	2
216	222402W	Fitting	1	304	R16271	Accumulator, Hydraulic	1
221	2305561W	Fitting	1	305	138811W	Fitting	1
223	2305558W	Assembly, Hose	1	306	2304111W	Assembly, Filter	1
224	279392W	Block	1		2304112W	. Element, Filter	1
225	16828W	Capscrew	2		2304862W	. Switch, Pressure	1
227	2303739W	Assembly, Hose	1		2305132W	. Head, Filter	1
230	16745W	Fitting	1	307	16543W	Fitting	1
231	16541W	Fitting	2	308	2306736W	Assembly, Tube - Inlet	1
232	222442W	Fitting	2	309	110174W	Fitting	1
234	142682W	Fitting	1	310	2305407W	Assembly, Hose	1
235	233693W	Fitting	2				
237	16556W	Fitting	2				
238	235691W	Fitting	4				
239	181957W	Fitting	1				
				*a	Use 236308W Loctite		
				*b	Used on Winches With Freespool		
				*c	Used on Winches Without Freespool		

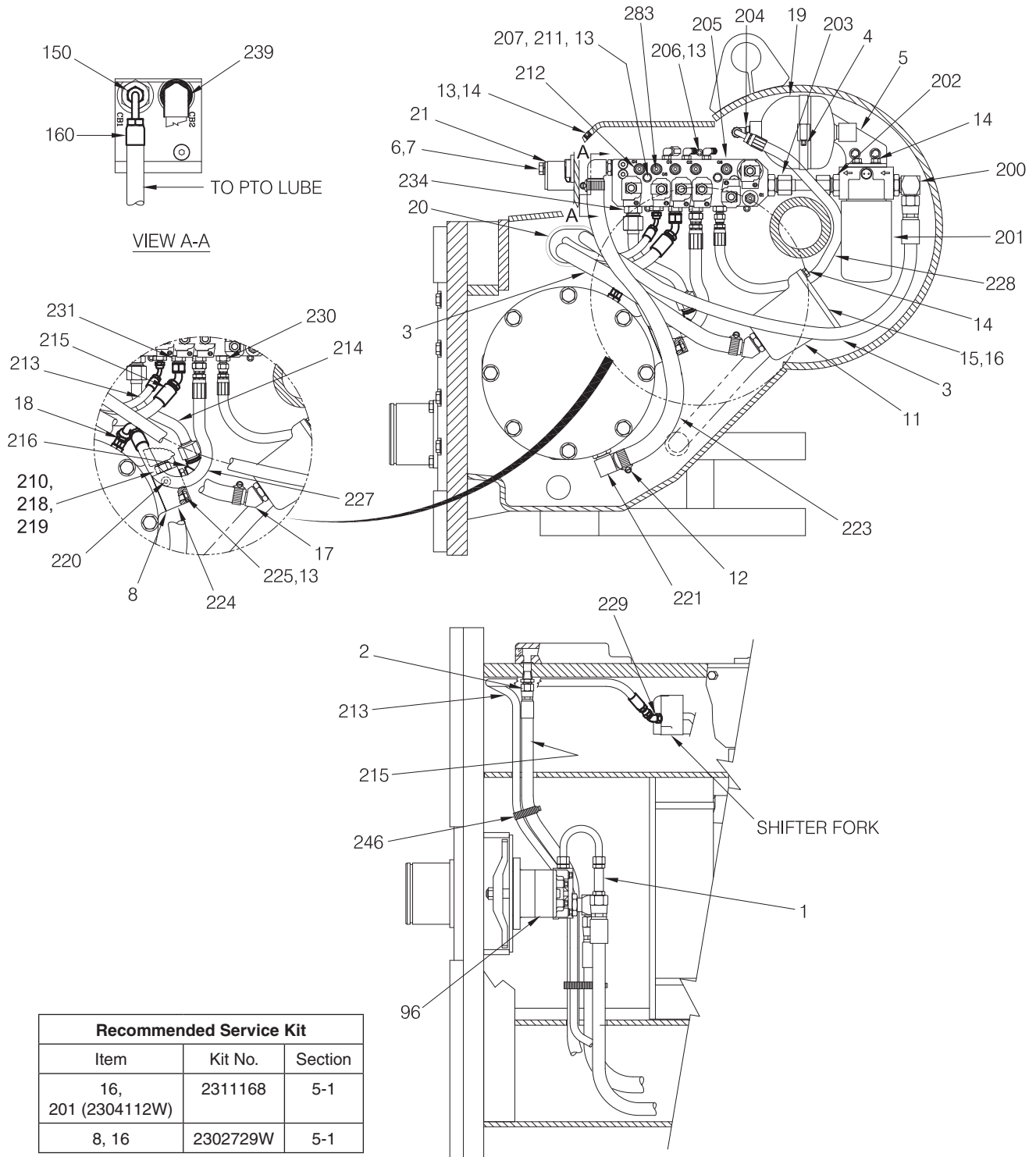
# Hydraulic Group, Electronic Controls

Komatsu 65EX-12/15 (K46)

Last Used on AW6G-1287

(Except AW6G-1271)

Page 1 of 2



Recommended Service Kit		
Item	Kit No.	Section
16, 201 (2304112W)	2311168	5-1
8, 16	2302729W	5-1

TOP VIEW W/ FREESPOOL

FREESPOOL CONFIGURATION SHOWN

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

Komatsu 65EX-12/15 (K46)

Last Used on AW6G-1287

(Except AW6G-1271)

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300758W	Valve, Check	1	205	2303889W	Assembly, Valve Manifold (3-137)	1
2	17315W	Fitting	1	206	2305987W	Setscrew	3
3	2300767W	Assembly, Hose	1	207	18524W	Capscrew	2
4	2302109W	Clamp	1	210	2304845W	Washer, Tab	1
5	2305114W	Bracket, Mounting	1	211	18515W	Washer	2
6	16829W	Capscrew	1	212	2304825W	Fitting	5
7	15158W	Washer	4	213	2305560W	Assembly, Hose	1
8	196022W	Gasket	1	214	2305481W	Assembly, Tube	1
11	219172W	Strainer	1	215	2305559W	Assembly, Hose	1
12	209639W	Clamp	3	216	111331W	Fitting	1
13	15156W	Washer	5	218	R15005	Coil, 24V	1
14	*a 1300780W	Screw, Flanged	8	219	2305260W	Valve	1
15	2300936W	Cover	1	220	222443W	Fitting	1
16	2300935W	Gasket	1	221	2305561W	Fitting	1
17	2302985W	Fitting	1	223	2305558W	Assembly, Hose	1
18	16568W	Fitting	1	224	2305056W	Dump, Valve Manifold	1
19	R16271	Accumulator	1	225	16379W	Capscrew	2
20	24257	Trim	AR	227	2303739W	Assembly, Hose	1
21	303946W	Gasket	1	228	2305407W	Assembly, Hose	1
85	2301646W	Hose	1	229	16565W	Fitting	1
96	-----	Pump, Hydraulic (3-184 thru 3-187)	1	230	16745W	Fitting	1
150	17756W	Fitting	1	231	16541W	Fitting	2
160	2305586W	Assembly, Hose	1	234	142682W	Fitting	1
200	138811W	Fitting	1	239	181957W	Fitting	1
201	2304111W	Assembly, Filter	1	246	129563W	Clamp, Strap	1
	2304112W	. Element, Filter	1	283	*b 2304825W	Fitting	1
	2304862W	. Switch, Pressure	1	283	222442W	Fitting	1
	2305132W	. Head, Filter	1				
202	16543W	Fitting	2	*a	Use 273338W Pipe Thread Sealant		
203	2305113W	Assembly, Tube - Inlet	1	*b	Used on Winches With Freespool Option Only		
204	110174W	Fitting	1				

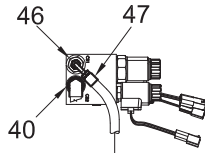
### Hydraulic Group, Electronic Controls

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

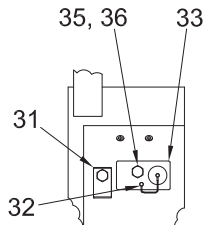
Used only on S/N AW6G-1271,

and on S/N AW6G-1288 through S/N AW6G-1452

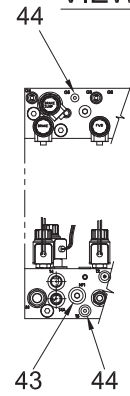
Page 1 of 2



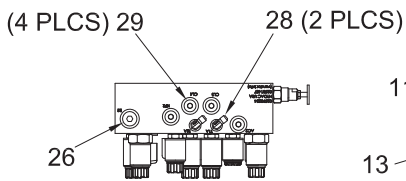
TO PTO LUBE  
VIEW C-C



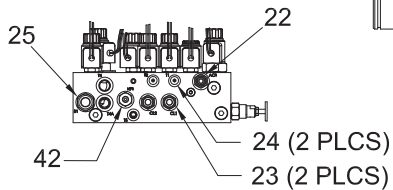
VIEW D-D



W/O FREESPOOL

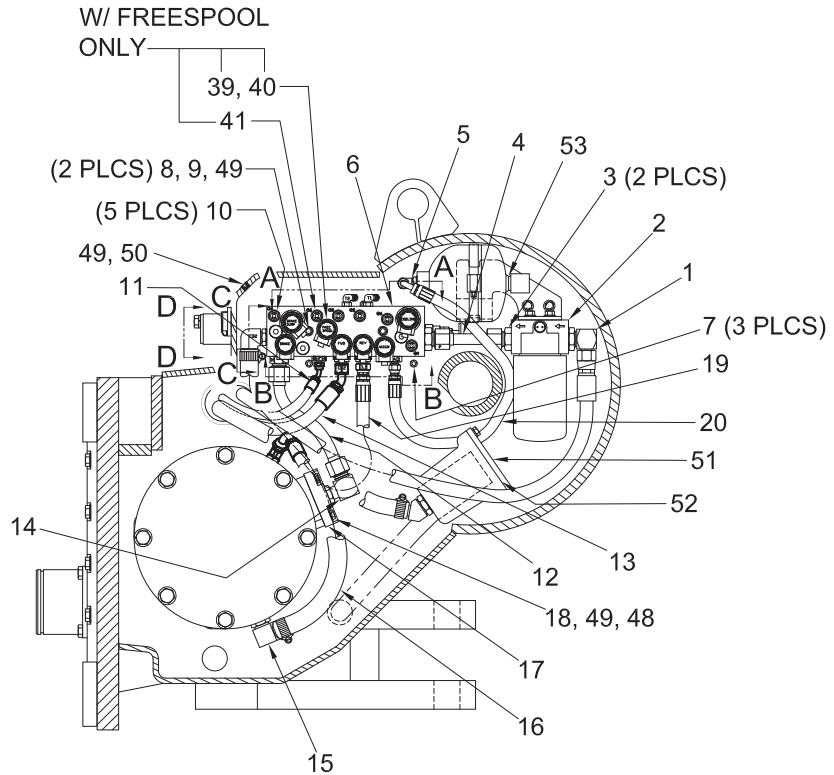


VIEW A-A

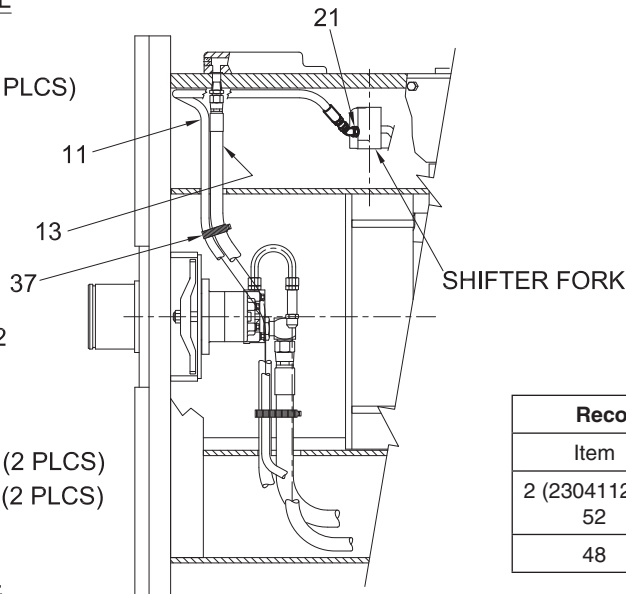


VIEW B-B

W/ FREESPOOL



W/ FREESPOOL SHOWN



E-CONTROLS W/ FREESPOOL

Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

## Hydraulic Group, Electronic Controls

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Used only on S/N AW6G-1271,

and on S/N AW6G-1288 through S/N AW6G-1452

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	138811W	Fitting	1	28	16556W	Fitting	2
2	2304111W	Assembly, Filter	1	29	235691W	Fitting	4
	2304112W	. Element, Filter	1	30	181957W	Fitting, Hose	1
	2304862W	. Switch, Pressure	1	31	2304366W	Plate, Cover	1
	2305132W	. Head, Filter	1	32	16602W	Screw	1
3	16543W	Fitting	2	33	*c 2304503W	Retainer, Connector	1
4	2306736W	Assembly, Tube - Inlet	1	35	178403W	Capscrew	1
5	110174W	Fitting	1	36	15158W	Washer	1
6	2306547W	Assembly, Valve Manifold (3-138)	1	37	129563W	Clamp, Strap	1
7	2305987W	Setscrew	3	38	2303901W	Harness, Internal (Not Shown)	1
8	18526W	Capscrew	2	39	*a 2307769W	Valve, Cartridge	1
9	18515W	Washer	2	40	*a 2307770W	Coil, Valve - 24V	1
10	2304825W	Fitting	5	41	*a 2304825W	Fitting	1
11	2305560W	Assembly, Hose	1	42	*a 222381W	Fitting	1
12	2306739W	Assembly, Tube	1	43	*b 235691W	Fitting	1
13	2305559W	Assembly, Hose	1	44	*b 222442W	Fitting	2
14	222402W	Fitting	1	45	*b 2304877W	Plug - 2 Term (Not Shown)	1
15	2305561W	Fitting, Hose	1	46	17756W	Fitting	1
16	2305558W	Assembly, Hose	1	47	2305586W	Assembly, Hose	1
17	279392W	Block	1	48	196022W	Gasket	1
18	16828W	Capscrew	2	49	15156W	Washer	5
19	2303739W	Assembly, Hose	1	50	1300780W	Screw, Flanged	8
20	2305407W	Assembly, Hose	1	51	2300936W	Cover	1
21	16565W	Fitting	1	52	2300935W	Gasket	1
22	16745W	Fitting	1	53	R16271	Accumulator, Hydraulic	1
23	16541W	Fitting	2				
24	222442W	Fitting	2		*a	Used on Winches With Freespool	
25	142682W	Fitting	1		*b	Used on Winches Without Freespool	
26	233693W	Fitting	2		*c	Use 236308W Loctite	

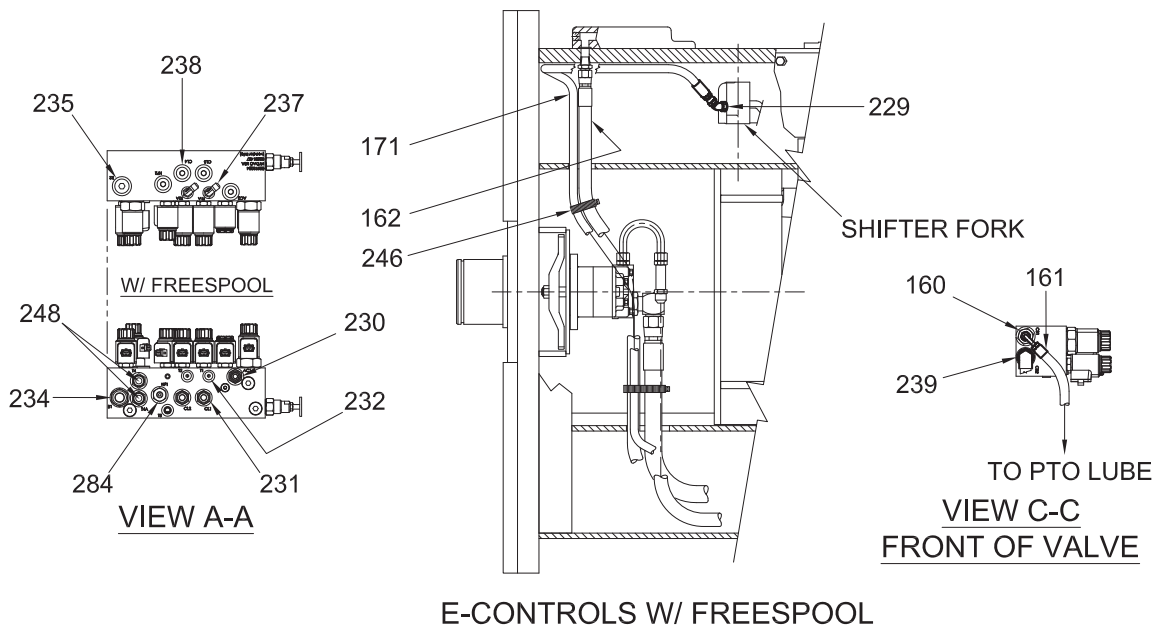
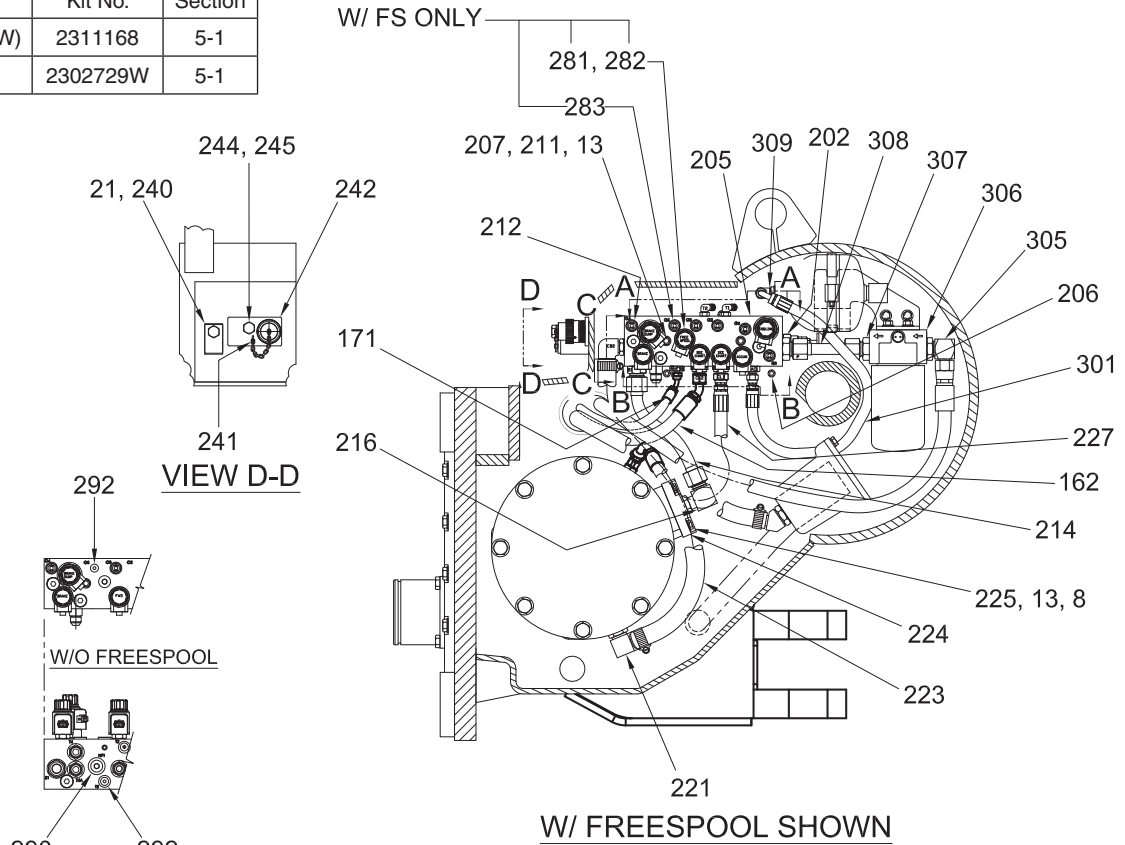
### Hydraulic Group, Electronic Controls

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Used on S/N AW6G-1453 thru S/N AW6G-1517

Page 1 of 2

Recommended Service Kit		
Item	Kit No.	Section
306 (2304112W)	2311168	5-1
8	2302729W	5-1



See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.



**Hydraulic Group, Electronic Controls**

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Used on S/N AW6G-1453 thru S/N AW6G-1517

Page 2 of 2

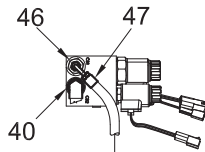
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	239	181957W	Fitting	1
13	15156W	Washer	5	240	2304366W	Plate, Cover	1
21	303946W	Gasket	1	241	16602W	Screw	1
160	17756W	Fitting	1	242	*c 2311807	Connector, Retainer	1
161	2305586W	Assembly, Hose	1	244	178403W	Capscrew	1
162	2310666	Assembly, Hose	1	245	15158W	Washer	1
171	2310667	Assembly, Hose	1	246	129563W	Clamp, Strap	1
202	16543W	Fitting	1	248	2313404	Valve, Check	1
205	2306547W	Assembly, Valve Manifold (3-138)	1	281	*a 2307769W	Valve, Cartridge	1
206	2305987W	Setscrew	3	282	*a 2311558	Coil, Valve - 24V	1
207	18526W	Capscrew	2	283	*a 2304825W	Fitting	1
211	18515W	Washer	2	284	*a 222381W	Fitting	1
212	2304825W	Fitting	5	290	*b 235691W	Fitting	1
214	2306739W	Assembly, Tube	1	292	*b 222442W	Fitting	2
216	222402W	Fitting	1	301	2302109W	Clamp	1
221	2305561W	Fitting	1	305	138811W	Fitting	1
223	2305558W	Assembly, Hose	1	306	2304111W	Assembly, Filter	1
224	279392W	Block	1		2304112W	. Element, Filter	1
225	16828W	Capscrew	2		2304862W	. Switch, Pressure	1
227	2303739W	Assembly, Hose	1		2305132W	. Head, Filter	1
229	16565W	Fitting	1	307	16543W	Fitting	1
230	16745W	Fitting	1	308	2306736W	Assembly, Tube - Inlet	1
231	16541W	Fitting	2	309	110174W	Fitting	1
232	222442W	Fitting	2				
234	142682W	Fitting	1		*a	Used on Winches With Freespool	
235	233693W	Fitting	2		*b	Used on Winches Without Freespool	
237	16556W	Fitting	2		*c	Use 236308W Loctite	
238	235691W	Fitting	4				

### Hydraulic Group, Electronic Controls

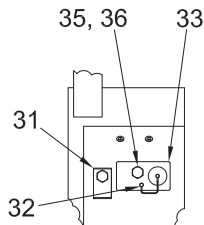
Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Used on S/N AW6G-1518 through S/N AW6G-1763

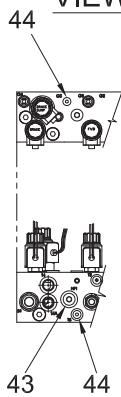
Page 1 of 2



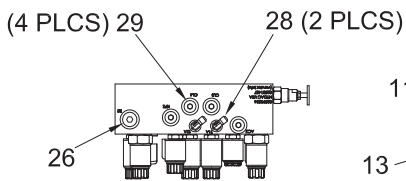
TO PTO LUBE  
VIEW C-C



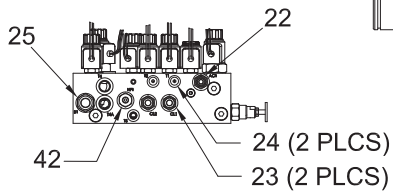
VIEW D-D



W/O FREESPOOL

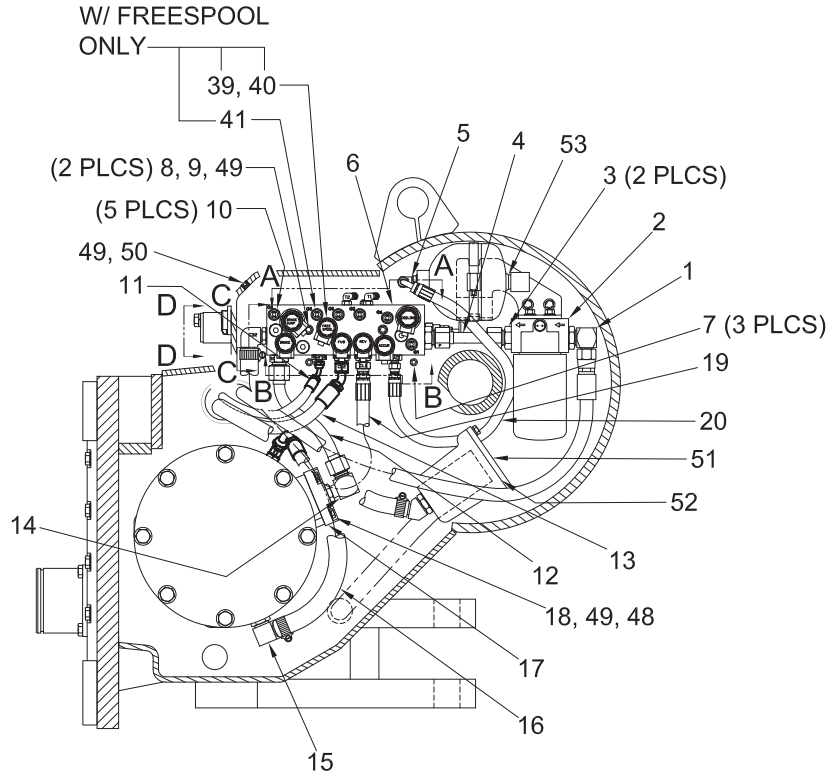


VIEW A-A

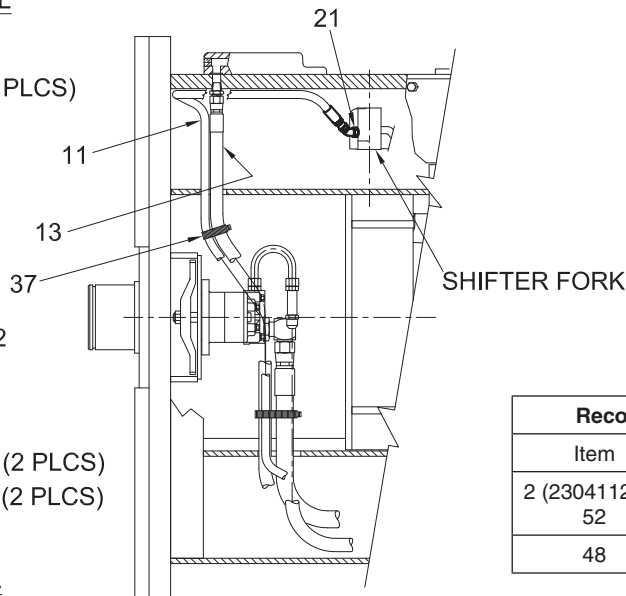


VIEW B-B

W/ FREESPOOL



W/ FREESPOOL SHOWN



E-CONTROLS W/ FREESPOOL

Recommended Service Kit		
Item	Kit No.	Section
2 (2304112W), 52	2311168	5-1
48	2302729W	5-1

See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

**Hydraulic Group, Electronic Controls**

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

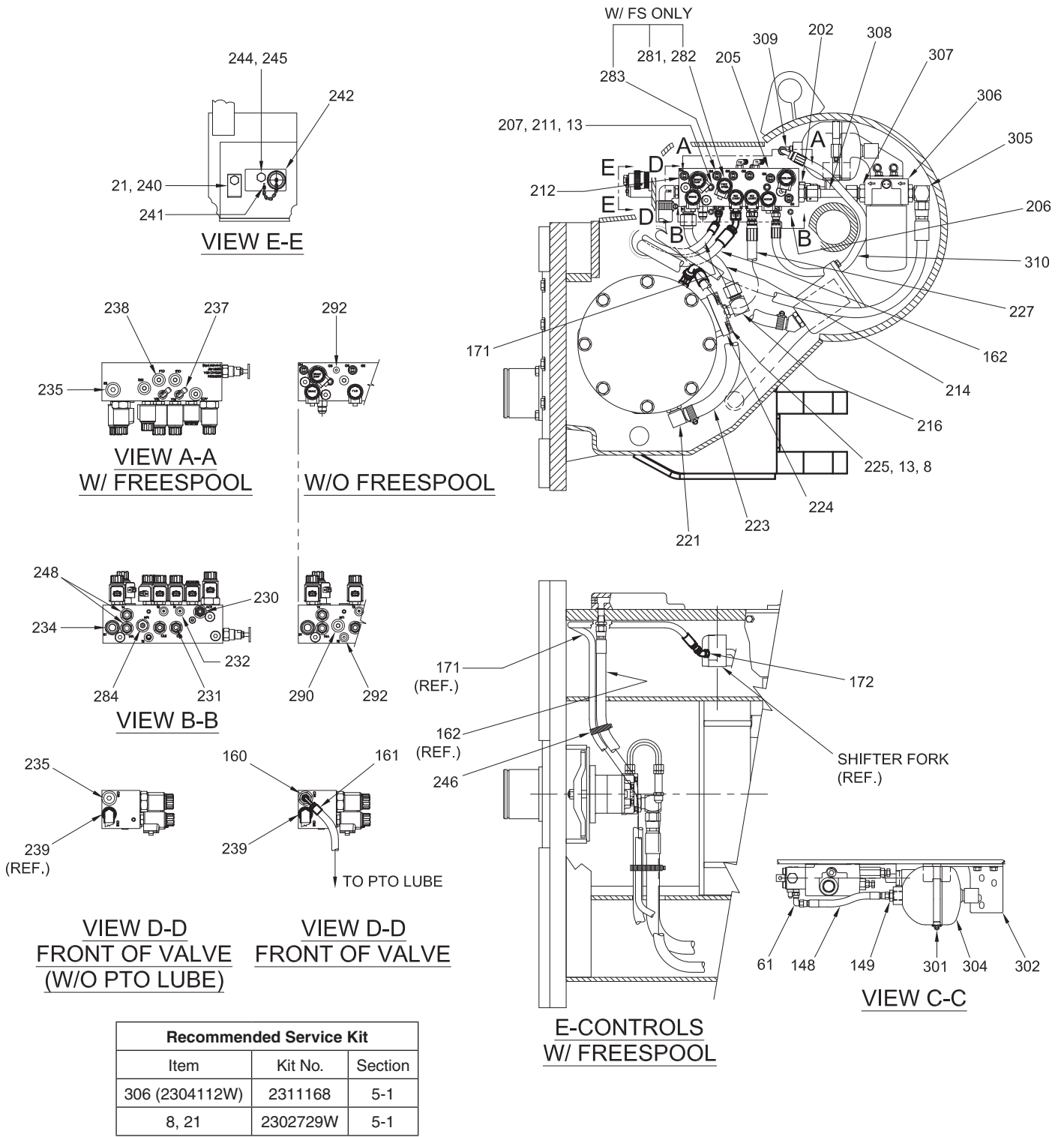
Used on S/N AW6G-1518 through S/N AW6G-1763

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	138811W	Fitting	1	28	16556W	Fitting	2
2	2304111W	Assembly, Filter	1	29	235691W	Fitting	4
	2304112W	. Element, Filter	1	30	181957W	Fitting, Hose	1
	2304862W	. Switch, Pressure	1	31	2304366W	Plate, Cover	1
	2305132W	. Head, Filter	1	32	16602W	Screw	1
3	16543W	Fitting	2	33	*c 2304503W	Retainer, Connector	1
4	2306736W	Assembly, Tube - Inlet	1	35	178403W	Capscrew	1
5	110174W	Fitting	1	36	15158W	Washer	1
6	2306547W	Assembly, Valve Manifold (3-138)	1	37	129563W	Clamp, Strap	1
7	2305987W	Setscrew	3	38	2310627	Harness, Internal (Not Shown)	1
8	18526W	Capscrew	2	39	*a 2307769W	Valve, Cartridge	1
9	18515W	Washer	2	40	*a 2307770W	Coil, Valve - 24V	1
10	2304825W	Fitting	5	41	*a 2304825W	Fitting	1
11	2305560W	Assembly, Hose	1	42	*a 222381W	Fitting	1
12	2306739W	Assembly, Tube	1	43	*b 235691W	Fitting	1
13	2305559W	Assembly, Hose	1	44	*b 222442W	Fitting	2
14	222402W	Fitting	1	45	*b 2304877W	Plug - 2 Term (Not Shown)	1
15	2305561W	Fitting, Hose	1	46	17756W	Fitting	1
16	2305558W	Assembly, Hose	1	47	2305586W	Assembly, Hose	1
17	279392W	Block	1	48	196022W	Gasket	1
18	16828W	Capscrew	2	49	15156W	Washer	5
19	2303739W	Assembly, Hose	1	50	1300780W	Screw, Flanged	8
20	2305407W	Assembly, Hose	1	51	2300936W	Cover	1
21	16565W	Fitting	1	52	2300935W	Gasket	1
22	16745W	Fitting	1	53	R16271	Accumulator, Hydraulic	1
23	16541W	Fitting	2				
24	222442W	Fitting	2	*a	Used on Winches With Freespool		
25	142682W	Fitting	1	*b	Used on Winches Without Freespool		
26	233693W	Fitting	2	*c	Use 236308W Loctite		

### Hydraulic Group, Electronic Controls

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)  
 Used on S/N AW6G-1764 through S/N AW6G-2018  
 Page 1 of 2



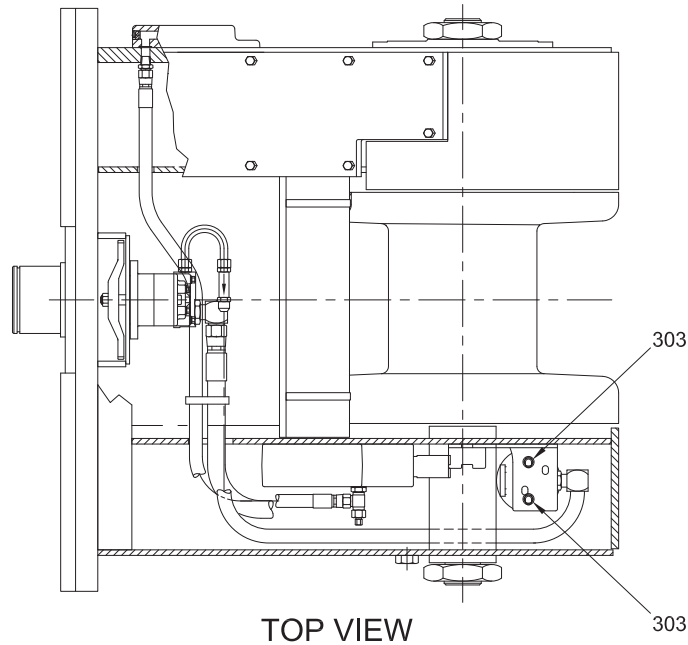
See Internal Wiring for E-Controls Electrical Connections on Pages 3-130 thru 3-134.

### Hydraulic Group, Electronic Controls

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Used on S/N AW6G-1764 through S/N AW6G-2018

Page 2 of 2



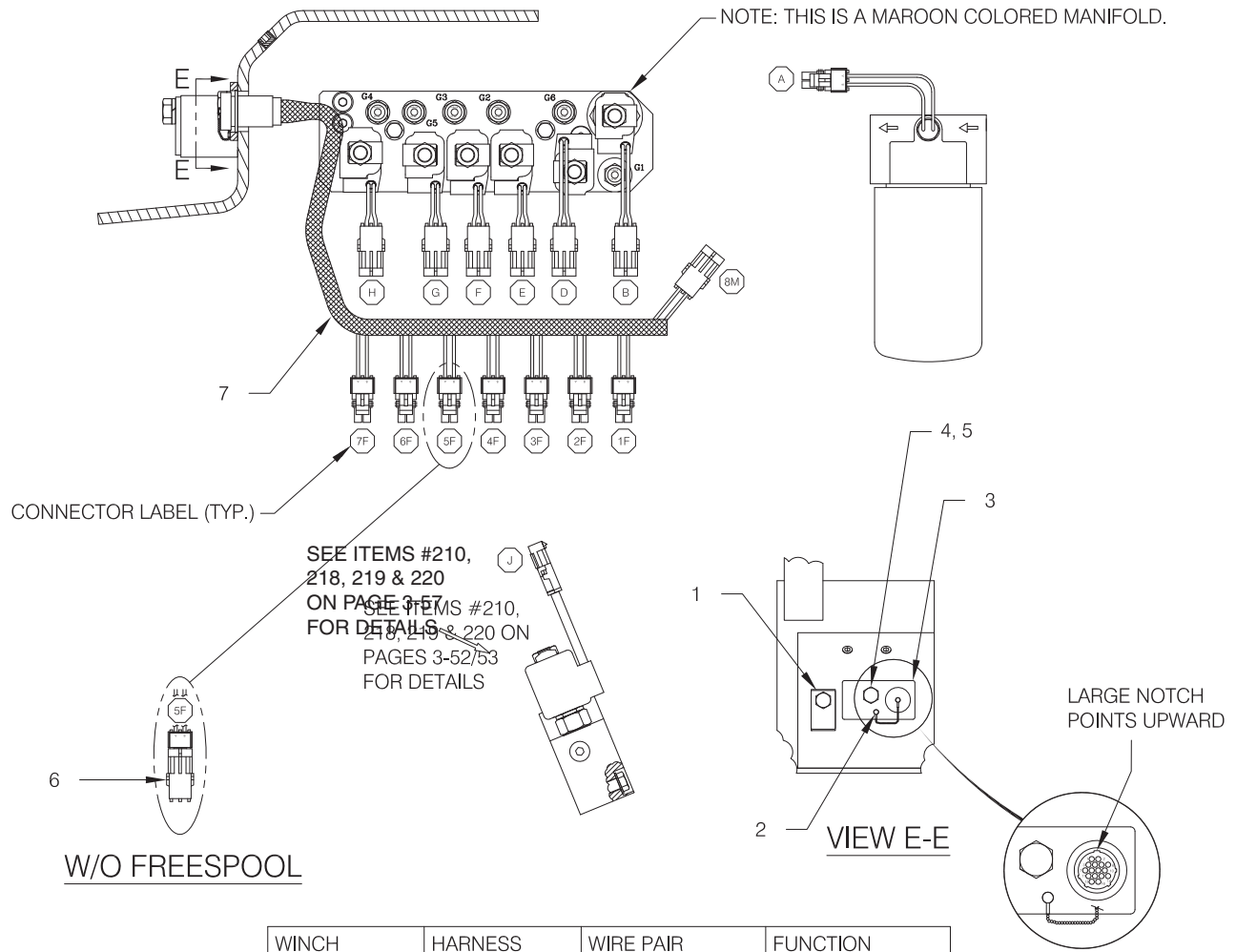
TOP VIEW

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	196022W	Gasket	1	240	2304366W	Plate, Cover	1
13	15156W	Washer	2	241	16602W	Screw	1
21	303946W	Gasket	1	242	*a 2311807	Retainer, Connector	1
61	16987W	Fitting	1	244	178403W	Capscrew	1
148	383982W	Assembly, Hose	1	245	15158W	Washer	1
149	222381W	Fitting	1	246	129563W	Clamp, Strap	1
160	17756W	Fitting	1	247	2311443	Harness, Internal (Not Shown)	1
161	2305586W	Assembly, Hose	1	248	2313404	Valve, Check	2
162	2310666	Assembly, Hose	1	281	*b 2307769W	Valve, Cartridge	1
171	2310667	Assembly, Hose	1	282	*b 2311558	Coil, Valve - 24V	1
172	16565W	Fitting	1	283	*b 2304825W	Fitting, QC Test	1
202	16543W	Fitting	1	284	*b 222381W	Fitting	1
205	2311887	Assembly, Manifold Valve (3-139)	1	290	*c 235691W	Fitting	1
206	2305987W	Setscrew	3	292	*c 222442W	Fitting	2
207	18526W	Capscrew	2	293	2312259	Plug, 2-Term (Not Shown)	1
211	18515W	Washer	2	301	2302109W	Clamp	1
212	2304825W	Fitting, QC Test	5	302	2305114W	Bracket, Mounting	1
214	2306739W	Assembly, Tube	1	303	1300780W	Screw, Flanged	2
216	222402W	Fitting	1	304	R16271	Accumulator, Hydraulic	1
221	2305561W	Fitting	1	305	138811W	Fitting	1
223	2305558W	Assembly, Hose	1	306	2304111W	Assembly, Filter	1
224	279392W	Block	1		2304112W	. Element, Filter	1
225	16828W	Capscrew	2		2304862W	. Switch, Pressure	1
227	2303739W	Assembly, Hose	1		2305132W	. Head, Filter	1
230	16745W	Fitting	1	307	16543W	Fitting	1
231	16541W	Fitting	2	308	2306736W	Assembly, Tube - Inlet	1
232	222442W	Fitting	2	309	110174W	Fitting	1
234	142682W	Fitting	1	310	2305407W	Assembly, Hose	1
235	233693W	Fitting	2				
237	16556W	Fitting	2				
238	235691W	Fitting	4				
239	181957W	Fitting	1				
				*a	Use 236308W Loctite		
				*b	Used on Winches With Freespool		
				*c	Used on Winches Without Freespool		

# Internal Wiring, Electronic Controls

Last Used on S/N AW6G-1287

Except S/N AW6G-1271

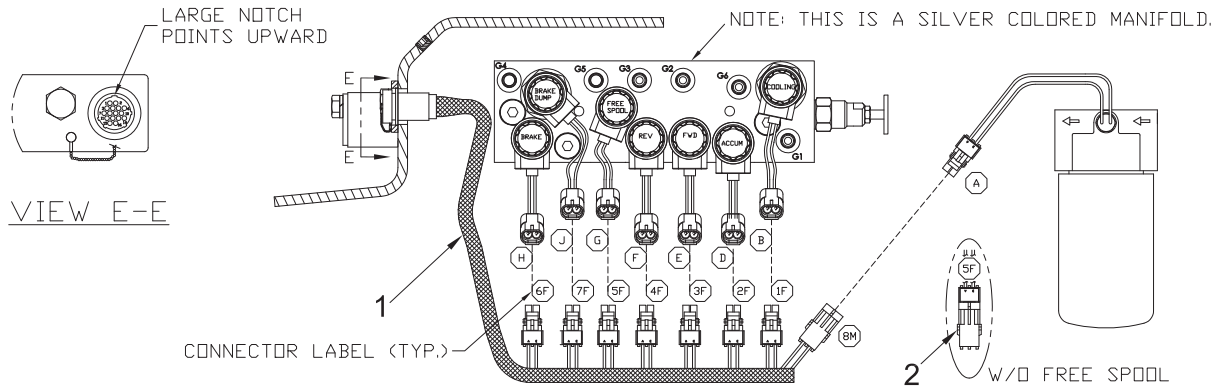


	WINCH CONNECTION	HARNESS CONNECTOR	WIRE PAIR COLORS	FUNCTION
	A	8M	WHI & LTGRN	PR. SWITCH
	B	1F	BLK & GRAY	COOLING
	D	2F	BLK & GRAY	ACCUMULATOR
	G	5F	ORG & BLK	W/ FREESPOOL
	(PLUGGED)	5F	ORG & BLK	W/O FS
	H	6F	TAN & PUR	BRAKE
PTO ROT.	J	7F	PINK & BLK	BRAKE DUMP
CCW	E	3F	YEL & DKBLU	FORWARD
	F	4F	BRN & YEL	REVERSE
CW	F	4F	BRN & YEL	REVERSE
	E	3F	YEL & DKBLU	FORWARD

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2304366W	Plate, Cover	1	6	*a 2304877W	Plug	1
2	16602W	Screw	1	7	2303901W	Harness, Internal	1
3	2304503W	Retainer, Connector	1		*a	Used on Winches without Freespool	
4	178403W	Capscrew	1				
5	15158W	Washer	1				

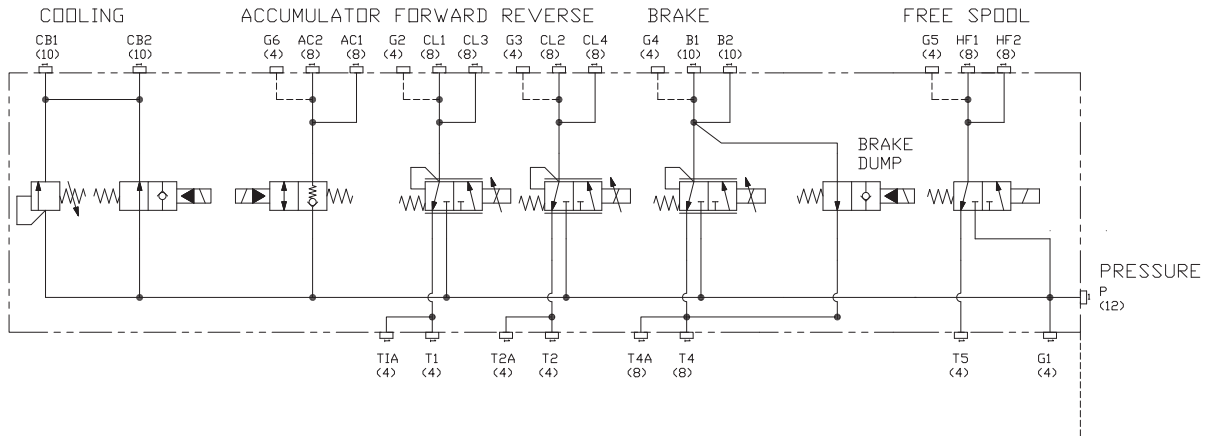
## Internal Wiring, Electronic Controls

Used only on S/N AW6G-1271,  
and on S/N AW6G-1288 thru S/N AW6G-1517

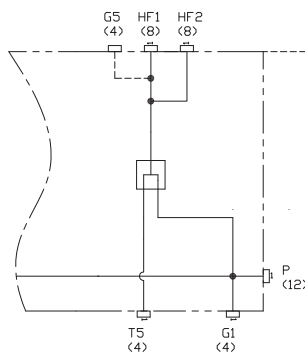


## E-CONTROLS ELECTRONIC CONNECTIONS

### WITH FREESPOOL



### WITHOUT FREESPOOL



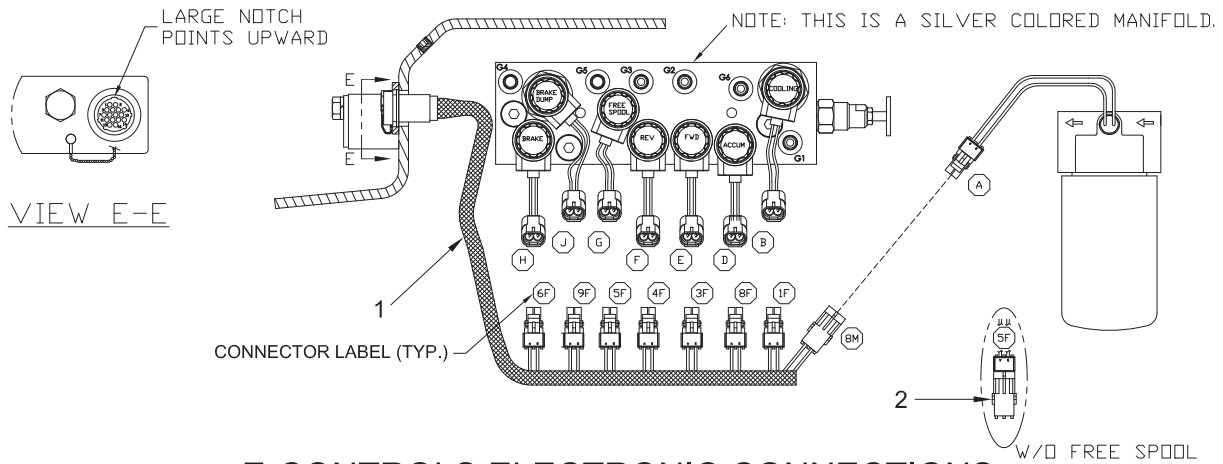
WINCH CONNECTION	HARNESS CONNECTOR	WIRE PAIR COLORS	FUNCTION
A	8M	WHI & LTGRN	PR. SWITCH
B	1F	BLK & GRAY	COOLING
D	2F	BLK & GRAY	ACCUMULATOR
G	5F	ORG & BLK	W/ FREESPOOL
<PLUGGED>	5F	ORG & BLK	W/O FS
H	6F	TAN & PUR	BRAKE
PTO RDT.	J	PINK & BLK	BRAKE DUMP
CCW	E	YEL & DKBLU	FORWARD
CW	F	BRN & YEL	REVERSE
	E	YEL & DKBLU	FORWARD

## HYDRAULIC SCHEMATIC

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2303901W	Harness, Internal	1	2	2304877W	Plug, 2-Term	1

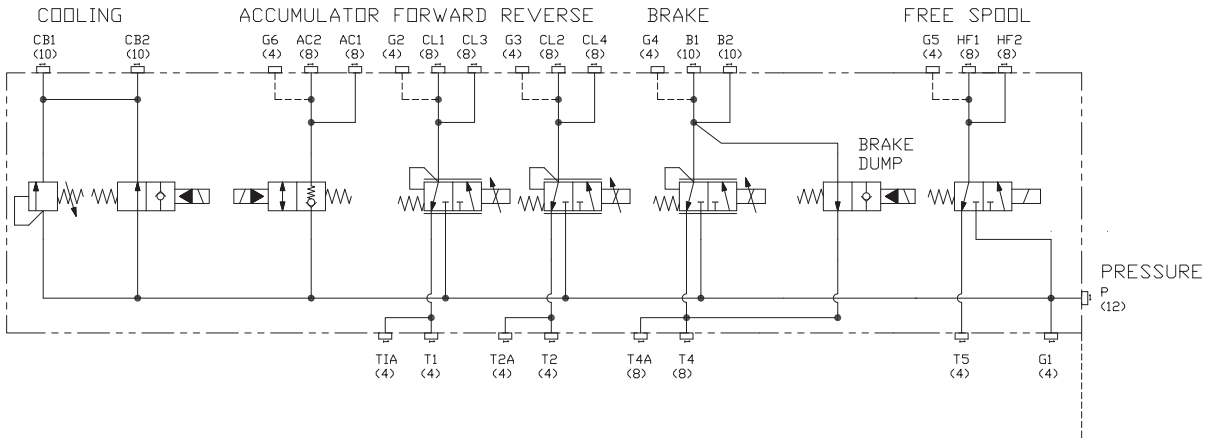
# Internal Wiring, Electronic Controls

Used on S/N AW6G-1518 thru S/N AW6G-1763

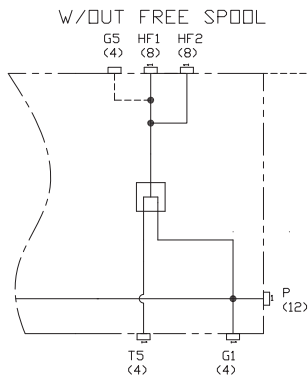


## E-CONTROLS ELECTRONIC CONNECTIONS

HYDRAULIC SCHEMATIC WITH FREE SPOOL



HYDRAULIC SCHEMATIC WITHOUT FREE SPOOL



WINCH CONNECTION	HARNESS CONNECTOR	WIRE PAIR COLORS	FUNCTION	
A	8M	WHI & LTGRN	PR. SWITCH	
B	1F	BLK & GRAY	COOLING	
J	8F	BLK & GRAY	BRAKE DUMP	
G	5F	DRG & BLK	W/ FREESPOOL	
(PLUGGED)	5F	DRG & BLK	W/D FS	
H	6F	TAN & PUR	BRAKE	
D	9F	PINK & BLK	ACCUMULATOR	
PTO ROT.	E	3F	YEL & DKBLU	FORWARD
CCW	F	4F	BRN & YEL	REVERSE
CW	F	4F	BRN & YEL	REVERSE
	E	3F	YEL & DKBLU	FORWARD

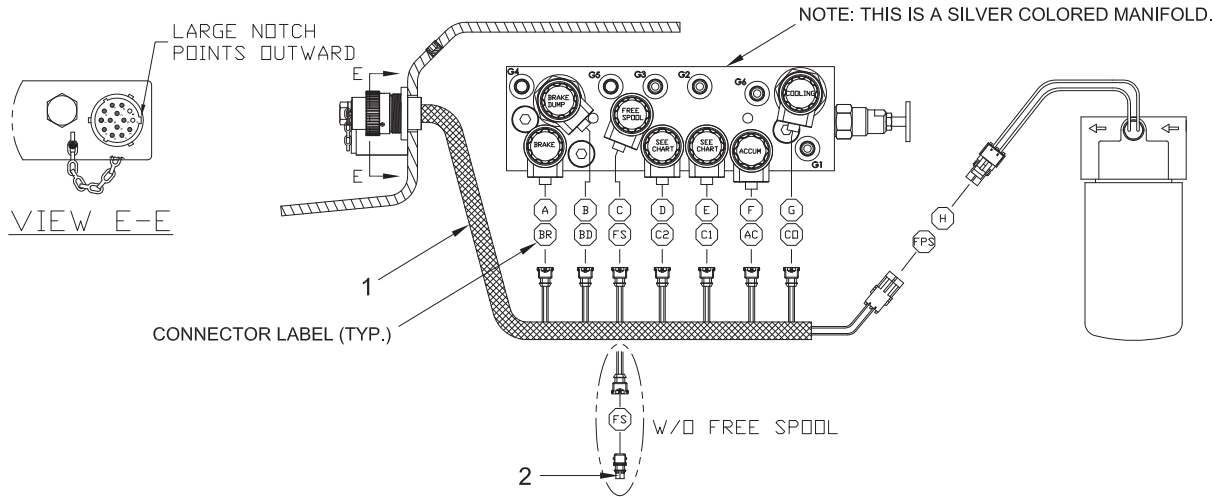
## HYDRAULIC SCHEMATIC

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2310627	Harness, Internal	1	2	2304877W	Plug, 2-Term	1



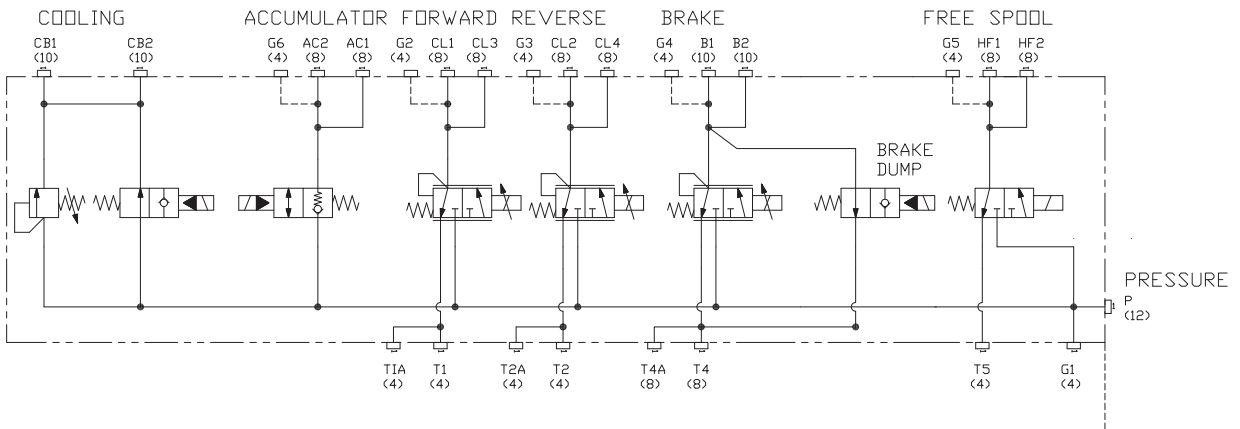
# Internal Wiring, Electronic Controls

Used on S/N AW6G-1764 through S/N AW6G-2018

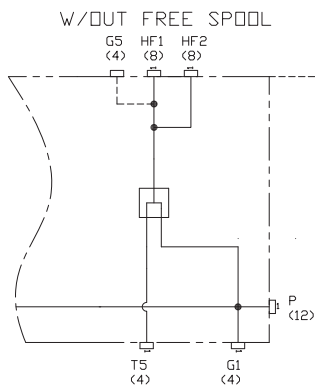


## E-CONTROLS ELECTRONIC CONNECTIONS

HYDRAULIC SCHEMATIC WITH FREE SPOOL



HYDRAULIC SCHEMATIC WITHOUT FREE SPOOL



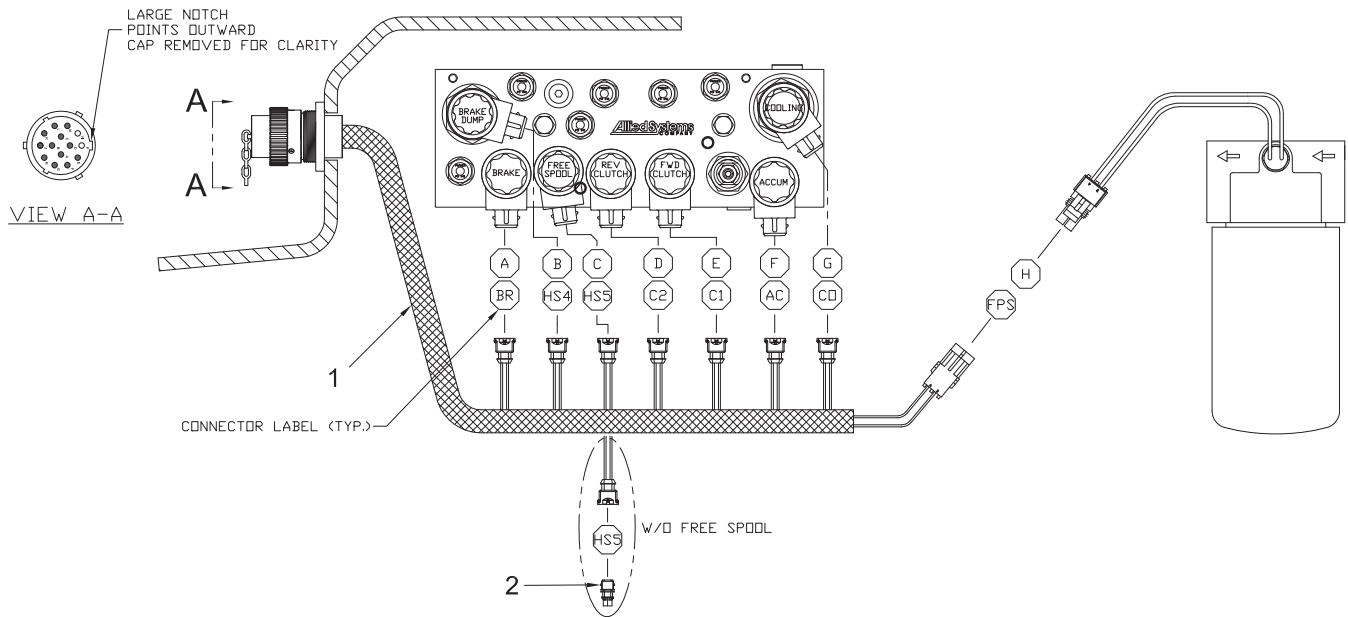
WINCH CONNECTION	HARNESS CONNECTOR	WIRE PAIR COLORS	FUNCTION	
A	BR	TAN & PUR	BRAKE	
B	BD	BLK & GRAY	BRAKE DUMP	
C	FS	ORG & BLK	W/ FREESPOOL	
<PLUGGED>	FS	ORG & BLK	W/O FS	
F	AC	PINK & BLK	ACCUMULATOR	
G	CD	BLK & GRAY	COOLING	
PTD ROT.	H	WHI & LTGRN	PR. SWITCH	
CCW	E	C1	YEL & DKBLU	FORWARD
	D	C2	BRN & YEL	REVERSE
CW	D	C1	BRN & YEL	REVERSE
	E	C2	YEL & DKBLU	FORWARD

## HYDRAULIC SCHEMATIC

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2311443	Harness, Internal	1	2	2312259	Plug, 2-Term	1

# Internal Wiring, Electronic Controls

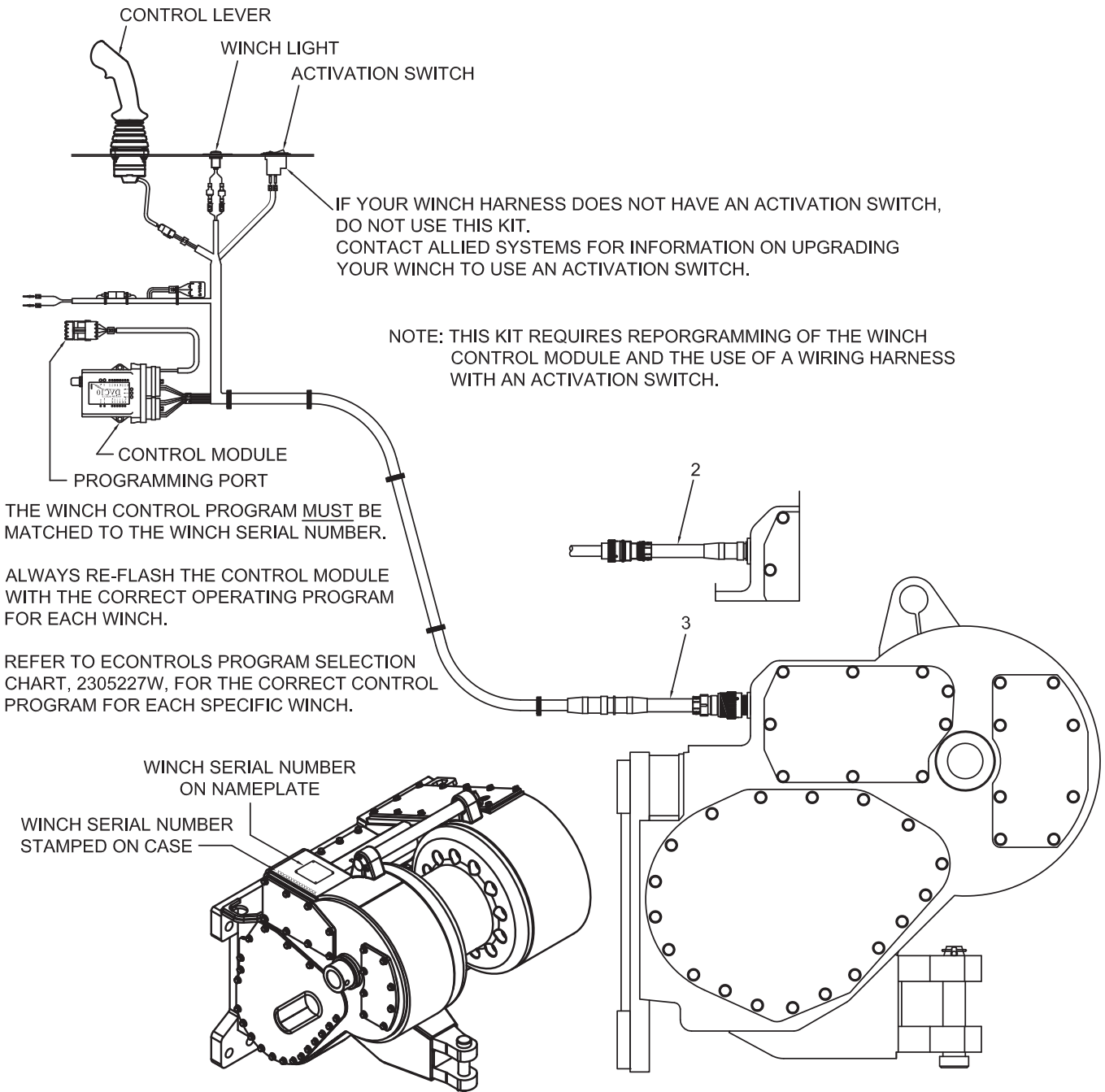
First Used on S/N AW6G-2019



WINCH CONNECTION	HARNESS CONNECTOR	WIRE PAIR COLORS	FUNCTION	
A	BR	TAN & PUR	BRAKE	
B	HS4	BLK & GRAY	BRAKE DUMP	
C	HS5	ORG & BLK	W/ FREESPOOL	
<PLUGGED>	HS5	ORG & BLK	W/O FS	
F	AC	PINK & BLK	ACCUMULATOR	
G	CD	BLK & GRAY	COOLING	
PTD ROT.	H	FPS	PR. SWITCH	
CCW	E	C1	YEL & DKBLU	FORWARD
	D	C2	BRN & YEL	REVERSE
CW	D	C1	BRN & YEL	REVERSE
	E	C2	YEL & DKBLU	FORWARD

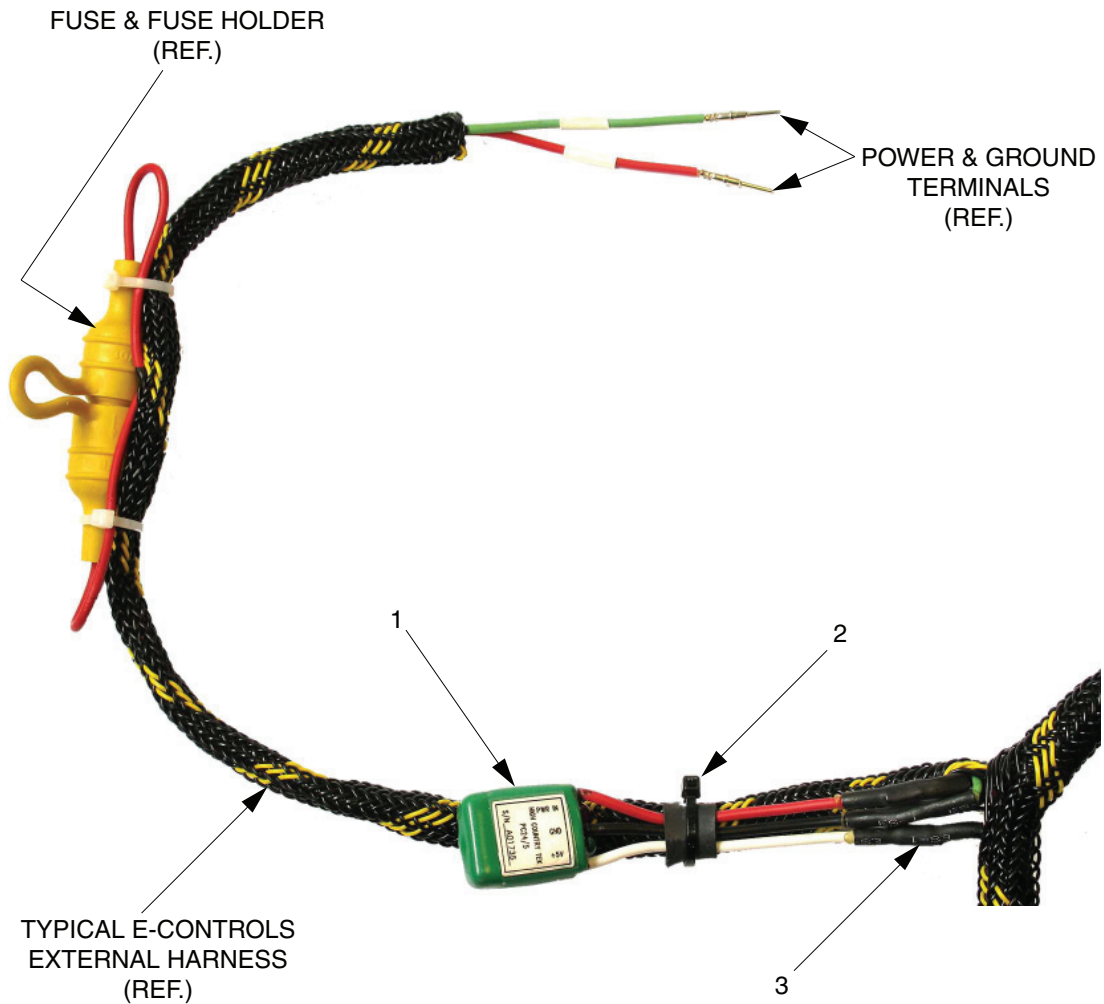
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2311443	Harness, Internal	1	2	2312259	Plug, Counter	1

## External Adapter Cable Kit, Electronic Controls



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315253</b>	<b>Kit, E-Control Adapter Cable</b>	<b>1</b>				
1	2315250	. Drawing, Installation	1	3	2315252	. Adapter, Deutsch Winch to AMP Harness Cable	1
2	2315251	. Adapter, AMP Winch to Deutsch Harness Cable	1	4	2305227W	. Chart, E-Controls & ECM Program	1

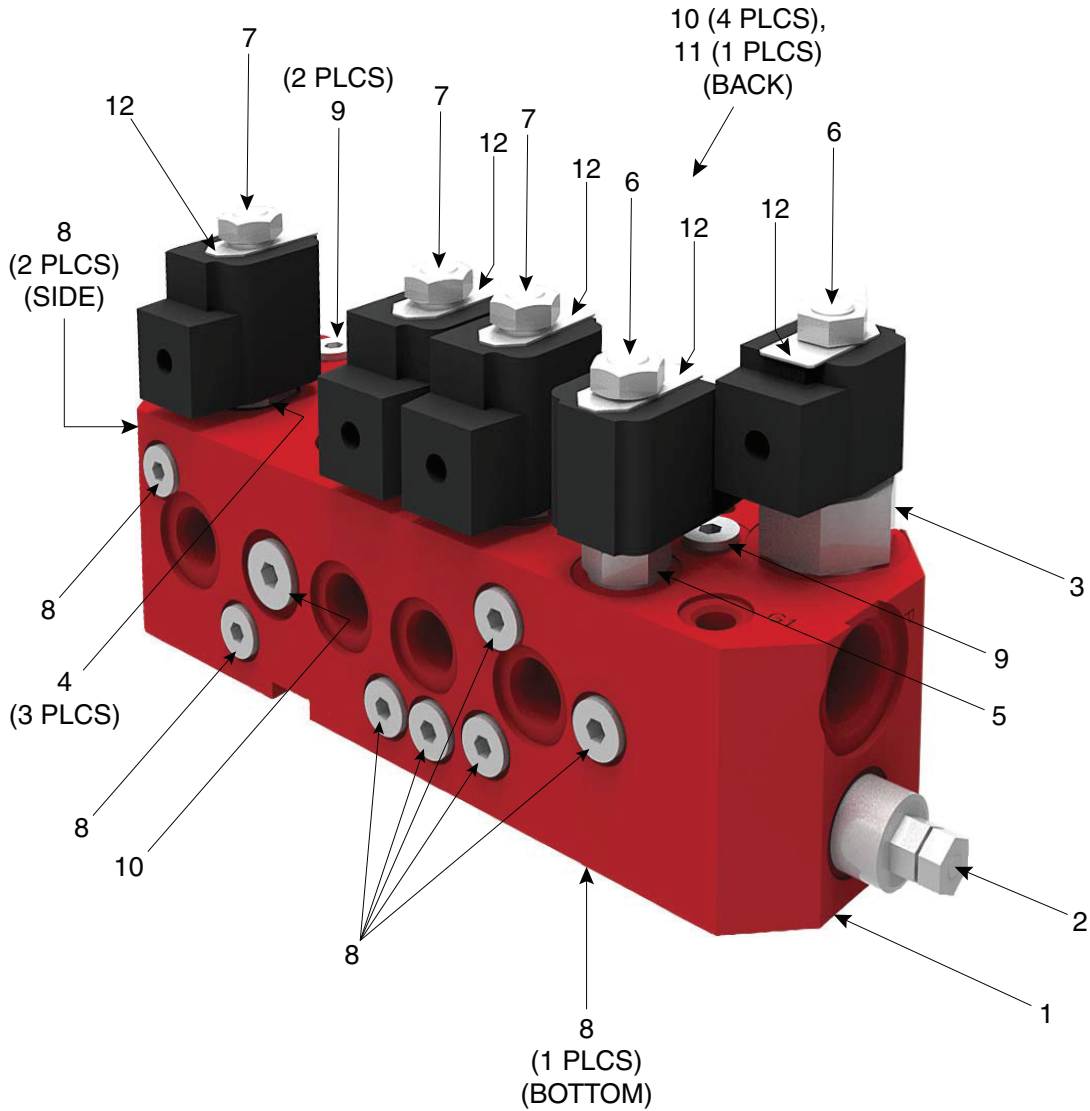
External Wiring Harness Repair Kit, Electronic Controls



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2313717</b>	<b>Repair Kit, eControls Harness</b>					
		<b>Voltage Converter</b>	<b>1</b>				
1	2304349W	. Converter, 24-5DC	1	3	236713	. Tube, Heat-Shrink	6 in.
2	242601	. Tie, Cable	1	4	2313699	. Instructions, Installation(Not Shown)	1

## Valve Manifold Assembly, Electronic Controls

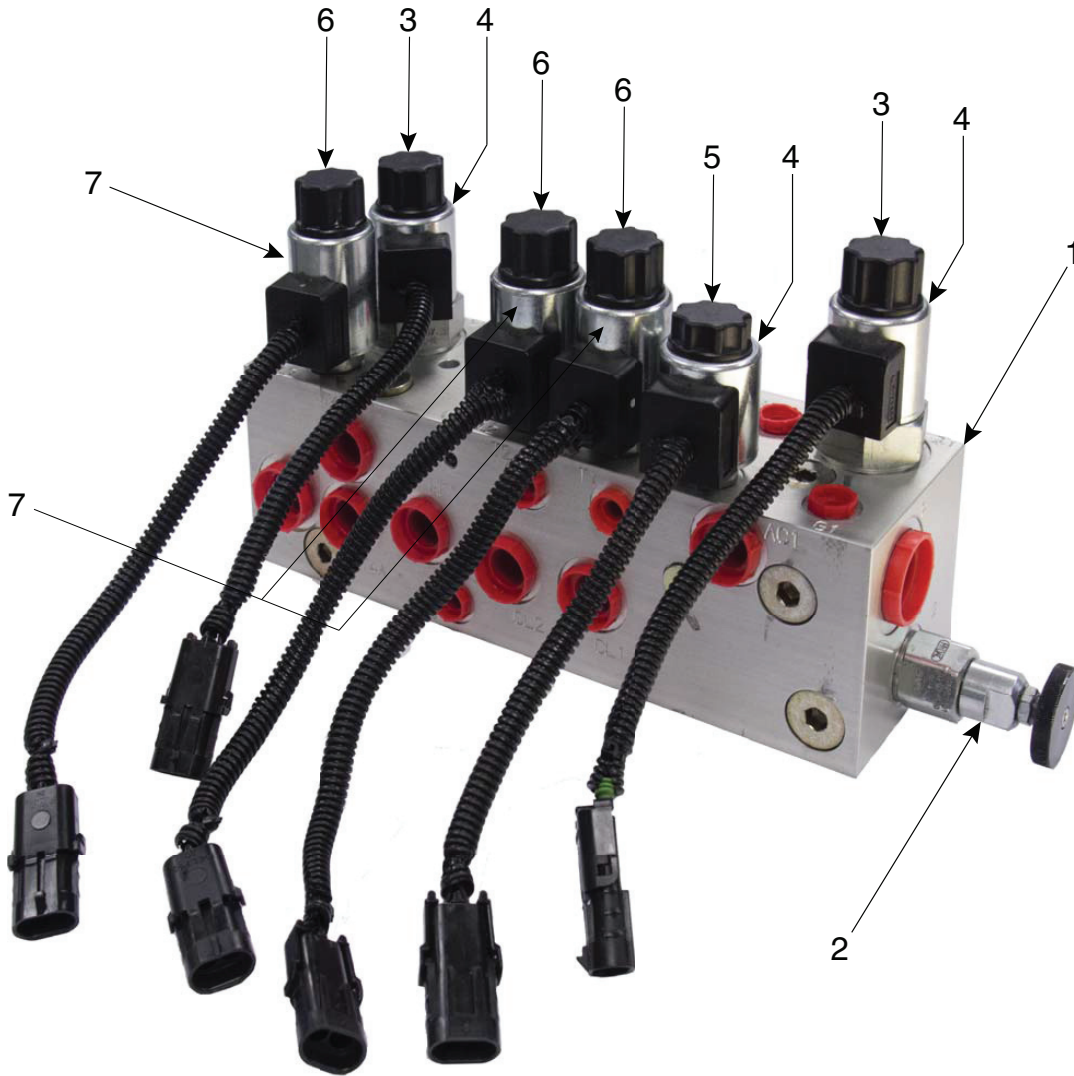
Last Used on AW6G-1287 and Below  
(Except S/N AW6G-1271)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2303889W</b>	<b>Assembly, Valve Manifold</b>	<b>1</b>				
1	NSS	. Block (Red Color)	1	6	R15006	. Coil, 24V DC	2
2	2300308W	. Valve, Relief	1	7	R15005	. Coil, 24V DC	3
	16484W	. . O-Ring	1	8	222442W	. Plug	10
	265787W	. . O-Ring	1	9	222443W	. Plug	3
3	2304840W	. Valve, Solenoid	1	10	235691W	. Plug	5
	2304971W	. . Kit, Seal	1	11	233693W	. Plug	1
4	2304841W	. Valve, Proportional	3	12	2304845W	. Washer, Tab	5
	R15015	. . Kit, Seal	1				
5	2304842W	. Valve, Solenoid	1				
	R15012	. . Kit, Seal	1				

**Valve Manifold Assembly, Electronic Controls**

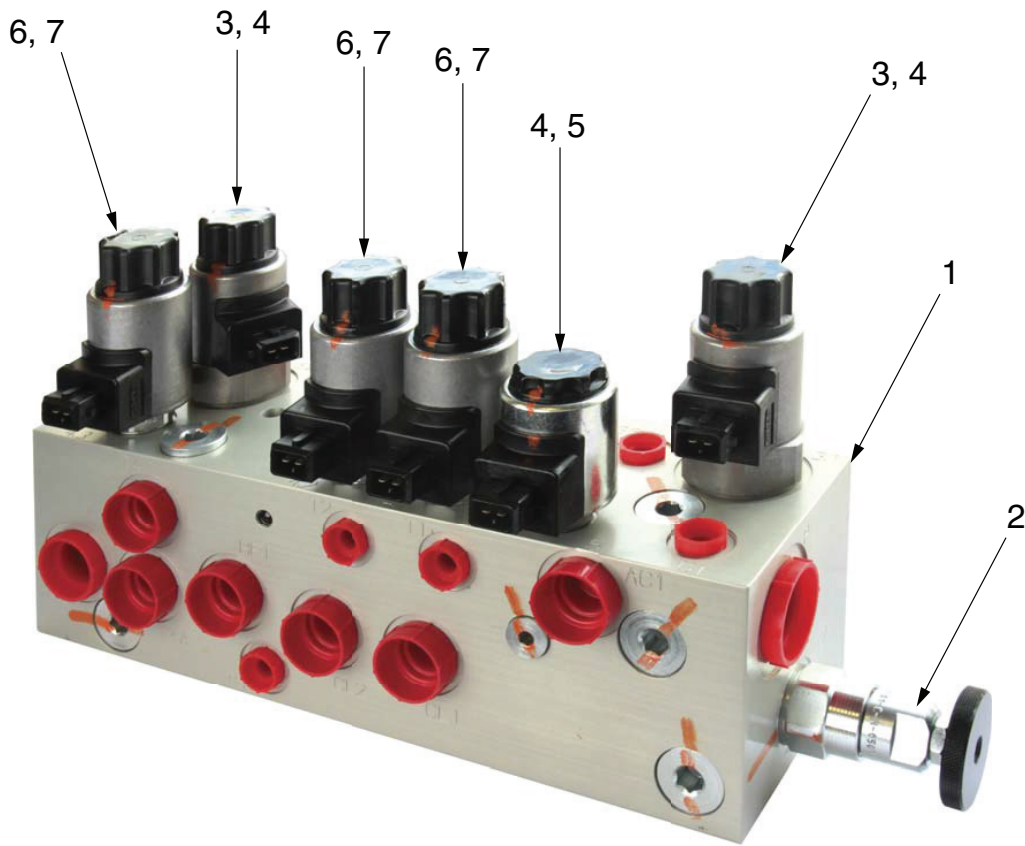
Used Only on S/N AW6G-1271;  
Used on S/N AW6G-1288 through S/N AW6G-1763



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2306547W</b>	<b>Assembly, Valve Manifold</b>	<b>1</b>				
1	NSS	. Block	1	5	2310253	. Valve, Cartridge	1
2	2310255	. Valve, Relief	1		2310259	. . Kit, Seal	1
	2310260	. . Kit, Seal	1	6	2310254	. Valve, Proportional Valve	3
3	2310252	. Valve, Cartridge	2		2310261	. . Kit, Seal	1
	2310258	. . Kit, Seal	1	7	2310256	. Coil, Proportional Valve - 24 VDC	3
4	2307770W	. Coil, Valve - 24 VDC	3				
	2310259	. . Kit, Seal	1				

**Valve Assembly, Electronic Controls**

Used on S/N AW6G-1764 through S/N AW6G-2018

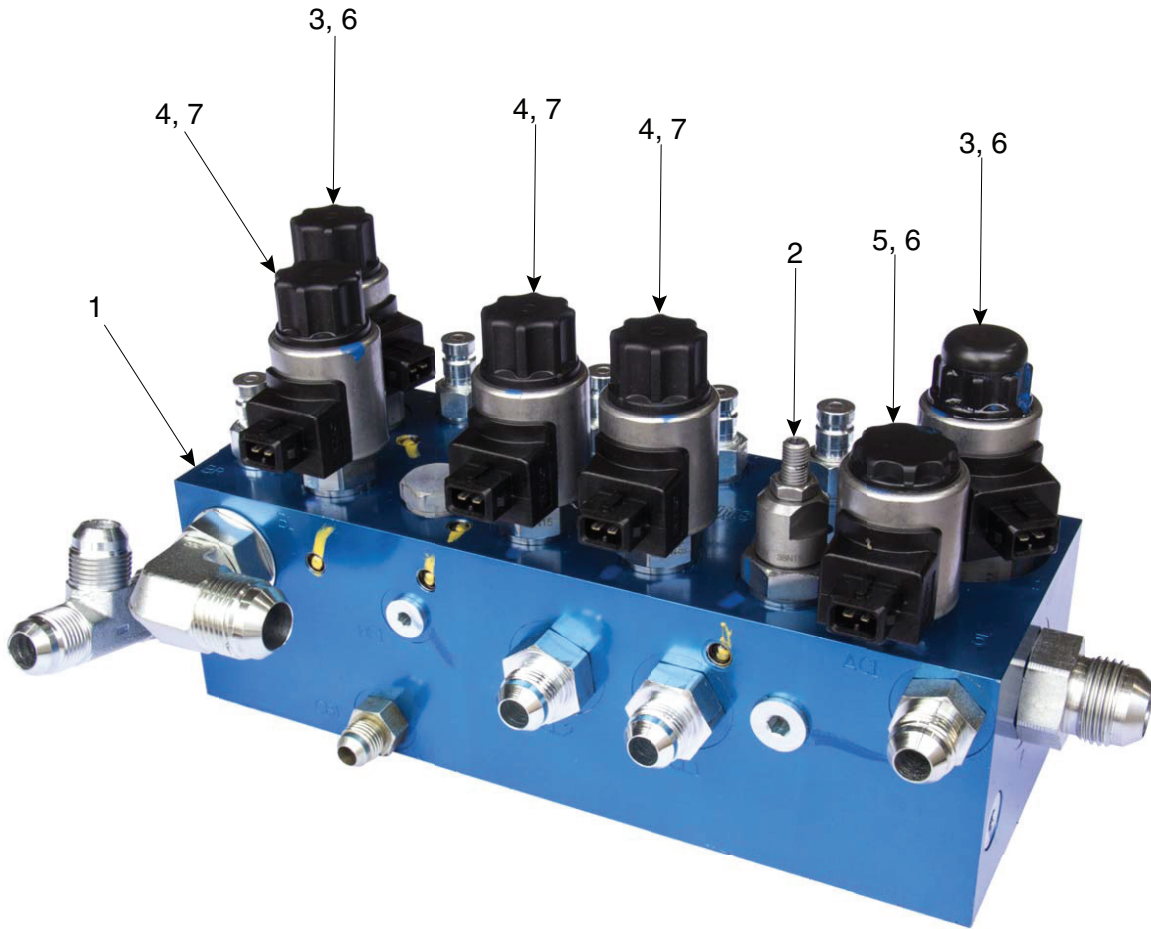


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311887</b>	<b>Assembly, Valve</b>	<b>1</b>				
1	NSS	. Block (Silver Color)	1	4	2311558	. Coil, Valve, 24 VDC	3
2	2310255	. Valve, Relief	1	5	2310253	. Valve, Cartridge	1
	2310260	. . Kit, Seal	1	6	2310254	. Valve, Proportional	3
3	2310252	. Valve, Cartridge	2	7	2314908	. Coil, Proportional Valve, 24 VDC	3
	2310258	. . Kit, Seal	1				

**Valve Assembly, Electronic Controls**

Non-FREESPOOL

First Used on S/N AW6G-2019



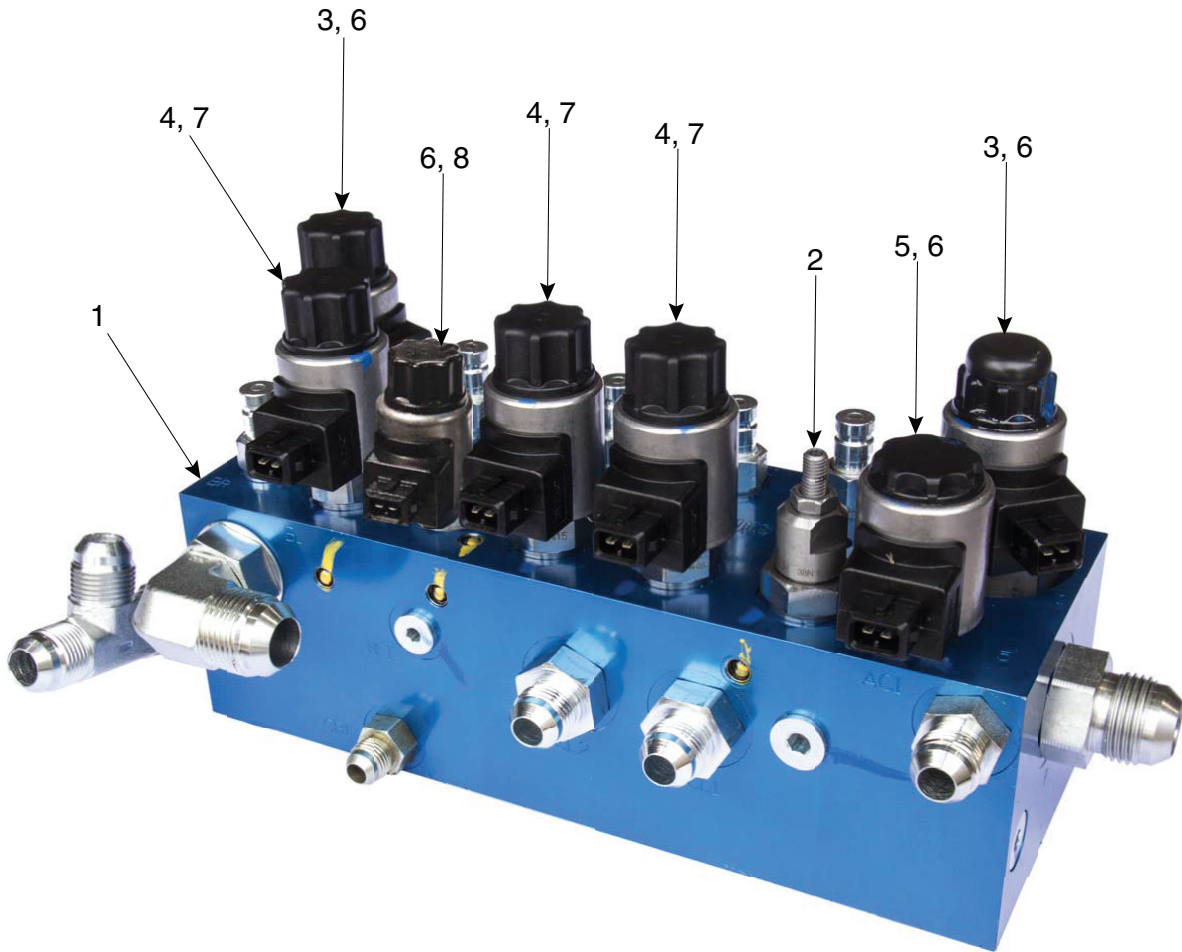
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315717</b>	<b>Assembly, Valve Manifold</b>	<b>1</b>				
1	NSS	. Block (Blue Color)	1	5	2310253	. Valve, Cartridge	1
2	2315807	. Valve, Relief	1		254400	. . Kit, Seal	1
	2310260	. . Kit, Seal	1	6	2311558	. Coil, 24 VDC Valve	3
3	2310252	. Valve, Cartridge	2	7	2315811	. Coil, 24 VDC Proportional Valve	3
	2310258	. . Kit, Seal	1				
4	2315808	. Valve, Proportional	3				
	254396	. . Kit, Seal	1				



**Valve Assembly, Electronic Controls**

FREESPOOL

First Used on S/N AW6G-2019



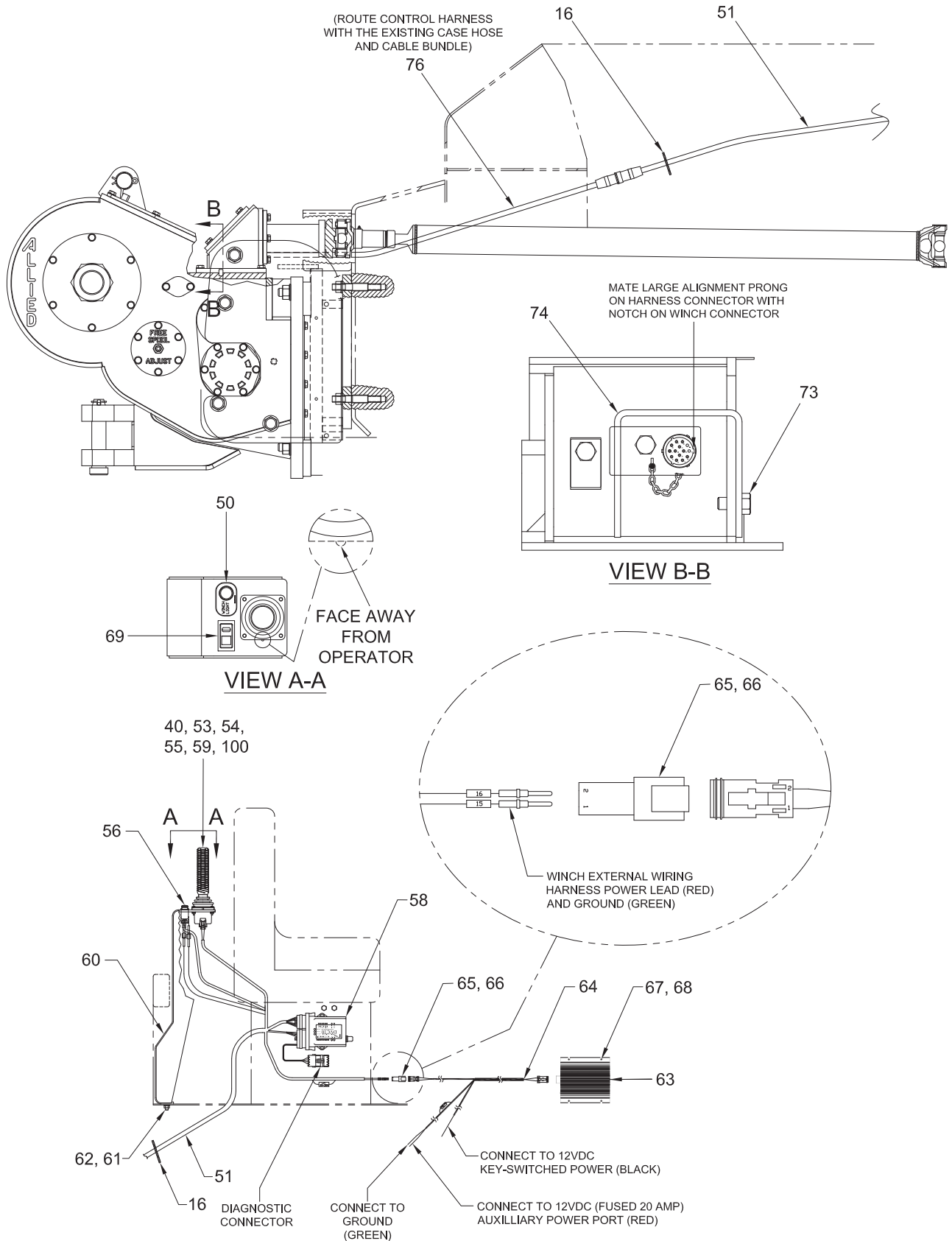
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315945</b>	<b>Assembly, Valve Manifold</b>	<b>1</b>				
1	NSS	. Block (Blue Color)	1	5	2310253	. Valve, Cartridge	1
2	2315807	. Valve, Relief	1		254400	. . Kit, Seal	1
	2310260	. . Kit, Seal	1	6	2311558	. Coil, 24 VDC Valve	4
3	2310252	. Valve, Cartridge	2	7	2315811	. Coil, 24 VDC Proportional Valve	3
	2310258	. . Kit, Seal	1	8	2307769W	. Valve, Cartridge	1
4	2315808	. Valve, Proportional	3		2504253	. . Kit, Seal	1
	254396	. . Kit, Seal	1				

# Handling Gear, Electronic Controls

Case Quadtrac (R39)

Used on S/N AW6G-1636 thru AW6G-1951

Page 1 of 2



**Handling Gear, Electronic Controls**

Case Quadtrac (R39)

Used on S/N AW6G-1636 thru AW6G-1951

Page 2 of 2

A - Freespool  
B - Non-Freespool

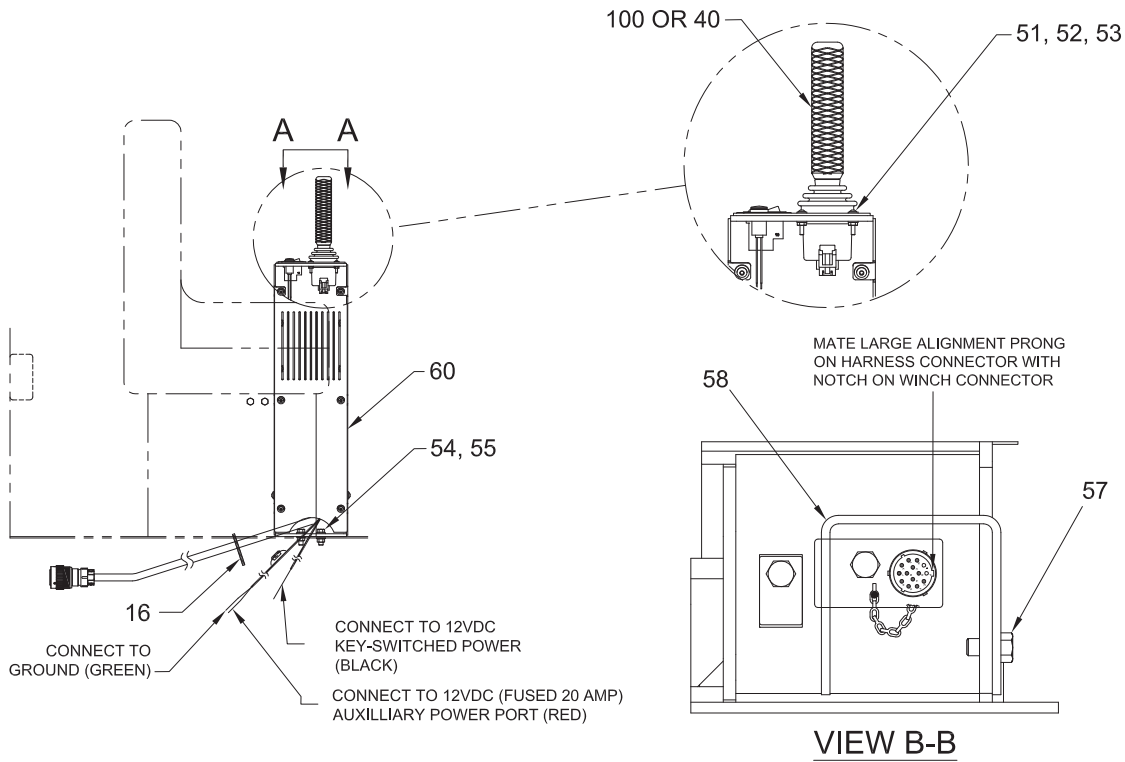
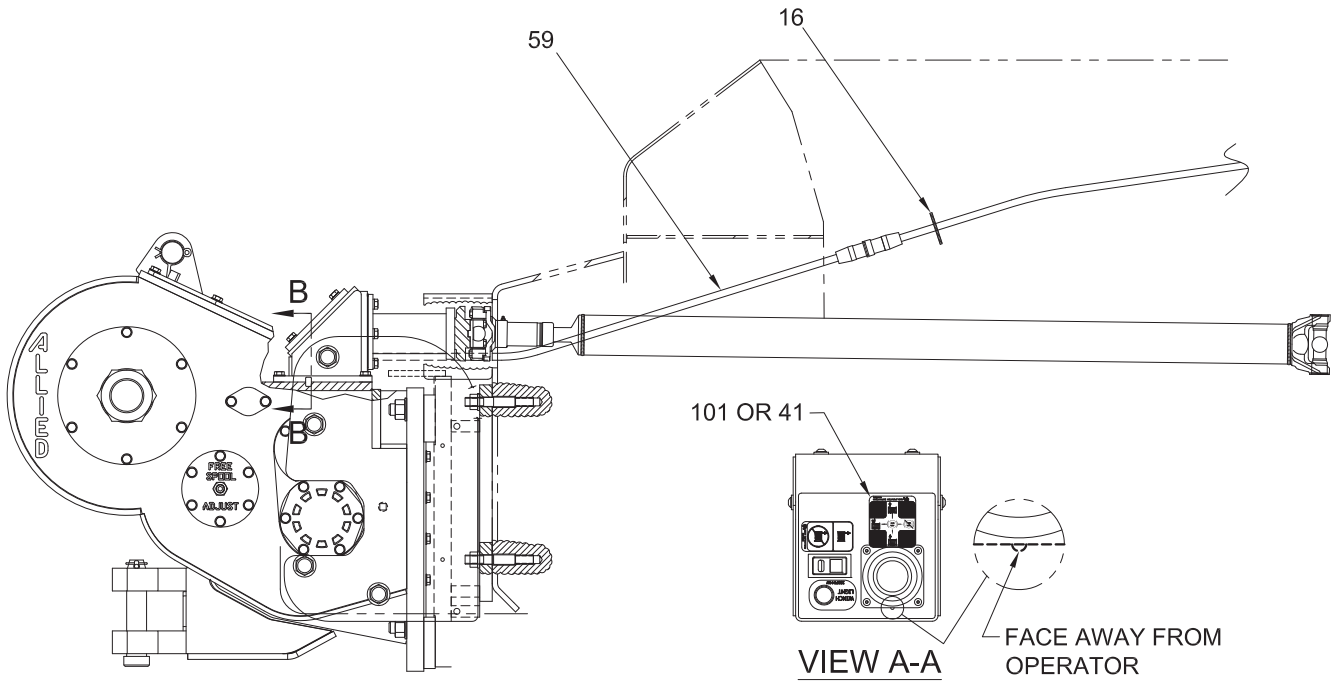
Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
16	137852W	Clamp, Strap	5	5	64	2306656W	Harness, Wiring	1	1
40	2310552	Assembly, Control Lever	--	1	65	243503	Receptacle	1	1
42	2305250W	Decal, Control Lever	--	1	66	243505	Lock, Secondary	1	1
50	2307944W	Decal, Winch Light	1	1	67	264150W	Nut	4	4
51	2311444	Harness, Wiring - EXT	1	1	68	Y25G-0426	Capscrew	4	4
53	*a 2304892W	Capscrew	4	4	69	2307849W	Assembly, Switch	1	1
54	15039W	Nut	4	4	70	2307925W	Decal (Not Shown)	1	1
55	197066W	Washer	4	4	71	2307942W	Decal (Not Shown)	1	1
56	2303912W	Assembly, Bypass LED	1	1	73	*a 398817W	Screw, Flanged	2	2
58	2310940	Module, Electronic Contors	1	1	74	2307919W	Guard, Cable	1	1
59	2304779W	Collar, Control Lever Mounting	1	1	76	2312848	Harness, Extension	1	1
60	2307487W	Bracket, Mounting	1	1	100	2310575	Assembly, Control Lever	1	--
61	174413W	Screw	2	2	101	2305258W	Decal, Control Lever	1	--
62	156133W	Nut	2	2					
63	2306655W	Converter	1	1		*a Use 318702W Thread Lock			

# Handling Gear, Electronic Controls

Case Quadtrac (R39)

First Used on S/N AW6G-1952

Page 1 of 2



**Handling Gear, Electronic Controls**

Case Quadtrac (R39)

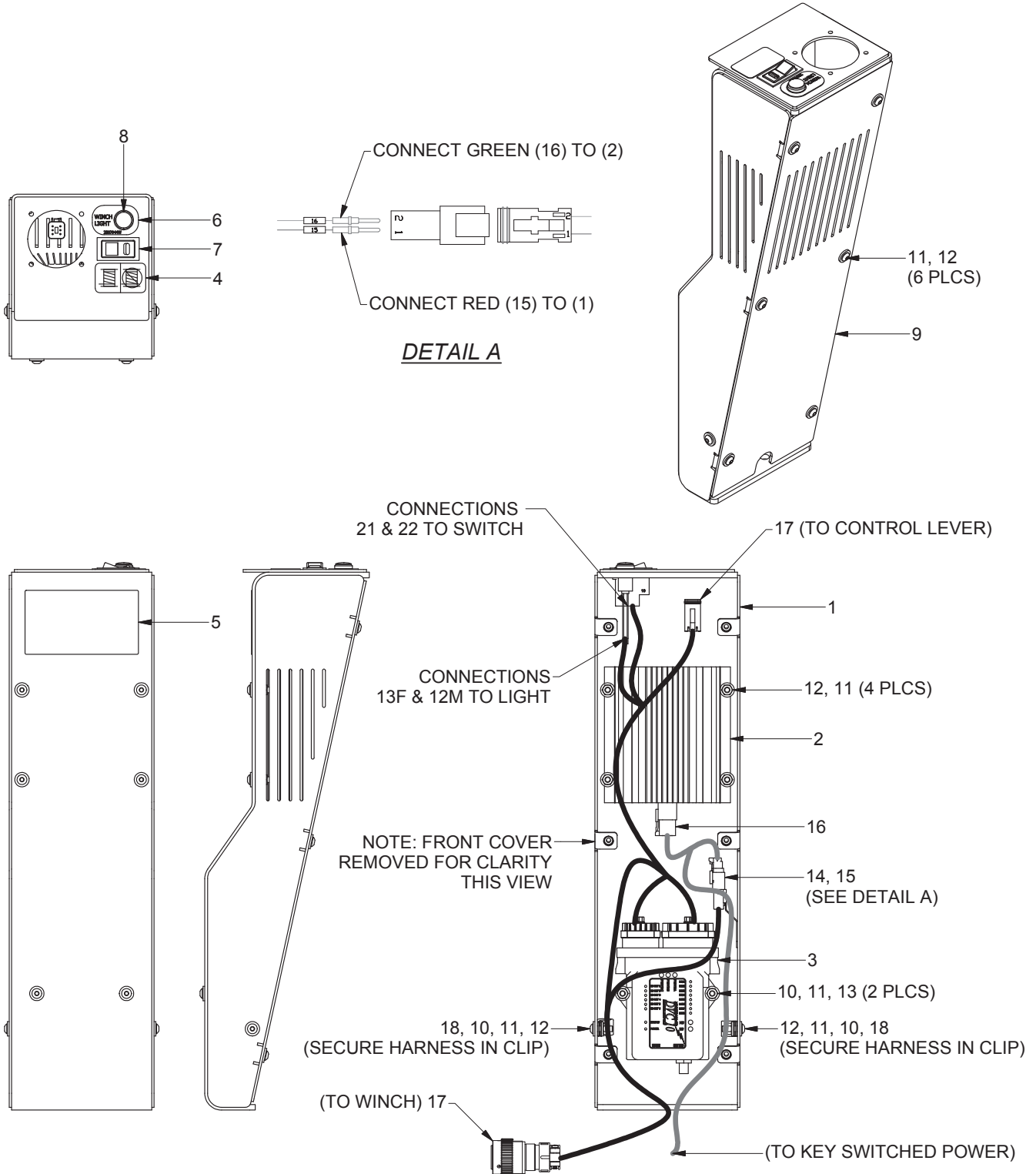
First Used on S/N AW6G-1952

Page 2 of 2

A - Freespool  
B - Non-Freespool

Item	Part No.	Description	Qty		Item	Part No.	Description	Qty	
			A	B				A	B
16	137852W	Clamp, Strap	5	5	57	*a 398817W	Screw, Flanged	2	2
40	2310552	Assembly, Control Lever	--	1	58	2307919W	Guard, Cable	1	1
41	2305250W	Decal, Control Lever	--	1	59	2314010	Harness, Extension	1	1
51	*a 2304892W	Capscrew	4	4	60	2314002	Assembly, Console (3-146)	1	1
52	15039W	Nut	4	4	100	2310575	Assembly, Control Lever	1	--
53	197066W	Washer	4	4	101	2305258W	Decal, Control Lever	1	--
54	174413W	Screw	2	2					
55	156133W	Nut	2	2		*a Use 318702W Thread Lock			

Console Assembly, Electronic Controls



## Console Assembly, Electronic Controls

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314002</b>	<b>Assembly, Console</b>	<b>1</b>	10	221703W	. Nut	8
1	2313968	. Console, E-Control	1	11	221763W	. Washer	22
2	2306655W	. Converter	1	12	Y25G-0414	. Capscrew	12
3	2315093	. Module, Electronic Control	1	13	2304267W	. Capscrew	2
4	2307925W	. Decal, Activation Switch	1	14	243503	. Receptacle	1
5	2307942W	. Decal, Winch Indicator Light	1	15	243505	. Lock, Secondary	1
6	2307944W	. Decal, Winch Light	1	16	2306656W	. Harness, Wiring	1
7	2307849W	. Assembly, Rocker Switch	1	17	2311444	. Harness, Wiring - Ext	1
8	2303912W	. Assembly, Bypass LED	1	18	R13803034	. Clip, Insulation	2
9	2313965	. Plate, Cover	1				

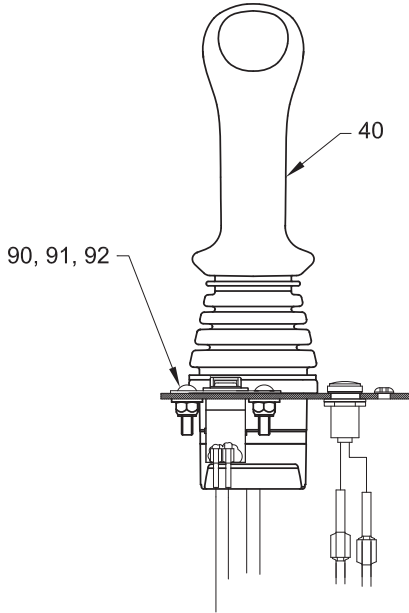
# Handling Gear, Electronic Controls

Case 1650L (R40)

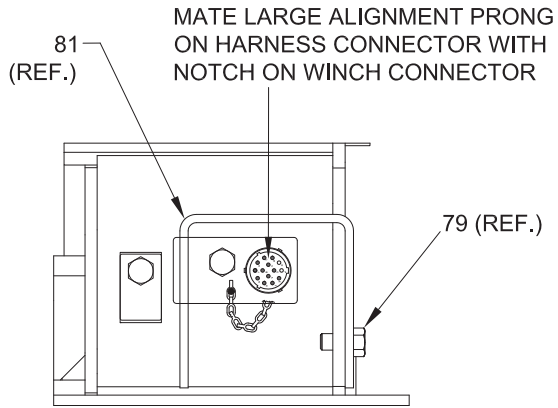
First Used on S/N AW6G-1974

Page 1 of 2

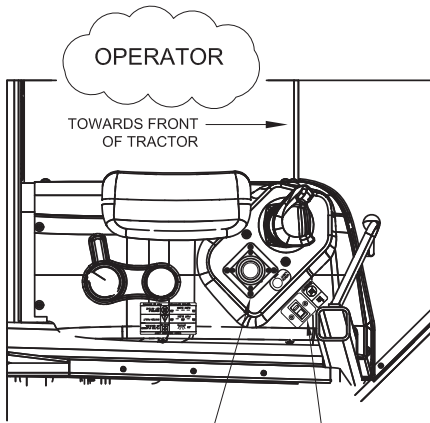
Note: See E-Controls Common Parts Pages for More Related Installation Information.



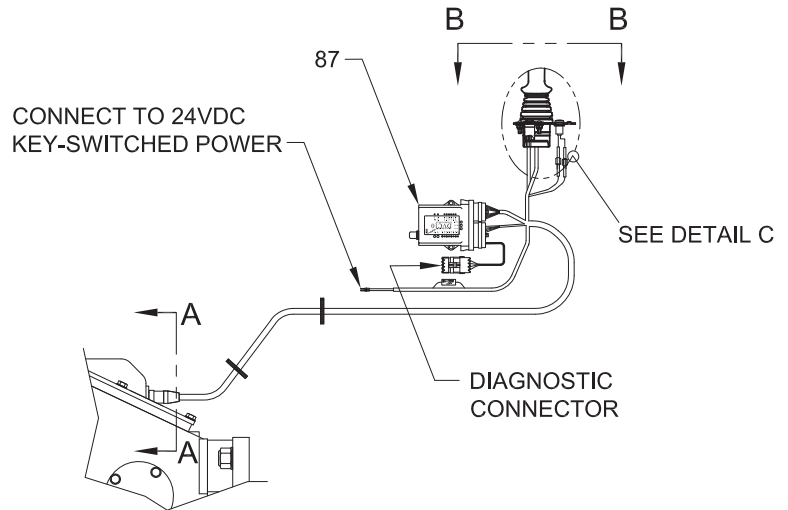
**DETAIL C**



**SECTION A-A**



**VIEW B-B**





**Handling Gear, Electronic Controls**

Case 1650L (R40)

First Used on S/N AW6G-1974

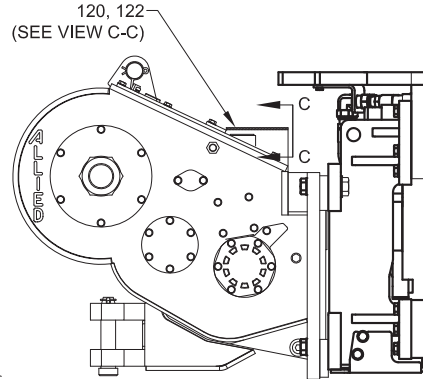
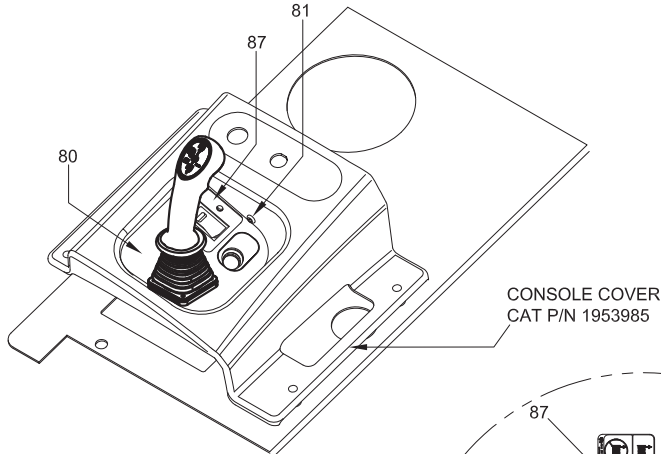
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
40	2314999	Kit, E-Controls Lever Replacement (3-179)	1	*a		Use 318702W Thread Lock	
79	*a 398817W	Screw	2	*b		Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
81	2307919W	Guard, Cable	1				
87	*b - - - -	Module, Electronic Control	1				
89	2307643W	Plate, Switch Mounting	1				
90	*c - - - -	Washer	6	*c		Refer to 2314999, E-Controls Lever Replacement Kit, on Pages 3-178 & 3-179	
91	*c - - - -	Nut	6				
92	*c - - - -	Capscrew	6				
95	2310161	Plate, E-Controls Controller Adapter	1				

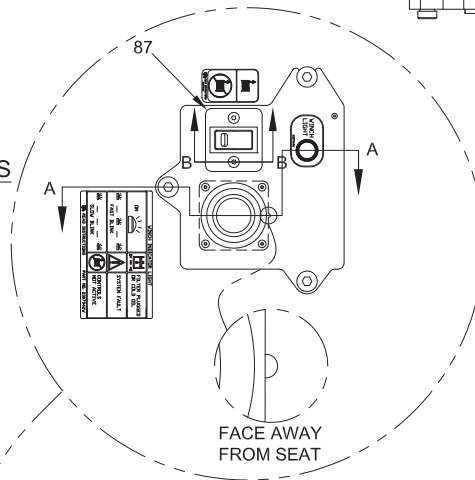
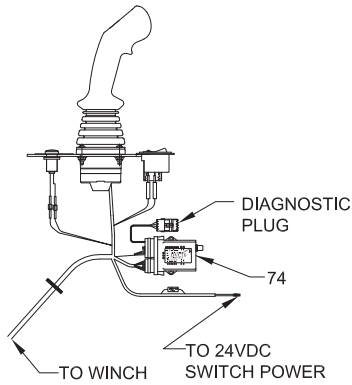
# Handling Gear, Electronic Controls

For Tractors with *Linkage Hydraulic Valve Controls*†  
 Caterpillar D6N (C47)  
 First Used on S/N AW6G-1974  
 Page 1 of 2

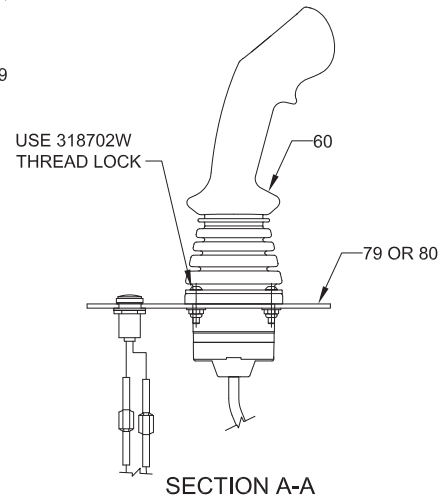
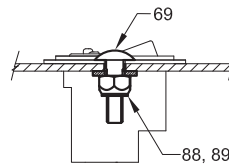
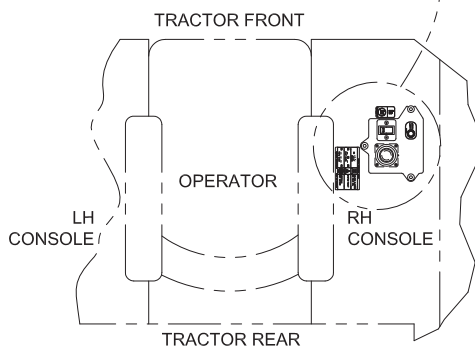
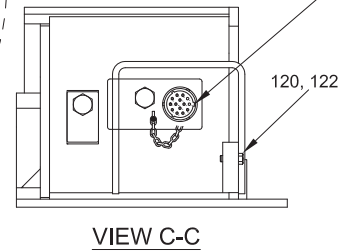
† See page 0-4 for CAT tractor serial numbers.



**E-CONTROL LEVER  
FOR TRACTORS  
WITH CAB & MECHANICAL CONTROLS**



MATE LARGE ALIGNMENT PRONG ON HARNESS CONNECTOR WITH NOTCH ON WINCH CONNECTOR



**ELECTRIC CONTROL HANDLEVERS  
FOR TRACTORS  
WITHOUT CAB & MECHANICAL CONTROLS**

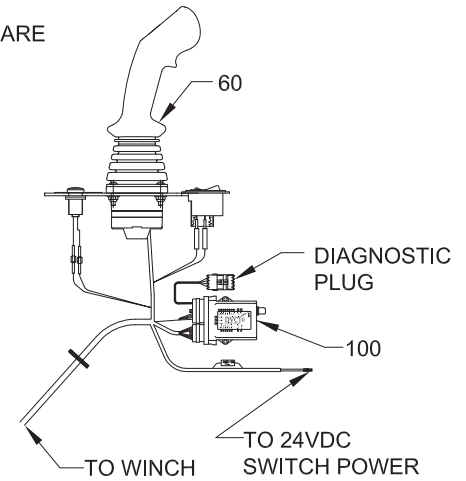
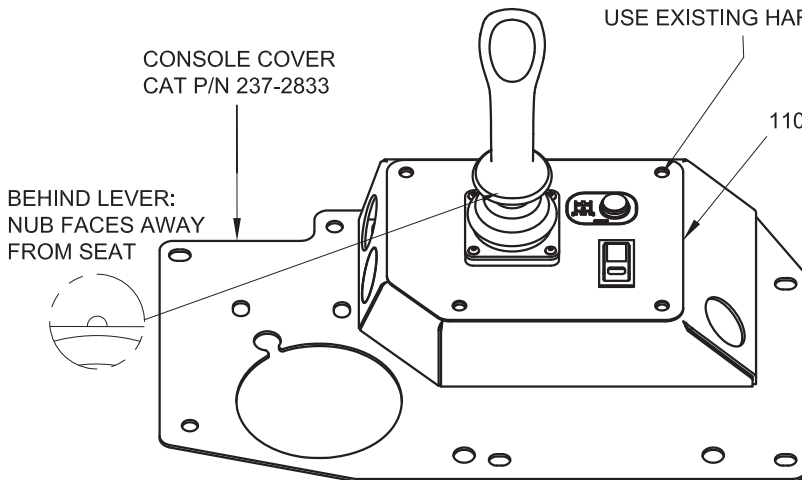
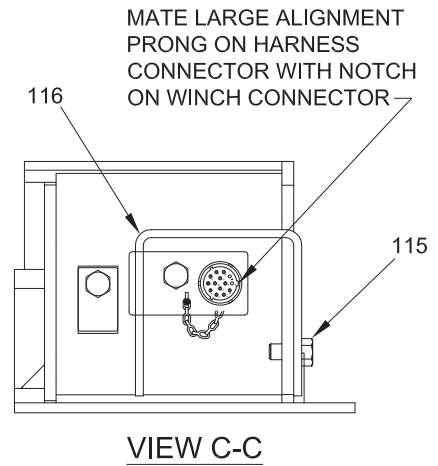
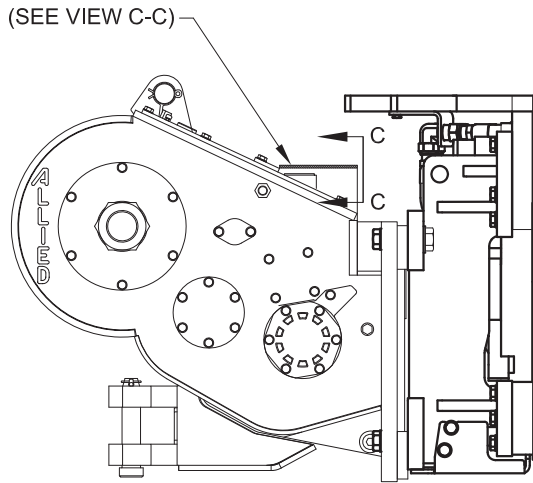
Note: See E-Controls Common Parts Pages for More Related Installation Information.

**Handling Gear, Electronic Controls**  
 For Tractors with *Linkage Hydraulic Valve Controls* †  
 Caterpillar D6N (C47)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
60	2314999	Kit, E-Controls Lever Replacement (3-179)	1	120	*a, *c	Screw	2
69	Y25G-0416	Capscrew	2	122	2307920W	Bracket, Cable Guard	1
74	*b	Module, Electronic Controls	1		*a	Use 318702W Thread Lock	
79	2307843W	Plate, Control Lever Mounting - w/o Cab	1		*b	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
80	2307845W	Plate, Cover	1		*c	Refer to 2314999, E-Controls Lever Replacement Kit, on Pages 3-178 & 3-179	
81	18717W	Capscrew	4				
85	2304779W	Plate, Cover	1				
87	2307643W	Plate, Switch Mounting	1				
88	*c	Washer	2				
89	*c	Nut	2				

**Handling Gear, Electronic Controls**  
 For Tractors with *Pilot Operated Hydraulics* †  
 Caterpillar D6N (C78)  
 First Used on S/N AW6G-1974  
 Page 1 of 2

† See page 0-4 for CAT tractor serial numbers.



Note: See E-Controls Common Parts Pages for More Related Installation Information.

**Handling Gear, Electronic Controls**  
 For Tractors with *Pilot Operated Hydraulics* †  
 Caterpillar D6N (C78)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

† See page 0-4 for CAT tractor serial numbers.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
60	2314999	Kit, E-Controls Lever Replacement (3-179)	1				
100	*b - - - -	Module, Electronic Controls	1	*a		Use 318702W Thread Lock	
110	2314174	Bracket	1	*b		Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
111	225871	Trim (Not Shown)	1.17 FT				
115	*a 398817W	Screw, Flanged	2				
116	2307919W	Guard, Cable	1				

# Handling Gear, Electronic Controls

For Tractors with *Pilot Operated Hydraulics* †

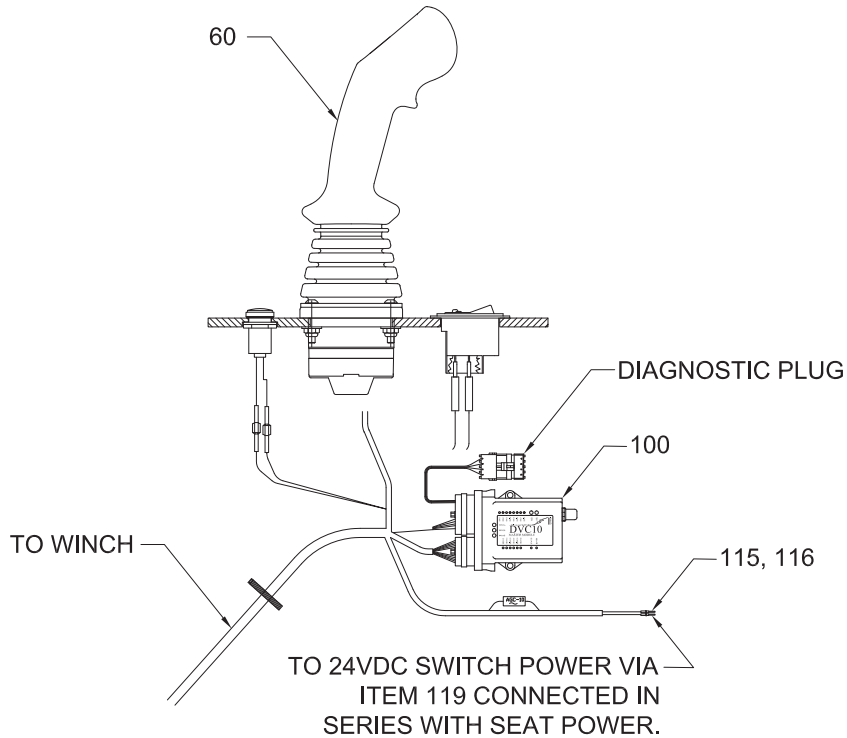
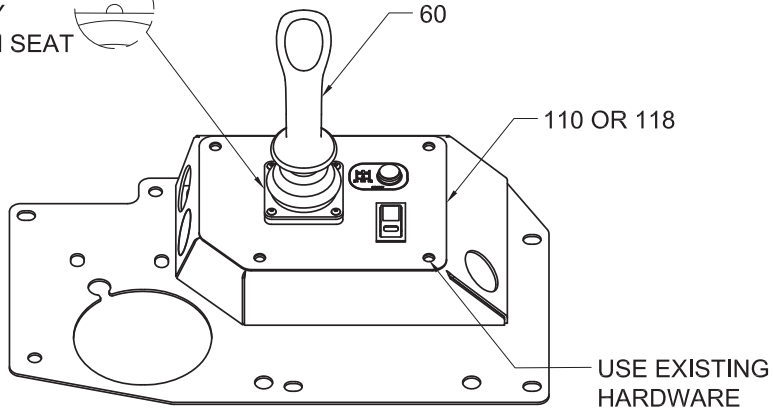
Caterpillar D6N (C81)

First Used on S/N AW6G-1974

Page 1 of 2

† See page 0-4 for CAT tractor serial numbers.

BEHIND LEVER:  
NUB FACES  
AWAY  
FROM SEAT



Note: See E-Controls Common Parts Pages for More Related Installation Information.

**Handling Gear, Electronic Controls**  
 For Tractors with *Pilot Operated Hydraulics* †  
 Caterpillar D6N (C81)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

† See page 0-4 for CAT tractor serial numbers.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
60	2314999	Kit, E-Controls Lever Replacement (3-179)	1	118	2314090	Brecket (with Dual Controls)	1
100	*a	Module, Electronic Controls	1	119	2310692	Harness, Power Adapter	1
110	2314174	Bracket	1	*a	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>		
111	225871	Trim (Not Shown)	1.17 ft				
115	243503	Receptacle	1				
116	243505	Lock	1				

# Handling Gear, Electronic Controls

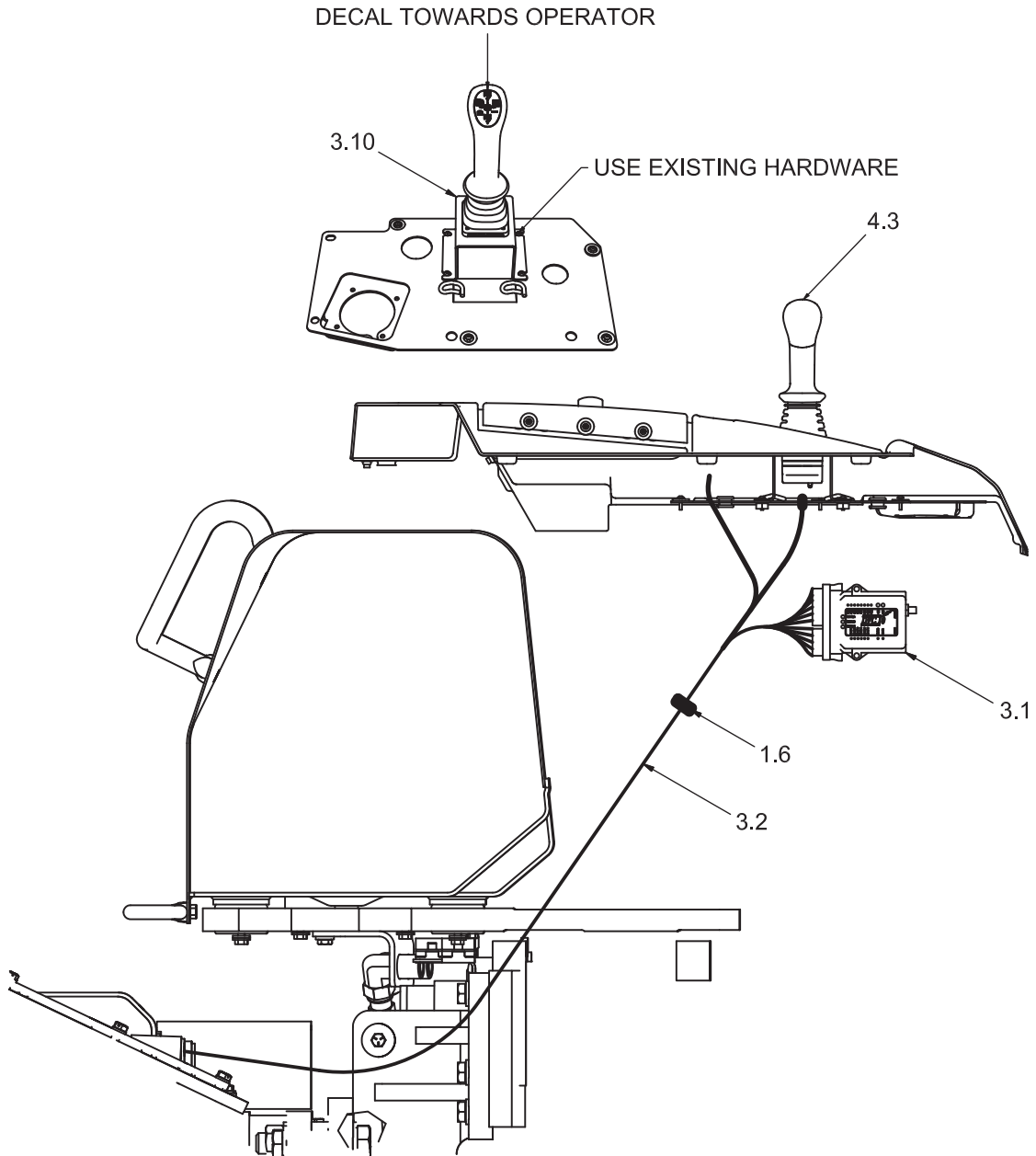
Caterpillar D6N Tier 4i (C810)

S/N PREFIX: PBA & PER

For Tractors with & without Ripper or Dual Controls

First Used on S/N AW6G-1974

Page 1 of 2



Note: See E-Controls Common Parts Pages for More Related Installation Information.



**Handling Gear, Electronic Controls**

Caterpillar D6N Tier 4i (C810)

S/N PREFIX: PBA & PER

For Tractors with & without Ripper or Dual Contorls

First Used on S/N AW6G-1974

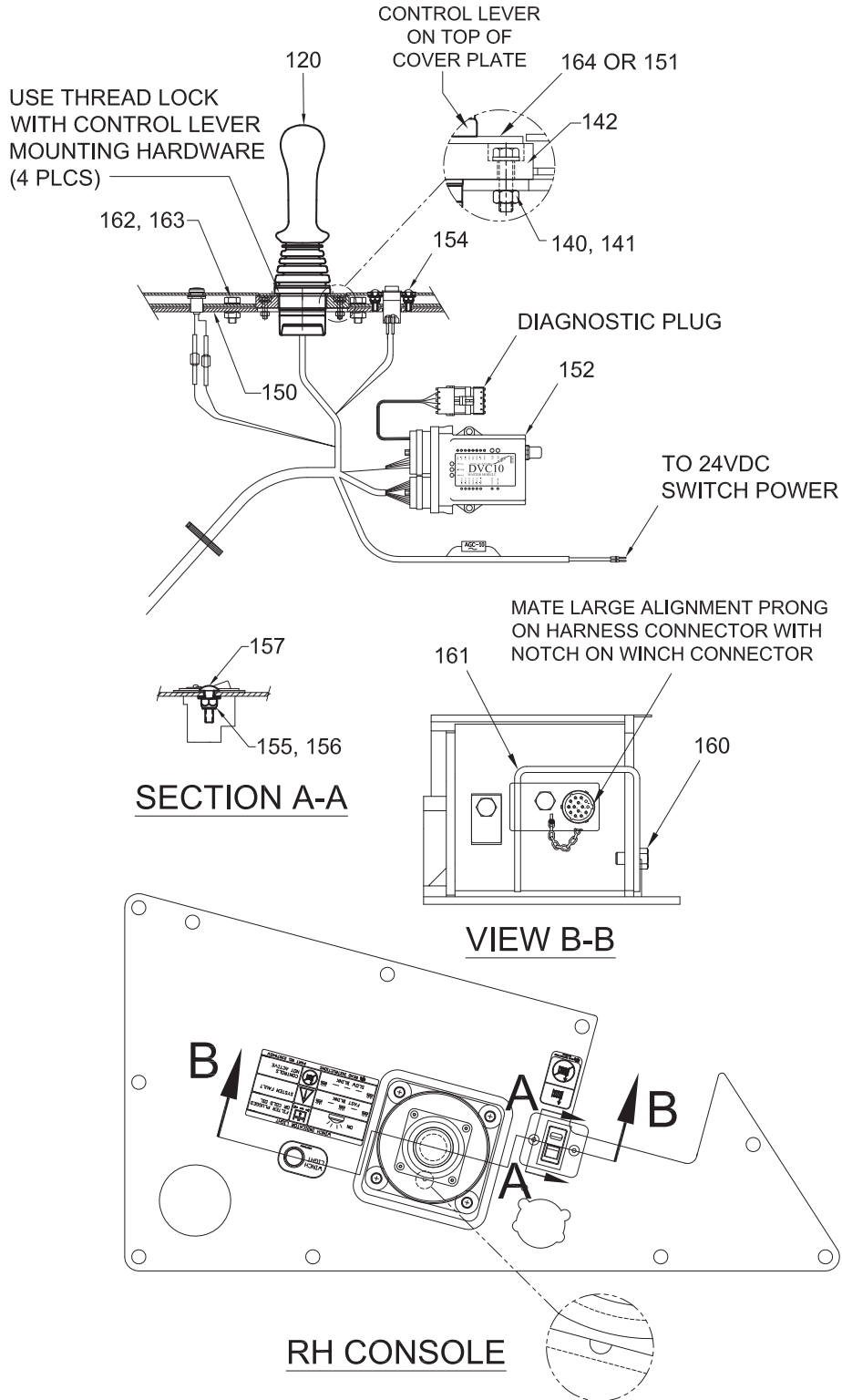
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.6	137852W	Clamp, Strap	6				
3.1	*a	Module, Electronic Control	1	*a		Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
3.2	2311444	Harness, Wiring	1				
3.10	2314458	Bracket	1				
3.11	225871	Trim, Edge (Not Shown)	1.17 FT				
4.3	2314999	Kit, E-Controls Lever Replacement (3-179)	1				

### Handling Gear, Electronic Controls

Caterpillar D6H PS (C48 Or C480),  
 D6R PS (C50),  
 D6R Series II & III, and D6T (C71)  
 First Used on S/N AW6G-1974

Page 1 of 2



Note: See E-Controls Common Parts Pages for More Related Installation Information.

**Handling Gear, Electronic Controls**

Caterpillar D6H PS (C48 Or C480),  
 D6R PS (C50),  
 D6R Series II & III, and D6T (C71)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

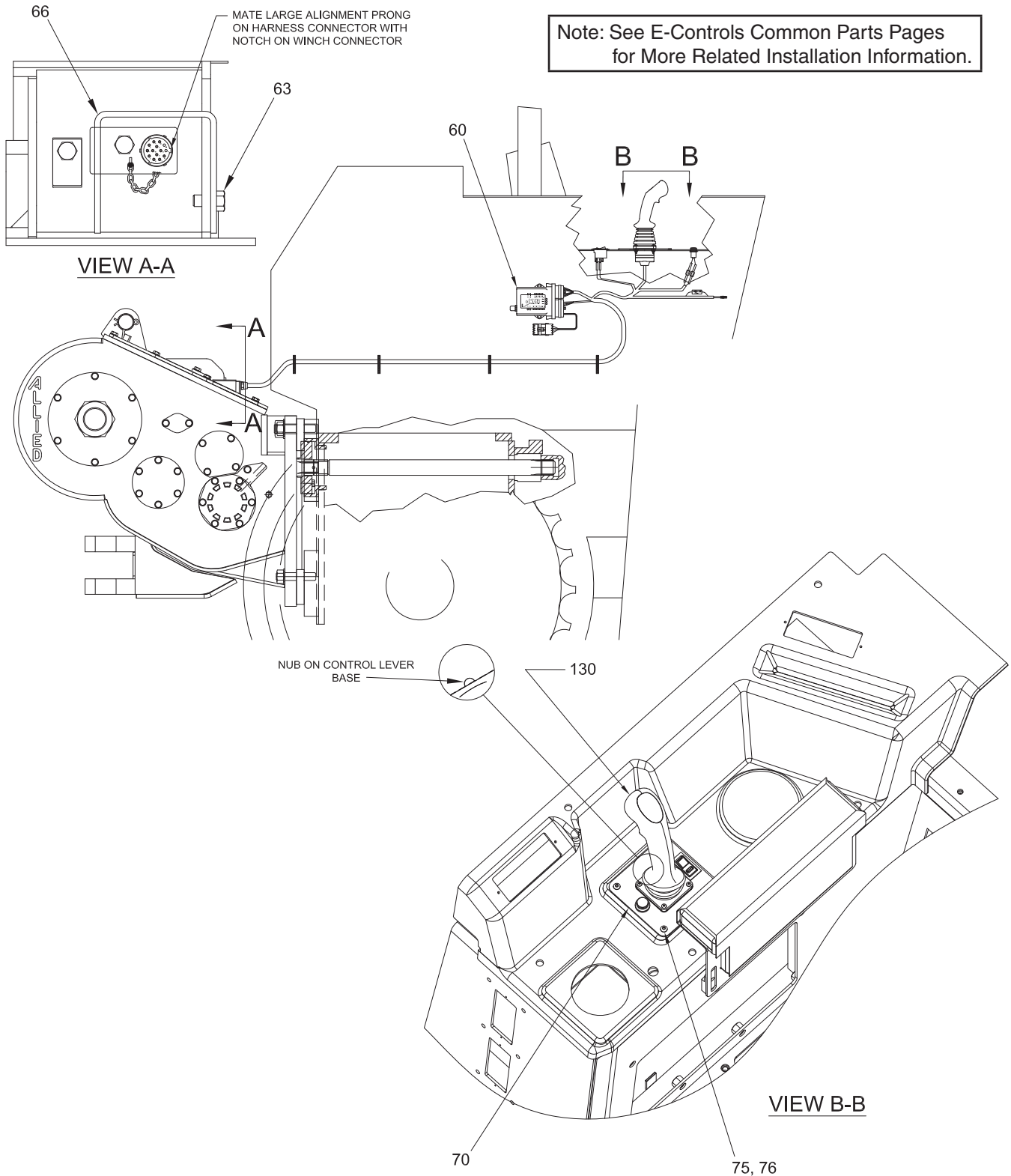
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
120	2314999	Kit, E-Controls Lever Replacement (3-179)	1	160	*a 398817W	Screw, Flanged	2
140	292680W	Washer	4	161	2307919W	Guard, Cable	1
141	287816W	Capscrew	4	162	293628W	Capscrew	3
142	2315078	Plate, Control Lever Riser	1	163	296420W	Washer	3
150	2313753	Mounting, Control Lever	1	164	2313761	Plate, Control Lever Cover	1
151	2305412W	Plate, Control Lever Cover	1		*a	Use 318702W Thread Lock	
152	*b - - - -	Module, Electronic Control	1		*b	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
154	2307643W	Plate, Switch Mounting	1				
155	15127W	Washer	2				
156	15113W	Nut	2				
157	Y25G-0416	Capscrew	2				

### Handling Gear, Electronic Controls

Dresser TD15E PS (H44), TD15E DD (H45),  
TD15H PS (H46), TD15H Tier II & TD15M (H47)

First Used on S/N AW6G-1974

Page 1 of 2



**Handling Gear, Electronic Controls**

Dresser TD15E PS (H44), TD15E DD (H45),  
TD15H PS (H46), TD15H Tier II & TD15M (H47)

First Used on S/N AW6G-1974

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
60	*b	- - - -	1				
63	*a	398817W	2	*a		Use 318702W Thread Lock	
66		2307919W	1	*b		Refer to 2305227W, Winch E-Controls Control	
70		2310284	1			Program and Programmed Control Module Selection	
75		Y25G-0416	4			Charts, on Allied Systems' website at	
76		15127W	4			<a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
130		2314999	1				
		Kit, E-Controls Lever Replacement (3-179)					

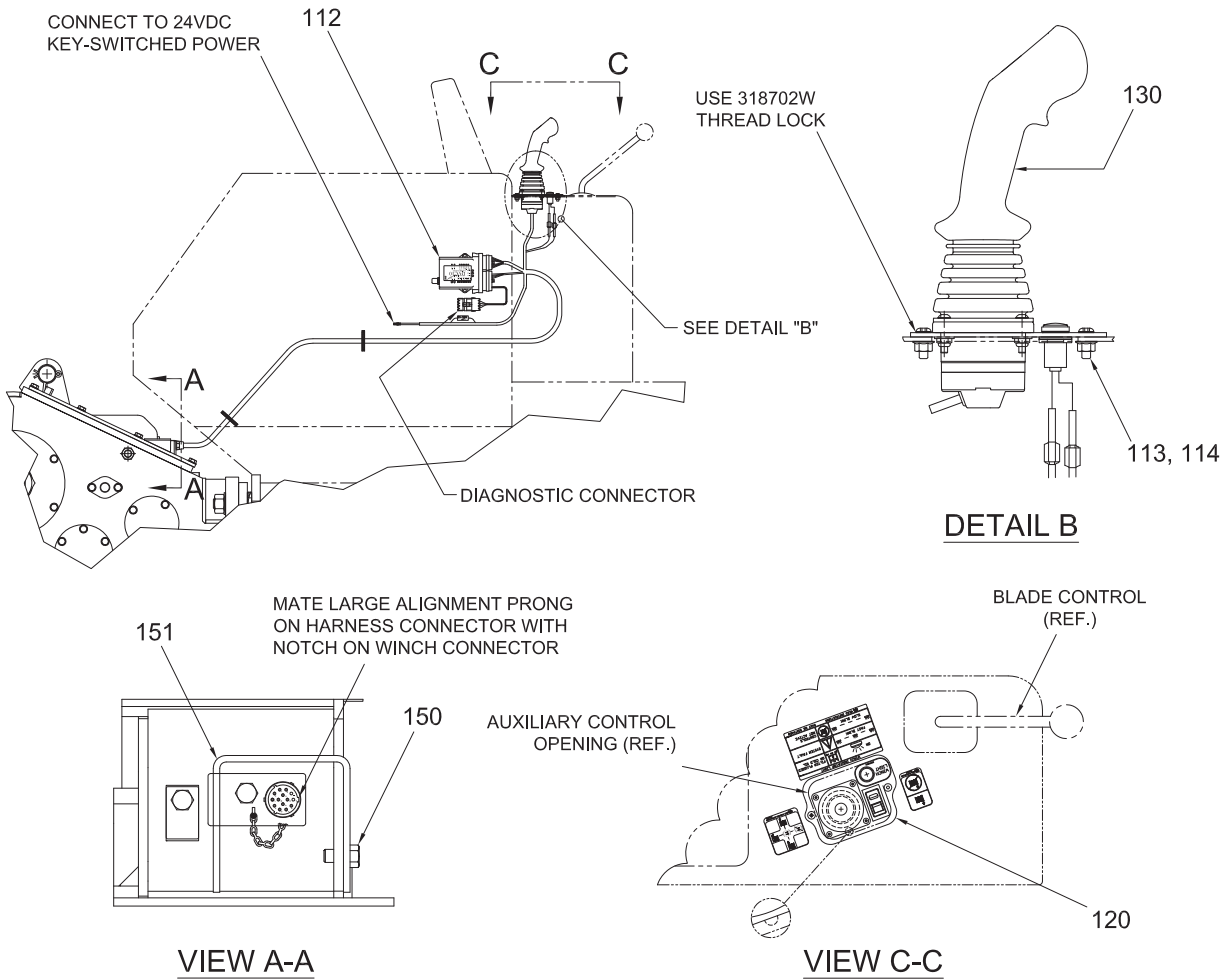
### Handling Gear, Electronic Controls

John Deere 750C Series I & II (E45) and 850C Series I & II (E46)

First Used on S/N AW6G-1974

Page 1 of 2

Note: See E-Controls Common Parts Pages for More Related Installation Information.



**NOTE:** Communication cable p/n 2304603W is necessary to perform extensive troubleshooting on the electronic controls system. For basic troubleshooting, see Service Manual.

**Handling Gear, Electronic Controls**

John Deere 750C Series I & II (E45) and 850C Series I & II (E46)

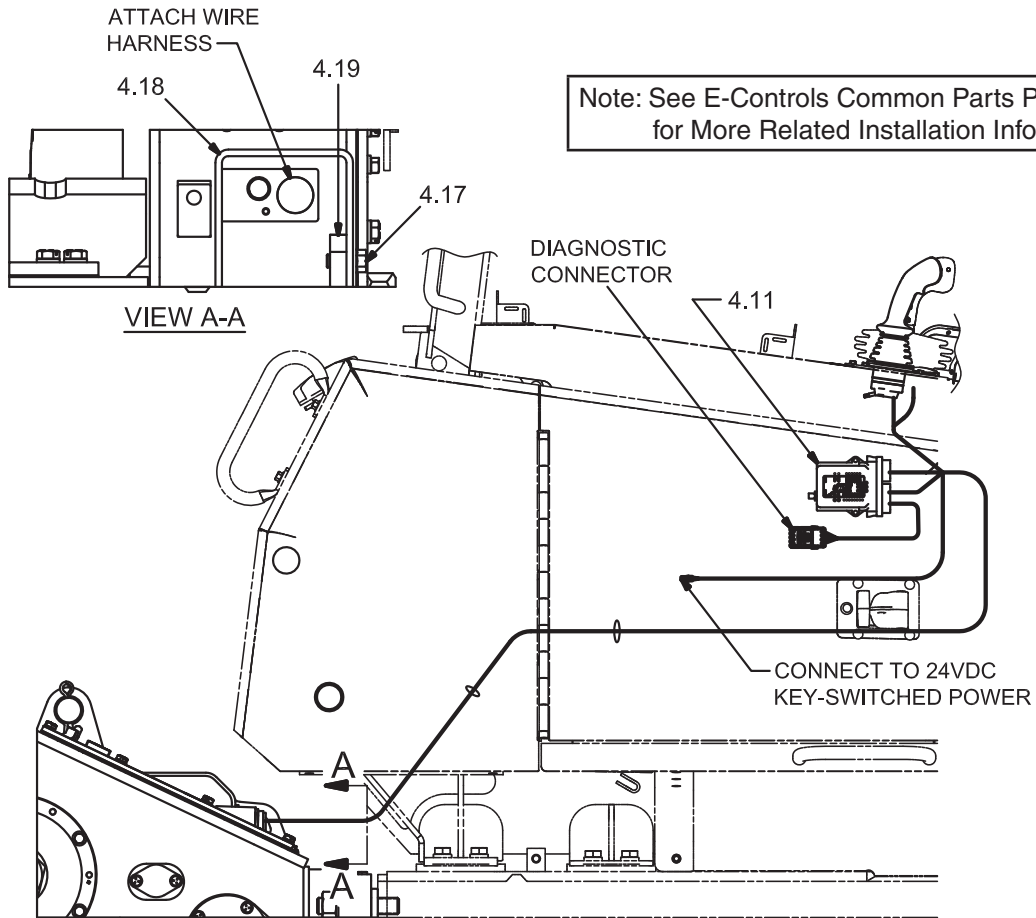
First Used on S/N AW6G-1974

Page 2 of 2

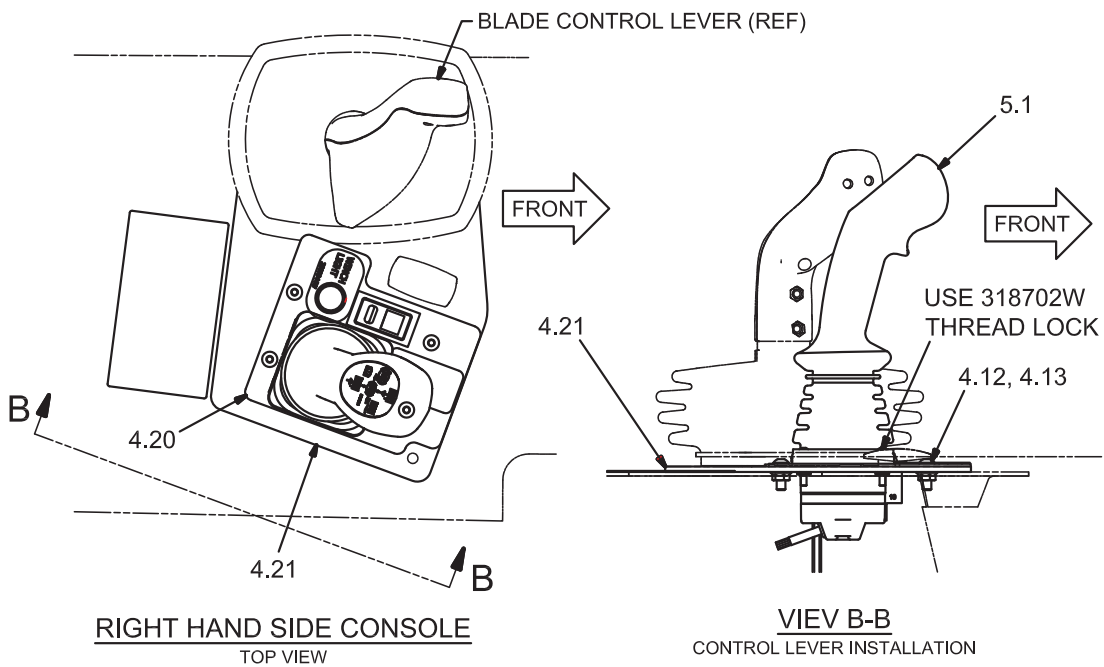
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
112	*b	- - - -	1	151	2307919W	Guard, Cable	1
113		18720W	2				
114		264150W	2				
120		2307872W	1				
130		2314999	1				
150	*a	398817W	2				
					*a	Use 318702W Thread Lock	
					*b	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	

# Handling Gear, Electronic Controls

John Deere 850K (E460)  
 First Used on S/N AW6G-1974  
 Page 1 of 2



**HARNESS INSTALLATION**  
 RIGHT HAND SIDE VIEW



**RIGHT HAND SIDE CONSOLE**  
 TOP VIEW

**VIEW B-B**  
 CONTROL LEVER INSTALLATION



**Handling Gear, Electronic Controls**

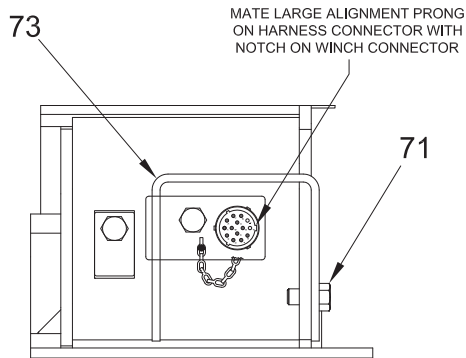
John Deere 850K (E460)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
4.11	*a	----	1	5.1	2314999	Kit, E-Controls Lever Replacement (3-179)	1
4.12	18720W	Capscrew	4				
4.13	264150W	Nut	4				
4.17	398817W	Screw, Flanged	2	*a	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>		
4.18	2307919W	Guard, Cable	1				
4.19	2307920W	Bracket, Cable Guard	1				
4.20	2313371	Plate, Control Lever Mounting	1				
4.21	2313387	Plate, Control Console	1				

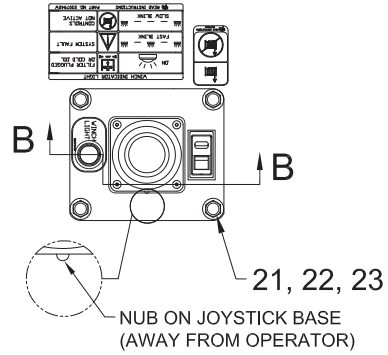
# Handling Gear, Electronic Controls

Komatsu D61EX-12/15 (K47)  
 First Used on S/N AW6G-1974  
 Page 1 of 2

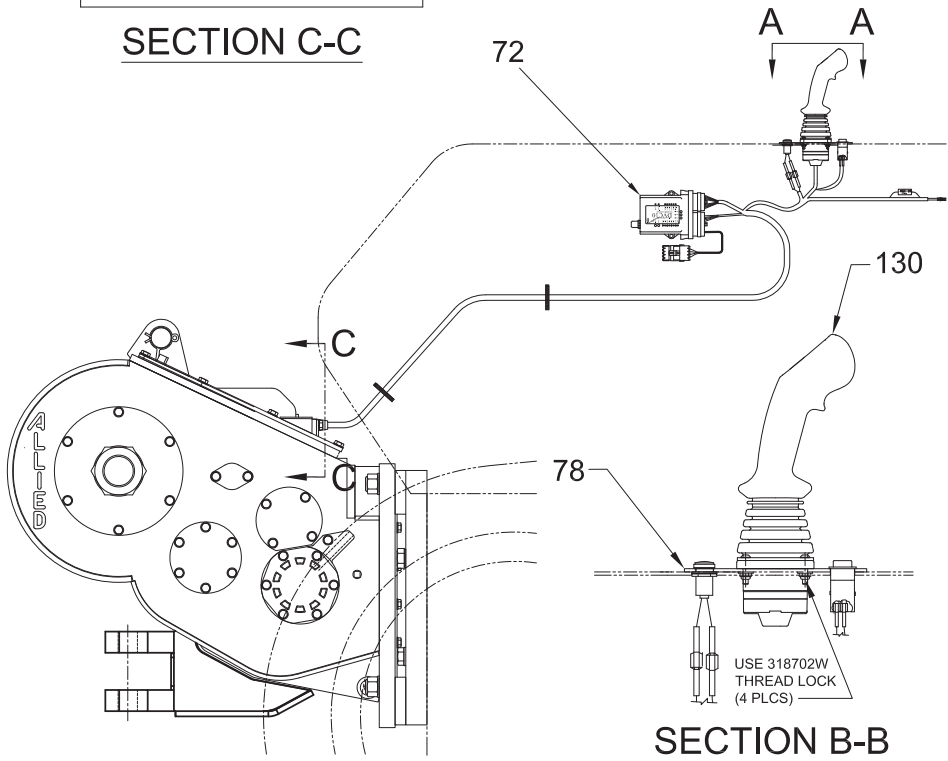
SUGGESTED CONTROL ORIENTATION  
 OPERATOR SEATING THIS AREA  
 FRONT OF TRACTOR →



**SECTION C-C**



**VIEW A-A**



**SECTION B-B**

Note: See E-Controls Common Parts Pages  
 for More Related Installation Information.

**Handling Gear, Electronic Controls**

Komatsu D61EX-12/15 (K47)  
 First Used on S/N AW6G-1974  
 Page 2 of 2

A - Freespool  
 B - Non-Freespool

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
21	2304350W	Assembly, U-Bolt	1	130	2314999	Kit, E-Controls Lever Replacement (3-179)	1
22	15158W	Washer	2				
23	15135W	Washer	4				
71	*a 398817W	Screw, Flanged	2	*a		Use 318702W Thread Lock	
72	*b - - - -	Module, Electronic Control	1	*b		Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>	
73	2307919W	Guard, Cable	1				
78	2310489	Plate, Mounting	1				

# Handling Gear, Electronic Controls

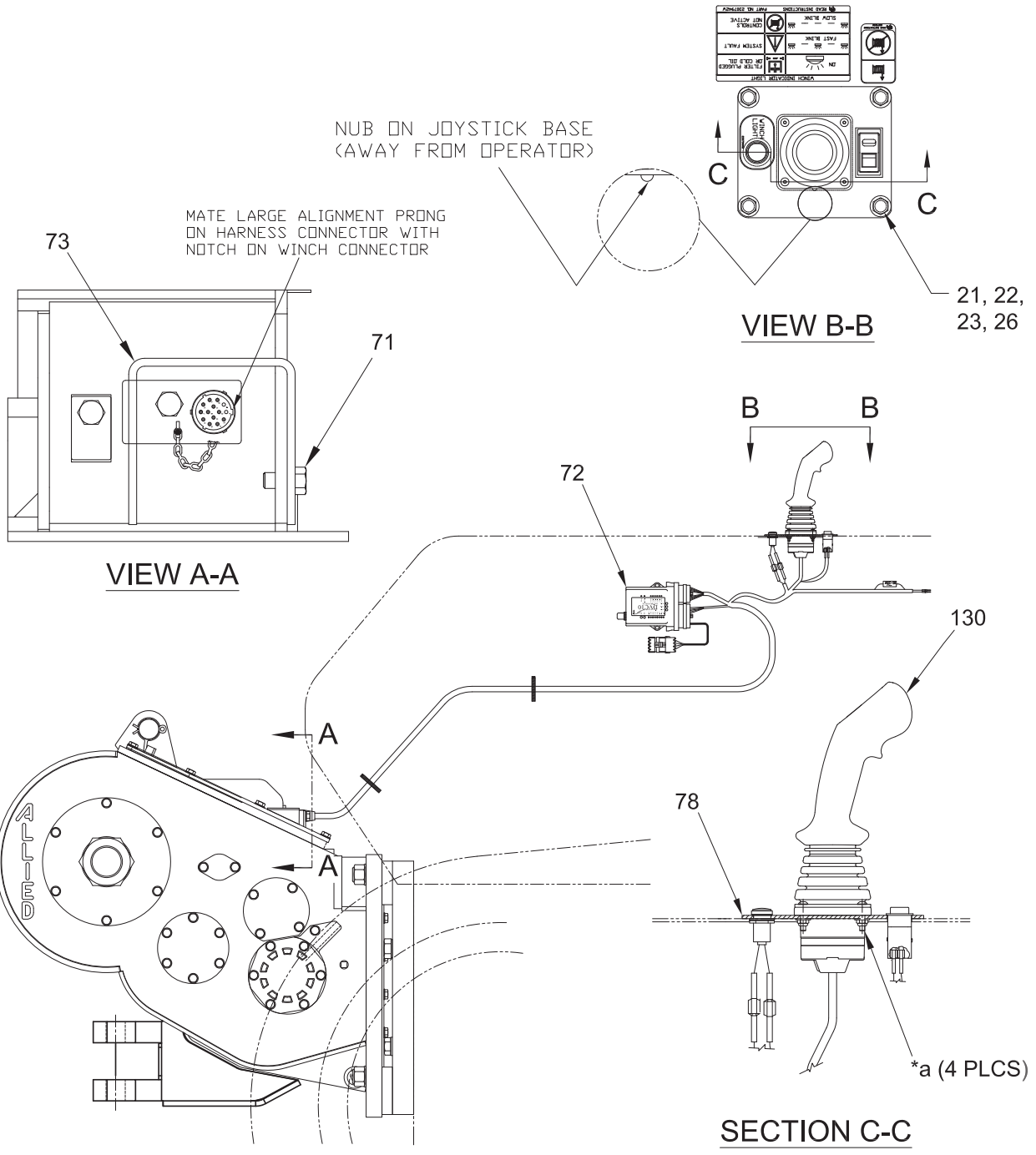
Komatsu D65EX-12/15, D65EX-15E0, D65PX-12/15, D65WX-15E0 (K46)

First Used on S/N AW6G-1974

Page 1 of 2

Note: See E-Controls Common Parts Pages for More Related Installation Information.

SUGGESTED CONTROL ORIENTATION  
OPERATOR SEATING THIS AREA  
FRONT OF TRACTOR →



**Handling Gear, Electronic Controls**

Komatsu D65EX-12/15, D65EX-15E0, D65PX-12/15, D65WX-15E0 (K46)

First Used on S/N AW6G-1974

Page 2 of 2

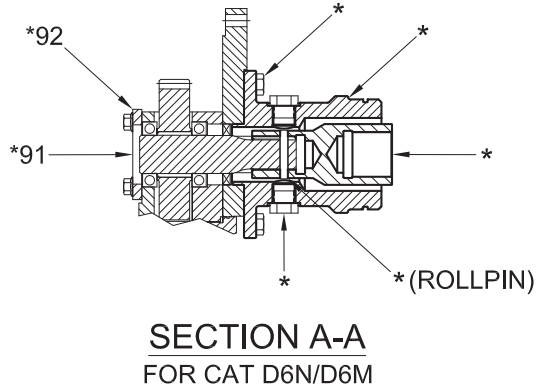
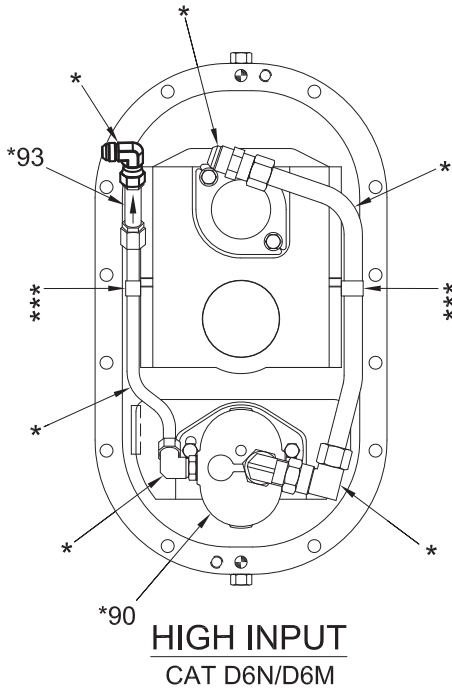
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
21	16805W	Capscrew	4	130	2314999	Kit, E-Controls Lever Replacement (3-179)	1
22	15134W	Washer	4				
23	221707W	Nut	4				
26	2301055W	Trim, Protective	1.5 ft	*a	Use 318702W Thread Lock		
71	*a 398817W	Screw, Flanged	2	*b	Refer to 2305227W, Winch E-Controls Control Program and Programmed Control Module Selection Charts, on Allied Systems' website at <a href="http://www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf">www.alliedsystems.com/pdf/Winch/chart/2305227W.pdf</a>		
72	*b - - - -	Module, Electronic Controls	1				
73	2307919W	Guard, Cable	1				
78	2310489	Plate, Mounting	1				

# Conversion Kit, Electronic Controls

Input Conversion

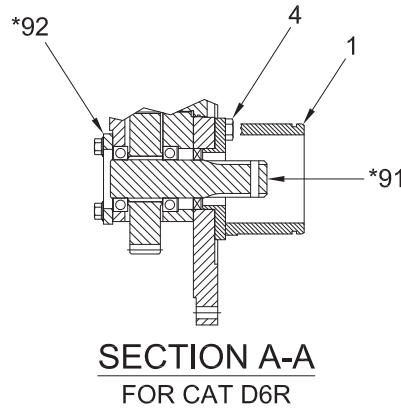
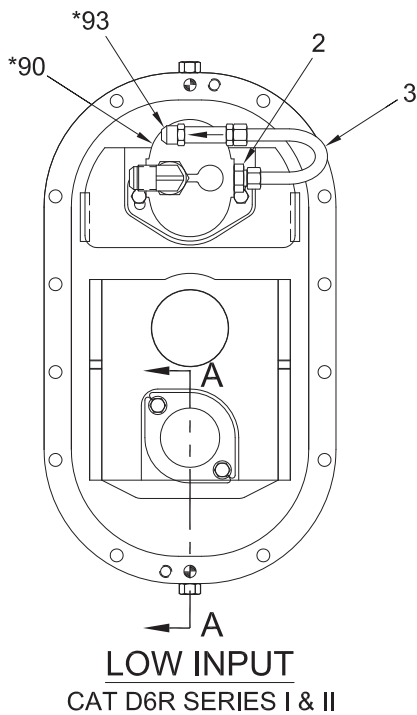
Caterpillar D6N (C47, C78) / D6M (C29) to  
Caterpillar D6R Series I (C48, C50), D6R Series II and D6T (C71)

Page 1 of 4



**D6N/M TO D6R INTERNAL CONVERSION**

1. REMOVE AND DISCARD ITEMS MARKED "\*\*".
2. REUSE ITEMS: \*90-\*93
3. INSTALL ITEMS: 1-4



**INPUT CONVERSION**  
CAT D6N (C47, C78)/D6M (C29) to  
CAT D6R (C48, C50, C71)

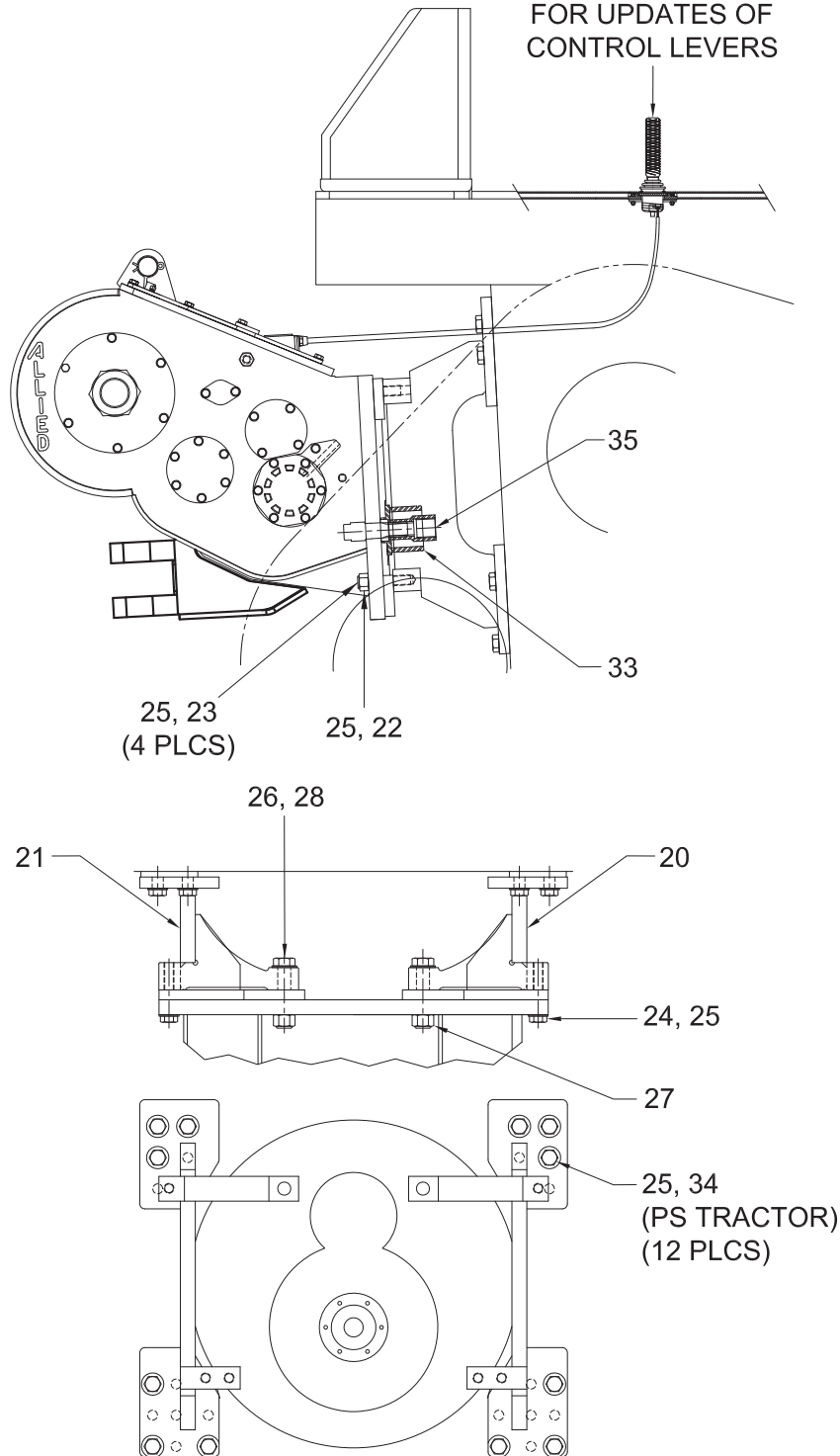
# Conversion Kit, Electronic Controls

Winch Installation

Caterpillar D6N (C47, C78) / D6M (C29) to  
Caterpillar D6R Series I (C48, C50), D6R Series II and D6T (C71)

Page 2 of 4

SEE E-CONTROLS  
HANDLING GEAR PAGES  
FOR UPDATES OF  
CONTROL LEVERS



## WINCH INSTALLATION

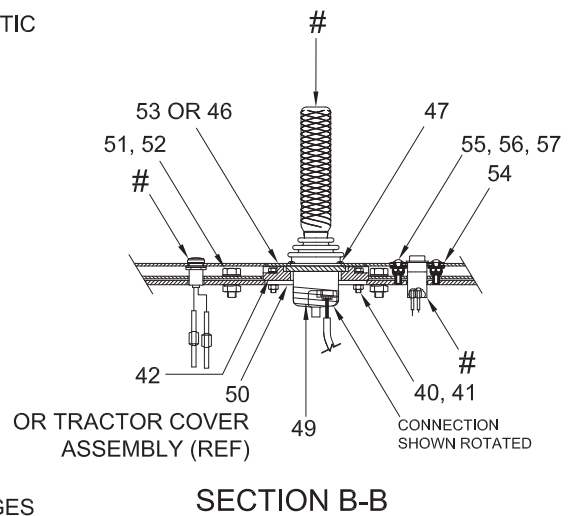
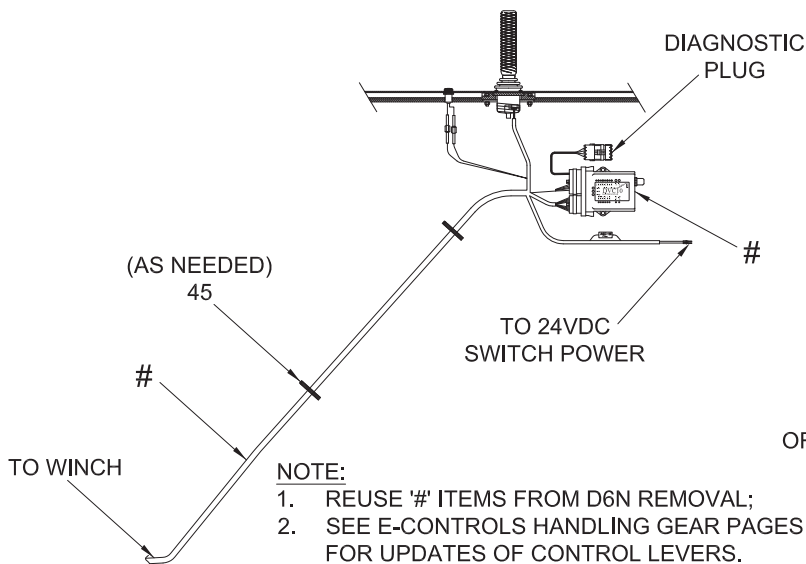
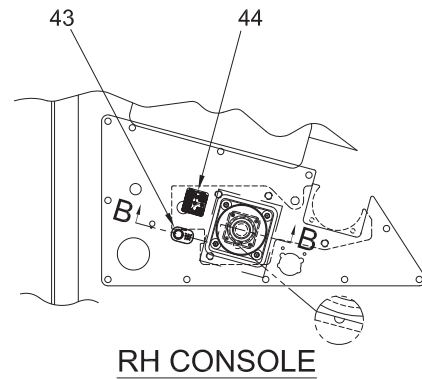
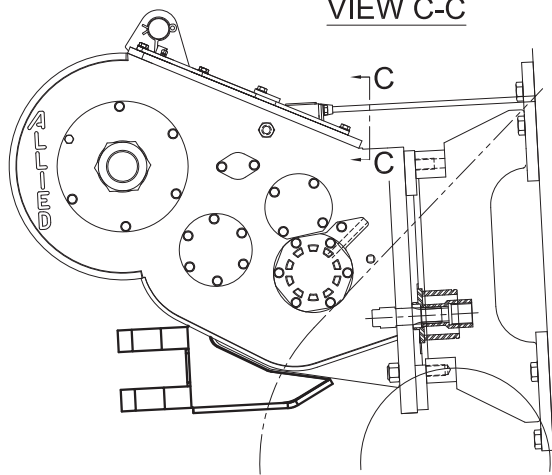
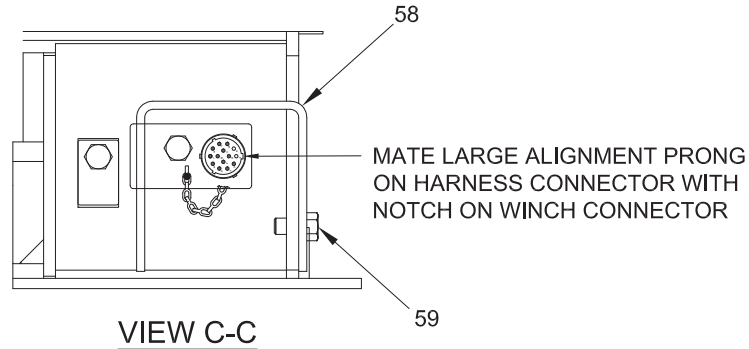
CAT D6R I (C48, C50) & D6R II (C71)

# Conversion Kit, Electronic Controls

E-Controls Installation

Caterpillar D6N (C47, C78) / D6M (C29) to  
Caterpillar D6R Series I (C48, C50), D6R Series II and D6T (C71)

Page 3 of 4



## ECONTROLS INSTALLATION D6R I (C48, C50) & D6R II (C71)



**Conversion Kit, Electronic Controls**

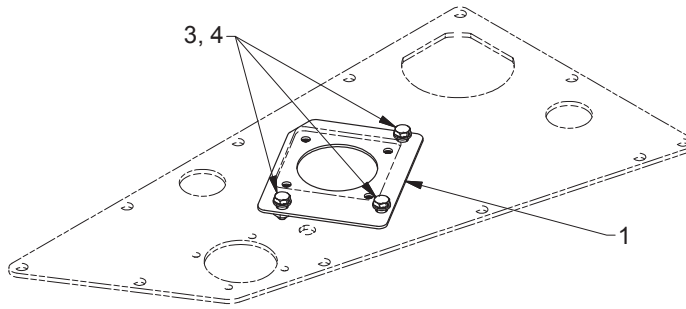
Caterpillar D6N (C47, C78) / D6M (C29) to  
 Caterpillar D6R Series I (C48, C50), D6R Series II and D6T (C71)  
 Page 4 of 4

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2300648W	Pilot, PTO	1	45	137852W	Clamp, Strap	6
2	16909W	Fitting	1	46	2305412W	Plate, Control Lever Cover	1
3	2300759W	Assembly, Tube	1	47	*b 18695W	Screw	4
4	178402W	Capscrew	4	49	2304796W	Tape, Self Fusing	1
20	2300723W	Bracket, Mounting - RH	1	50	2313753	Mounting, Control Lever	1
21	2300724W	Bracket, Mounting - LH	1	51	293628W	Capscrew	3
22	*a 221721W	Nut	4	52	296420W	Washer	3
23	*a 2301144W	Stud	4	53	2313761	Plate, Control Lever Mounting	1
24	*a Y17C-1664	Capscrew	2	54	2307643W	Plate, Switch Mounting	1
25	221780W	Washer	18	55	15127W	Washer	2
26	*a 2301775W	Capscrew	2	56	15113W	Nut	2
27	*a 221724W	Nut	2	57	Y25G-0416	Capscrew	2
28	15128W	Washer	23	58	2307919W	Guard, Cable	1
32	129563W	Clamp, Strap (Not Shown)	2	59	398817W	Screw	2
33	15887W	O-Ring	1	*90	2302963W	Pump	1
34	*a Y17C-1636	Capscrew	12	*91	2300646W	Shaft, Input	1
35	2300709W	Coupling, PTO - PS	1	*92	2300645W	Retainer, Bearing	1
40	292680W	Washer	4	*93	2300758W	Valve, Check	1
41	287816W	Capscrew	4				
42	2305411W	Plate, Mounting	1	*a	Use 245231 Locktite		
43	2307944W	Decal, Winch Light	1	*b	Use 318702W Thread Lock		
44	2305258W	Decal, Control Lever	1				

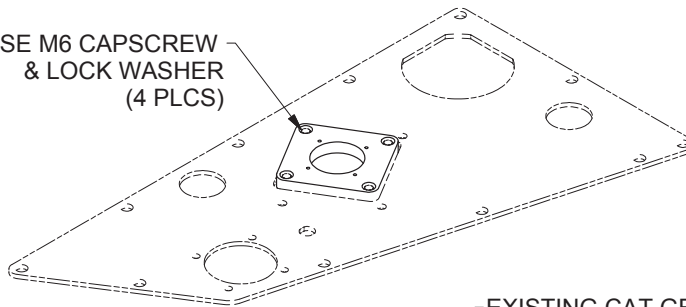
# Control Lever Conversion Kit, Electronic Controls

Caterpillar D6T (Tier III to Tier 4i) (C71)

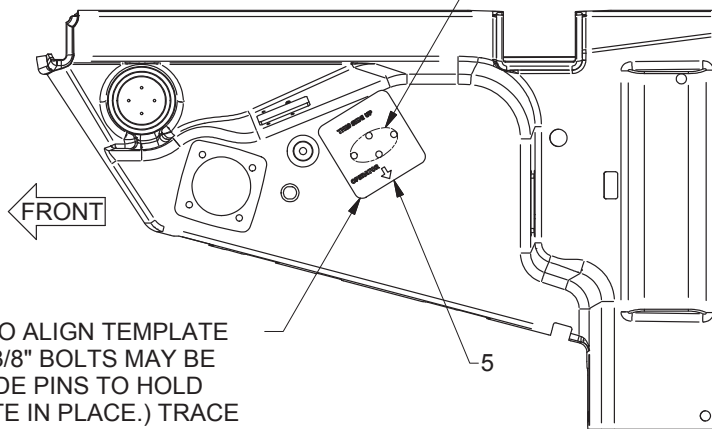
Page 1 of 2



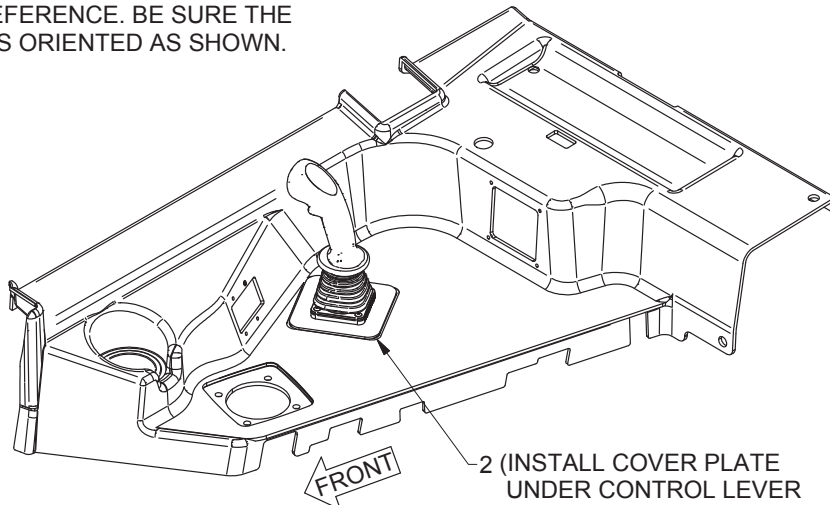
RE-USE M6 CAPSCREW  
& LOCK WASHER  
(4 PLCS)



EXISTING CAT GEOMETRY  
SHOWN AS REFERENCE



USE HOLES TO ALIGN TEMPLATE  
AS SHOWN. (3/8" BOLTS MAY BE  
USED AS GUIDE PINS TO HOLD  
THE TEMPLATE IN PLACE.) TRACE  
THE PERIMETER OF THE TEMPLATE  
FOR A REFERENCE. BE SURE THE  
ARROW IS ORIENTED AS SHOWN.



2 (INSTALL COVER PLATE  
UNDER CONTROL LEVER  
AFTER PLASTIC CONSOLE  
HAS BEEN RE-INSTALLED.)

**Control Lever Conversion Kit, Electronic Controls**

Caterpillar D6T (Tier III to Tier 4i) (C71)

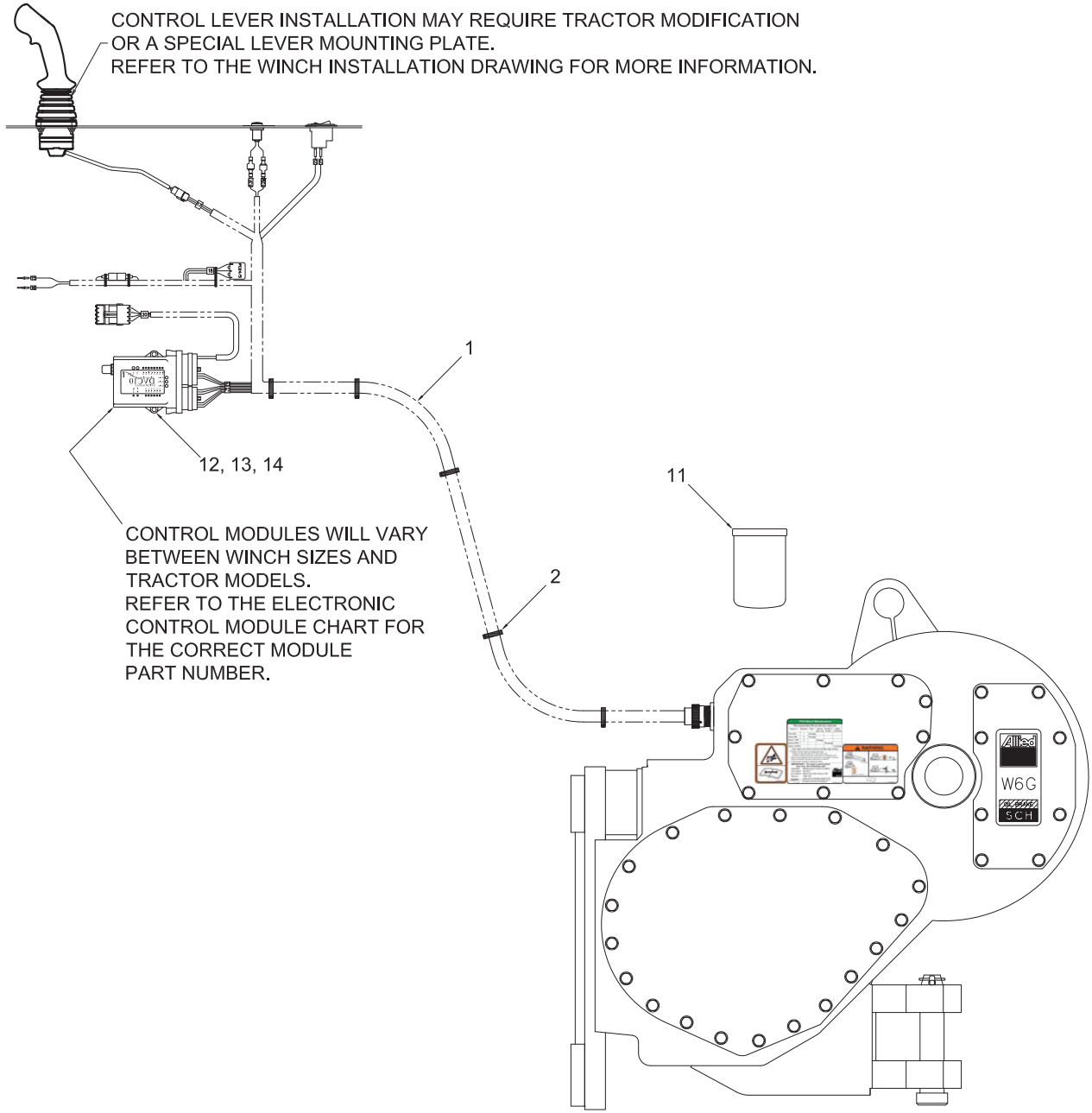
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2313764</b>	<b>Kit, D6T Tire 4i Control Lever Parts1</b>					
1	2313753	. Mounting, Control Lever	1	4	293628W	. Capscrew	3
2	2313761	. Plate, Control Lever Cover	1	5	2315359	. Template, Console	1
3	296420W	. Washer	3				

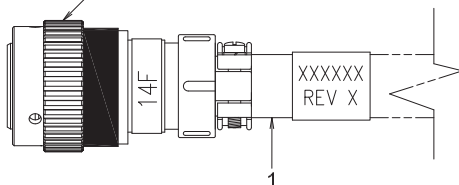
### Common Parts, Electronic Controls

First Used on S/N AW6G-1764

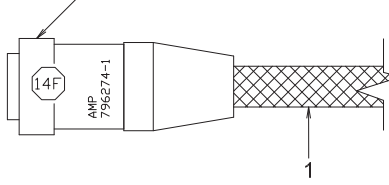
Page 1 of 2



METAL PLUG WITH CABLE CLAMP (DEUTSCH) OF EXTERNAL WIRING HARNESS, P/N 2311444



PLASTIC PLUG WITH SOCKET TERMINAL & CABLE CLAMP (AMP) OF EXTERNAL WIRING HARNESS, P/N 2310079



#### WIRING HARNESS PLUG IDENTIFICATION

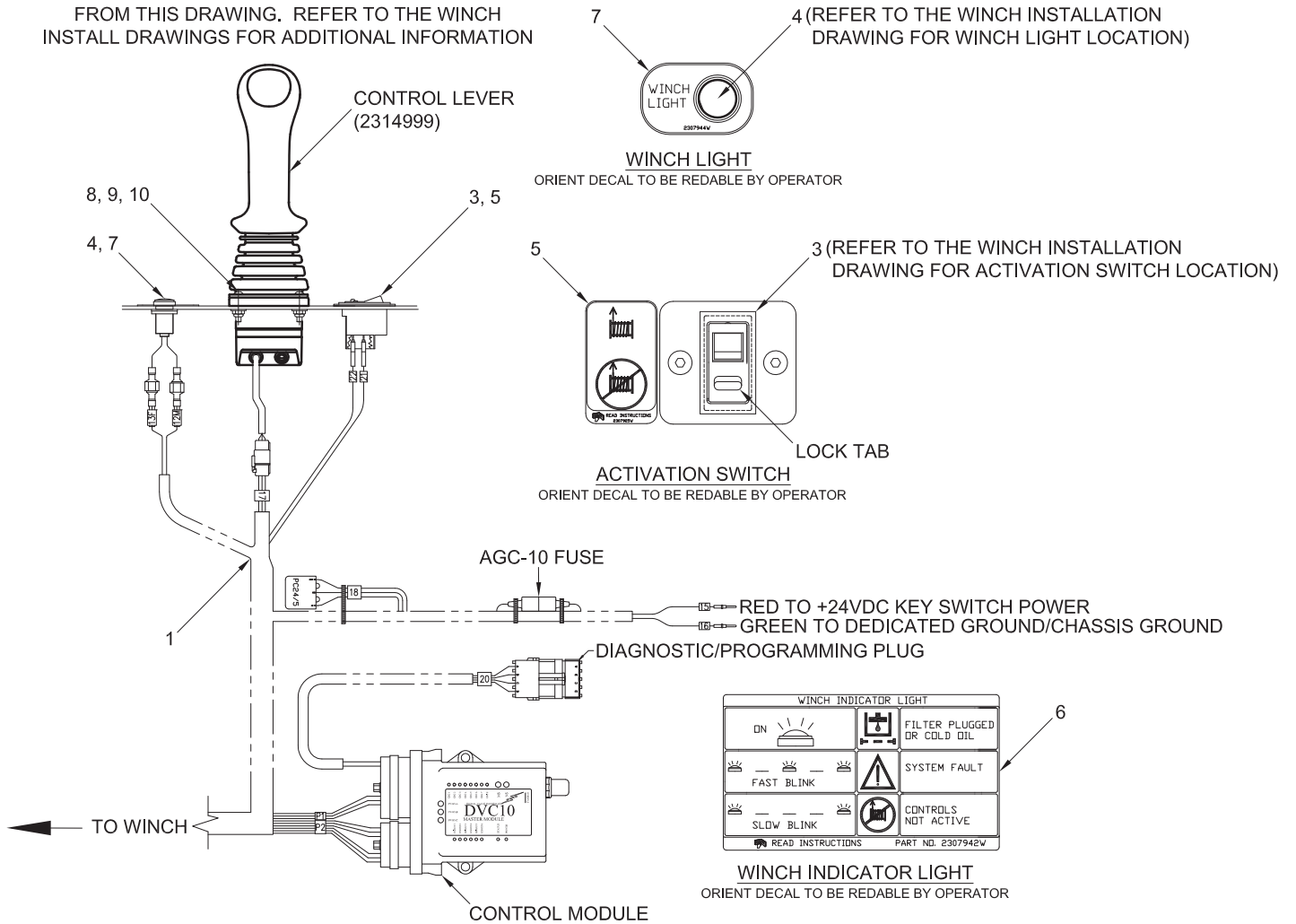
(ORDER DEFERENT HARNESS OR KIT BASED ON THE DEFFERENT PLUG)

# Common Parts, Electronic Controls

First Used on S/N AW6G-1764

Page 2 of 2

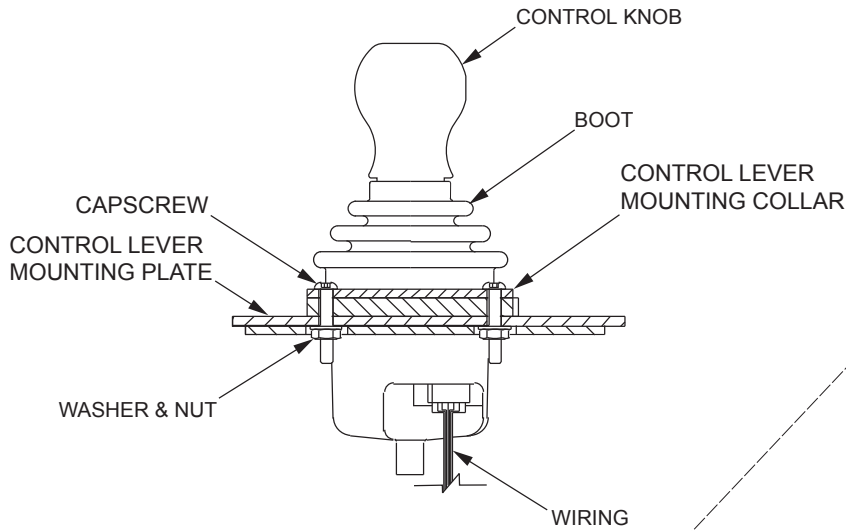
SOME LEVER INSTALLATIONS WILL DIFFER FROM THIS DRAWING. REFER TO THE WINCH INSTALL DRAWINGS FOR ADDITIONAL INFORMATION



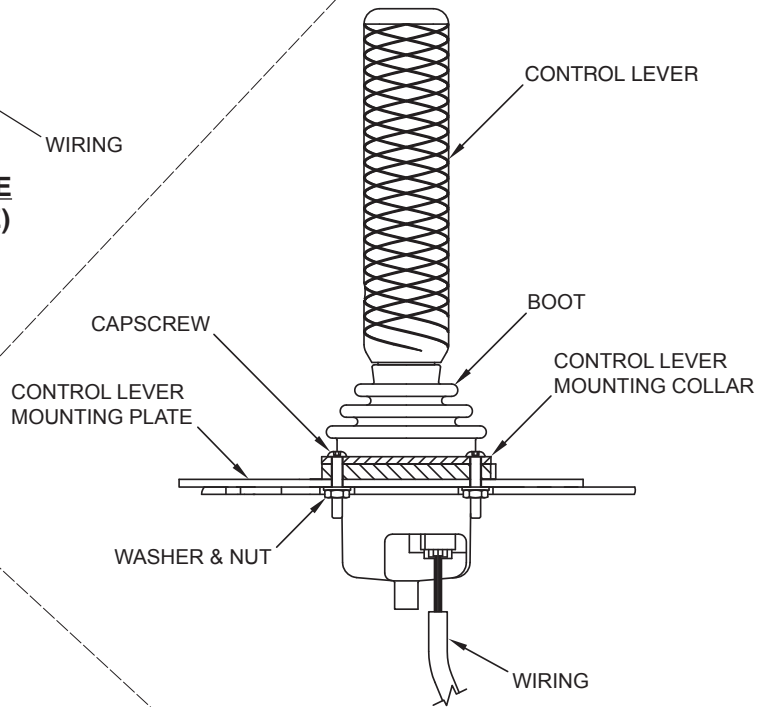
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty	
1	*a	2311444	Harness, Wiring - EXT.	1	8	Y25G-(1024)16	Capscrew	4
	*b	2312313	Kit, External Harness Replacement	1	9	Y35E-#10	Washer	4
		2310079	. Harness, External Wiring	1	10	224191	Nut	4
		2312150	. Adapter	1	11	2304112W	Element, Filter	1
2		2304796W	. Tape, Self Fusing	1	12	221763W	Washer	4
		137852W	Tie, Cable - Black	10	13	15113W	Nut	2
3	2307849W	Assembly, Rocker Switch	1	14	R13801782	Capscrew	2	
4	2303912W	Assembly, Bypass LED	1		*a		Metal Deutsch Connector sealing Plug	
5	2307925W	Decal, Switch Activation	1	*b		Plastic AMP Plug		
6	2307942W	Decal, Winch Light Indicator	1					
7	2307944W	Decal, Winch Light	1					

# Control Lever Replacement Kit, Electronic Controls

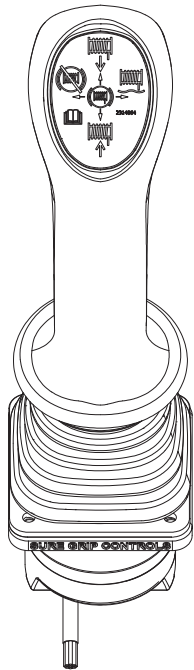
Page 1 of 2



**OLDER TYPE  
(OBSOLETE)**



**OLD TYPE  
(OBSOLETE)**

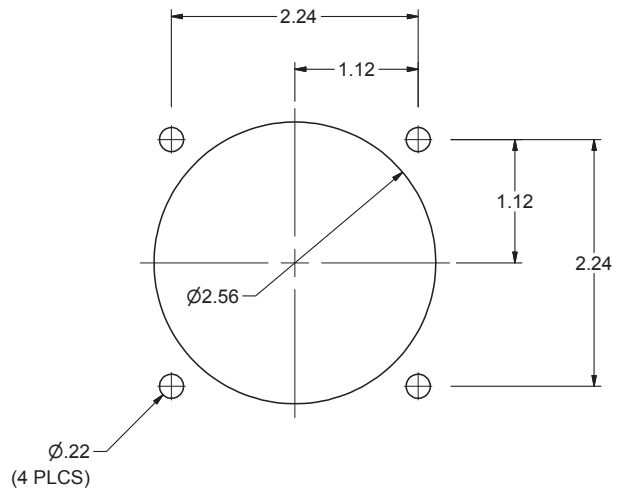
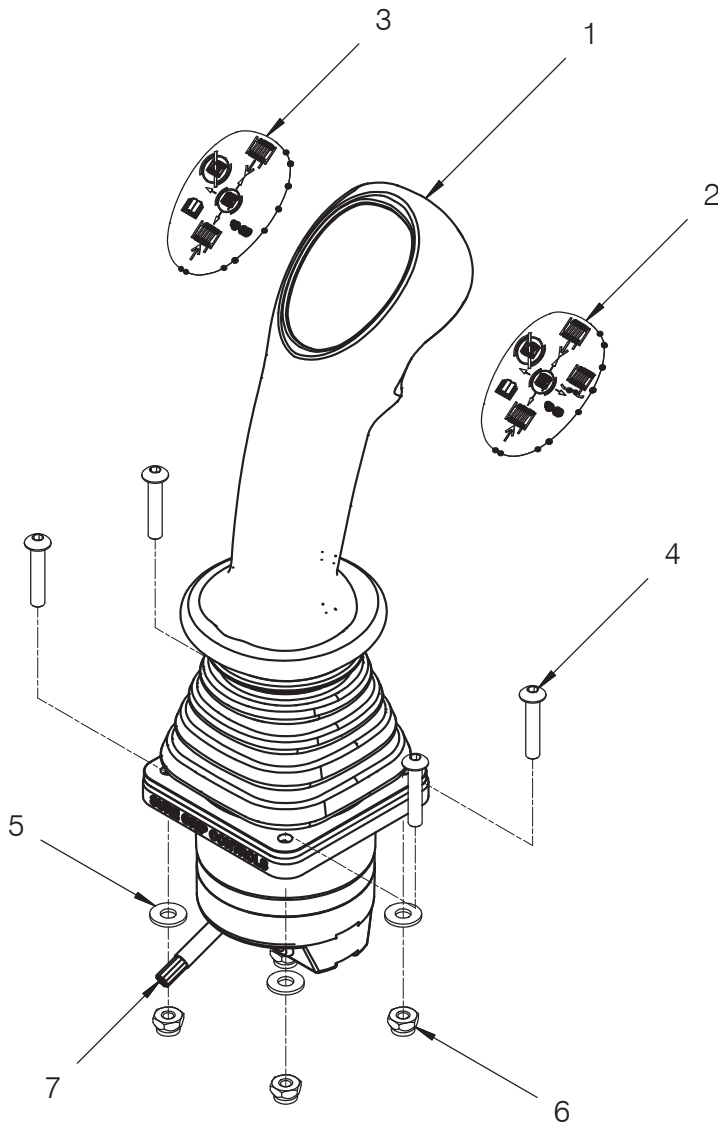


**NEW TYPE  
(CURRENT)**

← **USE THIS CONTROL LEVER FOR ALL  
ELECTRONIC CONTROLS APPLICATIONS.  
(SEE NEXT PAGE FOR DETAILS.)**

**Control Lever Replacement Kit, Electronic Controls**

Page 2 of 2



TYPICAL DASHBOARD CUTOUT

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314999</b>	<b>Kit, E-Control Lever Replacement</b>	<b>1</b>				
1	2314854	. Lever, Control	1	5	Y35E-#10	. Washer	4
2	2314864	. Decal, Control Lever - W/ FS	1	6	224191	. Nut	4
3	2314863	. Decal, Control Lever - W/O FS	1	7	2310076	. Adapter, Electrical	1
4	Y25G-(1024)16	. Capscrew	4				

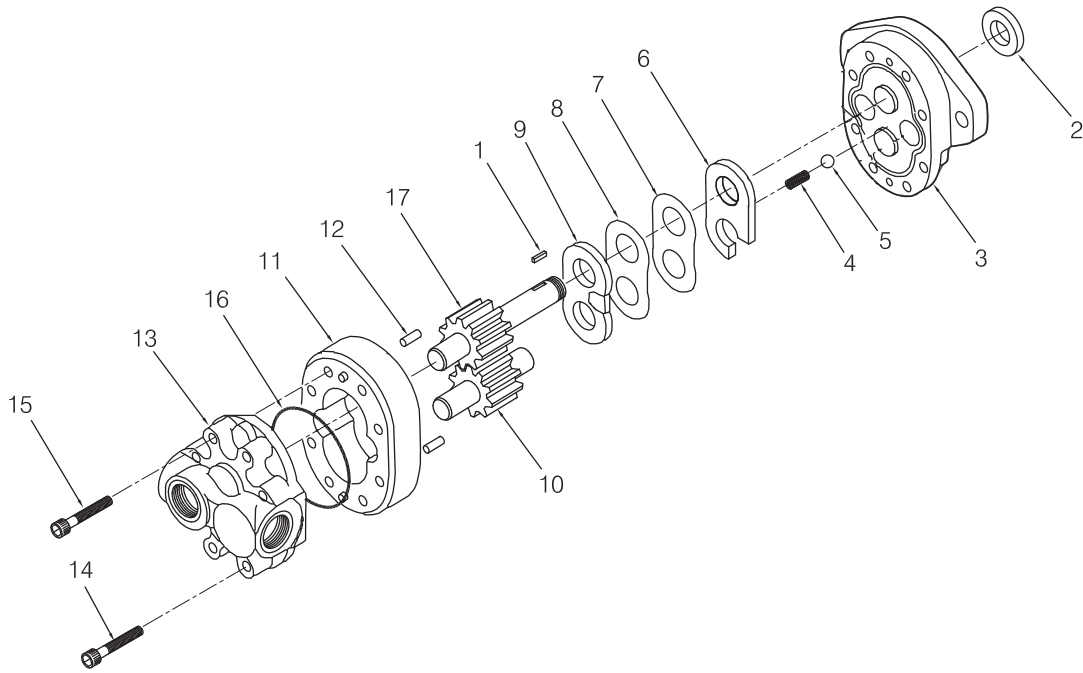
# 3-180

## Hydraulic Pump

Last Used on S/N AW6G-1016

(See Chart for Applications)

Tractor Model	Tractor Code
Caterpillar D6D, D6E, D6F, D6H, D6R, D6T	C43, C480, C481, C50, C71
Dresser/Dressta TD15E, TD15H, TD15M	H44, H45, H46, 47
John Deere 750, 750B, 750C; 850, 850B, 850C	E41, E42, E43, E44, E45, E46



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>314833W</b>	<b>Assembly, Gear Pump</b>	<b>1</b>				
	316823W	. Key	1	11	NSS	. Body	1
1				12	NSS	. Pin, Dowel	2
2	*a	NSS . Seal	1	13	NSS	. Plate, Back	1
3		NSS . Plate, Front	1	14	NSS	. Capscrew	4
4	*a	NSS . Spring	2	15	NSS	. Capscrew	4
5	*a	NSS . Ball	2	16	*a	NSS . O-Ring	1
6	*a	NSS . Seal, Diaphragm	1	17	NSS	. Gear, Drive	1
7	*a	NSS . Gasket	1				
8	*a	NSS . Gasket, Backup	1		*a	Included in 171252W Repair Kit	
9	*a	NSS . Diaphragm	1				
10		NSS . Gear, Idler	1				



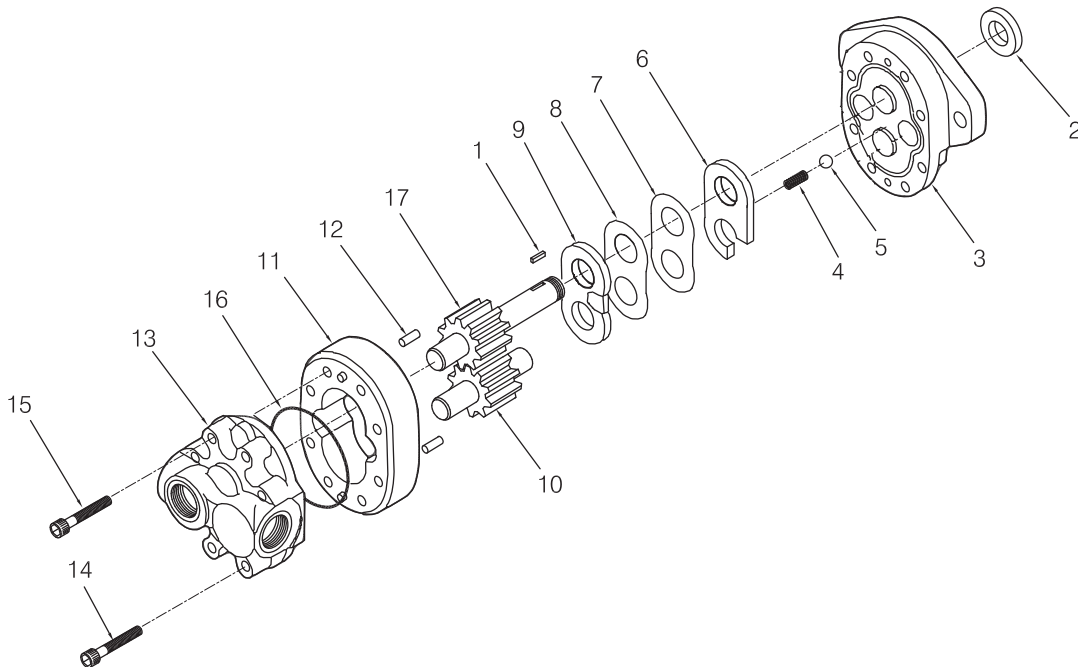
# 3-181

## Hydraulic Pump

Last Used on S/N AW6G-1016

(See Chart for Applications)

Tractor Model	Tractor Code
Fiat-Hitachi/New Holland FD/FH 14E, DX/FD175/195, DC180	A48, A49
Komatsu D65EX-12/15, D65EX-15EO, D65WX-15EO, D61EX12/15	K46, K47



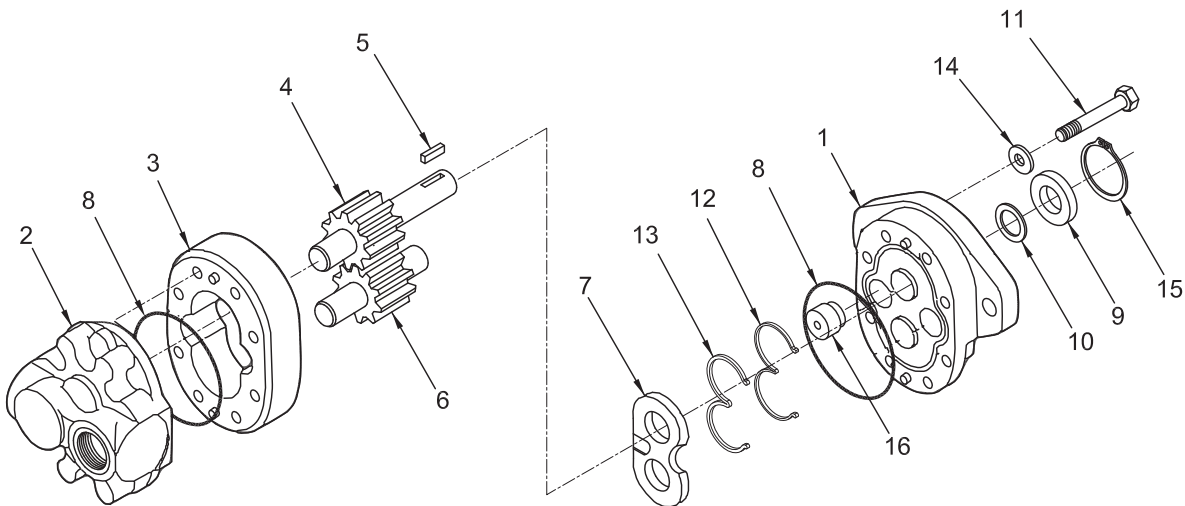
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2301426W</b>	<b>Assembly, Gear Pump</b>	<b>1</b>				
1	316823W	. Key	1	11	-----	. Body	1
2	*a NSS	. Seal	1	12	NSS	. Pin, Dowel	2
3	NSS	. Plate, Front	1	13	-----	. Plate, Back	1
4	*a NSS	. Spring	2	14	NSS	. Capscrew	4
5	*a NSS	. Ball	2	15	NSS	. Capscrew	4
6	*a NSS	. Seal, Diaphragm	1	16	*a NSS	. O-Ring	1
7	*a NSS	. Gasket	1	17	NSS	. Gear, Drive	1
8	*a NSS	. Gasket, Backup	1				
9	*a NSS	. Diaphragm	1		*a	Included in 171252W Repair Kit	
10	NSS	. Gear, Idler	1				

## Hydraulic Pump

First Used on S/N AW6G-1017

(See Chart for Applications)

Tractor Model	Tractor Code
Case Quadtrac, 1850K	R39, R49
Caterpillar D6D, D6E, D6G, D6H, D6R Series I, II, III, D6T, D6N	C43, C480, C481, C50, C71, C78, C81
Dresser/Dressta TD15E, TD15H PS, TD15M	H44, H45, H46, H47
John Deere 750, 750B, 750C Series I & II; 850, 850B, 850C Series I & II	E41, E42, E43, E44, E45, E46



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2302963W</b>	<b>Assembly, Gear Pump</b>	<b>1</b>				
1	NSS	. Plate, Front	1	10	*a	NSS . Washer	1
2	NSS	. Plate, Back	1	11	NSS	. Capscrew	4
3	NSS	. Body	1	12	*a	NSS . Gasket	1
4	NSS	. Gear, Drive	1	13	*a	NSS . Seal	1
5	316823W	. Key	1	14	NSS	. Washer	4
6	NSS	. Gear, Idler	1	15	NSS	. Ring, Retaining	1
7	*a	NSS . Plate, Wear	1	16	NSS	. Plug	1
8	*a	NSS . O-Ring	1				
9	*a	NSS . Seal	1		*a	Included in 2302937W Repair Kit	

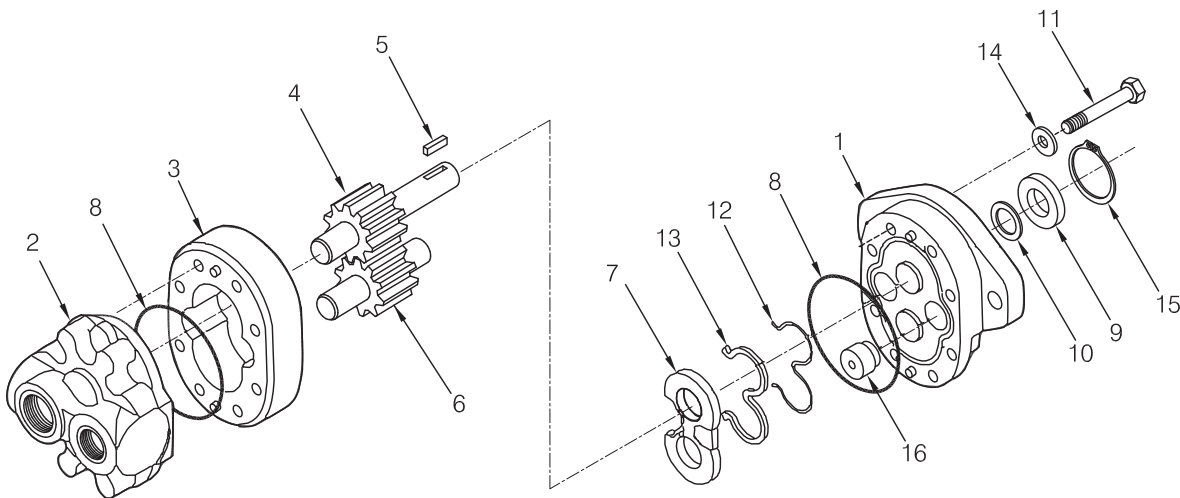
### 3-183

## Hydraulic Pump

First Used on S/N AW6G-1017

(See Chart for Applications)

Tractor Model	Tractor Code
Case 1850K	R49
Fiat-Hitachi/New Holland DC180, DX175/195, FD/FH 14E, FD175/195,	A48, A49
Komatsu D65EX-12/15, D61EX-12/15	K46, K47



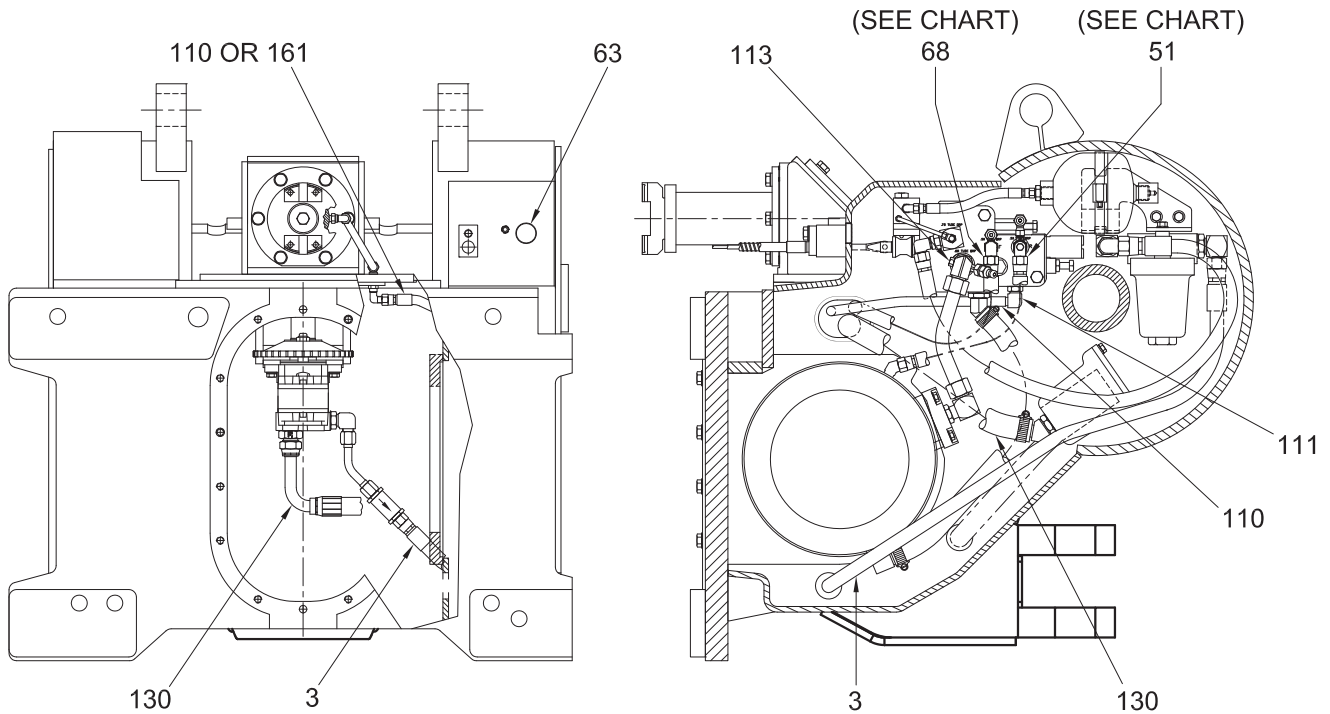
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2302989W</b>	<b>Assembly, Gear Pump</b>	<b>1</b>				
1	NSS	. Plate, Front	1	10	*a	NSS . Washer	1
2	NSS	. Plate, Back	1	11	NSS	. Capscrew	4
3	NSS	. Body	1	12	*a	NSS . Gasket	1
4	NSS	. Gear, Drive	1	13	*a	NSS . Seal	1
5	316823W	. Key	1	14	NSS	. Washer	4
6	NSS	. Gear, Idler	1	15	NSS	. Ring, Retaining	1
7	*a	NSS . Plate, Wear	1	16	NSS	. Plug	1
8	*a	NSS . O-Ring	1				
9	*a	NSS . Seal	1		*a	Included in 2302937W Repair Kit	

**Plumbing Modifications**

Case Quadtrac (R39)

Last Used on S/N AW6G-2018

* ROUTE HOSE TO VALVE PORT LABELED AS BELOW		
UNIT	ITEM #51	ITEM #68
R39	FWD	REV



FRONT VIEW  
PUMP HOSES  
POWER CONTROLS  
&  
ELECTRONIC CONTROLS

LEFT HAND SIDE VIEW  
(LUBE FOR DROP BOX)  
POWER CONTROLS ONLY

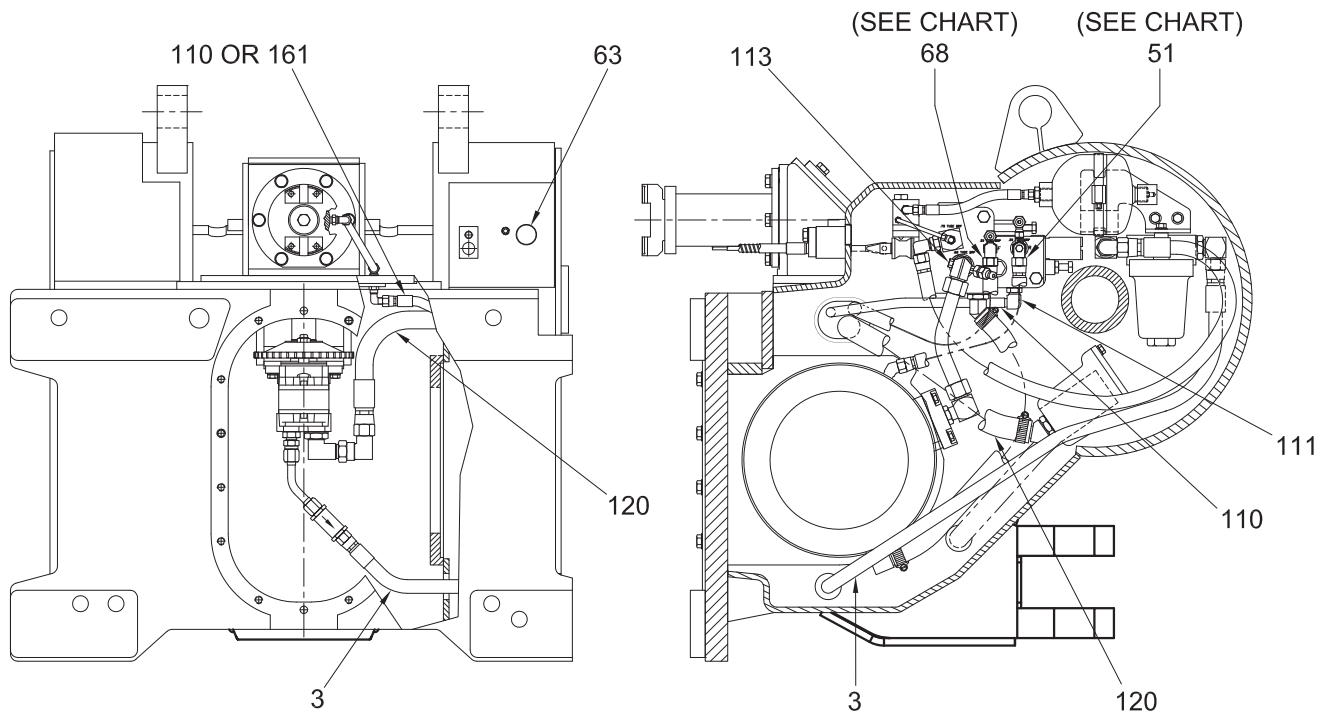
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	2300767W	Assembly, Hose	1	113	*a 209511	Fitting	1
51	133943W	Assembly, Hose	1	130	2305394W	Assembly, Hose	1
63	*a 2304823W	Plug	1	161	2305586W	Assembly, Hose	1
68	2300767W	Assembly, Hose	1				
110	109002W	Assembly, Hose	1				
111	*b 17689W	Fitting	1				
	*c 23396	Fitting	1				
					*a	Use 257291W Adhesive	
					*b	Last Used on S/N AW6G-1867	
					*c	First Used on S/N AW6G-1868	

**Plumbing Modifications**

Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)

Last Used on S/N AW6G-2018

* ROUTE HOSE TO VALVE PORT LABELED AS BELOW		
UNIT	ITEM #51	ITEM #68
K46/K47	REV	FWD



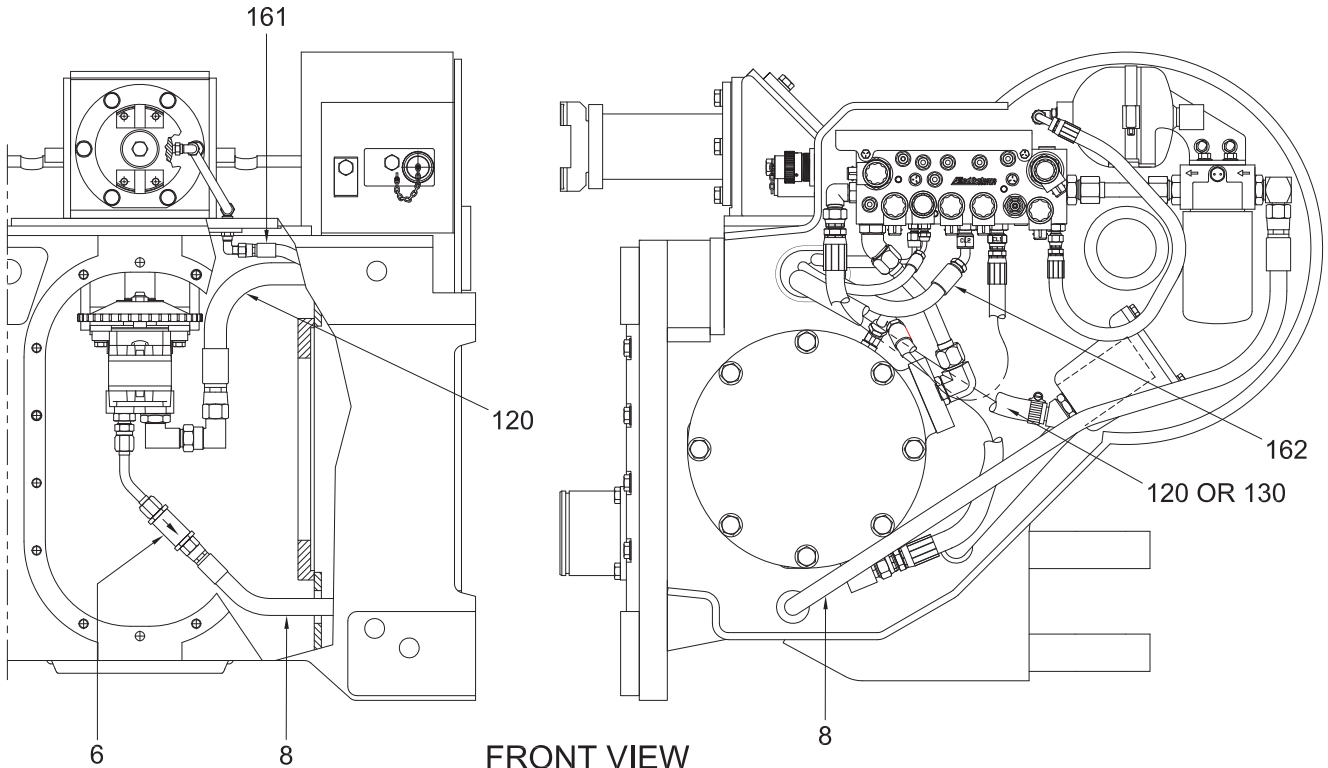
FRONT VIEW  
PUMP HOSES  
POWER CONTROLS  
&  
ELECTRONIC CONTROLS

LEFT HAND SIDE VIEW  
(LUBE FOR DROP BOX)  
POWER CONTROLS ONLY

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	2300767W	Assembly, Hose	1	113	*a 209511	Fitting	1
51	133943W	Assembly, Hose	1	120	2301646W	Assembly, Hose	1
63	*a 2304823W	Plug	1	161	2305586W	Assembly, Hose	1
68	2300767W	Assembly, Hose	1				
110	109002W	Assembly, Hose	1				
111	*b 17689W	Fitting	1				
	*c 23396	Fitting	1				
					*a	Use 257291W Adhesive	
					*b	Last Used on S/N AW6G-1867	
					*c	First Used on S/N AW6G-1868	

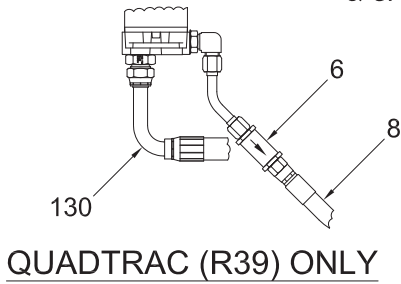
### Plumbing Modifications

Case Quadtrac (R39)  
Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)  
First Used on S/N AW6G-2019  
Page 1 of 2

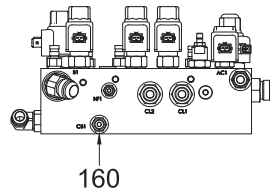


#### FRONT VIEW

PLUMBING MODIFICATIONS FOR  
KOM D61EX-12 (K47), D65EX-12 (K46),  
& CASE QUADTRAC (R39)



QUADTRAC (R39) ONLY



PTO LUBRICATION FROM  
PORT CB1

**Plumbing Modifications**

Case Quadtrac (R39)  
 Komatsu D65EX-12/15 (K46) , D61EX-12/15 (K47)  
 First Used on S/N AW6G-2019  
 Page 2 of 2

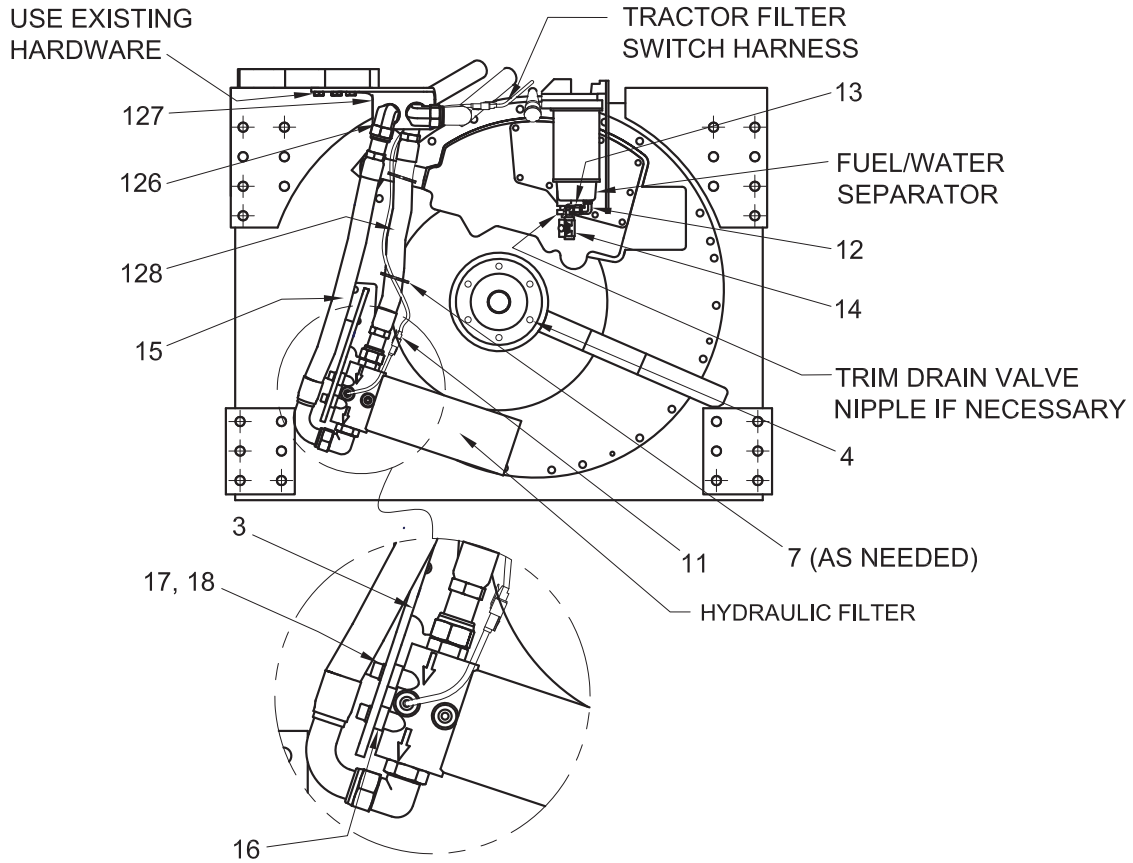
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
6	2300758W	Valve, Check	1	161	2305586W	Assembly, Hose	1
8	2300767W	Assembly, Hose	1	162	2310666	Assembly, Hose	1
120	*a 2301646W	Assembly, Hose	1				
130	*b 2305394W	Assembly, Hose	1				
160	17753W	Fitting	1				
				*a	KOM D65EX-12 (K46) & D61EX-12 (K47) Only		
				*b	Case Quadtrac (R39) Only		

### Tractor Filter Relocation

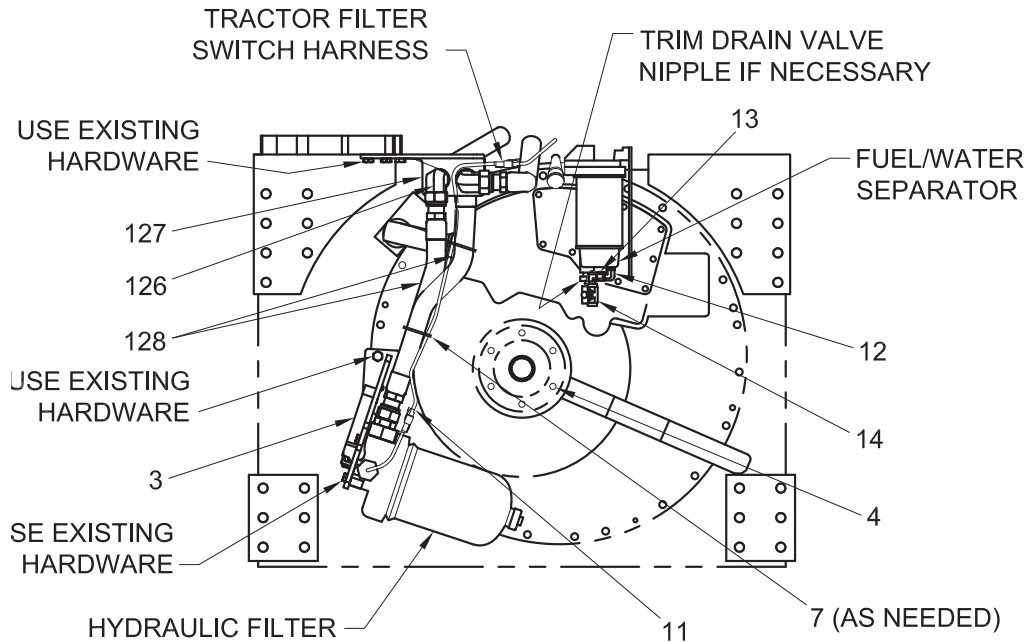
Winch Ready & Non Winch Ready

Caterpillar D6N (C47, C78)

Page 1 of 2



**NON WINCH READY D6N FILTER RELOCATION**  
SPIN-ON FILTER



**WINCH READY D6N FILTER RELOCATION**  
NON SPIN-ON FILTER



**Tractor Filter Relocation**

Winch Ready & Non Winch Ready

Caterpillar D6N (C47, C78)

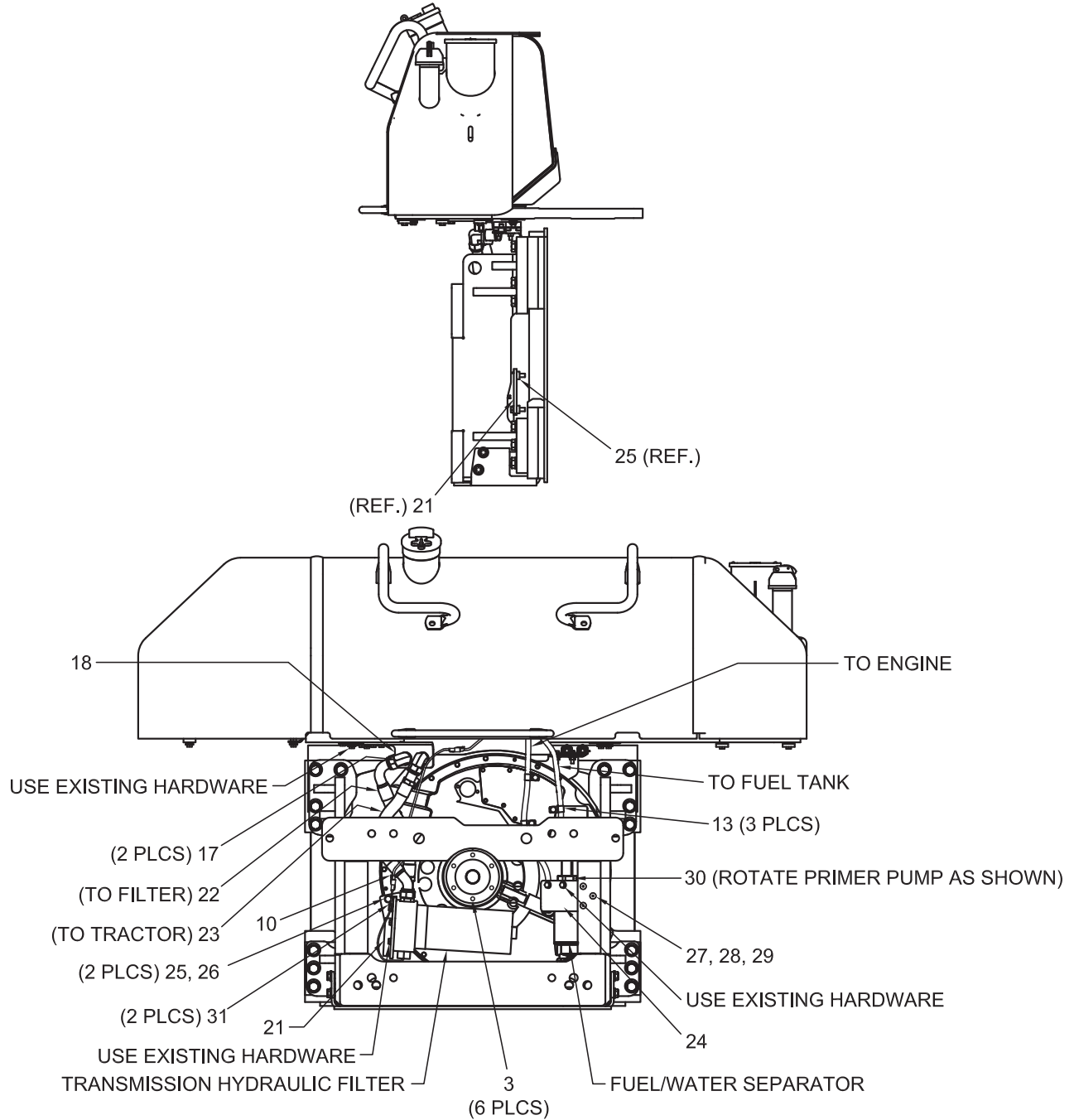
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	2306315W	Bracket, Filter	1	15	2306313W	Assembly, Hose	1
4	56995W	Plug	6	16	2306312W	Spacer	4
7	137852W	Clamp, Strap	6	17	296027W	Capscrew	4
11	2305617W	Harness, Filter	2	18	292682W	Washer	4
12	16557W	Fitting	1	126	2305620W	Fitting	2
13	2305616W	Fitting	1	127	2305588W	Bracket, Fitting	1
14	211556	Valve, Needle	1	128	2305613W	Assembly, Hose	2

# Tractor Filter Relocation

Caterpillar D6N (C81)

Page 1 of 2



**Tractor Filter Relocation**

Caterpillar D6N (C81)

Page 2 of 2

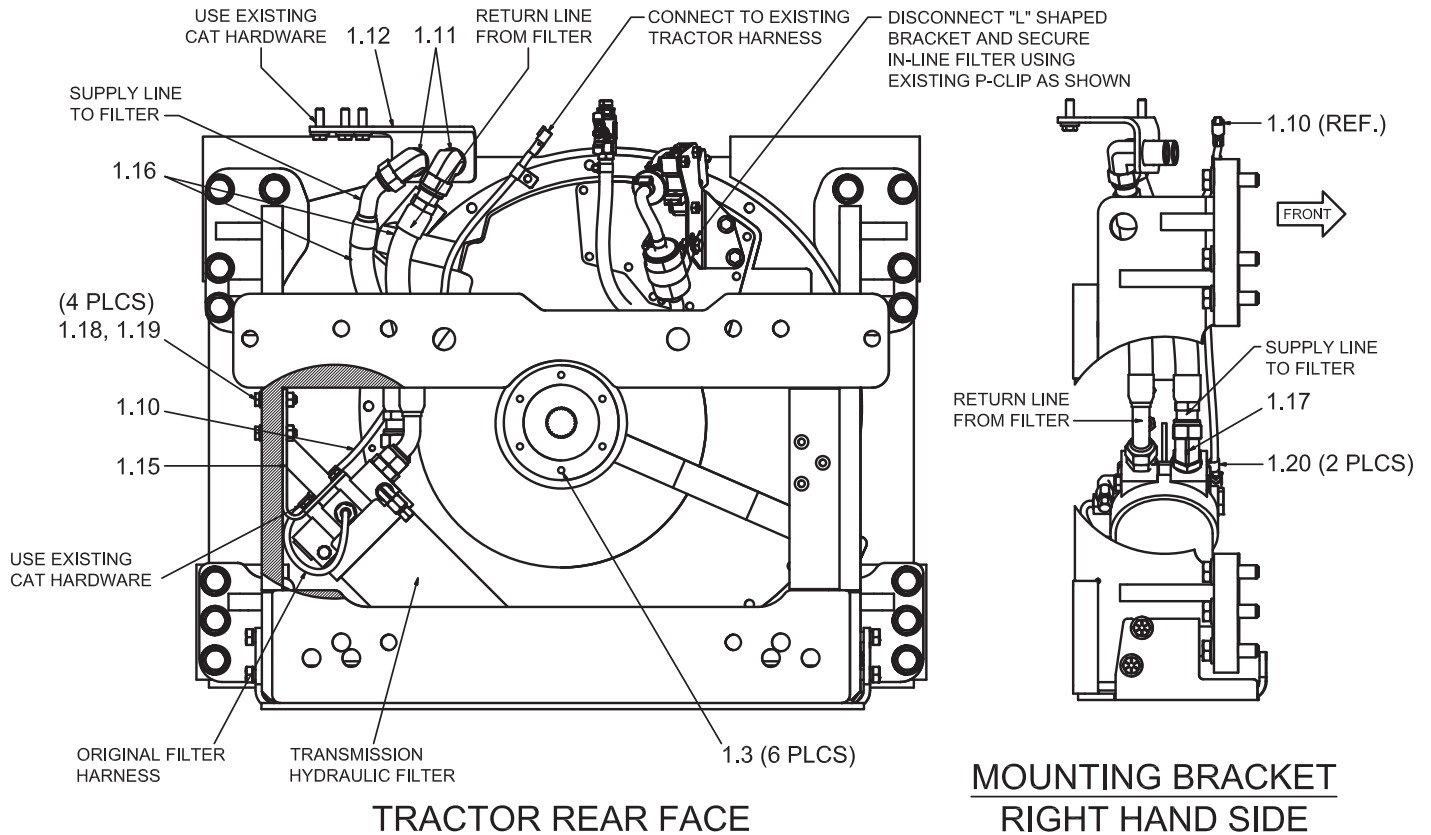
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	56995W	Plug	6	24	2307894W	Plate, Mounting	1
10	2305617W	Harness, Filter	1	25	2307893W	Spacer	2
13	2304503W	Retainer, Connector	3	26	293647W	Capscrew	2
17	2305620W	Fitting	2	27	Y09G-0616	Capscrew	3
18	2305588W	Bracket, Fitting	1	28	15134W	Washer	3
21	2307890W	Bracket, Filter	1	29	15056W	Nut	3
22	2307895W	Assembly, Hose	1	30	2307911W	Gasket, Fuel Primer	1
23	2307896W	Assembly, Hose	1	31	243057	Clamp	2

### Tractor Filter Relocation

Caterpillar D6N Tier 4i (C810)

S/N PREFIX: PBA & PER

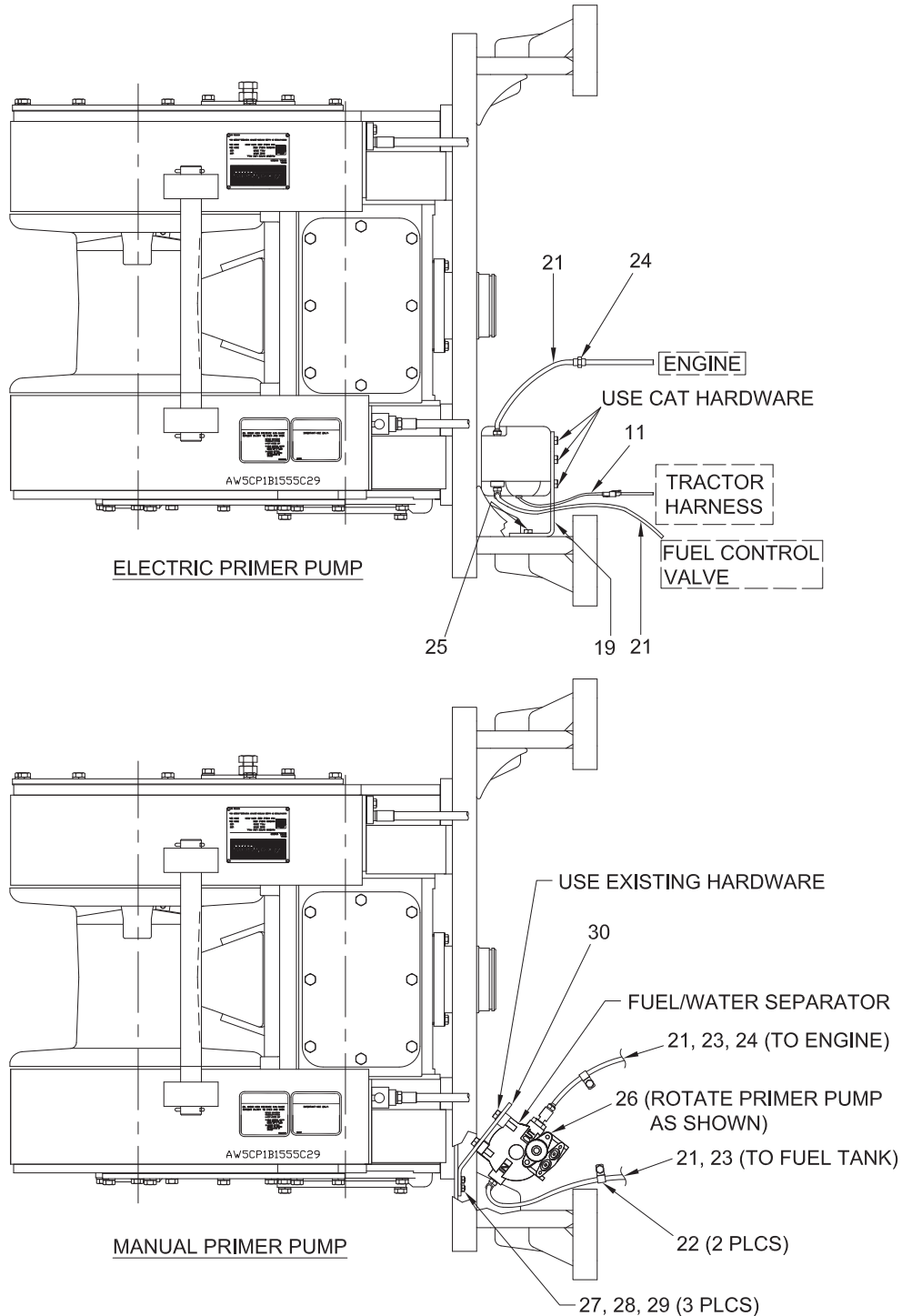
For Tractors with & without Ripper or Dual Controls



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.3	56995W	Plug	6	1.16	2314742	Assembly, Hose	2
1.10	2305617W	Harness, Filter	1	1.17	R833217	Fitting	1
1.11	2305620W	Fitting	2	1.18	296422W	Washer	4
1.12	2305588W	Bracket, Fitting	1	1.19	Y09C-M1255	Capscrew	4
1.15	2314735	Bracket, Mounting	1	1.20	243057	Clamp	2

## Fuel/Water Separator Relocation

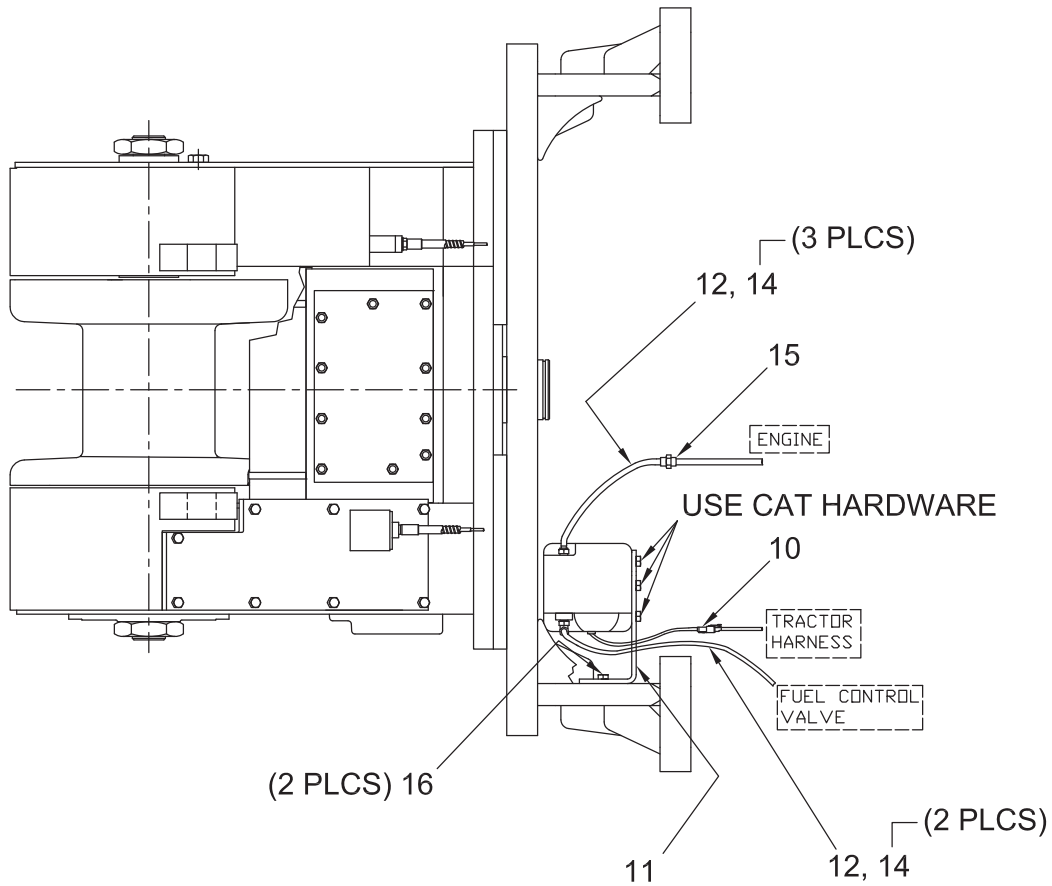
For Tractors with Electric Or Manual Primer Pump  
Caterpillar D6N (C47, C78)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
11	2305617W	Harness, Filter	2	25	18738W	Capscrew	2
19	2306836W	Bracket, Mounting	1	26	2307911W	Gasket, Fuel Primer	1
21	2306857W	Hose, Fuel	1	27	Y09C-M1030	Capscrew	3
22	387316W	Clamp, Insulated	2	28	296420W	Washer	3
23	166857W	Clamp	5	29	292655W	Nut	3
24	2306858W	Fitting	1	30	2307894W	Plate, Mounting	1

### Fuel/Water Separator Relocation

For Tractors with Optional Electric Primer Pump  
Caterpillar D6N (C81)



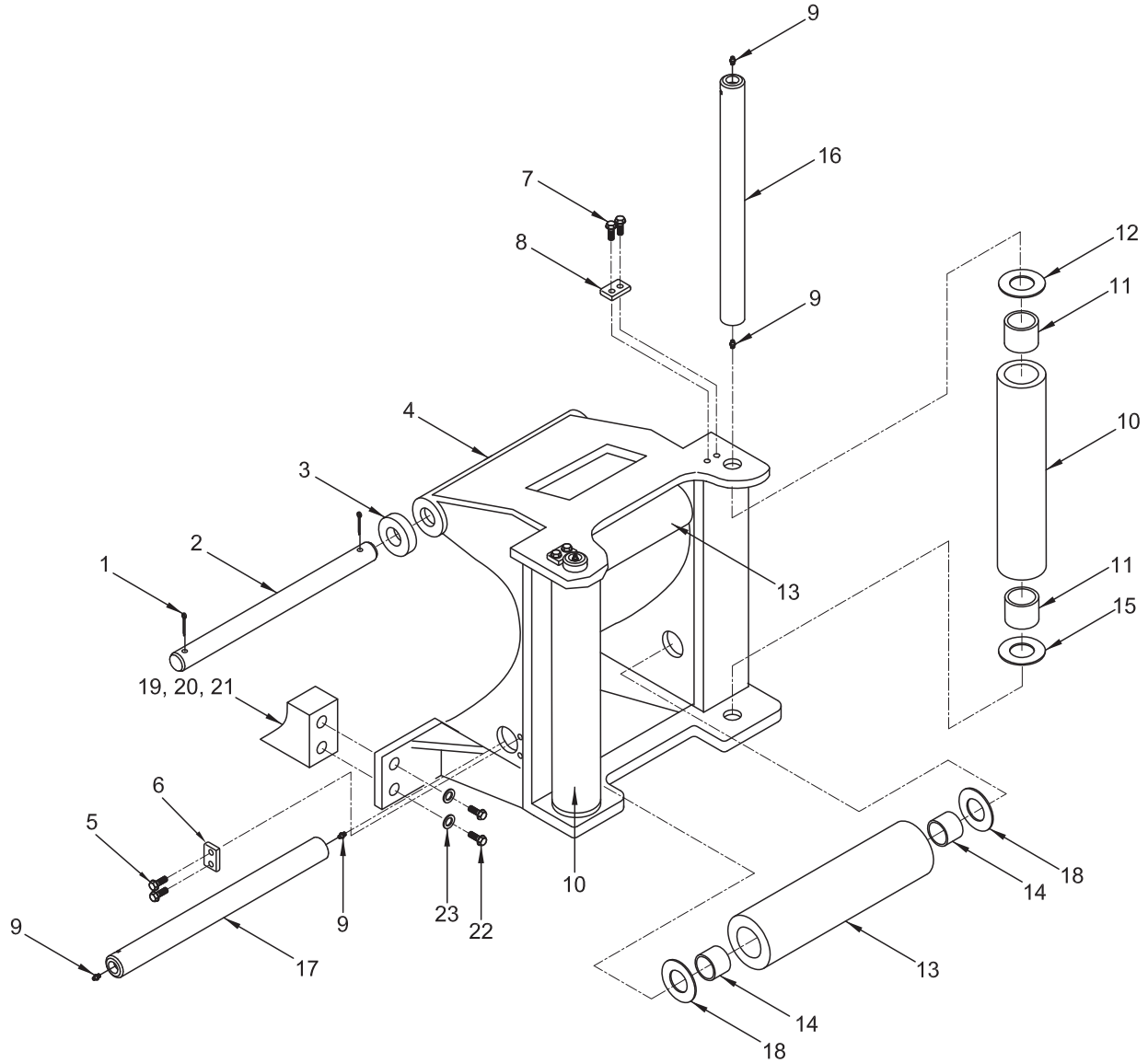
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
10	2305617W	Harness, Filter	1	14	166857W	Clamp	5
11	2306836W	Bracket, Mounting	1	15	2306858W	Fitting	1
12	2306857W	Hose, Fuel	1	16	18738W	Capscrew	2

## Optional Equipment

Arch .....	4-4 & 4-5
Extended Drawbar .....	4-6
Fairlead.....	4-2 & 4-3
Wire Rope Assemblies.....	4-7

**Fairlead**

Last Used on S/N AW6G-1005

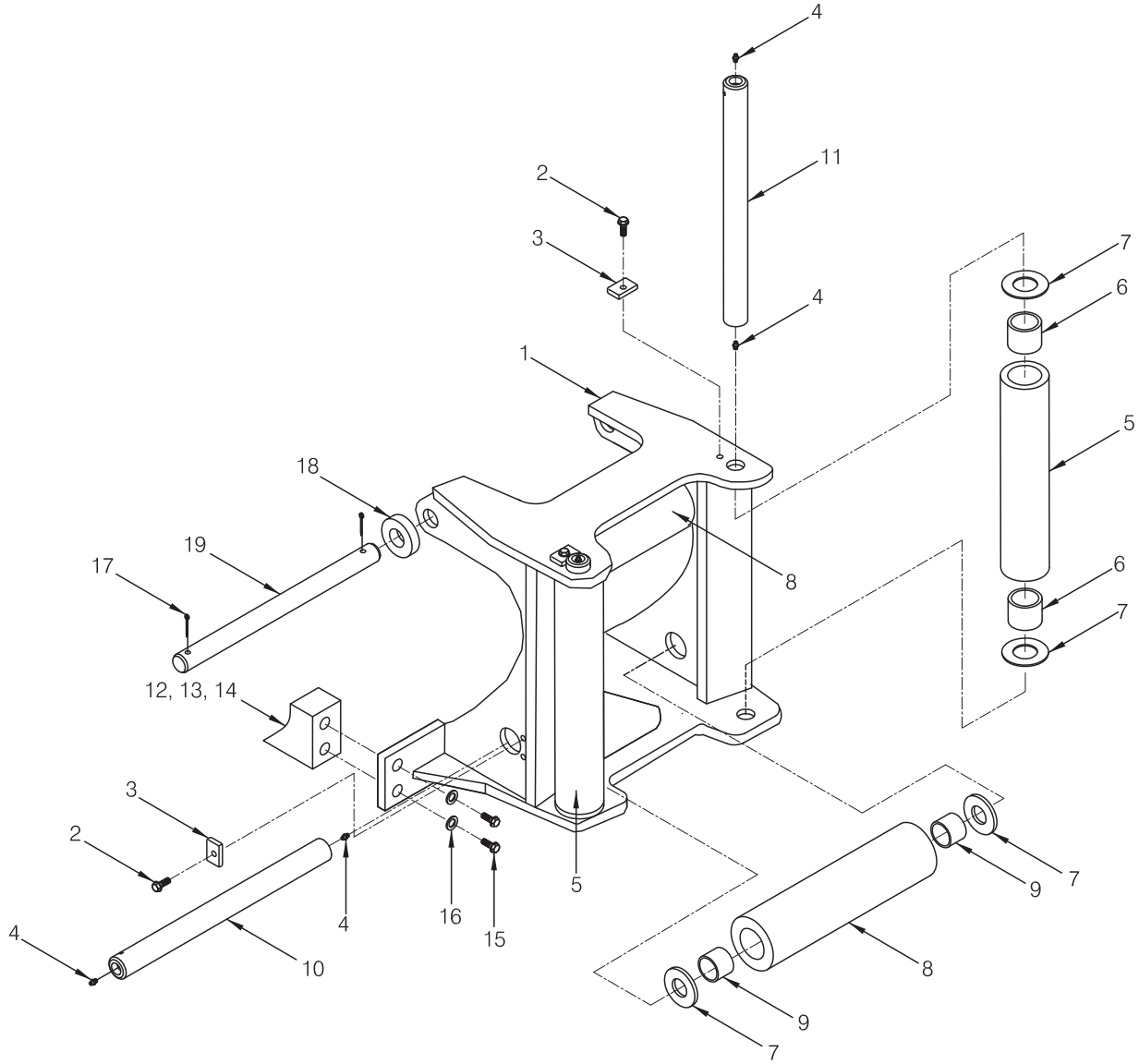


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	15272W	Pin, Cotter	2	13	92212W	Roller	2
2	196280W	Rod, Tie	1	14	59419W	. Bushing	2
3	173607W	Spacer	2	15	230336W	Bearing, Thrust	2
4	152995W	Frame	1	16	96087W	Shaft	2
5	398817W	Screw, Flange	4	17	96086W	Shaft	2
6	93166W	Keeper	2	18	92720W	Washer	4
7	398817W	Screw, Flange	4	19	143292W	Bracket, RH	1
8	93166W	Keeper	2	20	226374W	Bracket, LH	1
9	16001W	Fitting, Grease	8	21	93878W	Shim .134	AR
10	36206W	Roller, Vertical	2	22	18669W	Capscrew	4
11	2570W	. Bushing	2	23	15166W	Lockwasher	4
12	33394W	Washer	2				



**Fairlead**

First Used on S/N AW6G-1006

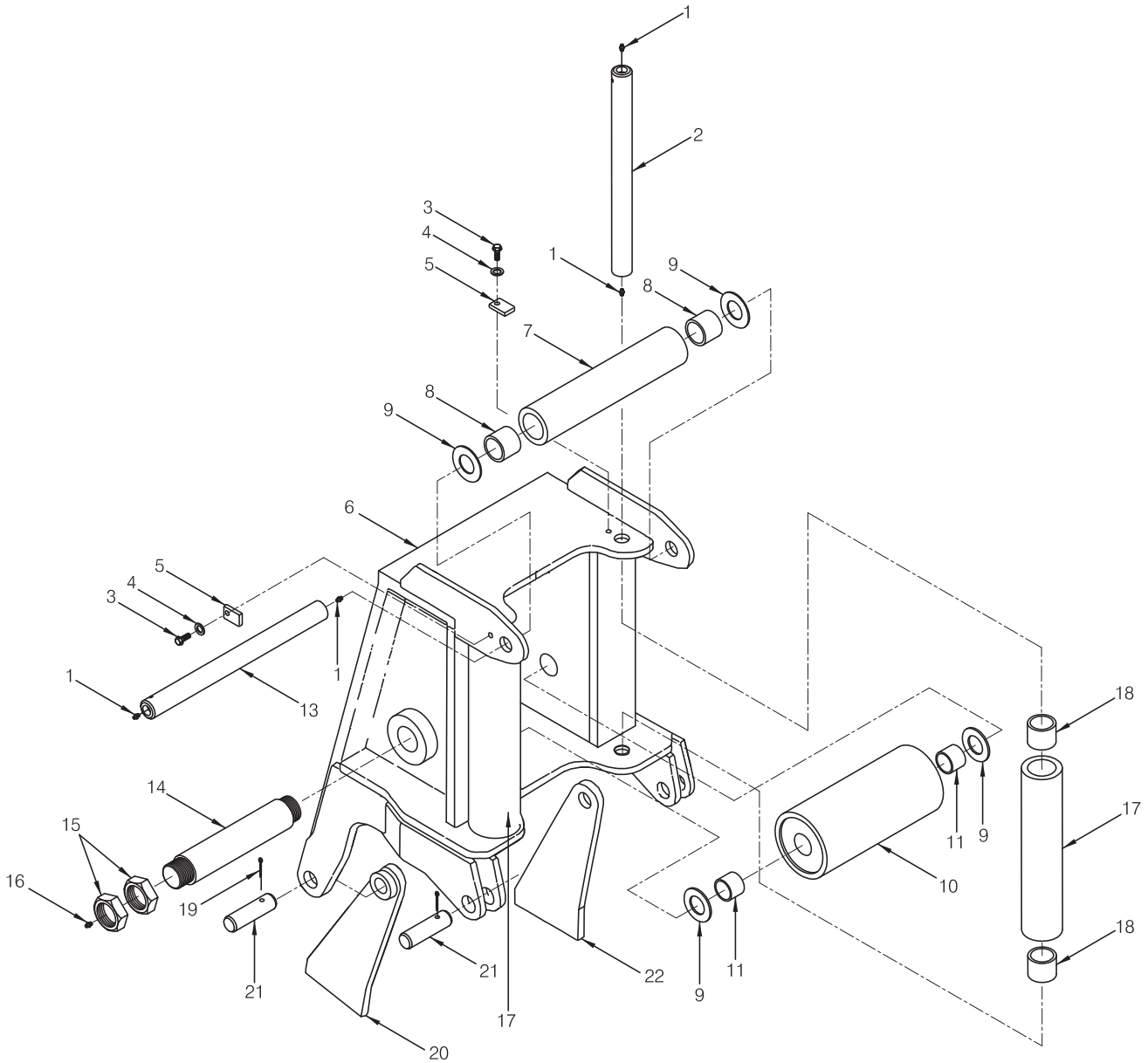


A - 3-Roller Fairlead  
 B - 4-Roller Fairlead

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			A	B				A	B
	<b>2301731W</b>	<b>Assembly, Fairlead - 3-Roller</b>	<b>1</b>	<b>--</b>					
	<b>2301732W</b>	<b>Assembly, Fairlead - 4-Roller</b>	<b>--</b>	<b>1</b>					
1	2301718W	. Frame	1	1	11	2301721W	. Shaft, Vertical	2	2
2	398817W	. Screw, Flange	3	4	12	143292W	Bracket, RH	1	1
3	2301706W	. Keeper	3	4	13	226374W	Bracket, LH	1	1
4	16001W	. Fitting, Lube	6	8	14	93878W	Shim .134	AR	AR
5	2301726W	. Roller	2	2	15	18669W	Capscrew	4	4
6	2570W	.. Bushing	2	2	16	15166W	Washer	4	4
7	33394W	. Washer	6	8	17	15272W	Pin, Cotter	2	2
8	2301727W	. Roller	1	2	18	173607W	Spacer	2	2
9	2570W	.. Bushing	2	2	19	196280W	Bar, Tie	1	1
10	2301722W	. Shaft, Horizontal	1	2					

**Arch**

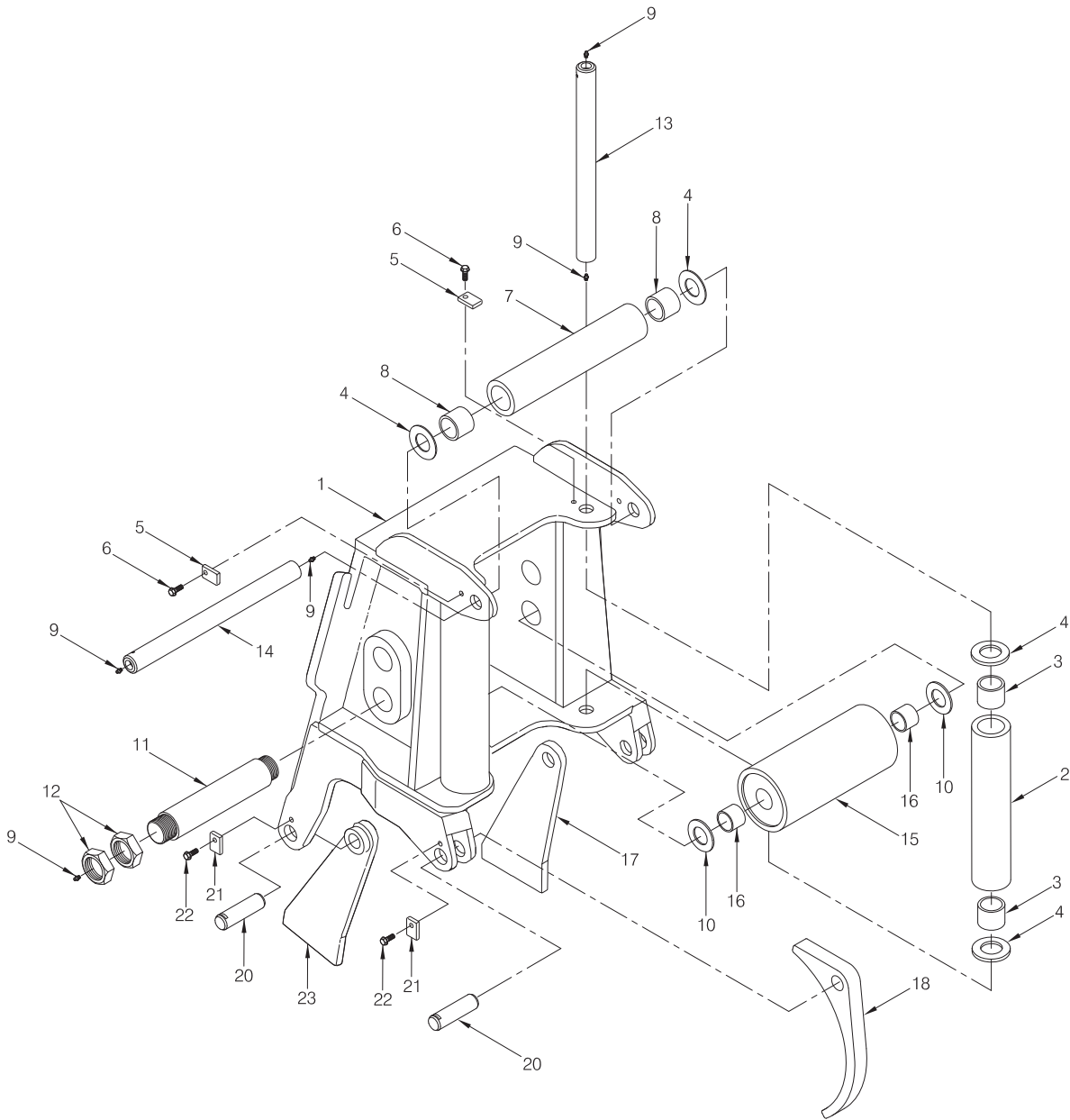
Last Used on S/N AW6G-1002



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	16001W	Fitting, Grease	6	12	2821W	Washer	2
2	331751W	Shaft	2	13	331756W	Shaft	1
3	18601W	Capscrew	3	14	2300521W	Shaft	1
4	15160W	Lockwasher	3	15	221336W	Nut	4
5	31541W	Plate, Lock	3	16	16002W	Fitting, Grease	2
6	-----	Frame, Arch	1	17	331750W	Roller	2
7	331752W	Roller	1	18	35135W	. Bushing	4
8	35135W	. Bushing	2	19	15273W	Pin, Cotter	8
9	331767W	Washer	6	20	-----	Plate, LH	1
10	2816W	Roller	1	21	328748W	Pin	4
11	2817W	. Bushing	2	22	-----	Plate, RH	1

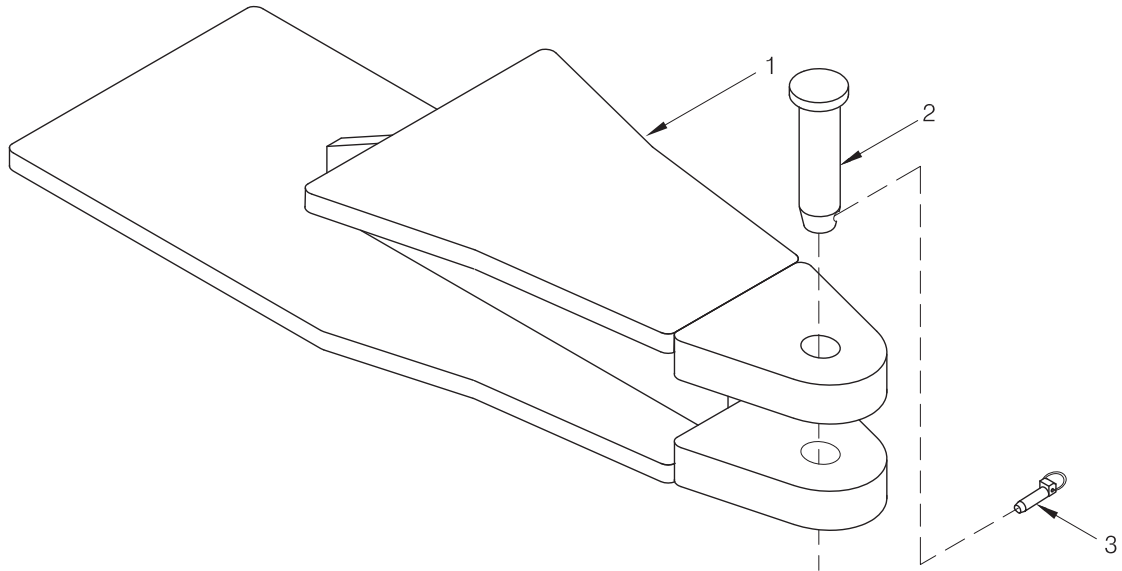
**Arch**

First Used on S/N AW6G-1003



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2301748W</b>	<b>Assembly, Arch</b>	<b>1</b>				
1	2301749W	. Arch	1	12	221336W	. Nut	4
2	2301907W	. Roller	2	13	2301920W	. Shaft	2
3	35135W	. Bushing	2	14	2301919W	. Shaft	1
4	331767W	. Washer	6	15	2301925W	. Roller	1
5	2301706W	. Keeper	3	16	2817W	. Bushing	2
6	398817W	. Flange, Screw	3	17	328740W	Ear, RH	1
7	2301910W	. Roller	1	18	2306380W	Lug, Wrapped	2
8	35135W	. Bushing	2	20	2301924W	Pin	4
9	16001W	. Fitting, Grease	8	21	2301706W	Keeper	4
10	2821W	. Washer	2	22	398817W	Screw, Flange	4
11	2302120W	. Shaft	2	23	328744W	Ear, LH	1

Extended Drawbar



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	NSS	Drawbar	1	3	2303221W	Pin, Retaining	1
2	95959W	Pin, Drawbar	1				

Wire Rope Assemblies

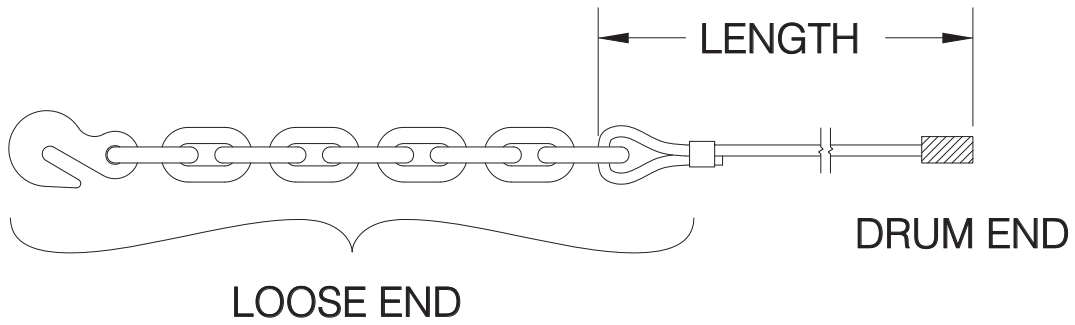


Figure A

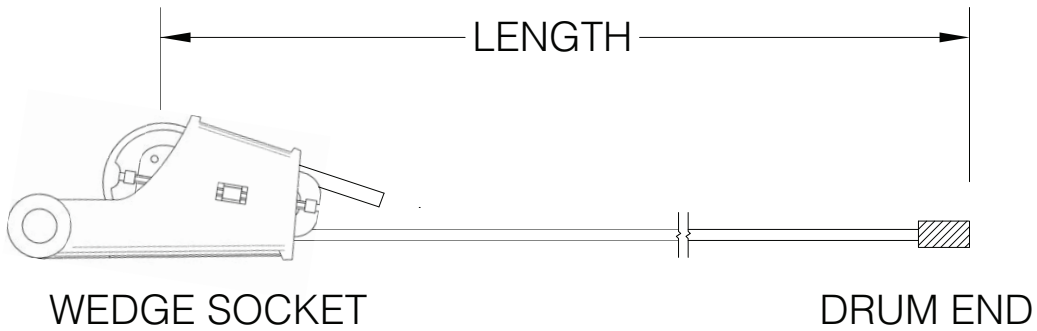


Figure B

Part No.	Wire Diameter	Length Ft (M)	Part No.	Wire Diameter	Length Ft (M)
WR6-263L	*b 3/4"	263 (80) *	YS8-210L WS *c	1"	210 (64) **
WR6-399L	*b 3/4"	399 (122) **			
WR7-189L	*b 7/8"	189 (58) *			
WR7-287L	*b 7/8"	287 (87) **			
WR8-100L	*b 1"	100 (30) *			
WR8-147L	*a, *b 1"	147 (45) *			
WR8-223L	*a, *b 1"	223 (68) **			

\* Length to fill drum to 2/3 capacity (recommended)  
 \*\* Length to fill drum to full capacity  
 \*a Do not use with arch  
 \*b WR Series Wire Rope (Illustrated in Figure A)  
 \*c YS Series Wire Rope (Illustrated in Figure B)

Intentionally Blank

## Recommended Service Kits

Recommended Winch Service Intervals . . . . .	5-2
Recommended Service Kits Chart . . . . .	5-3
• Filter Kit - 2311394 . . . . .	5-4
• Filter Kit - 2311167 . . . . .	5-5
• Filter Kit - 2311168 . . . . .	5-6
• Gasket Kit - 2302729W . . . . .	5-8 & 5-9
• Clutch Shaft Kit - 2311388 . . . . .	5-10 & 5-11
• Brake Assembly Kit - 2311387 . . . . .	5-12
• Brake, Clutch, & Idler Shaft Bearing Kit - 2311389 . . . . .	5-14 & 5-15
• Drum & Intermediate Shaft Bearing & Seal Kit - 2311390 . . . . .	5-16 & 5-17
• Drum & Intermediate Shaft Bearing & Seal Kit - 2311391 . . . . .	5-18
• Drum & Intermediate Shaft Bearing & Seal Kit - 2311392 . . . . .	5-19
• Drum & Intermediate Shaft Bearing & Seal Kit - 2311393 . . . . .	5-20
• Drum & Intermediate Shaft Bearing & Seal Kit - 2311392 . . . . .	5-21

## Recommended Winch Service Intervals

Allied Systems Company is pleased to announce an additional tool to keep your customer's winch serviced and functioning properly. Following this recommended service schedule will help keep tractor winch downtime

to a minimum, optimize winch operation, and extend the life of your investment. See Table 1 on this page for recommended service intervals, and Table 2 on the next page for recommended service kits.

PTO Winch Maintenance

Recommended Winch Service Intervals

Hours or **	Months **	Filter ***	Winch Gear Oil	Brake & Clutch	Major Overhaul
First 250	1	Change			
Every 500	3	Change			
Every 1,000	6		Change		
Every 5,000				* Inspect	
Every 10,000					* Evaluate

Lube rollers and check oil level and filter light weekly.

\* Evaluate = Service based on average winch use;  
 - if used more than once a day, perform overhaul.  
 - if used less than once a day, remove covers and check to determine need.  
 \* Inspect = Disassemble and inspect for wear.  
 \*\* Service winch using the tractor's hour meter or the length of time the winch is mounted to the tractor, whichever occurs first.  
 \*\*\* Follow tractor schedule if using tractor filter.

IMPORTANT - For best Load Control  
Use only the following oils:

Caterpillar -Multipurpose Tractor Oil (MTO)  
 John Deere -Hy-Gard  
 ExxonMobil -Mobil Fluid 424 (Factory Fill)  
 Chevron -1000 THF

Consult service/operating manual for low temperature oils and other details. Use of non-approved oil may void warranty.





2311481 Rev C

Table 1 Recommended Winch Service Intervals



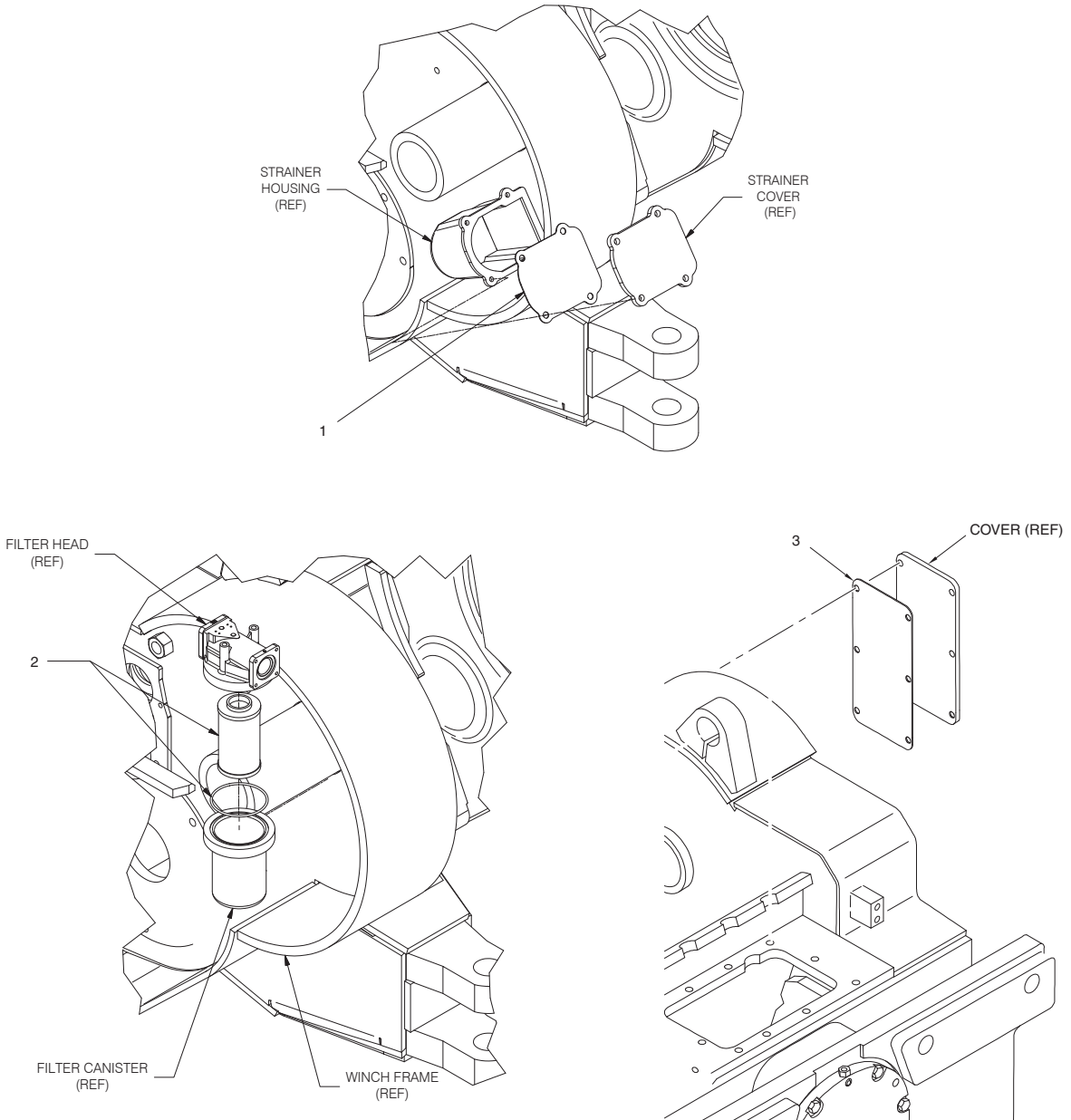
**Recommended Service Kits**

SERVICE KITS FOR W6G WINCHES						
Service Description	Kit Description	Winch Serial Number		Kit Part No. for Winches with Power Controls (P)	Kit Part No. for Winches with Electronic Controls (E)	
Filter Change (First 250, then every 500 Hours)	Filter Kit	Last used AW6G-1027		2311394	2311168	
		First used AW6G-1028		2311167		
Complete Oil Change (Every 1000 hours)	-N/A-	ALL		Check our Website for Current Operator's and Service Manuals for Appropriate Oils		
Clutch and Brake Overhaul (Every 5000 hours)	Gasket Kit	ALL		2302729W		
	Clutch Shaft Kit*	ALL		2311388		
	Brake Assembly Kit	ALL		2311387		
	Pump Assembly	Caterpillar, John Deere, and Dresser	Last used AW6G-1016		Order quantity 1 of each of the following: 2302963W, 2303677W, 88297W, 271729W	
			First used AW6G-1017			
		Fiat Hitachi/ New Holland, Komatsu, and Case	Last used AW6G-1016		Order quantity 1 of each of the following: 2302989W, 2303677W, 88297W, 271729W	
First used AW6G-1017			2302989W			
Major Overhaul (Every 10000 hours)	Brake, Clutch, and Idler Shaft Bearing Kit	ALL		2311389		
	Drum & Intermediate Shaft Bearing and Seal Kit	Non Freespool	ALL		2311390	
Freespool		Last used AW6G-1015		2311391		
		Used AW6G-1016 thru AW6G-1049		2311392		
		Used AW6G-1050 thru AW6G-1091		2311393		
First used AW6G-1092		2311392				

\* Services both clutches. Includes all parts necessary on the clutch shaft; dropbox and PTO bearings and seals must be ordered separately.

**Table 2 Routine Maintenance Kits**

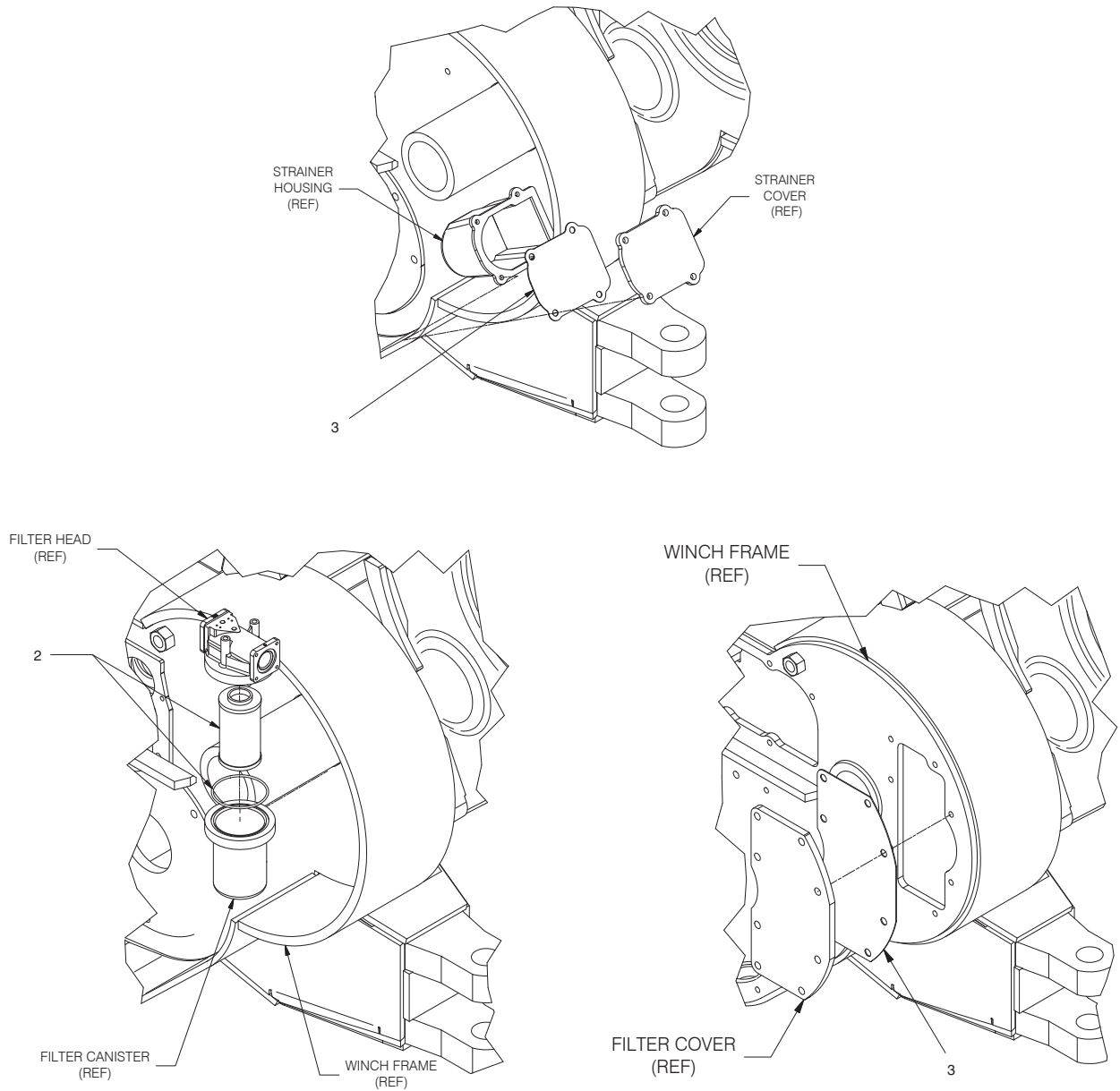
**Filter Kit: 2311394**  
 For Winches with Power Controls  
 Last Used on S/N AW6G-1027



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311394</b>	<b>Kit, Filter</b>	<b>1</b>	2	3001363W	. Filter	1
1	2300935W	. Gasket	1	3	185990W	. Gasket	1

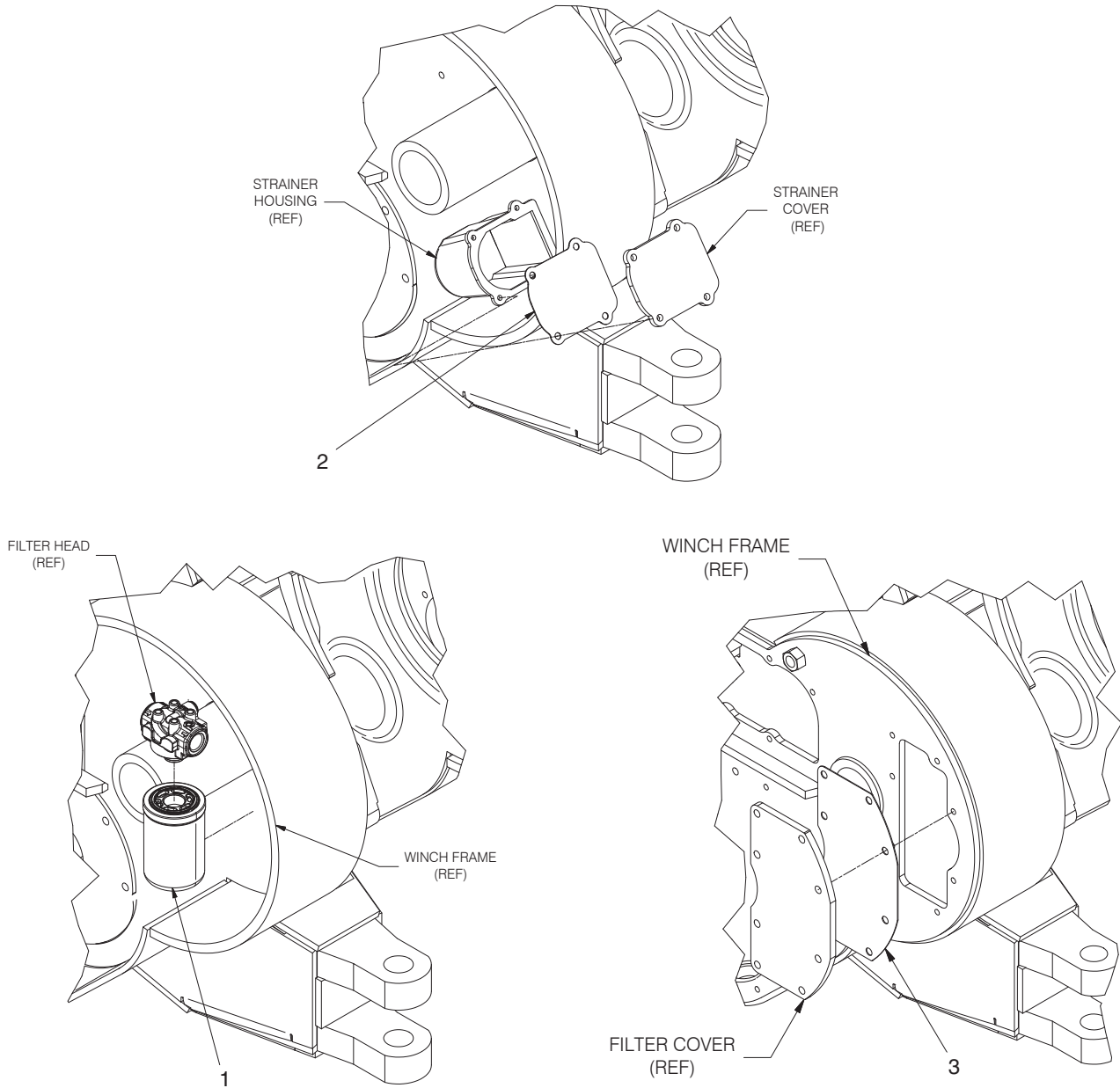
**Filter Kit: 2311167**  
 For Winches with Power Controls  
 First Used on S/N AW6G-1028



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	<b>2311167</b>	<b>Kit, Filter</b>	<b>1</b>	2	2304709W	. Gasket, Filter Cover	1
	3001363W	. Filter	1	3	2300935W	. Gasket	1

**Filter Kit: 2311168**  
For Winches with Electronic Controls



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

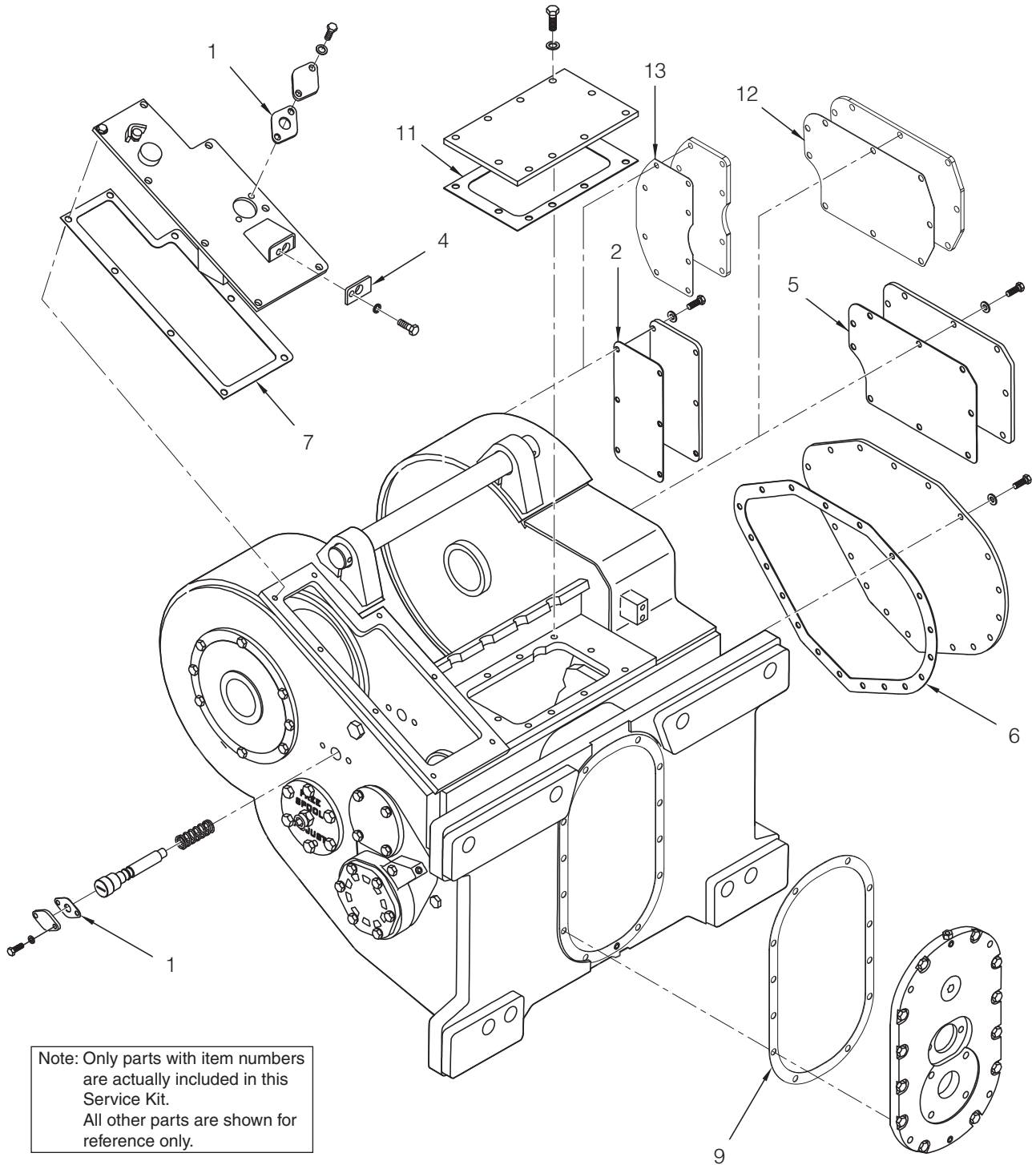
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311168</b>	<b>Kit, Filter</b>	<b>1</b>	2	2300935W	. Gasket	1
1	2304112W	. Filter, Element	1	3	2304709W	. Gasket, Filter Cover	1

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### Gasket Kit: 2302729W

For Winches with Power Controls and Electronic Controls

Page 1 of 2



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

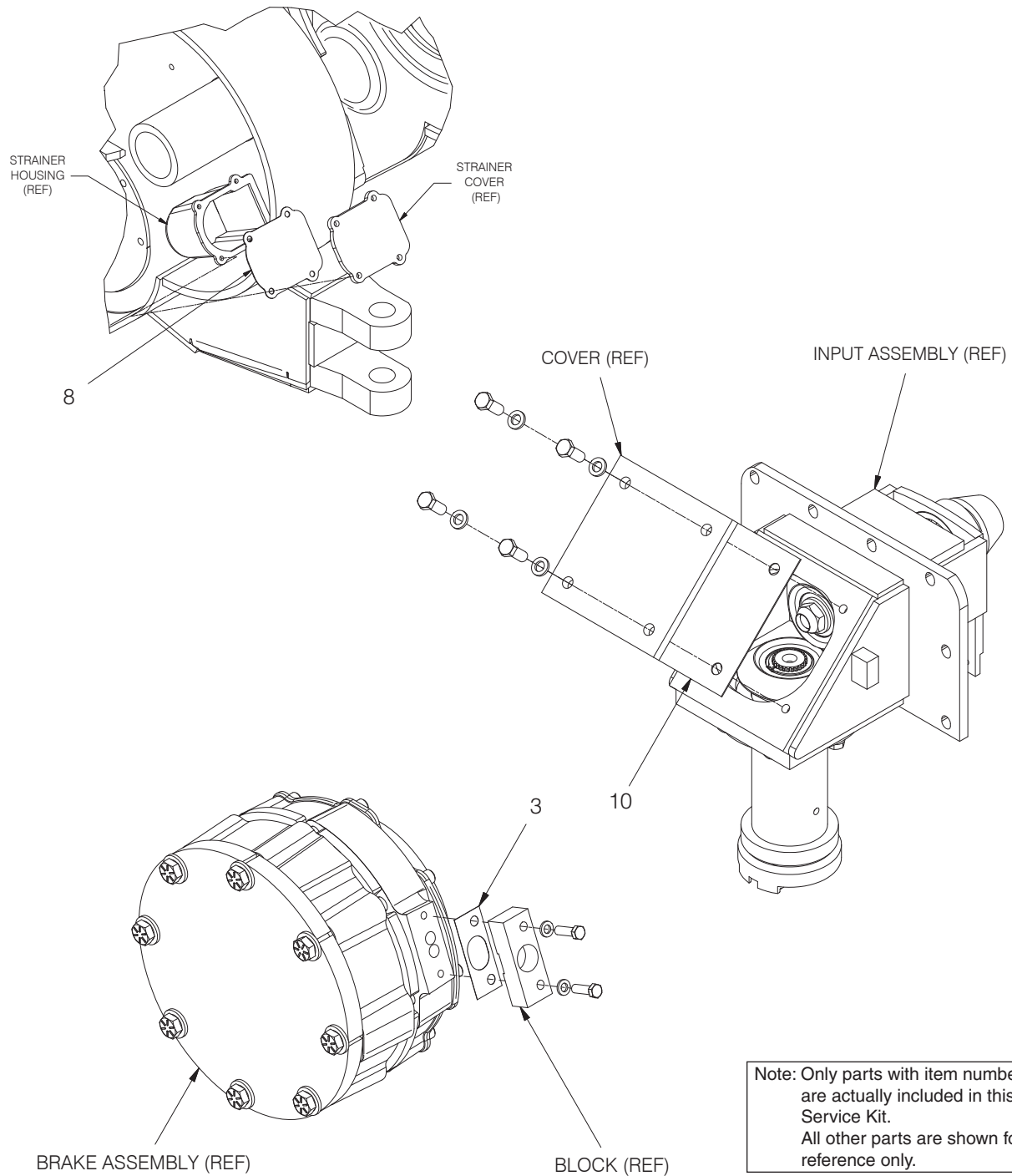
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2302729W</b>	<b>Kit, Gasket</b>	<b>1</b>	4	303946W	. Gasket	2
1	151646W	. Gasket	2	5	2300689W	. Gasket, Valve Cover	1
2	185990W	. Gasket	1	6	2300690W	. Gasket, Brake Cover	1
3	196022W	. Gasket	1	7	2300693W	. Gasket, Top Cover RH	1

(continued on next page)

**Gasket Kit: 2302729W**

For Winches with Power Controls and Electronic Controls

Page 2 of 2

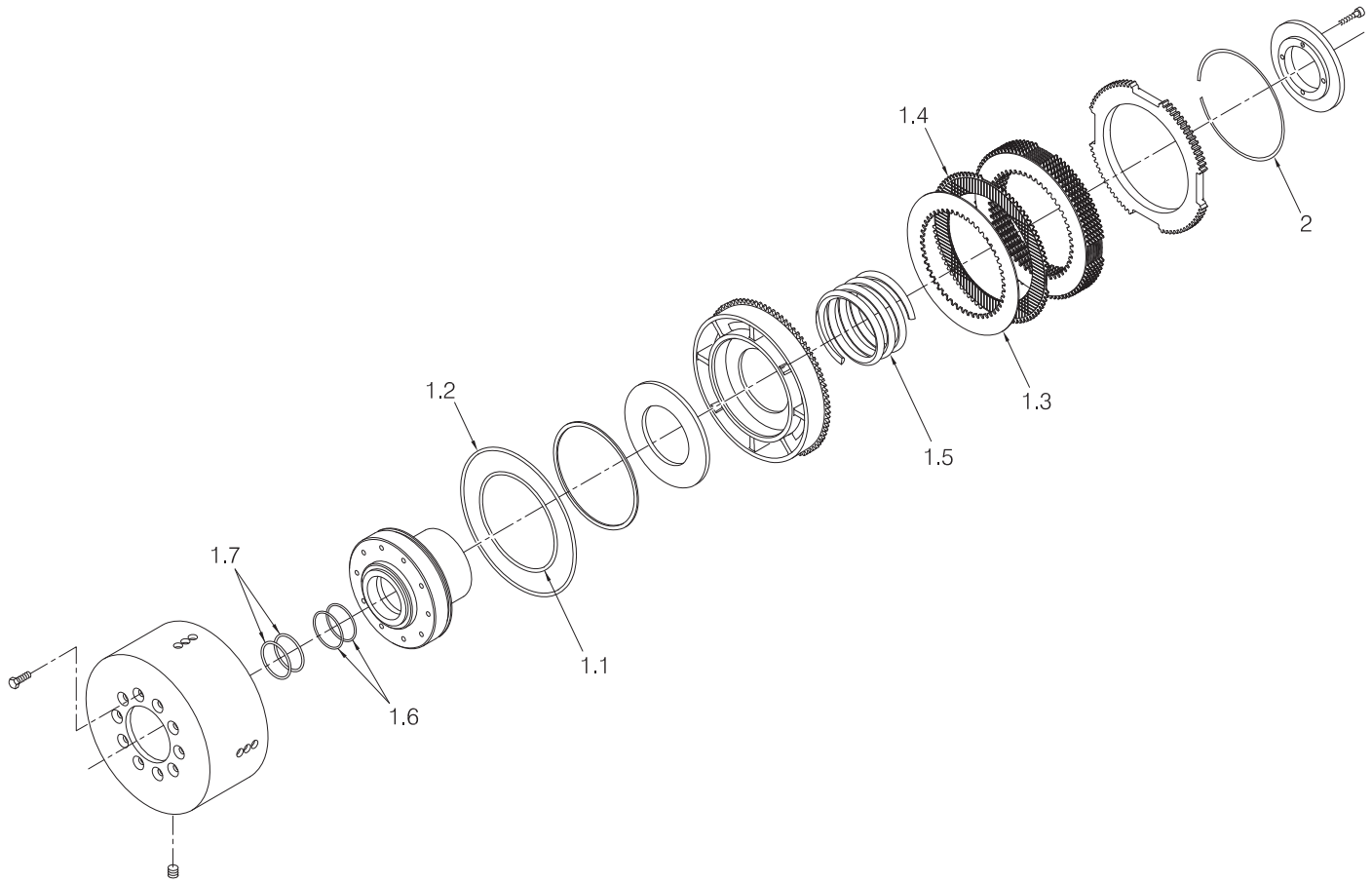


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
8	2300935W	. Gasket	1	11	2314007	. Gasket, Valve Cover	1
9	2301633W	. Gasket, Front Cover	1	12	2314008	. Valve, Cover Gasket	1
10	2301631W	. Gasket	1	13	2314005	. Gasket, Filter Cover	1

**Clutch Shaft Kit: 2311388**

For Winches with Power Controls and Electronic Controls

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Note: Only parts with item numbers are actually included in this Service Kit.  
All other parts are shown for reference only.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311388</b>	<b>Kit, Brake Assembly</b>	<b>1</b>	1.5	2300619W	.. Spring, Clutch	1
1	2302774W	.. Service Kit, W6G Clutch	2	1.6	39442W	.. O-Ring	2
1.1	79972W	.. O-Ring	1	1.7	141913W	.. O-Ring	2
1.2	89777W	.. O-Ring	1	2	2300670W	.. Snap Ring, INT	2
1.3	261542W	.. Plate, Separator	7				
1.4	328715W	.. Disc, Friction	7				

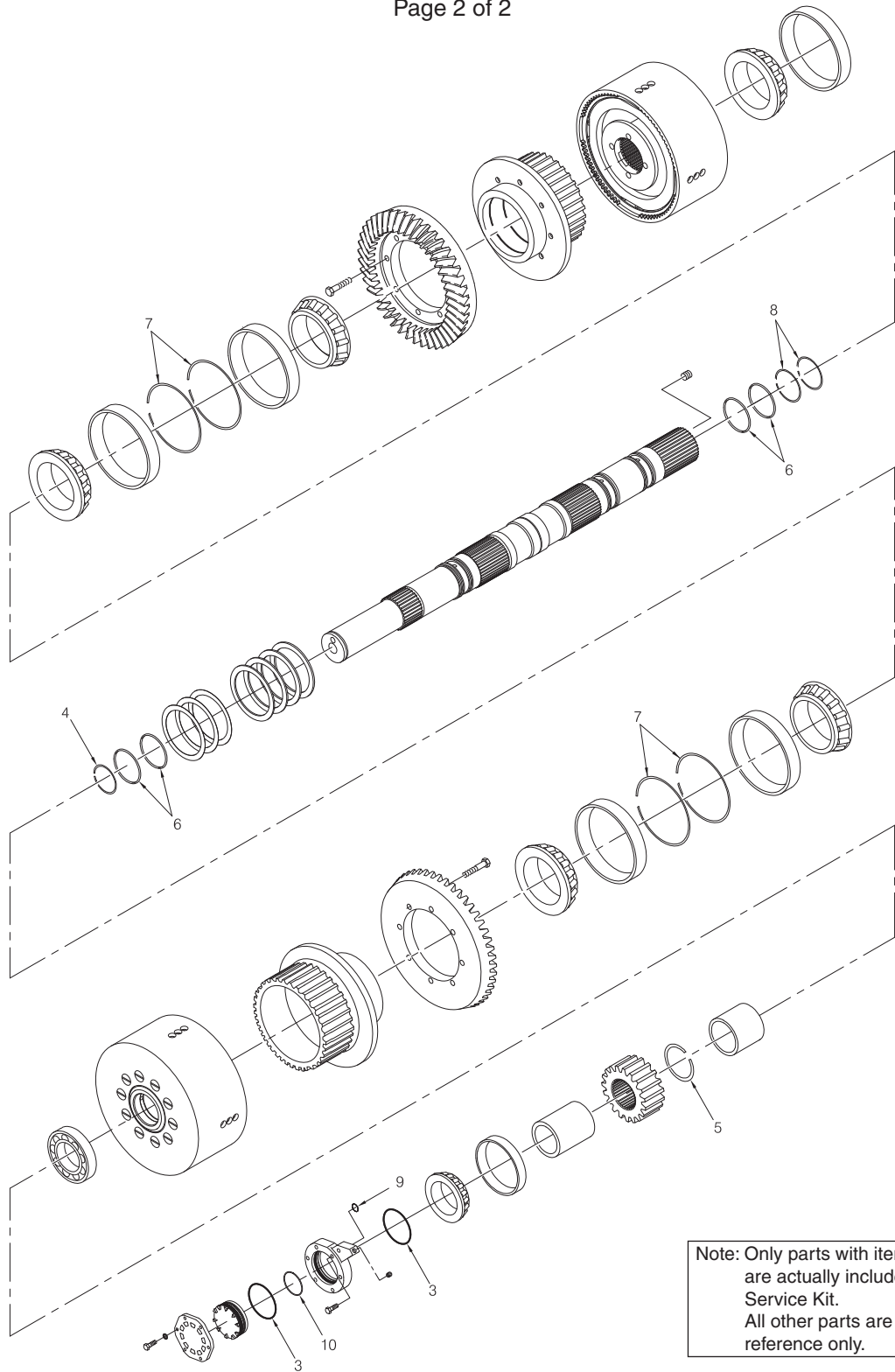
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### Clutch Shaft Kit: 2311388

For Winches with Power Controls and Electronic Controls

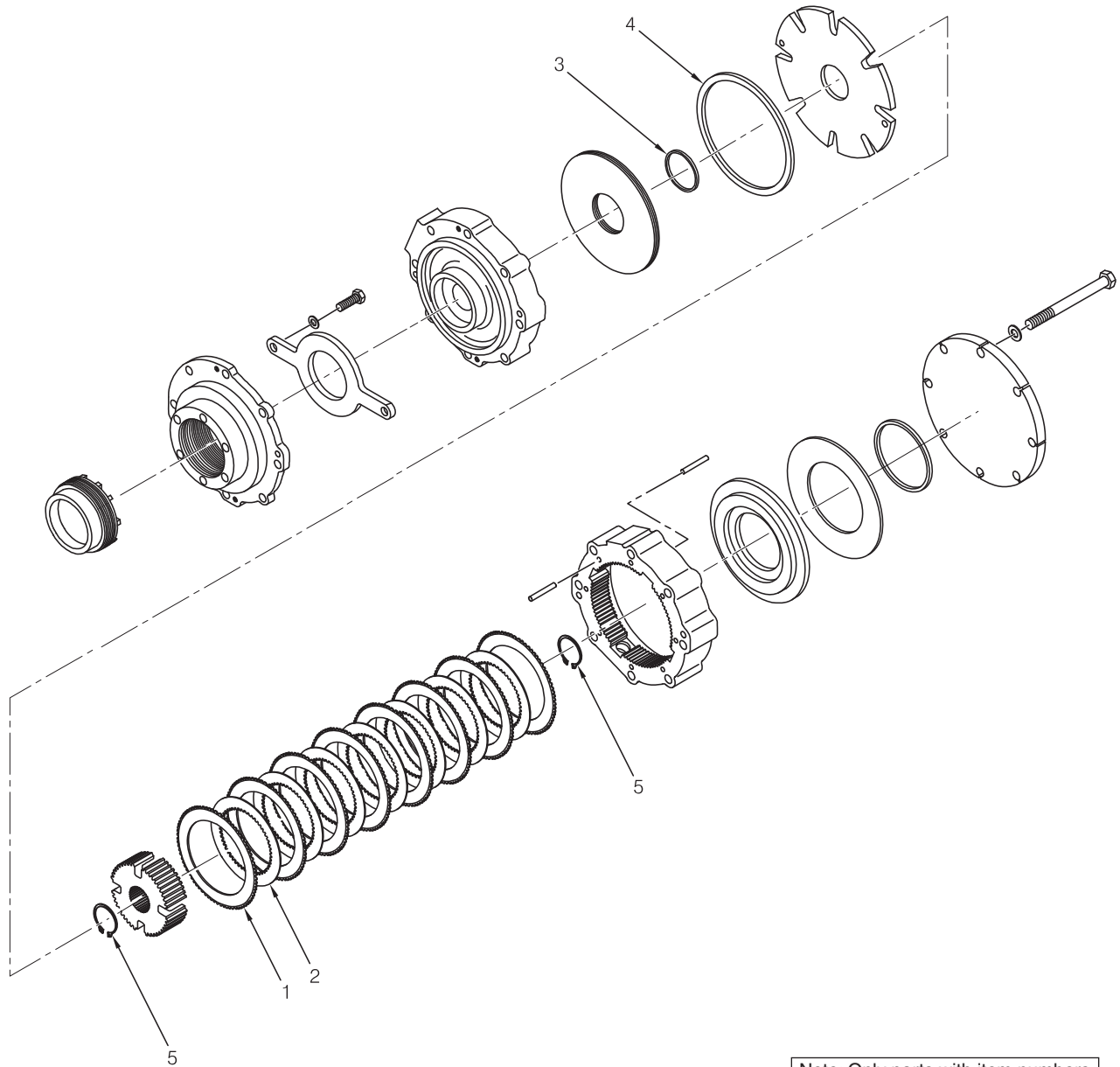
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Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
3	55289W	.O-Ring	2	7	184818W	. Snap Ring, INT	4
4	219070W	. Ring, Seal	1	8	2300643W	. Ring, Seal	2
5	58924W	. Snap Ring, EXT	1	9	63105W	. O-Ring	1
6	39442W	. O-Ring	4	10	15885W	. O-Ring	1

### Brake Assembly Kit: 2311387

For Winches with Power Controls and Electronic Controls



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

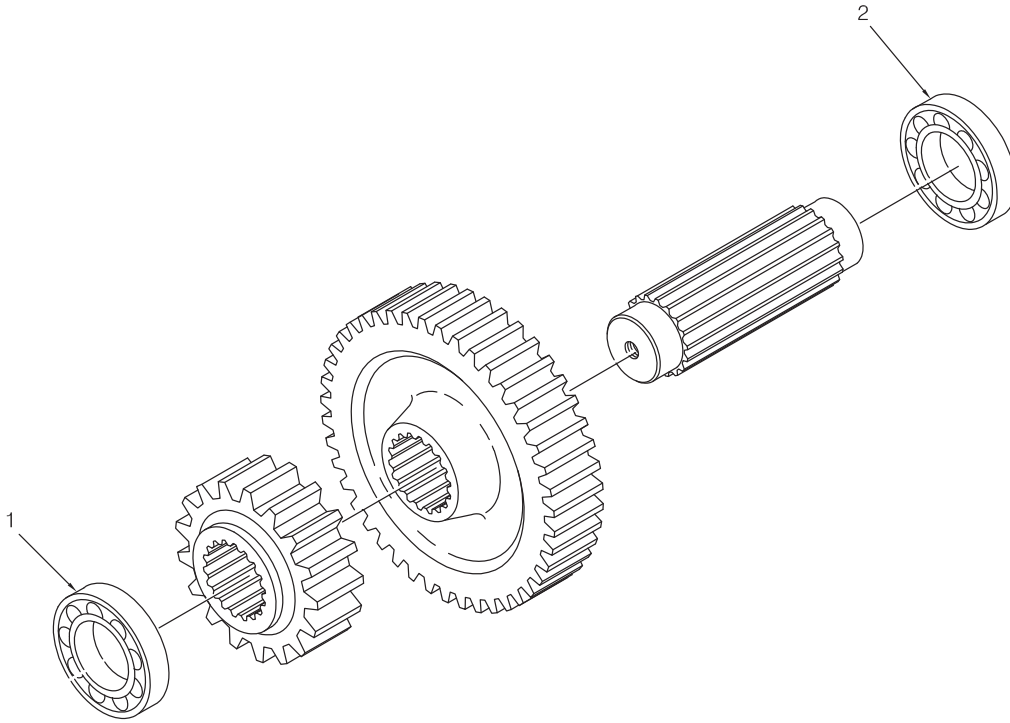
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311387</b>	<b>Kit, Brake Assembly</b>	<b>1</b>	3	79979W	.O-Ring	1
1	328715W	. Disc, Friction	8	4	133927W	. Ring, Piston Seal	1
2	261542W	. Plate, Separator	7	5	12963W	. Snap Ring, EXT	2

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**Brake, Clutch & Idler Shaft Bearing Kit: 2311389**

For Winches with Power Controls and Electronic Controls

Page 1 of 2



Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

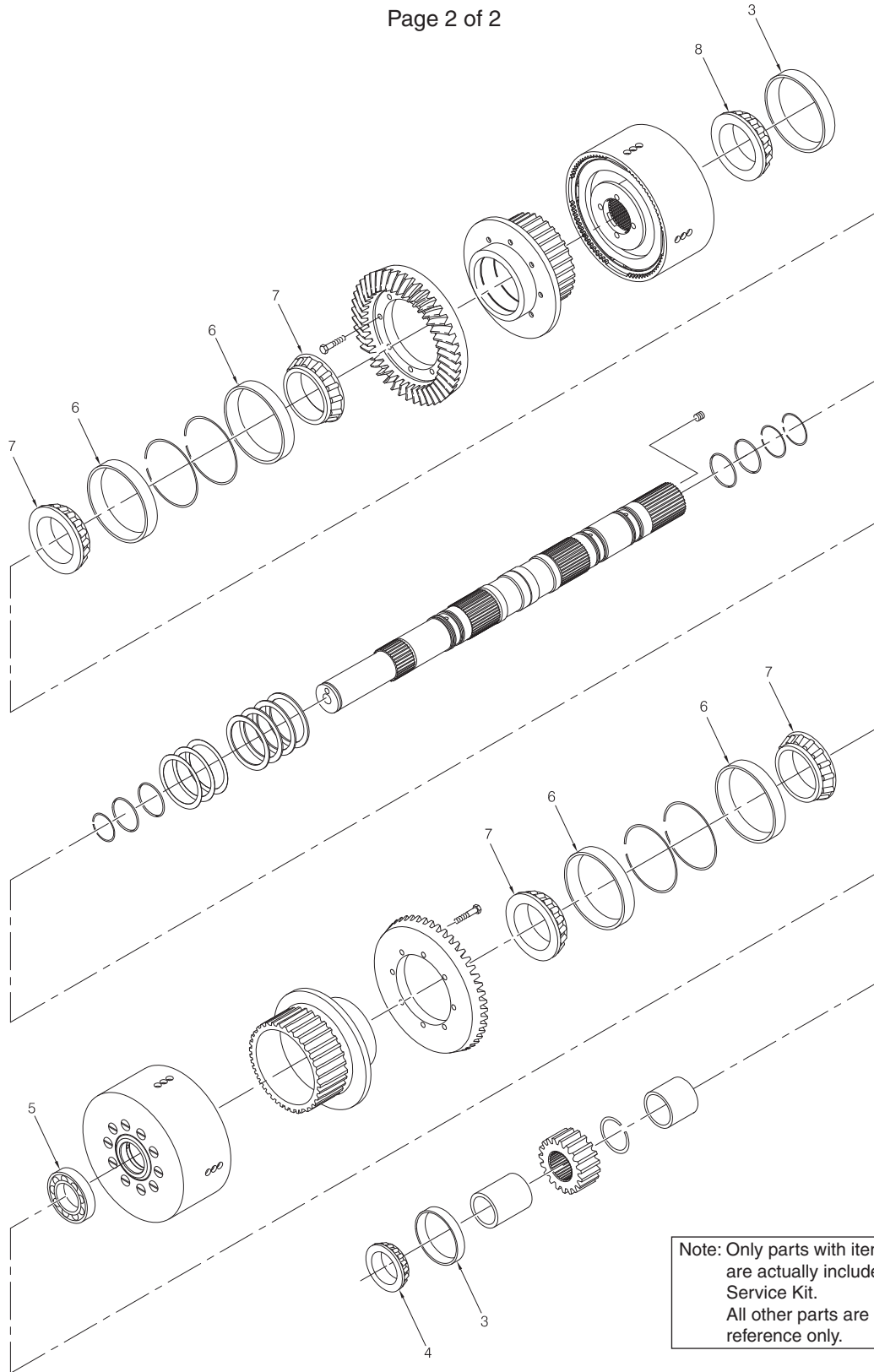
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311389</b>	<b>Kit, Brake/Clutch &amp; Idler Shaft Bearing</b>	<b>1</b>	2	43210W	. Bearing, Ball	1
1	43310W	. Bearing, Ball	1	3	2300668W	. Cup, Bearing	2
				4	2300669W	. Cone, Bearing	1

(Continued on next page)

# Brake, Clutch & Idler Shaft Bearing Kit: 2311389

For Winches with Power Controls and Electronic Controls

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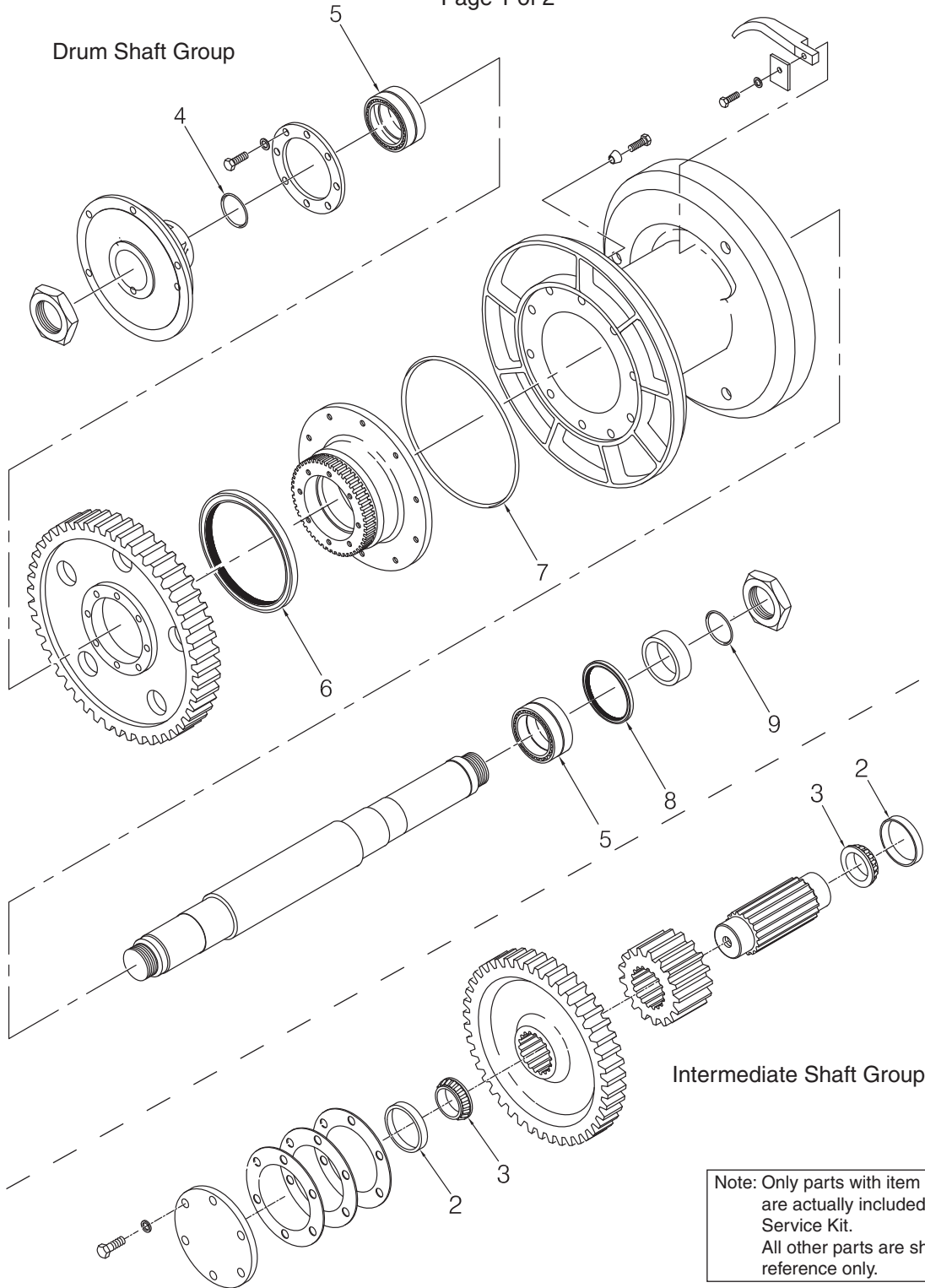
Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
5	43211W	. Bearing, Ball	1	7	2300672W	. Cone, Bearing	4
6	2300671W	. Cup, Bearing	4	8	2300673W	. Cone, Bearing	1

# Drum & Intermediate Shaft Bearing and Seal Kit: 2311390

For Non-Freespool Winches  
with Power Controls

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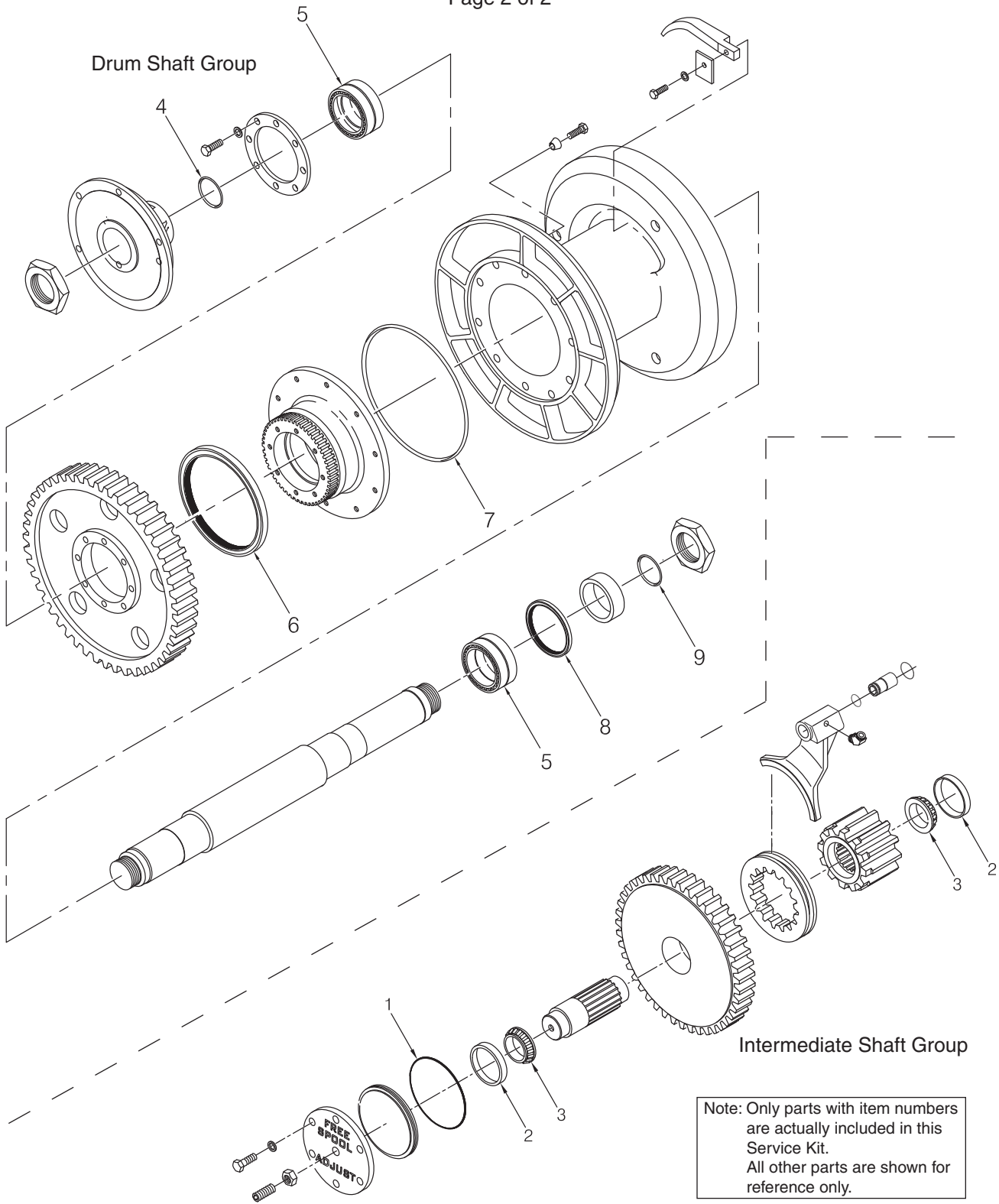
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311390</b>	<b>Kit, Drum/Intermediate Shaft Bearing &amp; Seal</b>	<b>1</b>	3	30080W	.Cone, Bearing	2
1	159940W	.O-Ring	1	4	90263W	.O-Ring	1
2	30059W	.Cup, Bearing	2	5	230406W	.Bearing	2

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# Drum & Intermediate Shaft Bearing and Seal Kit: 2311390

For Freespool & Non-Freespool Winches  
with Electronic Controls

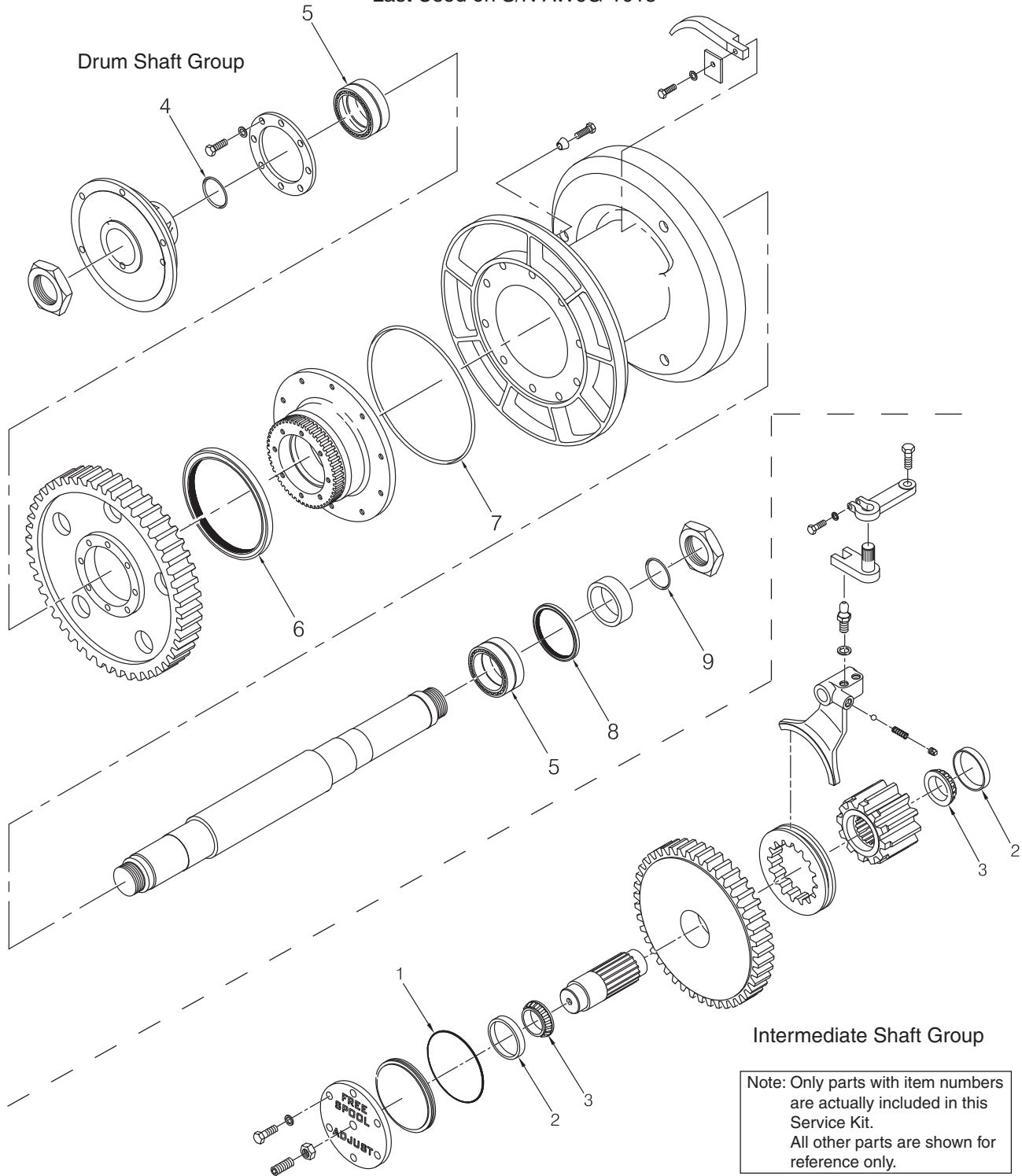
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Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
6	141671W	. Seal, Oil	1	8	44547W	. Seal, Oil	1
7	133927W	. Ring, Piston Seal	1	9	15881W	. O-Ring	1

# Drum & Intermediate Shaft Bearing and Seal Kit: 2311391

For Freespool Winches  
with Power Controls and Electronic Controls  
Last Used on S/N AW6G-1015

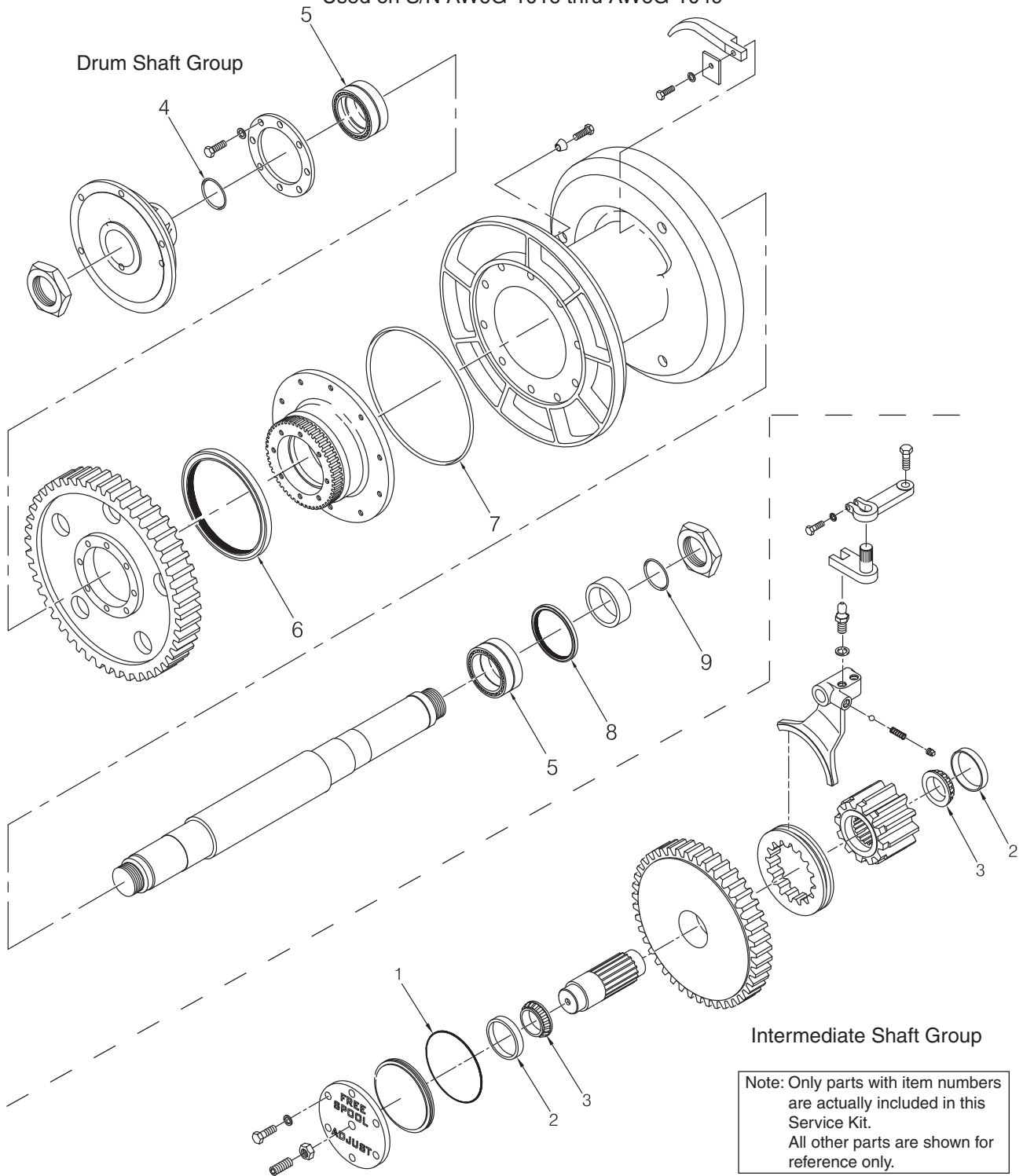


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311391</b>	<b>Kit, Drum/Intermediate Shaft Bearing &amp; Seal</b>	<b>1</b>	5	230406W	. Bearing	2
1	159940W	. O-Ring	1	6	141671W	. Seal, Oil	1
2	30059W	. Cup, Bearing	2	7	133927W	. Ring, Piston Seal	1
3	30058W	. Cone, Bearing	2	8	44547W	. Seal, Oil	1
4	90263W	. O-Ring	1	9	15881W	. O-Ring	1



# Drum & Intermediate Shaft Bearing and Seal Kit: 2311392

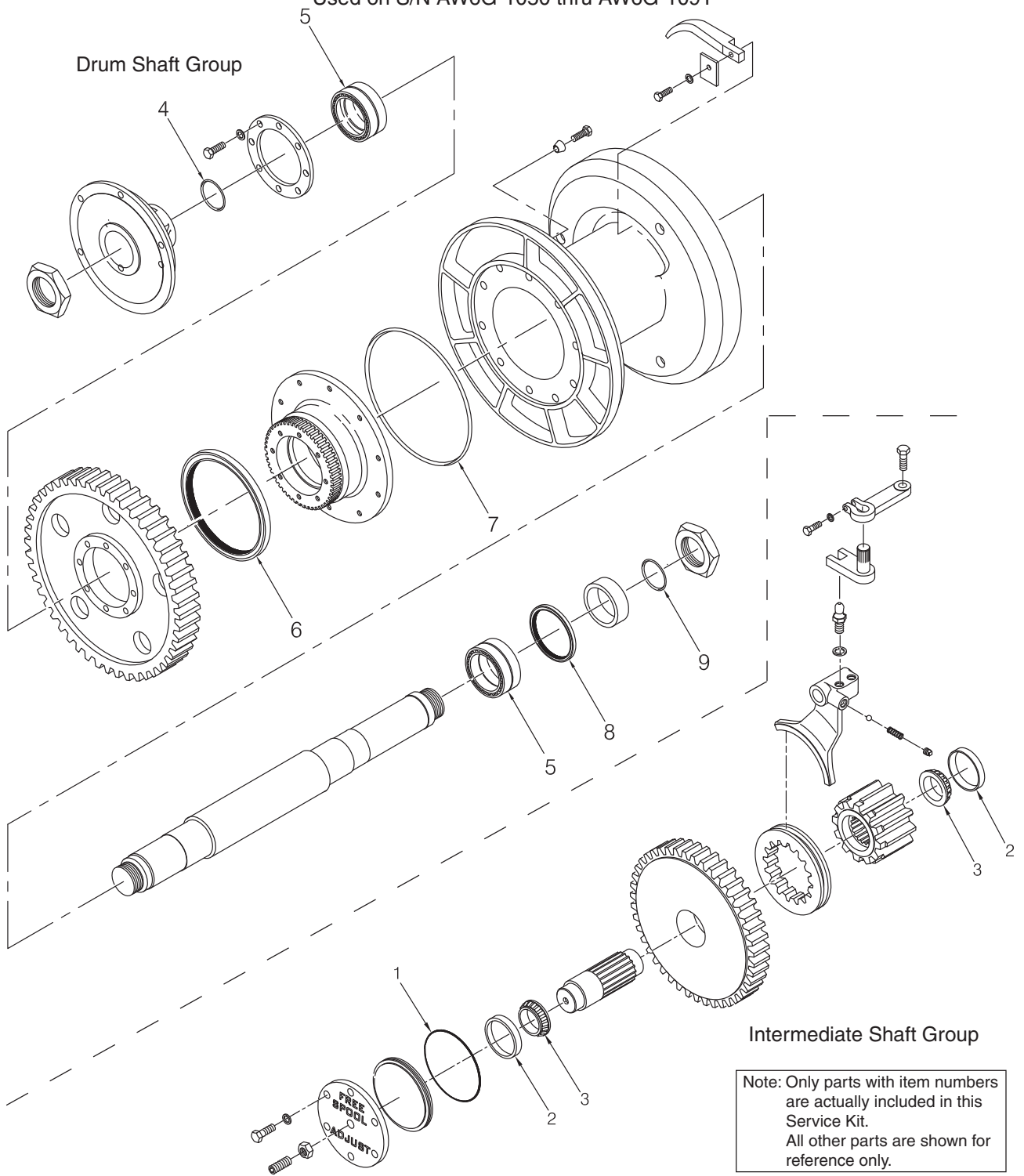
For Freespool Winches  
with Power Controls and Electronic Controls  
Used on S/N AW6G-1016 thru AW6G-1049



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311392</b>	<b>Kit, Drum/Intermediate Shaft Bearing &amp; Seal</b>		5	230406W	. Bearing	2
1	159940W	. O-Ring	1	6	141671W	. Seal, Oil	1
2	30059W	. Cup, Bearing	2	7	133927W	. Ring, Piston Seal	1
3	2302311W	. Cone, Bearing	2	8	44547W	. Seal, Oil	1
4	90263W	. O-Ring	1	9	15881W	. O-Ring	1

# Drum & Intermediate Shaft Bearing and Seal Kit: 2311393

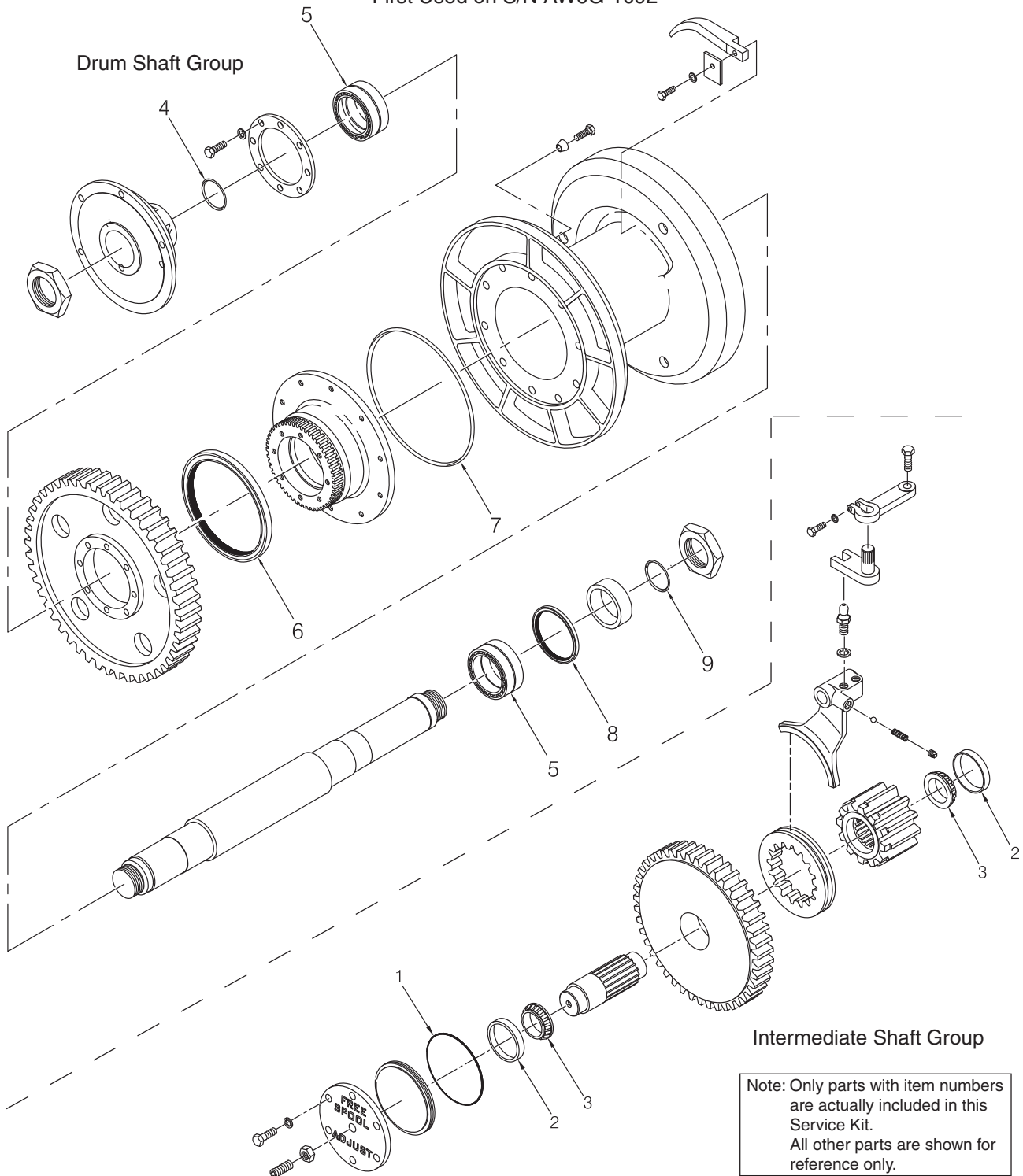
For Freespool Winches  
with Power Controls and Electronic Controls  
Used on S/N AW6G-1050 thru AW6G-1091



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311393</b>	<b>Kit, Drum/Intermediate Shaft Bearing &amp; Seal</b>	<b>1</b>	5	230406W	. Bearing	2
1	159940W	. O-Ring	1	6	141671W	. Seal, Oil	1
2	30059W	. Cup, Bearing	2	7	133927W	. Ring, Piston Seal	1
3	30080W	. Cone, Bearing	2	8	44547W	. Seal, Oil	1
4	90263W	. O-Ring	1	9	15881W	. O-Ring	1

# Drum & Intermediate Shaft Bearing and Seal Kit: 2311392

For Freespool Winches  
with Power Controls and Electronic Controls  
First Used on S/N AW6G-1092



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311392</b>	<b>Kit, Drum/Intermediate Shaft Bearing &amp; Seal</b>	<b>1</b>				
1	159940W	. O-Ring	1	5	230406W	. Bearing	2
2	30059W	. Cup, Bearing	2	6	141671W	. Seal, Oil	1
3	2302311W	. Cone, Bearing	2	7	133927W	. Ring, Piston Seal	1
4	90263W	. O-Ring	1	8	44547W	. Seal, Oil	1
				9	15881W	. O-Ring	1

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## Suggested Spares Guide

Recommended Service Kits .....	6-2
• Filter Kit, P/N 2311394.....	6-2
• Filter Kit, P/N 2311167.....	6-2
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• Gasket Kit, P/N 2302729W .....	6-3
• Brake Assembly Kit, P/N 2311387 .....	6-3
• Clutch Shaft Kit, P/N 2311388 .....	6-4
• Brake, Clutch & Idler Shaft Bearing Kit, P/N 2311389 .....	6-5
• Drum & Intermediate Shaft Bearing & Seal Kit, P/N 2311390 .....	6-5
• Drum & Intermediate Shaft Bearing & Seal Kit, P/N 2311391 .....	6-5
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• Drum & Intermediate Shaft Bearing & Seal Kit, P/N 2311393 .....	6-6
• Miscellaneous Parts.....	6-7
• Tool Kits .....	6-7
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## Suggested Spares Guide

### W6G Towing Winch

#### Recommended Service Kits

The following pages list the service kits that are available for your Allied W6G Winch. Each kit includes all parts listed in the table.

Pages 6-2 and 6-3 include Filter Kits. These kits contain all parts necessary to replace the filter element. Select the kit number relevant for your winch, and order a quantity of kits necessary. The filter element should be changed after the first 250 hours, then every 500 hours thereafter. Keep this kit in stock at all times for regular maintenance.

Pages 6-3 and 6-4 contain a Gasket Kit, a Brake Assembly Kit, and a Clutch Shaft Kit. Order these kits in preparation for the 5,000 hour scheduled maintenance.

Pages 6-5 and 6-6 contain a Brake, Clutch & Idler Shaft Bearing Kit, and four Drum & Intermediate Shaft Bearing and Seal Kits. Order the kits relevant for your winch in preparation for the 10,000 hour scheduled maintenance.

Page 6-7 contains a list of Miscellaneous Parts. These parts will vary from installation to installation, but we recommend keeping these parts on hand. Refer to your parts manual for specific part numbers.

Page 6-7 also contains a list of Tool Kits, and Page 6-8 contains a list of Diagnostic Tools, which will help you install and maintain your winch(es).

Note: Allied winch parts manuals, as well as service manuals and operating manuals, are available for no charge download at <http://www.alliedsystems.com/pubs/pubs.htm>.

#### Filter Kit, P/N: 2311394

Applies to: Winches with Power Controls, last used on S/N AW6G-1027		See Section 5 in Parts Manual	
Service Interval: First 250, then every 500 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311394</b>	<b>Filter Kit</b>		
2300935W	. Gasket, Strainer	1	
3001363W	. Filter, Element	1	
185990W	. Gasket, Filter Cover	1	

#### Filter Kit, P/N: 2311167

Applies to: Winches with Power Controls, first used on S/N AW6G-1028		See Section 5 in Parts Manual	
Service Interval: First 250, then every 500 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311167</b>	<b>Filter Kit</b>		
3001363W	. Filter, Element	1	
2304709W	. Gasket, Filter Cover	1	
2300935W	. Gasket, Strainer	1	



## Suggested Spares Guide

### Filter Kit, P/N: 2311168

Applies to: Winches with Electronic Controls		See Section 5 in Parts Manual	
Service Interval: First 250, then every 500 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311168</b>	<b>Filter Kit</b>		
2304112W	. Filter, Element	1	
2300935W	. Gasket, Strainer	1	
2304709W	. Gasket, Filter Cover	1	

### Gasket Kit, P/N: 2302729W

Applies to: All		See Section 5 in Parts Manual	
Service Interval: Every 5,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2302729W</b>	<b>Gasket Kit</b>		
151646W	. Gasket	2	
185990W	. Gasket	1	
196022W	. Gasket	1	
303946W	. Gasket	2	
2300689W	. Gasket, Valve Cover	1	
2300690W	. Gasket, Brake Cover	1	
2300693W	. Gasket, Top Cover RH	1	
2300935W	. Gasket	1	
2301633W	. Gasket, Front Cover	1	
2301631W	. Gasket	1	
2314007	. Gasket, Valve Cover	1	
2314008	. Valve, Cover Gasket	1	
2314005	. Gasket, Filter Cover	1	

### Brake Assembly Kit, P/N: 2311387

Applies to: All		See Section 5 in Parts Manual	
Service Interval: Every 5,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311387</b>	<b>Brake Assembly Kit</b>		
328715W	. Disc, Friction	8	
261542W	. Plate, Separator	7	
79979W	. O-Ring	1	
133927W	. Ring, Piston Seal	1	
12963W	. Snap Ring, EXT	2	



## Suggested Spares Guide

### Clutch Shaft Kit, P/N: 2311388

Applies to: All		See Section 5 in Parts Manual	Order Quantity
Service Interval: Every 5,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311388</b>	<b>Clutch Shaft Kit</b>		
2302774W	. Service Kit, W6G Clutch	2	
79972W	. . O-Ring	1	
89777W	. . O-Ring	1	
261542W	. . Plate, Separator	7	
328715W	. . Disc, Friction	7	
2300619W	. . Spring, Clutch	1	
39442W	. . O-Ring	2	
141913W	. . O-Ring	2	
2300670W	. Snap Ring, INT	2	
55289W	. O-Ring	2	
219070W	. Ring, Seal	1	
58924W	. Snap Ring, EXT	1	
39442W	. O-Ring	4	
184818W	. Snap Ring, INT	4	
2300643W	. Ring, Seal	2	
63105W	. O-Ring	1	
15885W	. O-Ring	1	

Note: Inspect all hydraulic hoses during the 5,000 hour overhaul. Replace hoses as required.

Download Allied winch parts manuals at <http://www.alliedsystems.com/pubs/pubs.htm>.





## Suggested Spares Guide

<b>Brake, Clutch &amp; Idler Shaft Bearing Kit, P/N: 2311389</b>			
Applies to: All		See Section 5 in Parts Manual	
Service Interval: Every 10,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311389</b>	<b>Brake, Clutch &amp; Idler Shaft Bearing Kit</b>		
43310W	. Bearing, Ball	1	
43210W	. Bearing, Ball	1	
2300668W	. Cup, Bearing	2	
2300669W	. Cone, Bearing	1	
43211W	. Bearing, Ball	1	
2300671W	. Cup, Bearing	4	
2300672W	. Cone, Bearing	4	
2300673W	. Cone, Bearing	1	

<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit, P/N: 2311390</b>			
Applies to: All Non-Freespool winches		See Section 5 in Parts Manual	
Service Interval: Every 10,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311390</b>	<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit</b>		
159940W	. O-Ring	1	
30059W	. Cup, Bearing	2	
30080W	. Cone, Bearing	2	
90263W	. O-Ring	1	
230406W	. Bearing	2	
141671W	. Seal, Oil	1	
133927W	. Ring, Piston Seal	1	
44547W	. Seal, Oil	1	
15881W	. O-Ring	1	

<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit, P/N: 2311391</b>			
Applies to: All Freespool Winches, S/N AW6G-1015 and below		See Section 5 in Parts Manual	
Service Interval: Every 10,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311391</b>	<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit</b>		
159940W	. O-Ring	1	
30059W	. Cup, Bearing	2	
30058W	. Cone, Bearing	2	
90263W	. O-Ring	1	
230406W	. Bearing	2	
141671W	. Seal, Oil	1	
133927W	. Ring, Piston Seal	1	
44547W	. Seal, Oil	1	
15881W	. O-Ring	1	



## Suggested Spares Guide

### Drum & Intermediate Shaft Bearing and Seal Kit, P/N: 2311392

Applies to: Freespool Winches, S/N AW6G-1016 thru AW6G-1049, AW6G-1092 and above		See Section 5 in Parts Manual	
Service Interval: Every 10,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311392</b>	<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit</b>		
159940W	. O-Ring	1	
30059W	. Cup, Bearing	2	
2302311W	. Cone, Bearing	2	
90263W	. O-Ring	1	
230406W	. Bearing	2	
141671W	. Seal, Oil	1	
133927W	. Ring, Piston Seal	1	
44547W	. Seal, Oil	1	
15881W	. O-Ring	1	

### Drum & Intermediate Shaft Bearing and Seal Kit, P/N: 2311393

Applies to: Freespool Winches, S/N AW6G-1050 thru AW6G-1091		See Section 5 in Parts Manual	
Service Interval: Every 10,000 hours			
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2311393</b>	<b>Drum &amp; Intermediate Shaft Bearing and Seal Kit</b>		
159940W	. O-Ring	1	
30059W	. Cup, Bearing	2	
30080W	. Cone, Bearing	2	
90263W	. O-Ring	1	
230406W	. Bearing	2	
141671W	. Seal, Oil	1	
133927W	. Ring, Piston Seal	1	
44547W	. Seal, Oil	1	
15881W	. O-Ring	1	



## Suggested Spares Guide

### Miscellaneous Parts

In addition to the kits listed on the previous pages, Allied Systems Company recommends that you stock the following items as applicable to your winch. The part number of most of these items vary, based on tractor installation, serial number, installed options, etc. Check the parts manual to determine the part number for your particular winch in the section indicated.

Allied P/N	Description	Parts Manual Section	Order Quantity
varies	Control Cables	Section 3	
varies	Hand Levers or Joystick	Section 3	
varies	Driveline and/or related components such As U-Joints	Section 1	
varies	Hydraulic Pump	Section 3	
varies	Coils and Valves for Control Manifold	Section 3	
varies	Wire Rope Assembly	Section 4	
varies	PTO Input Shaft Seal(s)	Section 2	
varies	PTO Input Bearing(s)	Section 2	
varies	Input Yoke(s) (if Present)	Section 2	
95959W	Drawbar Pin	Section 1	
2303221W	Drawbar Pin, Keeper	Section 1	
varies	Wire Harnesses	Section 3	
varies	Joystick Panel Switches	Section 3	
2304603W	Communication Cable	Section 3	
2305473W	Blank Control Module	na	

### Tool Kits

Order these Tool Kits as required for installation, maintenance and service of your winch(es).

Allied P/N	Description	Order Quantity
588466	Socket Set, 3/8DR 3/8" to 7/8" STD/Deep, 22 PC	
588467	Socket Set, 1/2DR 3/8" to 1-1/4" STD/Deep, 30 PC	
588468	Socket Set, 3/4DR 7/8" to 2-3/8" STD, 29 PC	
588469	Wrench Set, 5/16" to 2-1/2", 31 PC	
588527	Hex Key Sets, .025" to 5/8", 18 PC	
588530	Socket Sets, 3/8DR 6mm-19mm 12 Point	
588529	Socket Sets, 1/2DR 10mm-26mm 12 Point	
588528	Wrench Sets, 7mm-24mm, 18 PC	
588526	Hex Key Sets, .07mm-17mm, 15 PC	

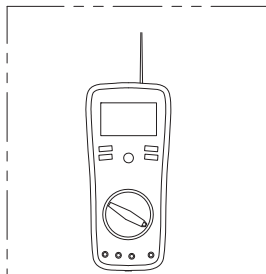


# Suggested Spares Guide

## Diagnostic Tools

Order these Tools as required for maintenance and service of your winch(es).

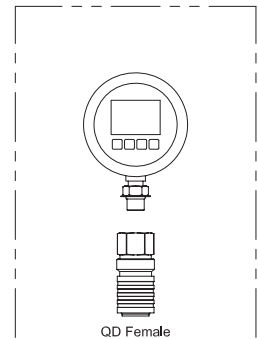
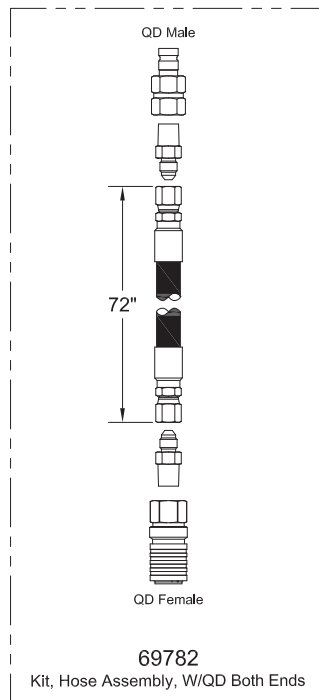
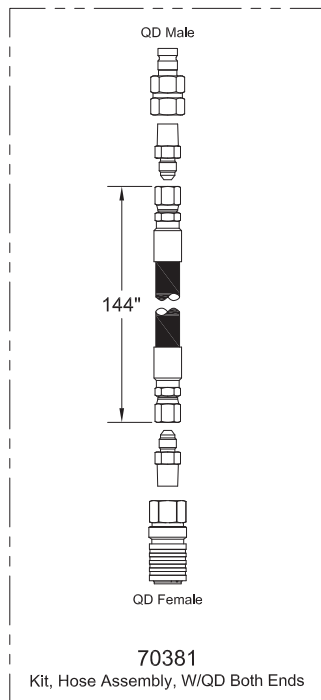
Allied P/N	Description	Order Quantity
906601	0 to 8700 PSI Digital Pressure Gauge W/Female QD Connector	
69782	72" Hose Assembly W/QD Connectors Both Ends	
70381	144" Hose Assembly W/QD Connectors Both Ends	
69778	Multi-Meter, 12 Function	



69778

Multi-Meter, 12 Function

- AC/DC Voltage & Current,
- Resistance, Capacitance,
- Frequency, Type K & IR
- Temperature, Diode/Continuity,
- Duty Cycle Non-Contact
- InfraRed Thermometer
- CAT III Test Leads
- Type K Bead Wire Temp Probe



906601

Kit, Digital Pressure Gauge  
W/ Female QD Connector  
0 to 8700 PSI

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133943W	3-47	51	139W	3-33	24	14500W	2-5	35	14669W	3-21	54
133943W	3-49	32	139W	3-35	41	14500W	3-11	61	14669W	3-29	54
133943W	3-5	32	139W	3-37	11	14500W	3-13	93	14669W	3-37	54
133943W	3-51	51	139W	3-39	41	14500W	3-13	103	14669W	3-45	54
133943W	3-7	51	139W	3-41	24	14500W	3-15	83	14694W	3-13	307
133943W	3-9	51	139W	3-43	41	14500W	3-15	93	14694W	3-15	307
134803W	3-62	60	139W	3-45	11	14500W	3-17	61	14694W	3-17	78
136516W	3-17	79	139W	3-47	41	14500W	3-19	93	14694W	3-21	307
136516W	3-25	79	139W	3-49	22	14500W	3-21	103	14694W	3-23	307
136516W	3-41	79	139W	3-5	22	14500W	3-23	83	14694W	3-25	78
137852W	1-27	7	139W	3-51	41	14500W	3-23	93	14694W	3-29	307
137852W	1-31	6	139W	3-7	41	14500W	3-25	61	14694W	3-31	307
137852W	1-33	6	139W	3-9	41	14500W	3-27	93	14694W	3-37	307
137852W	1-35	1.6	140288W	2-3	42	14500W	3-29	93	14694W	3-39	307
137852W	1-37	1.6	140288W	2-5	42	14500W	3-3	83	14694W	3-41	78
137852W	3-143	16	140288W	3-11	64	14500W	3-3	93	14694W	3-9	307
137852W	3-145	16	140288W	3-17	64	14500W	3-3	300	14713W	3-3	112



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14713W	3-45	117	15128W	1-46	6	15156W	1-5	42	15156W	3-7	13
14713W	3-47	112	15128W	1-49	22	15156W	1-7	42	15156W	3-84	17
14713W	3-49	58	15128W	1-51	6	15156W	1-7	56	15156W	3-9	13
14713W	3-5	58	15128W	1-53	22	15156W	1-9	42	15156W	3-99	13
149541W	2-60	4	15128W	1-55	1.7	15156W	2-11	15	151580W	2-54	1
149542W	2-60	4	15128W	1-57	7	15156W	2-13	15	151580W	2-55	1
149543W	2-60	4	15128W	1-59	7	15156W	2-15	15	151580W	2-56	1
15004W	3-69	10	15128W	3-173	28	15156W	2-17	15	151580W	2-57	1
15004W	3-92	17	15134W	1-33	28	15156W	2-19	18	151581W	1-11	13
15004W	3-94	16	15134W	2-13	13	15156W	2-21	15	151581W	1-3	13
15005W	3-92	19	15134W	2-17	13	15156W	2-23	15	151583W	2-54	2
15005W	3-94	18	15134W	2-19	16	15156W	2-25	15	151583W	2-55	2
15024W	3-92	16	15134W	2-23	13	15156W	2-27	15	151583W	2-56	2
15024W	3-94	15	15134W	2-27	13	15156W	2-29	15	151583W	2-57	2
15027W	3-52	14	15134W	2-31	13	15156W	2-3	34	151584W	2-54	8
15030W	3-56	5	15134W	2-35	13	15156W	2-31	15	151584W	2-55	8
15030W	3-67	19	15134W	2-39	13	15156W	2-33	15	151584W	2-56	8
15030W	3-83	2	15134W	2-41	13	15156W	2-35	15	151584W	2-57	8
15030W	3-84	11	15134W	2-9	13	15156W	2-37	15	151588W	2-54	22
15039W	3-143	54	15134W	3-109	23	15156W	2-39	15	151588W	2-55	22
15039W	3-145	52	15134W	3-169	22	15156W	2-41	15	151588W	2-56	22
15054W	3-65	10	15134W	3-191	28	15156W	2-5	34	151588W	2-57	22
15054W	3-69	8	15134W	3-60	8	15156W	2-7	15	151588W	2-58	22
15054W	3-83	28	15134W	3-61	92	15156W	2-9	15	151588W	2-59	22
15055W	3-58	6	15134W	3-62	64	15156W	3-101	49	151589W	1-11	27
15055W	3-80	12	15134W	3-85	11	15156W	3-103	13	151589W	1-13	13
15055W	3-81	8	15134W	3-89	9	15156W	3-105	49	151589W	1-15	13
15055W	3-83	9	15135W	1-19	32	15156W	3-107	13	151589W	1-3	27
15055W	3-83	20	15135W	1-49	45	15156W	3-11	12	151589W	1-5	13
15055W	3-84	12	15135W	1-53	45	15156W	3-111	13	151589W	1-5	27
15056W	1-33	29	15135W	1-57	23	15156W	3-113	49	151589W	1-7	13
15056W	3-191	29	15135W	2-3	53	15156W	3-115	13	151589W	1-9	13
15056W	3-84	16	15135W	2-5	53	15156W	3-117	49	15158W	1-11	6
15113W	3-159	156	15135W	2-51	19	15156W	3-119	13	15158W	1-11	10
15113W	3-173	56	15135W	2-53	19	15156W	3-121	13	15158W	1-11	16
15113W	3-177	13	15135W	3-167	23	15156W	3-123	49	15158W	1-11	35
15113W	3-55	4	15135W	3-56	8	15156W	3-125	13	15158W	1-11	52
15113W	3-57	5	15135W	3-83	4	15156W	3-127	49	15158W	1-11	56
15113W	3-65	5	15135W	3-84	5	15156W	3-129	13	15158W	1-13	10
15113W	3-77	5	15137W	1-40	3	15156W	3-13	24	15158W	1-13	16
15113W	3-80	5	15137W	1-41	3	15156W	3-15	13	15158W	1-13	35
15127W	3-159	155	15154W	3-65	11	15156W	3-17	12	15158W	1-13	56
15127W	3-161	76	15154W	3-83	29	15156W	3-17	82	15158W	1-15	10
15127W	3-173	55	15155W	2-11	13	15156W	3-19	13	15158W	1-15	16
15127W	3-79	25	15155W	2-15	13	15156W	3-21	24	15158W	1-15	35
15127W	3-89	5	15155W	2-21	13	15156W	3-23	13	15158W	1-15	56
15128W	1-17	10	15155W	2-25	13	15156W	3-25	12	15158W	1-19	31
15128W	1-19	20	15155W	2-29	13	15156W	3-25	82	15158W	1-3	6
15128W	1-20	13	15155W	2-33	13	15156W	3-27	13	15158W	1-3	10
15128W	1-21	14	15155W	2-37	13	15156W	3-29	24	15158W	1-3	16
15128W	1-22	13	15155W	2-7	13	15156W	3-3	13	15158W	1-3	35
15128W	1-25	9	15155W	3-56	10	15156W	3-31	13	15158W	1-3	52
15128W	1-27	32	15155W	3-58	5	15156W	3-33	12	15158W	1-3	56
15128W	1-29	32	15155W	3-67	8	15156W	3-35	13	15158W	1-49	46
15128W	1-31	41	15155W	3-80	14	15156W	3-37	24	15158W	1-5	10
15128W	1-33	41	15155W	3-81	7	15156W	3-39	13	15158W	1-5	16
15128W	1-38	9	15155W	3-83	10	15156W	3-41	12	15158W	1-5	35
15128W	1-39	9	15155W	3-83	19	15156W	3-41	82	15158W	1-5	52
15128W	1-40	9	15155W	3-84	9	15156W	3-43	13	15158W	1-5	56
15128W	1-41	9	15156W	1-11	42	15156W	3-45	24	15158W	1-53	46
15128W	1-42	13	15156W	1-11	56	15156W	3-47	13	15158W	1-55	1.27
15128W	1-43	13	15156W	1-13	42	15156W	3-49	12	15158W	1-57	22
15128W	1-44	35	15156W	1-15	42	15156W	3-5	12	15158W	1-7	6
15128W	1-45	3	15156W	1-3	42	15156W	3-51	13	15158W	1-7	10
15128W	1-45	19	15156W	1-3	56	15156W	3-52	3	15158W	1-7	16

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15158W	1-7	35	15158W	3-49	7	15272W	1-9	46	15887W	1-23	4
15158W	1-7	56	15158W	3-49	45	15272W	4-2	1	15887W	1-24	4
15158W	1-9	10	15158W	3-5	7	15272W	4-3	17	15887W	1-27	5
15158W	1-9	16	15158W	3-5	45	15273W	1-11	44	15887W	1-29	5
15158W	1-9	35	15158W	3-51	7	15273W	1-3	44	15887W	1-31	4
15158W	1-9	56	15158W	3-7	7	15273W	1-7	44	15887W	1-33	4
15158W	2-3	15	15158W	3-9	7	15273W	4-4	19	15887W	1-35	1.4
15158W	2-5	15	15158W	3-9	65	152995W	4-2	4	15887W	1-37	1.4
15158W	2-54	11	15158W	3-99	7	15303W	1-11	48	15887W	1-38	10
15158W	2-55	11	15160W	1-17	14	15303W	1-3	48	15887W	1-39	10
15158W	2-56	11	15160W	4-4	4	15303W	1-7	48	15887W	2-25	36
15158W	2-57	11	151646W	1-11	14	15314W	3-52	34	15887W	2-27	41
15158W	2-58	11	151646W	1-13	14	15316W	1-11	47	15887W	3-173	33
15158W	2-59	11	151646W	1-15	14	15316W	1-13	47	15893W	1-40	15
15158W	2-60	3	151646W	1-3	14	15316W	1-15	47	15893W	1-41	15
15158W	2-63	6	151646W	1-3	51	15316W	1-3	47	15893W	2-47	8
15158W	2-65	2	151646W	1-5	14	15316W	1-5	47	15893W	2-49	8
15158W	3-101	36	151646W	1-5	51	15316W	1-7	47	15906W	2-54	3
15158W	3-103	245	151646W	1-7	14	15316W	1-9	47	15906W	2-55	3
15158W	3-105	36	151646W	1-9	14	15319W	1-11	26	15906W	2-56	3
15158W	3-107	245	151646W	2-64	4	15319W	1-13	26	15906W	2-57	3
15158W	3-109	27	151646W	5-8	1	15319W	1-15	26	15923W	3-92	18
15158W	3-11	7	151646W	6-3		15319W	1-3	26	15923W	3-94	17
15158W	3-11	47	15166W	1-49	48	15319W	1-5	26	15932W	3-92	20
15158W	3-111	7	15166W	1-53	48	15319W	1-7	26	15932W	3-94	19
15158W	3-113	36	15166W	1-55	1.18	15319W	1-9	26	15962W	3-52	7
15158W	3-115	245	15166W	4-2	23	15347W	1-11	12	159940W	2-54	16
15158W	3-117	36	15166W	4-3	16	15347W	1-13	12	159940W	2-55	16
15158W	3-119	245	15176W	3-13	28	15347W	1-15	12	159940W	2-56	16
15158W	3-121	7	15176W	3-21	28	15347W	1-3	12	159940W	2-57	16
15158W	3-123	36	15176W	3-29	28	15347W	1-5	12	159940W	2-58	16
15158W	3-125	245	15176W	3-37	28	15347W	1-7	12	159940W	2-59	16
15158W	3-127	36	15176W	3-45	28	15347W	1-9	12	159940W	5-16	1
15158W	3-129	245	15212W	3-11	25	15483W	2-43	22	159940W	5-18	1
15158W	3-13	8	15212W	3-13	12	15483W	2-45	22	159940W	5-19	1
15158W	3-130	5	15212W	3-15	42	15483W	2-47	17	159940W	5-20	1
15158W	3-15	7	15212W	3-17	25	15483W	3-52	5	159940W	5-21	1
15158W	3-15	65	15212W	3-19	42	156133W	3-143	62	159940W	6-5	
15158W	3-167	22	15212W	3-21	12	156133W	3-145	55	159940W	6-5	
15158W	3-17	7	15212W	3-23	42	156133W	3-53	5	159940W	6-6	
15158W	3-17	47	15212W	3-25	25	15860W	3-52	11	159940W	6-6	
15158W	3-19	7	15212W	3-27	42	15862W	2-58	4	16001W	1-46	16
15158W	3-21	8	15212W	3-29	12	15862W	2-59	4	16001W	1-51	16
15158W	3-23	7	15212W	3-3	42	15880W	1-20	12	16001W	4-2	9
15158W	3-23	65	15212W	3-31	42	15880W	1-42	12	16001W	4-3	4
15158W	3-25	7	15212W	3-33	25	15880W	1-43	12	16001W	4-4	1
15158W	3-25	47	15212W	3-35	42	15881W	2-63	24	16001W	4-5	9
15158W	3-27	7	15212W	3-37	12	15881W	5-17	9	16002W	4-4	16
15158W	3-29	8	15212W	3-39	42	15881W	5-18	9	16168W	3-81	5
15158W	3-3	7	15212W	3-41	25	15881W	5-19	9	16328W	1-19	33
15158W	3-3	65	15212W	3-43	42	15881W	5-20	9	16338W	2-47	16
15158W	3-31	7	15212W	3-45	12	15881W	5-21	9	16338W	2-49	16
15158W	3-31	65	15212W	3-47	42	15881W	6-5		16338W	3-65	6
15158W	3-33	7	15212W	3-49	23	15881W	6-5		16379W	3-111	225
15158W	3-33	47	15212W	3-5	23	15881W	6-6		16379W	3-121	225
15158W	3-35	7	15212W	3-51	42	15881W	6-6		16379W	3-99	225
15158W	3-37	8	15212W	3-7	42	15885W	1-11	29	16445W	3-11	63
15158W	3-39	7	15212W	3-9	42	15885W	1-13	29	16445W	3-17	63
15158W	3-39	65	15225W	3-83	5	15885W	1-15	29	16445W	3-25	63
15158W	3-41	7	15272W	1-11	46	15885W	1-3	29	16445W	3-33	63
15158W	3-41	47	15272W	1-13	46	15885W	1-5	29	16445W	3-41	63
15158W	3-43	7	15272W	1-15	46	15885W	1-7	29	16445W	3-49	54
15158W	3-45	8	15272W	1-3	46	15885W	1-9	29	16445W	3-5	54
15158W	3-47	7	15272W	1-5	46	15885W	5-11	10	16455W	2-3	38
15158W	3-47	65	15272W	1-7	46	15885W	6-4		16455W	2-5	38

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16455W	3-45	305	16543W	3-99	202	16561W	3-9	302	16598W	3-29	27
16455W	3-47	305	16556W	3-101	28	16561W	3-9	311	16598W	3-37	27
16463W	3-19	96	16556W	3-103	237	16565W	2-58	5	16598W	3-45	27
16463W	3-27	96	16556W	3-105	28	16565W	2-59	5	16602W	1-60	6
16463W	3-35	96	16556W	3-107	237	16565W	3-101	21	16602W	3-101	32
16463W	3-43	96	16556W	3-113	28	16565W	3-103	229	16602W	3-103	241
16463W	3-49	54	16556W	3-115	237	16565W	3-105	21	16602W	3-105	32
16463W	3-51	96	16556W	3-117	28	16565W	3-107	263	16602W	3-107	241
16463W	3-7	96	16556W	3-119	237	16565W	3-109	172	16602W	3-109	24
16484W	3-137	2	16556W	3-123	28	16565W	3-109	263	16602W	3-113	32
16484W	3-52	10	16556W	3-125	237	16565W	3-111	229	16602W	3-115	241
16484W	3-52	37	16556W	3-127	28	16565W	3-113	21	16602W	3-117	32
165035W	2-13	8	16556W	3-129	237	16565W	3-115	229	16602W	3-119	241
165035W	2-17	8	16557W	3-189	12	16565W	3-117	21	16602W	3-123	32
165035W	2-19	10	16559W	3-11	31	16565W	3-119	172	16602W	3-125	241
165035W	2-21	9	16559W	3-13	30	16565W	3-121	229	16602W	3-127	32
165035W	2-23	8	16559W	3-15	48	16565W	3-123	21	16602W	3-129	241
165035W	2-25	9	16559W	3-17	31	16565W	3-125	229	16602W	3-130	2
165035W	2-27	8	16559W	3-19	146	16565W	3-127	21	166857W	1-33	14
165035W	2-29	9	16559W	3-21	30	16565W	3-129	172	166857W	1-40	17
165035W	2-31	8	16559W	3-23	48	16565W	3-99	229	166857W	1-41	17
165035W	2-33	9	16559W	3-25	31	16568W	3-109	13	166857W	3-193	23
165035W	2-35	8	16559W	3-27	146	16568W	3-11	17	166857W	3-194	14
165035W	2-37	9	16559W	3-29	30	16568W	3-111	18	166905W	3-52	29
165035W	2-39	8	16559W	3-3	48	16568W	3-121	18	16691W	2-11	4
165035W	2-41	8	16559W	3-31	48	16568W	3-13	46	16691W	2-15	4
165035W	2-9	8	16559W	3-33	31	16568W	3-15	18	16691W	2-21	4
16541W	3-101	23	16559W	3-35	146	16568W	3-17	17	16691W	2-25	4
16541W	3-103	231	16559W	3-37	30	16568W	3-19	18	16691W	2-29	4
16541W	3-105	23	16559W	3-39	48	16568W	3-21	46	16691W	2-33	4
16541W	3-107	231	16559W	3-41	31	16568W	3-23	18	16691W	2-37	4
16541W	3-111	231	16559W	3-43	146	16568W	3-25	17	16691W	2-7	4
16541W	3-113	23	16559W	3-45	30	16568W	3-27	18	16745W	3-101	22
16541W	3-115	231	16559W	3-47	48	16568W	3-29	46	16745W	3-103	230
16541W	3-117	23	16559W	3-49	29	16568W	3-3	18	16745W	3-105	22
16541W	3-119	231	16559W	3-5	29	16568W	3-31	18	16745W	3-107	230
16541W	3-121	231	16559W	3-51	146	16568W	3-33	17	16745W	3-111	230
16541W	3-123	23	16559W	3-7	146	16568W	3-35	18	16745W	3-113	22
16541W	3-125	231	16559W	3-9	48	16568W	3-37	46	16745W	3-115	230
16541W	3-127	23	16561W	2-19	5	16568W	3-39	18	16745W	3-117	22
16541W	3-129	231	16561W	2-5	49	16568W	3-41	17	16745W	3-119	230
16541W	3-99	231	16561W	3-11	73	16568W	3-43	18	16745W	3-121	230
16543W	2-3	52	16561W	3-13	302	16568W	3-45	46	16745W	3-123	22
16543W	3-101	3	16561W	3-13	311	16568W	3-47	18	16745W	3-125	230
16543W	3-103	202	16561W	3-15	302	16568W	3-49	17	16745W	3-127	22
16543W	3-103	307	16561W	3-15	311	16568W	3-5	17	16745W	3-129	230
16543W	3-105	3	16561W	3-17	70	16568W	3-51	18	16745W	3-99	230
16543W	3-107	202	16561W	3-17	73	16568W	3-7	18	16805W	2-11	14
16543W	3-107	307	16561W	3-21	302	16568W	3-9	18	16805W	2-13	14
16543W	3-109	56	16561W	3-21	311	16568W	3-99	18	16805W	2-15	14
16543W	3-111	202	16561W	3-23	302	16570W	3-109	32	16805W	2-17	14
16543W	3-113	3	16561W	3-23	311	16597W	3-13	309	16805W	2-19	17
16543W	3-115	202	16561W	3-25	73	16597W	3-15	309	16805W	2-21	14
16543W	3-115	307	16561W	3-29	302	16597W	3-17	80	16805W	2-23	14
16543W	3-117	3	16561W	3-29	311	16597W	3-21	309	16805W	2-25	14
16543W	3-119	202	16561W	3-31	302	16597W	3-23	309	16805W	2-27	14
16543W	3-119	307	16561W	3-31	311	16597W	3-25	80	16805W	2-29	14
16543W	3-121	202	16561W	3-33	73	16597W	3-29	309	16805W	2-3	33
16543W	3-123	3	16561W	3-37	302	16597W	3-31	309	16805W	2-31	14
16543W	3-125	202	16561W	3-37	311	16597W	3-37	309	16805W	2-33	14
16543W	3-125	307	16561W	3-39	302	16597W	3-39	309	16805W	2-35	14
16543W	3-127	3	16561W	3-39	311	16597W	3-41	80	16805W	2-37	14
16543W	3-129	202	16561W	3-41	73	16597W	3-9	309	16805W	2-39	14
16543W	3-129	307	16561W	3-45	302	16598W	3-13	27	16805W	2-41	14

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16805W	2-7	14	16829W	3-21	7	16948W	3-27	54	16989W	3-17	65
16805W	2-9	14	16829W	3-23	6	16948W	3-29	42	16989W	3-19	46
16805W	3-13	33	16829W	3-25	6	16948W	3-3	54	16989W	3-19	145
16805W	3-169	21	16829W	3-29	7	16948W	3-31	54	16989W	3-21	26
16805W	3-21	33	16829W	3-3	6	16948W	3-33	37	16989W	3-21	84
16805W	3-29	33	16829W	3-31	6	16948W	3-35	54	16989W	3-23	46
16805W	3-37	33	16829W	3-33	6	16948W	3-37	42	16989W	3-23	84
16805W	3-45	33	16829W	3-37	7	16948W	3-39	54	16989W	3-25	29
16805W	3-60	6	16829W	3-39	6	16948W	3-41	37	16989W	3-25	65
16805W	3-84	15	16829W	3-41	6	16948W	3-43	54	16989W	3-27	46
16805W	3-89	8	16829W	3-45	7	16948W	3-45	42	16989W	3-27	145
16828W	3-101	18	16829W	3-47	6	16948W	3-47	54	16989W	3-29	26
16828W	3-103	225	16829W	3-49	6	16948W	3-49	35	16989W	3-3	46
16828W	3-105	18	16829W	3-5	6	16948W	3-5	35	16989W	3-31	46
16828W	3-107	225	16829W	3-9	6	16948W	3-51	54	16989W	3-33	29
16828W	3-109	22	16829W	3-99	6	16948W	3-7	54	16989W	3-35	46
16828W	3-11	38	16830W	1-29	44	16948W	3-9	54	16989W	3-35	145
16828W	3-113	18	16830W	1-31	53	16983W	2-11	25	16989W	3-37	26
16828W	3-115	225	16830W	1-35	2.14	16983W	2-15	25	16989W	3-37	84
16828W	3-117	18	16830W	1-37	2.14	16983W	2-21	29	16989W	3-39	46
16828W	3-119	225	16836W	3-56	13	16983W	2-25	29	16989W	3-39	84
16828W	3-123	18	16836W	3-67	3	16983W	2-29	29	16989W	3-41	29
16828W	3-125	225	16909W	2-5	47	16983W	2-33	29	16989W	3-41	50
16828W	3-127	18	16909W	3-11	72	16983W	2-37	29	16989W	3-41	65
16828W	3-129	225	16909W	3-13	300	16983W	2-7	25	16989W	3-43	46
16828W	3-13	43	16909W	3-15	300	16987W	2-3	37	16989W	3-43	75
16828W	3-15	55	16909W	3-17	68	16987W	2-5	37	16989W	3-43	104
16828W	3-17	38	16909W	3-173	2	16987W	3-107	61	16989W	3-43	145
16828W	3-19	55	16909W	3-21	300	16987W	3-11	44	16989W	3-45	26
16828W	3-21	43	16909W	3-23	300	16987W	3-119	61	16989W	3-47	46
16828W	3-23	55	16909W	3-29	300	16987W	3-129	61	16989W	3-49	27
16828W	3-25	38	16909W	3-31	300	16987W	3-13	56	16989W	3-5	27
16828W	3-27	55	16909W	3-33	72	16987W	3-15	61	16989W	3-51	46
16828W	3-29	43	16909W	3-37	300	16987W	3-17	44	16989W	3-51	145
16828W	3-3	55	16909W	3-39	300	16987W	3-19	61	16989W	3-7	46
16828W	3-31	55	16909W	3-45	301	16987W	3-21	56	16989W	3-7	145
16828W	3-33	38	16909W	3-47	301	16987W	3-23	61	16989W	3-9	46
16828W	3-35	55	16909W	3-9	300	16987W	3-25	44	17059W	3-13	57
16828W	3-37	43	16923W	3-11	27	16987W	3-27	61	17059W	3-21	57
16828W	3-39	55	16923W	3-13	19	16987W	3-29	56	17059W	3-29	57
16828W	3-41	38	16923W	3-15	44	16987W	3-3	61	17059W	3-37	57
16828W	3-43	55	16923W	3-17	27	16987W	3-3	304	17059W	3-45	57
16828W	3-45	43	16923W	3-21	19	16987W	3-31	61	170987W	3-52	25
16828W	3-47	55	16923W	3-23	44	16987W	3-33	44	17224W	2-3	51
16828W	3-49	36	16923W	3-25	27	16987W	3-35	61	17224W	3-13	303
16828W	3-5	36	16923W	3-29	19	16987W	3-37	56	17224W	3-15	303
16828W	3-51	55	16923W	3-3	44	16987W	3-39	61	17224W	3-17	74
16828W	3-61	91	16923W	3-31	44	16987W	3-41	44	17224W	3-21	303
16828W	3-7	55	16923W	3-33	27	16987W	3-43	61	17224W	3-23	303
16828W	3-85	10	16923W	3-37	19	16987W	3-45	56	17224W	3-23	312
16828W	3-9	55	16923W	3-39	44	16987W	3-45	304	17224W	3-25	74
16829W	2-19	113	16923W	3-41	27	16987W	3-47	61	17224W	3-29	303
16829W	2-33	22	16923W	3-45	19	16987W	3-47	304	17224W	3-29	312
16829W	2-35	34	16923W	3-47	44	16987W	3-49	42	17224W	3-3	211
16829W	2-37	22	16923W	3-49	25	16987W	3-5	42	17224W	3-31	303
16829W	2-39	34	16923W	3-5	25	16987W	3-51	61	17224W	3-31	312
16829W	2-41	34	16923W	3-9	44	16987W	3-7	61	17224W	3-37	303
16829W	2-63	17	16948W	3-11	37	16987W	3-9	61	17224W	3-39	303
16829W	2-65	3	16948W	3-13	42	16989W	3-109	70	17224W	3-39	312
16829W	3-11	6	16948W	3-15	54	16989W	3-11	29	17224W	3-41	74
16829W	3-111	6	16948W	3-17	37	16989W	3-13	26	17224W	3-9	303
16829W	3-121	6	16948W	3-19	54	16989W	3-13	84	17224W	3-9	312
16829W	3-13	7	16948W	3-21	42	16989W	3-15	46	172808W	2-63	14
16829W	3-15	6	16948W	3-23	54	16989W	3-15	84	172810W	1-11	1

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172810W	1-15	1	176208W	2-5	45	178402W	1-5	11	181089W	3-23	310
172810W	1-3	1	17689W	3-184	111	178402W	1-5	15	181089W	3-25	81
172810W	1-5	1	17689W	3-185	111	178402W	1-5	19	181089W	3-29	310
172810W	1-7	1	17689W	3-3	111	178402W	1-5	36	181089W	3-31	310
172810W	1-9	1	17689W	3-45	116	178402W	1-5	53	181089W	3-37	310
17315W	3-109	7	17689W	3-47	111	178402W	1-5	55	181089W	3-39	310
17315W	3-11	2	17689W	3-49	57	178402W	1-7	5	181089W	3-41	81
17315W	3-111	2	17689W	3-5	57	178402W	1-7	11	181089W	3-9	310
17315W	3-121	2	17689W	3-51	111	178402W	1-7	15	18127W	3-55	3
17315W	3-13	2	17689W	3-7	111	178402W	1-7	36	18127W	3-57	4
17315W	3-15	2	17753W	3-109	160	178402W	1-7	55	181957W	3-101	30
17315W	3-17	2	17753W	3-187	160	178402W	1-9	11	181957W	3-103	239
17315W	3-19	2	17756W	3-111	150	178402W	1-9	15	181957W	3-105	30
17315W	3-21	2	17756W	3-113	46	178402W	1-9	19	181957W	3-107	239
17315W	3-23	2	17756W	3-115	160	178402W	1-9	36	181957W	3-111	239
17315W	3-25	2	17756W	3-117	46	178402W	1-9	55	181957W	3-113	30
17315W	3-29	2	17756W	3-119	160	178402W	2-11	21	181957W	3-115	239
17315W	3-3	2	17756W	3-121	150	178402W	2-13	31	181957W	3-117	30
17315W	3-31	2	17756W	3-123	46	178402W	2-15	21	181957W	3-119	239
17315W	3-33	2	17756W	3-125	160	178402W	2-17	36	181957W	3-121	239
17315W	3-37	2	17756W	3-127	46	178402W	2-25	32	181957W	3-123	30
17315W	3-39	2	17756W	3-129	160	178402W	2-27	36	181957W	3-125	239
17315W	3-41	2	17777W	3-11	28	178402W	2-3	14	181957W	3-127	30
17315W	3-45	2	17777W	3-13	21	178402W	2-33	21	181957W	3-129	239
17315W	3-47	2	17777W	3-15	45	178402W	2-37	21	181957W	3-99	239
17315W	3-49	2	17777W	3-17	28	178402W	2-5	14	182209W	1-11	58
17315W	3-5	2	17777W	3-21	21	178402W	2-60	2	182209W	1-13	60
17315W	3-9	2	17777W	3-23	45	178402W	2-7	21	182209W	1-15	58
17315W	3-99	2	17777W	3-25	28	178402W	2-9	36	182209W	1-3	58
173246W	3-13	308	17777W	3-29	21	178402W	3-173	4	182209W	1-5	59
173246W	3-15	308	17777W	3-3	45	178403W	1-7	19	182209W	1-7	58
173246W	3-21	308	17777W	3-31	45	178403W	3-101	35	182209W	1-9	58
173246W	3-23	308	17777W	3-33	28	178403W	3-103	244	18460W	3-83	30
173246W	3-29	308	17777W	3-37	21	178403W	3-105	35	184818W	2-43	15
173246W	3-31	308	17777W	3-39	45	178403W	3-107	244	184818W	2-45	15
173246W	3-37	308	17777W	3-41	28	178403W	3-109	26	184818W	5-11	7
173246W	3-39	308	17777W	3-45	21	178403W	3-113	35	184818W	6-4	
173246W	3-9	308	17777W	3-47	45	178403W	3-115	244	18497W	3-80	11
173607W	4-2	3	17777W	3-49	26	178403W	3-117	35	18497W	3-83	18
173607W	4-3	18	17777W	3-5	26	178403W	3-119	244	18513W	3-58	4
174413W	3-143	61	17777W	3-9	45	178403W	3-123	35	18515W	2-13	20
174413W	3-145	54	178402W	1-11	5	178403W	3-125	244	18515W	2-17	20
174413W	3-53	4	178402W	1-11	11	178403W	3-127	35	18515W	2-19	24
175646W	1-11	2	178402W	1-11	15	178403W	3-129	244	18515W	2-23	20
175646W	1-13	2	178402W	1-11	19	178403W	3-130	4	18515W	2-27	20
175646W	1-15	2	178402W	1-11	36	179443W	1-11	41	18515W	2-31	20
175646W	1-3	2	178402W	1-11	53	179443W	1-11	55	18515W	2-35	20
175646W	1-5	2	178402W	1-11	55	179443W	1-13	41	18515W	2-39	20
175646W	1-7	2	178402W	1-13	11	179443W	1-15	41	18515W	2-41	20
175646W	1-9	2	178402W	1-13	15	179443W	1-3	41	18515W	2-9	20
175647W	1-11	3	178402W	1-13	19	179443W	1-3	55	18515W	3-101	9
175647W	1-13	3	178402W	1-13	36	179443W	1-5	41	18515W	3-103	211
175647W	1-15	3	178402W	1-13	55	179443W	1-7	41	18515W	3-105	9
175647W	1-3	3	178402W	1-15	11	179443W	1-7	55	18515W	3-107	211
175647W	1-5	3	178402W	1-15	15	179443W	1-9	41	18515W	3-111	211
175647W	1-7	3	178402W	1-15	19	18001W	1-57	16	18515W	3-113	9
175647W	1-9	3	178402W	1-15	36	18001W	1-59	16	18515W	3-115	211
175648W	1-11	4	178402W	1-15	55	18004W	1-21	5	18515W	3-117	9
175648W	1-13	4	178402W	1-3	5	18004W	1-22	4	18515W	3-119	211
175648W	1-15	4	178402W	1-3	11	18005W	1-21	2	18515W	3-121	211
175648W	1-3	4	178402W	1-3	15	18005W	1-22	1	18515W	3-123	9
175648W	1-5	4	178402W	1-3	19	181089W	3-13	310	18515W	3-125	211
175648W	1-7	4	178402W	1-3	36	181089W	3-15	310	18515W	3-127	9
175648W	1-9	4	178402W	1-3	53	181089W	3-17	81	18515W	3-129	211

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18515W	3-56	11	18717W	3-87	2.8	196022W	3-123	48	198385W	3-19	47
18515W	3-60	5	18717W	3-87	3.7	196022W	3-125	8	198385W	3-21	29
18515W	3-63	6	18717W	3-89	12	196022W	3-127	48	198385W	3-23	47
18515W	3-67	2	18717W	3-92	22	196022W	3-129	8	198385W	3-25	30
18515W	3-78	5	18717W	3-93	18	196022W	3-13	10	198385W	3-27	47
18515W	3-80	13	18717W	3-94	23	196022W	3-15	8	198385W	3-29	29
18515W	3-85	5	18720W	3-163	113	196022W	3-17	8	198385W	3-3	47
18515W	3-99	211	18720W	3-165	4.12	196022W	3-19	8	198385W	3-31	47
18518W	3-109	18	18723W	3-77	14	196022W	3-21	10	198385W	3-33	30
18518W	3-54	3	18738W	1-33	16	196022W	3-23	8	198385W	3-35	47
18518W	3-60	3	18738W	3-193	25	196022W	3-25	8	198385W	3-37	29
18524W	3-111	207	18738W	3-194	16	196022W	3-27	8	198385W	3-39	47
18524W	3-121	207	18738W	3-57	14	196022W	3-29	10	198385W	3-41	30
18524W	3-99	207	188210W	2-11	24	196022W	3-3	8	198385W	3-43	47
18526W	3-101	8	188210W	2-15	24	196022W	3-31	8	198385W	3-45	29
18526W	3-103	207	188210W	2-21	28	196022W	3-33	8	198385W	3-47	47
18526W	3-105	8	188210W	2-25	28	196022W	3-35	8	198385W	3-49	28
18526W	3-107	207	188210W	2-29	28	196022W	3-37	10	198385W	3-5	28
18526W	3-109	17	188210W	2-33	28	196022W	3-39	8	198385W	3-51	47
18526W	3-113	8	188210W	2-37	28	196022W	3-41	8	198385W	3-7	47
18526W	3-115	207	188210W	2-7	24	196022W	3-43	8	198385W	3-9	47
18526W	3-117	8	190930W	3-56	9	196022W	3-45	10	19928W	1-20	10
18526W	3-119	207	190930W	3-67	7	196022W	3-47	8	19928W	1-21	8
18526W	3-123	8	191534W	3-54	4	196022W	3-49	8	19928W	1-22	7
18526W	3-125	207	191534W	3-60	4	196022W	3-5	8	19928W	1-40	20
18526W	3-127	8	191534W	3-63	5	196022W	3-51	8	19928W	1-41	20
18526W	3-129	207	191534W	3-78	4	196022W	3-7	8	19928W	1-42	10
18526W	3-85	3	191534W	3-85	4	196022W	3-9	8	19928W	1-43	10
18528W	3-63	4	193912W	2-51	11	196022W	3-99	8	19929W	2-25	33
18528W	3-78	3	193912W	2-53	11	196022W	5-8	3	19929W	2-27	38
18530W	3-81	6	194090W	2-11	7	196022W	6-3		201761W	3-23	313
18542W	3-13	4	194090W	2-15	7	196128W	3-56	7	201761W	3-29	313
18542W	3-21	4	194090W	2-21	7	196128W	3-67	6	201761W	3-31	313
18542W	3-29	4	194090W	2-25	7	196128W	3-83	8	201761W	3-39	313
18542W	3-37	4	194090W	2-29	7	196128W	3-84	7	201761W	3-9	313
18542W	3-45	4	194090W	2-33	7	196128W	3-95	12	201776W	3-109	34
18588W	1-29	41	194090W	2-37	7	196128W	3-96	12	203239W	2-54	9
18588W	1-31	50	194090W	2-7	7	196128W	3-97	12	203239W	2-55	9
18588W	1-35	2.11	194090W	3-13	25	196129W	3-83	12	203239W	2-56	9
18588W	1-37	2.11	194090W	3-21	25	196129W	3-84	8	203239W	2-57	9
18588W	2-54	10	194090W	3-29	25	196144W	3-56	3	209639W	3-11	11
18588W	2-55	10	194090W	3-37	25	196144W	3-67	10	209639W	3-111	12
18588W	2-56	10	194090W	3-45	25	196144W	3-67	17	209639W	3-121	12
18588W	2-57	10	195992W	3-52	9	196144W	3-83	3	209639W	3-15	12
185990W	1-11	40	195993W	3-52	12	196144W	3-83	17	209639W	3-17	11
185990W	1-3	40	195995W	3-52	15	196144W	3-84	1	209639W	3-23	12
185990W	1-7	40	195997W	3-52	24	196144W	3-84	2	209639W	3-25	11
185990W	5-4	3	196000W	3-52	23	196280W	1-11	45	209639W	3-3	12
185990W	5-8	2	196002W	3-52	30	196280W	1-13	45	209639W	3-31	12
185990W	6-2		196003W	3-52	33	196280W	1-15	45	209639W	3-33	11
185990W	6-3		196004W	3-52	19	196280W	1-3	45	209639W	3-39	12
18601W	4-4	3	196006W	3-52	8	196280W	1-5	45	209639W	3-41	11
18662W	1-49	47	196009W	3-52	31	196280W	1-7	45	209639W	3-47	12
18662W	1-53	47	196022W	3-101	48	196280W	1-9	45	209639W	3-49	11
18669W	4-2	22	196022W	3-103	8	196280W	4-2	2	209639W	3-5	11
18669W	4-3	15	196022W	3-105	48	196280W	4-3	19	209639W	3-9	12
18695W	3-173	47	196022W	3-107	8	196469W	3-56	6	209639W	3-99	12
18717W	3-151	81	196022W	3-109	20	196469W	3-83	1	21420W	1-11	17
18717W	3-60	11	196022W	3-11	8	196469W	3-84	10	21420W	1-13	17
18717W	3-61	54	196022W	3-111	8	197066W	3-143	55	21420W	1-15	17
18717W	3-69	6	196022W	3-113	48	197066W	3-145	53	21420W	1-3	17
18717W	3-71	7	196022W	3-115	8	198385W	3-11	30	21420W	1-5	17
18717W	3-73	96	196022W	3-117	48	198385W	3-13	29	21420W	1-7	17
18717W	3-73	105	196022W	3-119	8	198385W	3-15	47	21420W	1-9	17

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216224W	1-17	8	221355W	2-31	12	221721W	1-42	14	221775W	2-51	15
216224W	1-40	8	221355W	2-35	12	221721W	1-43	14	221775W	2-53	15
216224W	1-41	8	221355W	2-39	12	221721W	1-44	28	221777W	1-17	17
216590W	2-25	34	221355W	2-41	12	221721W	1-45	12	221777W	1-27	30
216590W	2-27	37	221355W	2-5	31	221721W	1-46	8	221777W	1-29	30
217754W	3-13	50	221355W	2-9	12	221721W	1-49	24	221777W	1-31	20
217754W	3-21	50	221466W	1-44	7	221721W	1-51	8	221777W	1-33	20
217754W	3-29	50	221466W	1-45	17	221721W	1-53	24	221777W	1-35	1.14
217754W	3-37	50	221499W	3-62	63	221721W	1-55	1.1	221777W	1-37	1.14
217754W	3-45	50	221507W	1-17	20	221721W	1-57	28	221779W	2-3	23
219070W	2-43	4	221507W	1-57	17	221721W	1-59	28	221779W	2-5	23
219070W	2-45	4	221507W	1-59	17	221721W	3-173	22	221780W	1-17	4
219070W	5-11	4	221563W	2-51	18	221724W	1-25	8	221780W	1-19	10
219070W	6-4		221563W	2-53	18	221724W	1-27	33	221780W	1-20	15
219172W	3-109	1	221577W	2-63	11	221724W	1-29	33	221780W	1-21	12
219172W	3-11	10	221650W	2-55	23	221724W	1-31	42	221780W	1-22	11
219172W	3-111	11	221690W	1-23	20	221724W	1-33	42	221780W	1-23	1
219172W	3-121	11	221692W	1-17	2	221724W	1-35	2.3	221780W	1-24	1
219172W	3-13	18	221701W	1-27	35	221724W	1-37	2.3	221780W	1-25	6
219172W	3-15	11	221701W	1-29	35	221724W	1-38	8	221780W	1-26	6
219172W	3-17	10	221701W	1-31	44	221724W	1-39	8	221780W	1-27	8
219172W	3-19	11	221701W	1-33	44	221724W	1-57	6	221780W	1-29	8
219172W	3-21	18	221701W	1-35	2.5	221724W	1-59	6	221780W	1-31	7
219172W	3-23	11	221701W	1-37	2.5	221724W	3-173	27	221780W	1-33	7
219172W	3-25	10	221703W	3-147	10	221725W	1-17	9	221780W	1-35	1.7
219172W	3-27	11	221703W	3-75	3.5	221725W	1-19	21	221780W	1-37	1.7
219172W	3-29	18	221703W	3-89	4	221725W	1-20	5	221780W	1-38	6
219172W	3-3	11	221707W	3-169	23	221725W	1-21	13	221780W	1-39	6
219172W	3-31	11	221707W	3-60	7	221725W	1-22	12	221780W	1-40	6
219172W	3-33	10	221707W	3-61	93	221725W	1-26	8	221780W	1-41	6
219172W	3-35	11	221707W	3-62	62	221725W	1-40	10	221780W	1-42	15
219172W	3-37	18	221707W	3-85	12	221725W	1-41	10	221780W	1-43	15
219172W	3-39	11	221707W	3-89	10	221725W	1-42	5	221780W	1-44	36
219172W	3-41	10	221710W	1-46	13	221725W	1-43	5	221780W	1-45	20
219172W	3-43	11	221710W	1-49	30	221725W	1-44	27	221780W	1-46	9
219172W	3-45	18	221710W	1-53	30	221725W	1-45	11	221780W	1-49	25
219172W	3-47	11	221710W	1-55	1.12	221725W	1-46	5	221780W	1-51	9
219172W	3-49	10	221711W	1-55	1.16	221725W	1-49	21	221780W	1-53	25
219172W	3-5	10	221712W	1-19	8	221725W	1-51	5	221780W	1-55	1.9
219172W	3-51	11	221717W	2-54	24	221725W	1-53	21	221780W	1-57	29
219172W	3-7	11	221717W	2-55	24	221725W	1-55	1.8	221780W	1-59	29
219172W	3-9	11	221717W	2-56	24	221725W	1-57	27	221780W	3-173	25
219172W	3-99	11	221717W	2-57	24	221725W	1-59	27	221867W	3-92	14
220098W	2-11	30	221717W	2-58	24	221763W	3-147	11	221867W	3-94	13
220098W	2-13	7	221717W	2-59	24	221763W	3-177	12	222381W	3-101	42
220098W	2-15	30	221720W	1-17	3	221771W	1-11	57	222381W	3-103	284
220098W	2-17	7	221720W	1-27	36	221771W	1-13	59	222381W	3-105	42
220098W	2-23	7	221720W	1-29	36	221771W	1-15	57	222381W	3-107	149
220098W	2-27	7	221720W	1-31	45	221771W	1-19	5	222381W	3-107	284
220098W	2-31	7	221720W	1-33	45	221771W	1-29	40	222381W	3-11	43
220098W	2-35	7	221720W	1-35	2.6	221771W	1-3	57	222381W	3-113	42
220098W	2-39	7	221720W	1-37	2.6	221771W	1-31	49	222381W	3-115	284
220098W	2-41	7	221721W	1-17	18	221771W	1-35	2.1	222381W	3-117	42
220098W	2-7	30	221721W	1-19	22	221771W	1-37	2.1	222381W	3-119	149
220098W	2-9	7	221721W	1-20	14	221771W	1-5	58	222381W	3-119	284
220984W	2-3	22	221721W	1-21	11	221771W	1-55	1.17	222381W	3-123	42
220984W	2-5	22	221721W	1-22	10	221771W	1-7	57	222381W	3-125	284
221336W	4-4	15	221721W	1-23	5	221771W	1-9	57	222381W	3-127	42
221336W	4-5	12	221721W	1-24	5	221775W	1-19	25	222381W	3-129	149
221355W	2-13	12	221721W	1-25	3	221775W	1-27	10	222381W	3-129	284
221355W	2-17	12	221721W	1-26	3	221775W	1-29	10	222381W	3-15	60
221355W	2-19	14	221721W	1-38	3	221775W	1-31	9	222381W	3-17	43
221355W	2-23	12	221721W	1-39	3	221775W	1-33	9	222381W	3-19	149
221355W	2-27	12	221721W	1-40	7	221775W	1-35	1.9	222381W	3-23	60
221355W	2-3	31	221721W	1-41	7	221775W	1-37	1.9	222381W	3-25	43

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222381W	3-27	149	222734W	2-11	23	226450W	3-41	41	2300613W	2-43	6
222381W	3-3	60	222734W	2-13	39	226450W	3-43	58	2300613W	2-45	6
222381W	3-31	60	222734W	2-15	23	226450W	3-45	47	2300614W	2-61	4
222381W	3-33	43	222734W	2-17	39	226450W	3-47	58	2300616W	2-61	5
222381W	3-35	149	222734W	2-21	27	226450W	3-49	39	2300617W	2-61	3
222381W	3-39	60	222734W	2-23	42	226450W	3-5	39	2300618W	2-47	12
222381W	3-41	43	222734W	2-25	27	226450W	3-51	58	2300618W	2-49	12
222381W	3-43	149	222734W	2-27	42	226450W	3-7	58	2300619W	2-47	14
222381W	3-47	60	222734W	2-29	27	226450W	3-9	58	2300619W	2-49	14
222381W	3-49	41	222734W	2-31	42	226458W	1-17	13	2300619W	5-10	1.5
222381W	3-5	41	222734W	2-33	27	227276W	3-73	104	2300619W	6-4	
222381W	3-51	149	222734W	2-35	42	2300041W	1-44	6	2300624W	2-11	11
222381W	3-7	149	222734W	2-37	27	2300041W	1-45	16	2300624W	2-13	11
222381W	3-9	60	222734W	2-39	42	2300301W	3-11	45	2300624W	2-15	11
222402W	3-101	14	222734W	2-41	42	2300301W	3-13	14	2300624W	2-17	11
222402W	3-103	216	222734W	2-7	23	2300301W	3-15	62	2300624W	2-21	11
222402W	3-105	14	222734W	2-9	39	2300301W	3-17	45	2300624W	2-23	11
222402W	3-107	216	223453W	1-44	21	2300301W	3-19	62	2300624W	2-25	11
222402W	3-109	31	223453W	1-45	8	2300301W	3-21	14	2300624W	2-27	11
222402W	3-113	14	223453W	1-46	10	2300301W	3-23	62	2300624W	2-29	11
222402W	3-115	216	223453W	1-49	26	2300301W	3-25	45	2300624W	2-31	11
222402W	3-117	14	223453W	1-51	10	2300301W	3-27	62	2300624W	2-33	11
222402W	3-119	216	223453W	1-53	26	2300301W	3-29	14	2300624W	2-35	11
222402W	3-123	14	223453W	1-55	1.22	2300301W	3-3	62	2300624W	2-37	11
222402W	3-125	216	225097W	1-44	25	2300301W	3-31	62	2300624W	2-39	11
222402W	3-127	14	225097W	1-45	9	2300301W	3-33	45	2300624W	2-41	11
222402W	3-129	216	225712W	3-11	26	2300301W	3-35	62	2300624W	2-7	11
222442W	3-101	24	225712W	3-13	17	2300301W	3-37	14	2300624W	2-9	11
222442W	3-101	44	225712W	3-15	43	2300301W	3-39	62	2300625W	2-11	16
222442W	3-103	232	225712W	3-17	26	2300301W	3-41	45	2300625W	2-11	17
222442W	3-103	292	225712W	3-21	17	2300301W	3-43	62	2300625W	2-13	21
222442W	3-105	24	225712W	3-23	43	2300301W	3-45	14	2300625W	2-13	22
222442W	3-105	44	225712W	3-25	26	2300301W	3-47	62	2300625W	2-15	16
222442W	3-107	232	225712W	3-29	17	2300301W	3-49	43	2300625W	2-15	17
222442W	3-107	292	225712W	3-3	43	2300301W	3-5	43	2300625W	2-17	21
222442W	3-111	283	225712W	3-31	43	2300301W	3-51	62	2300625W	2-17	22
222442W	3-113	24	225712W	3-33	26	2300301W	3-52	62	2300625W	2-19	50
222442W	3-113	44	225712W	3-37	17	2300301W	3-7	62	2300625W	2-21	16
222442W	3-115	232	225712W	3-39	43	2300301W	3-9	62	2300625W	2-21	17
222442W	3-115	292	225712W	3-41	26	2300308W	3-137	2	2300625W	2-23	21
222442W	3-117	24	225712W	3-45	17	2300308W	3-52	36	2300625W	2-23	22
222442W	3-117	44	225712W	3-47	43	2300326W	3-54	1	2300625W	2-25	16
222442W	3-119	232	225712W	3-49	24	2300326W	3-63	1	2300625W	2-25	17
222442W	3-119	292	225712W	3-5	24	2300369W	3-78	9	2300625W	2-27	21
222442W	3-121	283	225712W	3-9	43	2300422W	1-57	12	2300625W	2-27	22
222442W	3-123	24	225871W	3-80	10	2300422W	1-59	12	2300625W	2-29	16
222442W	3-123	44	226374W	4-2	20	2300423W	1-57	13	2300625W	2-29	17
222442W	3-125	232	226374W	4-3	13	2300423W	1-59	13	2300625W	2-31	21
222442W	3-125	292	226445W	3-52	13	2300508W	1-11	39	2300625W	2-31	22
222442W	3-127	24	226450W	3-11	41	2300508W	1-3	39	2300625W	2-33	16
222442W	3-127	44	226450W	3-13	47	2300508W	1-7	39	2300625W	2-33	17
222442W	3-129	232	226450W	3-15	58	2300521W	4-4	14	2300625W	2-35	21
222442W	3-129	292	226450W	3-17	41	2300602W	2-47	1	2300625W	2-35	22
222442W	3-137	8	226450W	3-19	58	2300603W	2-47	2	2300625W	2-37	16
222442W	3-99	283	226450W	3-21	47	2300604W	2-47	4	2300625W	2-37	17
222443W	3-109	33	226450W	3-23	58	2300604W	2-49	4	2300625W	2-39	21
222443W	3-111	220	226450W	3-25	41	2300606W	2-43	12	2300625W	2-39	22
222443W	3-121	220	226450W	3-27	58	2300606W	2-45	12	2300625W	2-41	21
222443W	3-137	9	226450W	3-29	47	2300608W	2-47	15	2300625W	2-41	22
222443W	3-99	220	226450W	3-3	58	2300608W	2-49	15	2300625W	2-7	16
222648W	2-35	33	226450W	3-31	58	2300609W	2-43	18	2300625W	2-7	17
222648W	2-39	33	226450W	3-33	41	2300610W	2-43	16	2300625W	2-9	21
222648W	2-41	33	226450W	3-35	58	2300610W	2-45	16	2300625W	2-9	22
222677W	2-3	24	226450W	3-37	47	2300612W	2-43	5	2300627W	2-51	16
222677W	2-5	24	226450W	3-39	58	2300612W	2-45	5	2300627W	2-53	16



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2300629W	2-53	7	2300647W	2-37	17	2300690W	1-9	32	2300749W	2-15	16
2300630W	2-51	13	2300647W	2-39	21	2300690W	5-8	6	2300749W	2-15	17
2300630W	2-53	13	2300647W	2-39	22	2300690W	6-3		2300749W	2-17	21
2300631W	2-51	12	2300647W	2-41	21	2300692W	1-3	24	2300749W	2-17	22
2300631W	2-53	12	2300647W	2-41	22	2300692W	1-5	24	2300749W	2-19	40
2300632W	2-63	7	2300647W	2-7	16	2300693W	1-11	25	2300749W	2-21	16
2300634W	2-43	8	2300647W	2-7	17	2300693W	1-13	25	2300749W	2-21	17
2300634W	2-45	8	2300647W	2-9	21	2300693W	1-15	25	2300749W	2-23	21
2300643W	2-43	21	2300647W	2-9	22	2300693W	1-3	25	2300749W	2-23	22
2300643W	2-45	21	2300648W	2-11	20	2300693W	1-5	25	2300749W	2-25	16
2300643W	5-11	8	2300648W	2-13	30	2300693W	1-7	25	2300749W	2-25	17
2300643W	6-4		2300648W	3-173	1	2300693W	1-9	25	2300749W	2-27	21
2300645W	2-11	8	2300654W	2-11	18	2300693W	2-64	3	2300749W	2-27	22
2300645W	2-13	33	2300654W	2-15	18	2300693W	5-8	7	2300749W	2-29	16
2300645W	2-15	8	2300654W	2-21	18	2300693W	6-3		2300749W	2-29	17
2300645W	2-17	33	2300654W	2-25	18	2300707W	2-43	11	2300749W	2-31	21
2300645W	2-19	141	2300654W	2-29	18	2300707W	2-45	11	2300749W	2-31	22
2300645W	2-21	8	2300654W	2-33	18	2300707W	2-47		2300749W	2-33	16
2300645W	2-23	32	2300654W	2-37	18	2300707W	2-49		2300749W	2-33	17
2300645W	2-25	8	2300654W	2-7	18	2300708W	2-43	23	2300749W	2-35	21
2300645W	2-27	32	2300668W	2-43	2	2300708W	2-45	23	2300749W	2-35	22
2300645W	2-29	8	2300668W	2-45	2	2300709W	1-23	21	2300749W	2-37	16
2300645W	2-31	32	2300668W	5-14	3	2300709W	1-38	14	2300749W	2-37	17
2300645W	2-33	8	2300668W	6-5		2300709W	1-39	14	2300749W	2-39	21
2300645W	2-35	30	2300669W	2-43	3	2300709W	3-173	35	2300749W	2-39	22
2300645W	2-37	8	2300669W	2-45	3	2300721W	1-11	24	2300749W	2-41	21
2300645W	2-41	30	2300669W	5-14	4	2300721W	1-13	24	2300749W	2-41	22
2300645W	2-7	8	2300669W	6-5		2300721W	1-15	24	2300749W	2-7	16
2300645W	2-9	33	2300670W	2-47	13	2300721W	1-7	24	2300749W	2-7	17
2300645W	3-173	92	2300670W	2-49	13	2300721W	1-9	24	2300749W	2-9	21
2300646W	2-11	19	2300670W	5-10	2	2300723W	1-25	1	2300749W	2-9	22
2300646W	2-13	29	2300670W	6-4		2300723W	1-38	1	2300758W	3-109	6
2300646W	2-21	19	2300671W	2-43	13	2300723W	1-39	1	2300758W	3-11	1
2300646W	2-23	29	2300671W	2-45	13	2300723W	3-173	20	2300758W	3-111	1
2300646W	2-25	19	2300671W	5-15	6	2300724W	1-25	2	2300758W	3-121	1
2300646W	2-27	29	2300671W	6-5		2300724W	1-38	2	2300758W	3-13	1
2300646W	2-29	19	2300672W	2-43	14	2300724W	1-39	2	2300758W	3-15	1
2300646W	2-31	29	2300672W	2-45	14	2300724W	3-173	21	2300758W	3-17	1
2300646W	3-173	91	2300672W	5-15	7	2300746W	1-11	7	2300758W	3-173	93
2300647W	2-11	16	2300672W	6-5		2300746W	1-13	7	2300758W	3-187	6
2300647W	2-11	17	2300673W	2-43	20	2300746W	1-15	7	2300758W	3-19	1
2300647W	2-13	21	2300673W	2-45	20	2300746W	1-3	7	2300758W	3-21	1
2300647W	2-13	22	2300673W	5-15	8	2300746W	1-5	7	2300758W	3-23	1
2300647W	2-15	16	2300673W	6-5		2300746W	1-7	7	2300758W	3-25	1
2300647W	2-15	17	2300687W	1-11	31	2300746W	1-9	7	2300758W	3-29	1
2300647W	2-17	21	2300687W	1-13	31	2300747W	2-11	18	2300758W	3-3	1
2300647W	2-17	22	2300687W	1-15	31	2300747W	2-15	18	2300758W	3-31	1
2300647W	2-19	51	2300687W	1-3	31	2300747W	2-21	18	2300758W	3-33	1
2300647W	2-21	16	2300687W	1-5	31	2300747W	2-25	18	2300758W	3-35	1
2300647W	2-21	17	2300687W	1-7	31	2300747W	2-29	18	2300758W	3-37	1
2300647W	2-23	21	2300687W	1-9	31	2300747W	2-33	18	2300758W	3-39	1
2300647W	2-23	22	2300688W	1-11	37	2300747W	2-37	18	2300758W	3-41	1
2300647W	2-25	16	2300688W	1-3	37	2300747W	2-7	18	2300758W	3-43	1
2300647W	2-25	17	2300688W	1-7	37	2300748W	2-11	18	2300758W	3-45	1
2300647W	2-27	21	2300689W	1-11	38	2300748W	2-15	18	2300758W	3-47	1
2300647W	2-27	22	2300689W	1-3	38	2300748W	2-21	18	2300758W	3-49	1
2300647W	2-29	16	2300689W	1-7	38	2300748W	2-25	18	2300758W	3-5	1
2300647W	2-29	17	2300689W	5-8	5	2300748W	2-29	18	2300758W	3-51	1
2300647W	2-31	21	2300689W	6-3		2300748W	2-33	18	2300758W	3-7	1
2300647W	2-31	22	2300690W	1-11	32	2300748W	2-37	18	2300758W	3-9	1
2300647W	2-33	16	2300690W	1-13	32	2300748W	2-7	18	2300758W	3-99	1
2300647W	2-33	17	2300690W	1-15	32	2300749W	2-11	16	2300759W	3-13	301
2300647W	2-35	21	2300690W	1-3	32	2300749W	2-11	17	2300759W	3-15	301
2300647W	2-35	22	2300690W	1-5	32	2300749W	2-13	21	2300759W	3-17	69

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2300759W	3-173	3	2300762W	3-35	57	2300771W	3-21	82	2300776W	3-47	52
2300759W	3-21	301	2300762W	3-37	45	2300771W	3-21	102	2300776W	3-49	33
2300759W	3-23	301	2300762W	3-39	57	2300771W	3-23	92	2300776W	3-5	33
2300759W	3-29	301	2300762W	3-41	40	2300771W	3-25	60	2300776W	3-51	52
2300759W	3-31	301	2300762W	3-43	57	2300771W	3-27	92	2300776W	3-7	52
2300759W	3-37	301	2300762W	3-45	45	2300771W	3-29	82	2300776W	3-9	52
2300759W	3-39	301	2300762W	3-47	57	2300771W	3-3	92	2300777W	3-13	306
2300759W	3-9	301	2300762W	3-49	38	2300771W	3-31	92	2300777W	3-15	306
2300760W	3-109	40	2300762W	3-5	38	2300771W	3-33	60	2300777W	3-17	77
2300760W	3-109	71	2300762W	3-51	57	2300771W	3-35	92	2300777W	3-21	306
2300760W	3-11	21	2300762W	3-7	57	2300771W	3-37	82	2300777W	3-23	306
2300760W	3-13	94	2300762W	3-9	57	2300771W	3-37	102	2300777W	3-25	77
2300760W	3-17	21	2300767W	3-109	8	2300771W	3-39	92	2300777W	3-29	306
2300760W	3-17	66	2300767W	3-11	3	2300771W	3-41	60	2300777W	3-31	306
2300760W	3-19	30	2300767W	3-11	49	2300771W	3-43	92	2300777W	3-37	306
2300760W	3-21	94	2300767W	3-111	3	2300771W	3-45	112	2300777W	3-39	306
2300760W	3-25	66	2300767W	3-121	3	2300771W	3-47	92	2300777W	3-41	77
2300760W	3-27	105	2300767W	3-13	3	2300771W	3-49	51	2300777W	3-9	306
2300760W	3-29	94	2300767W	3-15	3	2300771W	3-5	51	2300778W	3-13	304
2300760W	3-33	21	2300767W	3-17	3	2300771W	3-51	92	2300778W	3-15	304
2300760W	3-35	30	2300767W	3-17	49	2300771W	3-7	92	2300778W	3-17	75
2300760W	3-37	85	2300767W	3-184	3	2300774W	3-11	39	2300778W	3-21	304
2300760W	3-37	94	2300767W	3-184	68	2300774W	3-13	44	2300778W	3-23	304
2300760W	3-41	51	2300767W	3-185	3	2300774W	3-15	56	2300778W	3-25	75
2300760W	3-41	66	2300767W	3-185	68	2300774W	3-17	39	2300778W	3-29	304
2300760W	3-43	105	2300767W	3-187	8	2300774W	3-19	56	2300778W	3-31	304
2300760W	3-99	85	2300767W	3-19	3	2300774W	3-21	44	2300778W	3-37	304
2300761W	3-11	36	2300767W	3-19	68	2300774W	3-23	56	2300778W	3-39	304
2300761W	3-13	38	2300767W	3-21	3	2300774W	3-25	39	2300778W	3-41	75
2300761W	3-15	53	2300767W	3-23	3	2300774W	3-27	56	2300778W	3-9	304
2300761W	3-17	36	2300767W	3-25	3	2300774W	3-29	44	2300779W	2-21	20
2300761W	3-19	53	2300767W	3-25	49	2300774W	3-3	56	2300779W	2-23	30
2300761W	3-21	38	2300767W	3-27	3	2300774W	3-31	56	2300779W	2-29	20
2300761W	3-23	53	2300767W	3-27	68	2300774W	3-33	39	2300779W	2-31	30
2300761W	3-25	36	2300767W	3-29	3	2300774W	3-35	56	2300783W	1-21	4
2300761W	3-27	53	2300767W	3-3	3	2300774W	3-37	44	2300783W	1-22	3
2300761W	3-29	38	2300767W	3-31	3	2300774W	3-39	56	2300785W	1-44	5
2300761W	3-3	53	2300767W	3-33	3	2300774W	3-41	39	2300785W	1-45	15
2300761W	3-31	53	2300767W	3-33	49	2300774W	3-43	56	2300789W	1-21	7
2300761W	3-33	36	2300767W	3-35	3	2300774W	3-45	44	2300789W	1-22	6
2300761W	3-35	53	2300767W	3-35	68	2300774W	3-47	56	2300791W	1-60	4
2300761W	3-37	38	2300767W	3-37	3	2300774W	3-49	37	2300792W	1-60	1
2300761W	3-39	53	2300767W	3-39	3	2300774W	3-5	37	2300794W	1-45	18
2300761W	3-41	36	2300767W	3-41	3	2300774W	3-51	56	2300797W	2-33	25
2300761W	3-43	53	2300767W	3-41	49	2300774W	3-7	56	2300797W	2-35	29
2300761W	3-45	38	2300767W	3-43	3	2300774W	3-9	56	2300798W	2-19	110
2300761W	3-47	53	2300767W	3-43	68	2300776W	3-11	35	2300798W	2-33	19
2300761W	3-49	34	2300767W	3-45	3	2300776W	3-13	37	2300798W	2-35	32
2300761W	3-5	34	2300767W	3-47	3	2300776W	3-15	52	2300798W	2-37	19
2300761W	3-51	53	2300767W	3-49	3	2300776W	3-17	35	2300798W	2-39	32
2300761W	3-7	53	2300767W	3-49	47	2300776W	3-19	52	2300798W	2-41	32
2300761W	3-9	53	2300767W	3-5	3	2300776W	3-21	37	2300799W	2-33	30
2300762W	3-11	40	2300767W	3-5	47	2300776W	3-23	52	2300799W	2-37	30
2300762W	3-13	45	2300767W	3-51	3	2300776W	3-25	35	2300935W	3-101	52
2300762W	3-15	57	2300767W	3-51	68	2300776W	3-27	52	2300935W	3-105	52
2300762W	3-17	40	2300767W	3-7	3	2300776W	3-29	37	2300935W	3-109	3
2300762W	3-19	57	2300767W	3-7	68	2300776W	3-3	52	2300935W	3-11	15
2300762W	3-21	45	2300767W	3-9	3	2300776W	3-31	52	2300935W	3-111	16
2300762W	3-23	57	2300767W	3-99	3	2300776W	3-33	35	2300935W	3-113	52
2300762W	3-25	40	2300771W	3-11	60	2300776W	3-35	52	2300935W	3-117	52
2300762W	3-27	57	2300771W	3-13	82	2300776W	3-37	37	2300935W	3-121	16
2300762W	3-29	45	2300771W	3-13	102	2300776W	3-39	52	2300935W	3-123	52
2300762W	3-3	57	2300771W	3-15	92	2300776W	3-41	35	2300935W	3-127	52
2300762W	3-31	57	2300771W	3-17	60	2300776W	3-43	52	2300935W	3-13	35
2300762W	3-33	40	2300771W	3-19	92	2300776W	3-45	37	2300935W	3-15	16

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2300935W	3-19	16	2300966W	1-59	24	2301431W	2-17	35	2301616W	2-5	6
2300935W	3-21	35	2300995W	3-95	7	2301431W	2-7	20	2301618W	2-3	5
2300935W	3-23	16	2300995W	3-96	7	2301431W	2-9	35	2301618W	2-5	5
2300935W	3-25	15	2300995W	3-97	7	2301437W	1-43	9	2301619W	2-3	19
2300935W	3-27	16	2301006W	1-17	15	2301477W	1-20	3	2301619W	2-5	19
2300935W	3-29	35	2301030W	3-60	2	2301477W	1-42	3	2301621W	2-3	20
2300935W	3-3	16	2301030W	3-85	9	2301477W	1-43	3	2301621W	2-5	20
2300935W	3-31	16	2301030W	3-89	7	2301484W	2-15	19	2301624W	2-3	8
2300935W	3-33	15	2301054W	3-69	4	2301484W	2-17	29	2301624W	2-5	8
2300935W	3-35	16	2301054W	3-89	3	2301484W	2-7	19	2301625W	2-3	9
2300935W	3-37	35	2301055W	3-169	26	2301484W	2-9	29	2301625W	2-5	9
2300935W	3-39	16	2301055W	3-45	58	2301487W	3-56	14	2301626W	2-3	10
2300935W	3-41	15	2301055W	3-61	94	2301487W	3-67	5	2301626W	2-5	10
2300935W	3-43	16	2301055W	3-77	17	2301487W	3-83	7	2301627W	2-19	115
2300935W	3-45	35	2301125W	1-24	31	2301487W	3-84	13	2301627W	2-3	13
2300935W	3-47	16	2301140W	1-19	19	2301487W	3-95	15	2301627W	2-33	23
2300935W	3-49	15	2301140W	1-20	7	2301487W	3-97	15	2301627W	2-35	35
2300935W	3-5	15	2301140W	1-26	7	2301500W	3-23	314	2301627W	2-37	23
2300935W	3-51	16	2301140W	1-42	7	2301500W	3-29	314	2301627W	2-39	35
2300935W	3-7	16	2301140W	1-43	7	2301500W	3-31	314	2301627W	2-41	35
2300935W	3-9	16	2301140W	1-44	1	2301500W	3-39	314	2301627W	2-5	13
2300935W	3-99	16	2301140W	1-57	14	2301500W	3-9	314	2301628W	2-3	54
2300935W	5-4	1	2301140W	1-59	14	2301510W	3-39	92	2301628W	2-5	54
2300935W	5-5	3	2301143W	1-45	5	2301510W	3-41	55	2301629W	2-3	55
2300935W	5-6	2	2301144W	1-17	5	2301510W	3-43	82	2301629W	2-5	55
2300935W	5-9	8	2301144W	1-19	9	2301512W	3-37	80	2301630W	2-3	56
2300935W	6-2		2301144W	1-20	8	2301512W	3-39	90	2301630W	2-5	56
2300935W	6-2		2301144W	1-25	4	2301512W	3-41	53	2301631W	2-3	32
2300935W	6-3		2301144W	1-26	4	2301512W	3-43	80	2301631W	2-5	32
2300935W	6-3		2301144W	1-38	4	2301522W	2-51	14	2301631W	5-9	10
2300936W	3-101	51	2301144W	1-39	4	2301522W	2-53	14	2301631W	6-3	
2300936W	3-105	51	2301144W	1-42	8	2301523W	2-51	9	2301632W	2-3	43
2300936W	3-109	2	2301144W	1-43	8	2301523W	2-53	9	2301632W	2-5	43
2300936W	3-11	14	2301144W	1-44	2	2301529W	1-46	14	2301633W	5-9	9
2300936W	3-111	15	2301144W	1-57	15	2301529W	1-49	31	2301633W	6-3	
2300936W	3-113	51	2301144W	1-59	15	2301529W	1-51	14	2301634W	3-95	6
2300936W	3-117	51	2301144W	3-173	23	2301529W	1-53	31	2301634W	3-96	6
2300936W	3-121	15	2301145W	1-40	13	2301529W	1-55	1.1	2301634W	3-97	6
2300936W	3-123	51	2301153W	1-40	12	2301530W	1-46	11	2301638W	1-59	1
2300936W	3-127	51	2301154W	1-40	11	2301530W	1-49	28	2301639W	1-59	4
2300936W	3-13	34	2301156W	1-40	1	2301530W	1-51	11	2301640W	1-59	5
2300936W	3-15	15	2301167W	1-40	19	2301530W	1-53	28	2301641W	1-57	9
2300936W	3-17	14	2301167W	1-41	19	2301530W	1-55	1.2	2301641W	1-59	9
2300936W	3-19	15	2301169W	1-40	14	2301531W	1-46	15	2301642W	1-57	10
2300936W	3-21	34	2301169W	1-41	14	2301531W	1-51	15	2301642W	1-59	10
2300936W	3-23	15	2301171W	1-40	2	2301532W	1-51	1	2301643W	1-57	11
2300936W	3-25	14	2301171W	1-41	2	2301533W	2-37	31	2301643W	1-59	11
2300936W	3-27	15	2301176W	1-24	33	2301533W	2-41	37	2301644W	2-3	40
2300936W	3-29	34	2301271W	3-58		2301539W	1-46	1	2301644W	2-5	40
2300936W	3-3	15	2301336W	2-3	17	2301540W	1-46	12	2301646W	3-121	85
2300936W	3-31	15	2301336W	2-5	17	2301540W	1-49	29	2301646W	3-185	120
2300936W	3-33	14	2301337W	2-3	18	2301540W	1-51	12	2301646W	3-187	120
2300936W	3-35	15	2301337W	2-5	18	2301540W	1-53	29	2301646W	3-45	114
2300936W	3-37	34	2301338W	2-3	3	2301540W	1-55	1.5	2301646W	3-47	120
2300936W	3-39	15	2301338W	2-5	3	2301541W	1-51	13	2301646W	3-49	59
2300936W	3-41	14	2301339W	2-3	4	2301553W	2-39	45	2301646W	3-51	120
2300936W	3-43	15	2301339W	2-5	4	2301600W	2-3	12	2301684W	3-11	71
2300936W	3-45	34	2301426W	3-181		2301600W	2-5	12	2301684W	3-33	71
2300936W	3-47	15	2301427W	1-20	1	2301601W	2-3	2	2301689W	1-11	33
2300936W	3-49	14	2301427W	1-42	1	2301601W	2-5	2	2301689W	1-13	33
2300936W	3-5	14	2301427W	1-43	1	2301605W	2-3	1	2301689W	1-15	33
2300936W	3-51	15	2301428W	1-20	2	2301605W	2-5	1	2301689W	1-3	33
2300936W	3-7	15	2301428W	1-42	2	2301613W	2-3	29	2301689W	1-5	33
2300936W	3-9	15	2301428W	1-43	2	2301613W	2-5	29	2301689W	1-7	33

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2301690W	1-11	34	2301844W	3-21	31	2302109W	3-129	301	2302493W	2-15	10
2301690W	1-21	16	2301844W	3-23	49	2302109W	3-15	4	2302493W	2-21	10
2301690W	1-3	34	2301844W	3-25	32	2302109W	3-17	4	2302493W	2-25	10
2301690W	1-40	22	2301844W	3-27	49	2302109W	3-19	141	2302493W	2-29	10
2301690W	1-41	22	2301844W	3-29	31	2302109W	3-23	4	2302493W	2-33	10
2301690W	1-7	34	2301844W	3-3	49	2302109W	3-25	4	2302493W	2-37	10
2301706W	4-3	3	2301844W	3-31	49	2302109W	3-27	141	2302493W	2-7	10
2301706W	4-5	5	2301844W	3-33	32	2302109W	3-3	4	2302498W	1-11	9
2301706W	4-5	21	2301844W	3-35	49	2302109W	3-31	4	2302498W	1-13	9
2301718W	4-3	1	2301844W	3-37	31	2302109W	3-33	4	2302498W	1-15	9
2301721W	4-3	11	2301844W	3-39	49	2302109W	3-35	141	2302498W	1-3	9
2301722W	4-3	10	2301844W	3-41	32	2302109W	3-39	4	2302498W	1-5	9
2301726W	4-3	5	2301844W	3-43	49	2302109W	3-41	4	2302498W	1-7	9
2301727W	4-3	8	2301844W	3-45	31	2302109W	3-43	141	2302498W	1-9	9
2301731W	4-3		2301844W	3-47	49	2302109W	3-47	4	2302501W	3-56	
2301732W	4-3		2301844W	3-49	30	2302109W	3-49	4	2302624W	2-54	15
2301748W	4-5		2301844W	3-5	30	2302109W	3-5	4	2302624W	2-55	15
2301749W	4-5	1	2301844W	3-51	49	2302109W	3-51	141	2302624W	2-56	15
2301775W	1-25	7	2301844W	3-7	49	2302109W	3-7	141	2302624W	2-57	15
2301775W	1-38	7	2301844W	3-9	49	2302109W	3-9	4	2302624W	2-58	15
2301775W	1-39	7	2301845W	3-85	2	2302109W	3-99	4	2302624W	2-59	15
2301775W	3-173	26	2301845W	3-94		2302120W	4-5	11	2302625W	2-54	18
2301783W	2-63	16	2301850W	1-49	49	2302240W	2-3	36	2302625W	2-55	18
2301783W	2-65	1	2301850W	1-53	49	2302240W	2-5	36	2302625W	2-56	18
2301785W	1-46	4	2301850W	1-55	1.2	2302240W	3-45	303	2302625W	2-57	18
2301785W	1-49	20	2301875W	3-11	33	2302240W	3-47	303	2302625W	2-58	18
2301785W	1-51	4	2301875W	3-13	32	2302309W	2-55	21	2302625W	2-59	18
2301785W	1-53	20	2301875W	3-15	50	2302309W	2-56	21	2302626W	2-23	31
2301785W	1-55	1.6	2301875W	3-17	33	2302309W	2-58	21	2302626W	2-31	31
2301785W	3-92		2301875W	3-19	147	2302310W	2-55	20	2302626W	2-54	14
2301789W	1-24	34	2301875W	3-21	32	2302311W	2-54	19	2302626W	2-55	14
2301789W	1-45	6	2301875W	3-23	50	2302311W	2-55	19	2302626W	2-56	14
2301834W	3-85	13	2301875W	3-25	33	2302311W	2-57	19	2302626W	2-57	14
2301843W	3-11	59	2301875W	3-27	147	2302311W	2-59	19	2302626W	2-58	14
2301843W	3-13	81	2301875W	3-29	32	2302311W	5-19	3	2302626W	2-59	14
2301843W	3-13	101	2301875W	3-3	50	2302311W	5-21	3	2302729W	5-8	
2301843W	3-15	91	2301875W	3-31	50	2302311W	6-6		2302729W	5-9	
2301843W	3-17	59	2301875W	3-33	33	2302479W	1-11	8	2302729W	6-3	
2301843W	3-19	91	2301875W	3-35	147	2302479W	1-13	8	2302774W	5-10	1
2301843W	3-21	81	2301875W	3-37	32	2302479W	1-15	8	2302774W	6-4	
2301843W	3-21	101	2301875W	3-39	50	2302479W	1-3	8	2302790W	1-51	2
2301843W	3-23	91	2301875W	3-41	33	2302479W	1-5	8	2302791W	1-51	3
2301843W	3-25	59	2301875W	3-43	147	2302479W	1-7	8	2302798W	1-46	3
2301843W	3-27	91	2301875W	3-45	32	2302479W	1-9	8	2302799W	1-46	2
2301843W	3-29	81	2301875W	3-47	50	2302481W	1-11	28	2302963W	2-23	33
2301843W	3-3	91	2301875W	3-49	31	2302481W	1-3	28	2302963W	2-27	33
2301843W	3-31	91	2301875W	3-5	31	2302481W	1-7	28	2302963W	2-31	33
2301843W	3-33	59	2301875W	3-51	147	2302483W	1-11	50	2302963W	2-35	31
2301843W	3-35	91	2301875W	3-7	147	2302483W	1-3	50	2302963W	2-39	31
2301843W	3-37	81	2301875W	3-9	50	2302483W	1-7	50	2302963W	2-41	31
2301843W	3-37	101	2301907W	4-5	2	2302484W	2-51	21	2302963W	3-173	90
2301843W	3-39	91	2301910W	4-5	7	2302484W	2-53	21	2302963W	3-182	
2301843W	3-41	59	2301919W	4-5	14	2302486W	2-51	22	2302963W	3-19	150
2301843W	3-43	91	2301920W	4-5	13	2302488W	2-51	1	2302963W	3-27	150
2301843W	3-45	111	2301924W	4-5	20	2302490W	2-51	20	2302963W	3-35	150
2301843W	3-47	91	2301925W	4-5	15	2302490W	2-53	20	2302963W	3-43	150
2301843W	3-49	50	2302109W	3-103	301	2302492W	2-11	6	2302963W	3-51	150
2301843W	3-5	50	2302109W	3-107	301	2302492W	2-15	6	2302963W	3-7	150
2301843W	3-51	91	2302109W	3-109	50	2302492W	2-21	6	2302985W	3-109	12
2301843W	3-7	91	2302109W	3-11	4	2302492W	2-25	6	2302985W	3-11	16
2301844W	3-11	32	2302109W	3-111	4	2302492W	2-29	6	2302985W	3-111	17
2301844W	3-13	31	2302109W	3-115	301	2302492W	2-33	6	2302985W	3-121	17
2301844W	3-15	49	2302109W	3-119	301	2302492W	2-37	6	2302985W	3-15	17
2301844W	3-17	32	2302109W	3-121	4	2302492W	2-7	6	2302985W	3-17	16

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2302985W	3-25	16	2303848W	1-15	5	2304111W	3-103	306	2304366W	3-125	240
2302985W	3-27	17	2303848W	1-5	5	2304111W	3-105	2	2304366W	3-127	31
2302985W	3-3	17	2303848W	1-9	5	2304111W	3-107	306	2304366W	3-129	240
2302985W	3-31	17	2303889W	3-111	205	2304111W	3-109	55	2304366W	3-130	1
2302985W	3-33	16	2303889W	3-121	205	2304111W	3-111	201	2304380W	3-53	2
2302985W	3-35	17	2303889W	3-137		2304111W	3-113	2	2304380W	3-54	3
2302985W	3-39	17	2303889W	3-99	205	2304111W	3-115	306	2304380W	3-59	4
2302985W	3-41	16	2303901W	3-101	38	2304111W	3-117	2	2304380W	3-60	3
2302985W	3-43	17	2303901W	3-113	38	2304111W	3-119	306	2304380W	3-61	51
2302985W	3-45	39	2303901W	3-123	38	2304111W	3-121	201	2304380W	3-63	4
2302985W	3-47	17	2303901W	3-130	7	2304111W	3-123	2	2304380W	3-73	102
2302985W	3-49	16	2303901W	3-131	1	2304111W	3-125	306	2304380W	3-78	3
2302985W	3-5	16	2303902W	3-19	6	2304111W	3-127	2	2304380W	3-82	4
2302985W	3-51	17	2303902W	3-27	6	2304111W	3-129	306	2304380W	3-85	3
2302985W	3-7	17	2303902W	3-35	6	2304111W	3-99	201	2304380W	3-87	3.2
2302985W	3-9	17	2303902W	3-43	6	2304112W	3-101	2	2304380W	3-89	3
2302985W	3-99	17	2303902W	3-51	6	2304112W	3-103	306	2304381W	3-71	4
2302989W	3-183		2303902W	3-7	6	2304112W	3-105	2	2304381W	3-73	93
2302993W	2-11	3	2303905W	1-19	2	2304112W	3-107	306	2304381W	3-85	15
2302993W	2-15	3	2303912W	3-143	56	2304112W	3-109	55	2304382W	3-65	4
2302993W	2-21	3	2303912W	3-147	8	2304112W	3-111	201	2304387W	3-78	9
2302993W	2-25	3	2303912W	3-177	4	2304112W	3-113	2	2304394W	3-82	3
2302993W	2-29	3	2303923W	3-52	28	2304112W	3-115	306	2304395W	3-59	3
2302993W	2-33	3	2303952W	1-49	80	2304112W	3-117	2	2304503W	3-101	33
2302993W	2-37	3	2303962W	2-37	32	2304112W	3-119	306	2304503W	3-105	33
2302993W	2-7	3	2303962W	2-39	44	2304112W	3-121	201	2304503W	3-113	33
2303001W	3-52	6	2303981W	1-49	42	2304112W	3-123	2	2304503W	3-117	33
2303039W	3-61	95	2303981W	1-53	42	2304112W	3-125	306	2304503W	3-123	33
2303040W	3-85	14	2303981W	1-55	1.15	2304112W	3-127	2	2304503W	3-127	33
2303105W	3-67	20	2303982W	3-55	2	2304112W	3-129	306	2304503W	3-130	3
2303221W	1-11	44	2303982W	3-57	1	2304112W	3-177	11	2304503W	3-191	13
2303221W	1-13	44	2303982W	3-63	3	2304112W	3-99	201	2304506W	1-21	15
2303221W	1-15	44	2303982W	3-65	1	2304112W	5-6	1	2304506W	3-54	1
2303221W	1-3	44	2303982W	3-77	1	2304112W	6-3		2304506W	3-63	1
2303221W	1-5	44	2303982W	3-78	2	2304267W	3-147	13	2304508W	3-85	13
2303221W	1-7	44	2303982W	3-80	2	2304304W	3-60	2	2304552W	3-57	3
2303221W	1-9	44	2303982W	3-82	2	2304304W	3-85	9	2304557W	3-93	
2303221W	4-6	3	2303982W	3-89	2	2304304W	3-89	7	2304565W	3-65	
2303221W	6-7		2303982W	3-93		2304329W	3-82		2304566W	3-65	3
230336W	4-2	15	2303984W	3-54	2	2304330W	3-59		2304569W	3-57	11
2303437W	3-69	12	2303984W	3-59	1	2304330W	3-93		2304569W	3-77	11
2303437W	3-71	12	2303984W	3-60	1	2304339W	3-93	3	2304570W	3-80	8
2303674W	1-57	24	2303984W	3-61	0	2304339W	3-95	10	2304571W	3-57	10
2303733W	1-49	32	2303984W	3-63	2	2304339W	3-96	10	2304571W	3-77	10
2303733W	1-53	32	2303984W	3-78	1	2304339W	3-97	10	2304577W	3-77	15
2303733W	1-55	1.3	2303984W	3-82	1	2304340W	3-93	4	2304603W	6-7	
2303737W	1-49	44	2303984W	3-85	1	2304341W	3-93	5	2304604W	3-93	20
2303737W	1-53	44	2303984W	3-89	1	2304342W	3-93	6	2304675W	2-61	3
2303739W	3-101	19	2303984W	3-93		2304343W	3-93	7	2304689W	1-11	28
2303739W	3-103	227	2303986W	3-65	2	2304350W	1-19	30	2304689W	1-3	28
2303739W	3-105	19	2303986W	3-77	2	2304350W	1-49	41	2304689W	1-7	28
2303739W	3-107	227	2303986W	3-80	3	2304350W	1-53	41	2304690W	1-11	50
2303739W	3-109	9	2303986W	3-85	2	2304350W	1-57	21	2304690W	1-13	50
2303739W	3-111	227	2303986W	3-93		2304350W	3-167	21	2304690W	1-15	50
2303739W	3-113	19	230406W	2-63	8	2304350W-1	1-55	1.14	2304690W	1-3	50
2303739W	3-115	227	230406W	5-16	5	2304366W	3-101	31	2304690W	1-5	50
2303739W	3-117	19	230406W	5-18	5	2304366W	3-103	240	2304690W	1-7	50
2303739W	3-119	227	230406W	5-19	5	2304366W	3-105	31	2304690W	1-9	50
2303739W	3-121	227	230406W	5-20	5	2304366W	3-107	240	2304708W	1-11	39
2303739W	3-123	19	230406W	5-21	5	2304366W	3-109	28	2304708W	1-13	39
2303739W	3-125	227	230406W	6-5		2304366W	3-113	31	2304708W	1-15	39
2303739W	3-127	19	230406W	6-5		2304366W	3-115	240	2304708W	1-3	39
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2304709W	1-11	40	2304825W	3-123	10	2304971W	3-137	2	2305144W	3-35	142
2304709W	1-3	40	2304825W	3-123	41	2304972W	3-137	3	2305144W	3-43	142
2304709W	1-7	40	2304825W	3-125	212	2304978W	2-47	3	2305144W	3-51	142
2304709W	5-5	2	2304825W	3-125	283	2304978W	2-49	3	2305144W	3-7	142
2304709W	5-6	3	2304825W	3-127	10	2305056W	3-111	224	2305199W	3-57	12
2304709W	6-2		2304825W	3-127	41	2305056W	3-121	224	2305199W	3-77	12
2304709W	6-3		2304825W	3-129	212	2305056W	3-99	224	2305201W	3-57	3
2304779W	3-143	59	2304825W	3-129	283	2305072W	2-47	1	2305202W	3-93	
2304779W	3-151	85	2304825W	3-99	212	2305072W	2-49	1	2305203W	3-57	16
2304796W	3-173	49	2304825W	3-99	283	2305096W	1-13	58	2305203W	3-77	16
2304796W	3-177	1	2304840W	3-137	3	2305097W	2-58	3	2305227W	3-135	4
2304803W	2-54	23	2304841W	3-137	4	2305097W	2-59	3	2305250W	2-64	6
2304803W	2-55	23	2304842W	3-137	5	2305098W	1-13	57	2305250W	3-143	42
2304803W	2-56	23	2304845W	3-111	210	2305099W	2-58	1	2305250W	3-145	41
2304803W	2-57	23	2304845W	3-121	210	2305099W	2-59	1	2305258W	3-143	101
2304803W	2-58	23	2304845W	3-137	12	2305101W	1-13	48	2305258W	3-145	101
2304803W	2-59	23	2304845W	3-99	210	2305101W	1-15	48	2305258W	3-173	44
2304806W	3-80	1	2304862W	3-101	2	2305101W	1-5	48	2305260W	3-111	219
2304807W	3-80		2304862W	3-103	306	2305101W	1-9	48	2305260W	3-121	219
2304820W	3-53	1	2304862W	3-105	2	2305113W	3-111	203	2305260W	3-99	219
2304820W	3-87	2.3	2304862W	3-107	306	2305113W	3-121	203	2305296W	3-95	2
2304820W	3-87	3.3	2304862W	3-109	55	2305113W	3-99	203	2305296W	3-96	2
2304820W	3-93		2304862W	3-111	201	2305114W	3-107	302	2305296W	3-97	2
2304823W	3-11	46	2304862W	3-113	2	2305114W	3-109	51	2305297W	3-95	3
2304823W	3-15	63	2304862W	3-115	306	2305114W	3-11	5	2305301W	3-95	16
2304823W	3-17	46	2304862W	3-117	2	2305114W	3-111	5	2305301W	3-96	16
2304823W	3-184	63	2304862W	3-119	306	2305114W	3-119	302	2305301W	3-97	16
2304823W	3-185	63	2304862W	3-121	201	2305114W	3-121	5	2305302W	3-95	4
2304823W	3-19	63	2304862W	3-123	2	2305114W	3-129	302	2305302W	3-96	4
2304823W	3-23	63	2304862W	3-125	306	2305114W	3-15	5	2305302W	3-97	4
2304823W	3-25	46	2304862W	3-127	2	2305114W	3-17	5	2305303W	3-79	23
2304823W	3-27	63	2304862W	3-129	306	2305114W	3-23	5	2305303W	3-95	
2304823W	3-3	63	2304862W	3-99	201	2305114W	3-25	5	2305346W	1-53	90
2304823W	3-31	63	2304867W	3-57	6	2305114W	3-3	5	2305370W	1-17	1
2304823W	3-33	46	2304868W	3-57	12	2305114W	3-31	5	2305379W	1-17	6
2304823W	3-35	63	2304877W	3-101	45	2305114W	3-33	5	2305380W	1-17	12
2304823W	3-39	63	2304877W	3-105	45	2305114W	3-39	5	2305382W	3-51	79
2304823W	3-41	46	2304877W	3-113	45	2305114W	3-41	5	2305382W	3-53	7
2304823W	3-43	63	2304877W	3-117	45	2305114W	3-47	5	2305382W	3-7	79
2304823W	3-47	63	2304877W	3-123	45	2305114W	3-49	5	2305394W	3-111	85
2304823W	3-49	44	2304877W	3-127	45	2305114W	3-5	5	2305394W	3-184	130
2304823W	3-5	44	2304877W	3-130	6	2305114W	3-9	5	2305394W	3-187	130
2304823W	3-51	63	2304877W	3-131	2	2305114W	3-99	5	2305394W	3-3	130
2304823W	3-7	63	2304877W	3-132	2	2305119W	1-13	37	2305394W	3-5	60
2304823W	3-9	63	2304878W	3-75	3.4	2305119W	1-15	37	2305394W	3-7	130
2304825W	3-101	10	2304878W	3-77	4	2305119W	1-5	37	2305396W	1-17	15
2304825W	3-101	41	2304878W	3-80	4	2305119W	1-9	37	2305398W	1-17	15
2304825W	3-103	212	2304879W	3-77	6	2305132W	3-101	2	2305405W	2-51	3
2304825W	3-103	283	2304881W	3-77	12	2305132W	3-103	306	2305405W	2-53	3
2304825W	3-105	10	2304892W	3-143	53	2305132W	3-105	2	2305407W	3-101	20
2304825W	3-105	41	2304892W	3-145	51	2305132W	3-107	306	2305407W	3-105	20
2304825W	3-107	212	2304898W	3-77	3	2305132W	3-109	55	2305407W	3-107	310
2304825W	3-107	283	2304899W	3-77		2305132W	3-111	201	2305407W	3-109	59
2304825W	3-111	212	2304904W	1-20	9	2305132W	3-113	2	2305407W	3-111	228
2304825W	3-111	283	2304904W	1-42	9	2305132W	3-115	306	2305407W	3-113	20
2304825W	3-113	10	2304942W	2-13	40	2305132W	3-117	2	2305407W	3-117	20
2304825W	3-113	41	2304942W	2-17	40	2305132W	3-119	306	2305407W	3-119	310
2304825W	3-115	212	2304942W	2-19	25	2305132W	3-121	201	2305407W	3-121	228
2304825W	3-115	283	2304942W	2-23	43	2305132W	3-123	2	2305407W	3-123	20
2304825W	3-117	10	2304942W	2-27	43	2305132W	3-125	306	2305407W	3-127	20
2304825W	3-117	41	2304942W	2-31	43	2305132W	3-127	2	2305407W	3-129	310
2304825W	3-119	212	2304942W	2-35	43	2305132W	3-129	306	2305407W	3-99	228
2304825W	3-119	283	2304942W	2-39	43	2305132W	3-99	201	2305411W	3-173	42

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2305451W	3-53	3	2305561W	3-105	15	2305629W	2-13	10	2305979W	3-69	2
2305473W	6-7		2305561W	3-107	221	2305629W	2-17	10	2305979W	3-93	
2305481W	3-111	214	2305561W	3-111	221	2305629W	2-23	10	2305986W	3-11	48
2305481W	3-121	214	2305561W	3-113	15	2305629W	2-27	10	2305986W	3-15	66
2305481W	3-99	214	2305561W	3-115	221	2305629W	2-31	10	2305986W	3-17	48
2305497W	2-25	35	2305561W	3-117	15	2305629W	2-35	10	2305986W	3-19	66
2305497W	2-27	35	2305561W	3-119	221	2305629W	2-39	10	2305986W	3-23	66
2305498W	2-25	31	2305561W	3-121	221	2305629W	2-41	10	2305986W	3-25	48
2305498W	2-27	39	2305561W	3-123	15	2305629W	2-9	10	2305986W	3-27	66
2305512W	1-5	57	2305561W	3-125	221	2305630W	2-13	3	2305986W	3-3	66
2305516W	1-27	1	2305561W	3-127	15	2305630W	2-17	3	2305986W	3-31	66
2305516W	1-29	1	2305561W	3-129	221	2305630W	2-23	3	2305986W	3-33	48
2305516W	1-31	1	2305561W	3-99	221	2305630W	2-27	3	2305986W	3-35	66
2305516W	1-33	1	2305586W	3-111	160	2305630W	2-31	3	2305986W	3-39	66
2305516W	1-35	1.1	2305586W	3-113	47	2305630W	2-35	3	2305986W	3-41	48
2305516W	1-37	1.1	2305586W	3-115	161	2305630W	2-39	3	2305986W	3-43	66
2305541W	1-27	2	2305586W	3-117	47	2305630W	2-41	3	2305986W	3-47	66
2305541W	1-29	2	2305586W	3-119	161	2305630W	2-9	3	2305986W	3-49	46
2305541W	1-31	2	2305586W	3-121	160	2305631W	2-13	4	2305986W	3-5	46
2305541W	1-33	2	2305586W	3-123	47	2305631W	2-17	4	2305986W	3-51	66
2305541W	1-35	1.2	2305586W	3-125	161	2305631W	2-23	4	2305986W	3-7	66
2305541W	1-37	1.2	2305586W	3-127	47	2305631W	2-27	4	2305986W	3-9	66
2305556W	2-56	20	2305586W	3-129	161	2305631W	2-31	4	2305987W	2-19	112
2305556W	2-58	20	2305586W	3-184	161	2305631W	2-35	4	2305987W	3-101	7
2305558W	3-101	16	2305586W	3-185	161	2305631W	2-39	4	2305987W	3-103	206
2305558W	3-103	223	2305586W	3-187	161	2305631W	2-41	4	2305987W	3-105	7
2305558W	3-105	16	2305588W	1-33	18	2305631W	2-9	4	2305987W	3-107	206
2305558W	3-107	223	2305588W	3-189	127	2305655W	2-13	23	2305987W	3-109	19
2305558W	3-111	223	2305588W	3-191	18	2305655W	2-17	23	2305987W	3-11	9
2305558W	3-113	16	2305588W	3-192	1.12	2305655W	2-23	23	2305987W	3-111	206
2305558W	3-115	223	2305607W	2-47	5	2305655W	2-27	23	2305987W	3-113	7
2305558W	3-117	16	2305607W	2-49	5	2305655W	2-31	23	2305987W	3-115	206
2305558W	3-119	223	2305608W	2-47	7	2305655W	2-35	23	2305987W	3-117	7
2305558W	3-121	223	2305608W	2-49	7	2305655W	2-39	23	2305987W	3-119	206
2305558W	3-123	16	2305609W	2-47	6	2305655W	2-41	23	2305987W	3-121	206
2305558W	3-125	223	2305609W	2-49	6	2305655W	2-9	23	2305987W	3-123	7
2305558W	3-127	16	2305612W	3-69	1	2305656W	2-13	23	2305987W	3-125	206
2305558W	3-129	223	2305613W	3-189	128	2305656W	2-17	23	2305987W	3-127	7
2305558W	3-99	223	2305616W	3-189	13	2305656W	2-23	23	2305987W	3-129	206
2305559W	3-101	13	2305617W	1-33	10	2305656W	2-27	23	2305987W	3-15	10
2305559W	3-103	262	2305617W	3-189	11	2305656W	2-3	30	2305987W	3-17	9
2305559W	3-105	13	2305617W	3-191	10	2305656W	2-31	23	2305987W	3-23	10
2305559W	3-107	262	2305617W	3-192	1.10	2305656W	2-35	23	2305987W	3-25	9
2305559W	3-109	80	2305617W	3-193	11	2305656W	2-39	23	2305987W	3-3	10
2305559W	3-111	215	2305617W	3-194	10	2305656W	2-41	23	2305987W	3-31	10
2305559W	3-113	13	2305619W	1-27	31	2305656W	2-5	30	2305987W	3-33	9
2305559W	3-117	13	2305619W	1-29	31	2305656W	2-9	23	2305987W	3-39	10
2305559W	3-121	215	2305619W	1-31	40	2305657W	2-13	23	2305987W	3-41	9
2305559W	3-123	13	2305619W	1-33	40	2305657W	2-17	23	2305987W	3-41	57
2305559W	3-127	13	2305619W	1-35	2.1	2305657W	2-23	23	2305987W	3-43	84
2305559W	3-99	215	2305619W	1-37	2.1	2305657W	2-27	23	2305987W	3-47	10
2305560W	3-101	11	2305620W	1-33	17	2305657W	2-31	23	2305987W	3-49	9
2305560W	3-103	261	2305620W	3-189	126	2305657W	2-35	23	2305987W	3-5	9
2305560W	3-105	11	2305620W	3-191	17	2305657W	2-39	23	2305987W	3-9	10
2305560W	3-107	261	2305620W	3-192	1.11	2305657W	2-41	23	2305987W	3-99	206
2305560W	3-109	261	2305628W	2-13	6	2305657W	2-9	23	2305993W	2-51	1
2305560W	3-111	213	2305628W	2-17	6	2305715W	1-29	42	2305993W	2-53	1
2305560W	3-113	11	2305628W	2-19	7	2305715W	1-31	51	2305994W	1-13	28
2305560W	3-117	11	2305628W	2-23	6	2305715W	1-35	2.12	2305994W	1-15	28
2305560W	3-121	213	2305628W	2-27	6	2305715W	1-37	2.12	2305994W	1-5	28
2305560W	3-123	11	2305628W	2-31	6	2305956W	2-57	20	2305994W	1-9	28
2305560W	3-127	11	2305628W	2-35	6	2305956W	2-59	20	2306033W	3-55	1
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2306200W	2-19	3	2306299W	1-57	4	2306655W	3-147	2	2307118W	2-3	30
2306200W	2-23	3	2306300W	1-57	5	2306656W	3-143	64	2307118W	2-31	23
2306200W	2-27	3	2306312W	3-189	16	2306656W	3-147	16	2307118W	2-35	23
2306200W	2-31	3	2306313W	3-189	15	2306661W	3-71	1	2307118W	2-39	23
2306200W	2-35	3	2306315W	1-29	3	2306661W	3-73	90	2307118W	2-41	23
2306200W	2-39	3	2306315W	3-189	3	2306703W	3-71	2	2307118W	2-5	
2306200W	2-41	3	2306349W	2-19	4	2306703W	3-73	91	2307118W	2-9	23
2306200W	2-9		2306350W	2-13	19	2306703W	3-73	100	2307119W	2-13	23
2306201W	2-11	26	2306350W	2-17	19	2306703W	3-75	3.3	2307119W	2-17	23
2306201W	2-13	9	2306350W	2-19	23	2306703W	3-93		2307119W	2-19	52
2306201W	2-15	26	2306350W	2-23	19	2306704W	3-71	3	2307119W	2-23	23
2306201W	2-17	9	2306350W	2-27	19	2306704W	3-73	92	2307119W	2-27	23
2306201W	2-23	9	2306350W	2-31	19	2306704W	3-75	3.2	2307119W	2-31	23
2306201W	2-27	9	2306350W	2-35	19	2306704W	3-93		2307119W	2-35	23
2306201W	2-31	9	2306350W	2-39	19	2306736W	3-101	4	2307119W	2-39	23
2306201W	2-35	9	2306350W	2-41	19	2306736W	3-103	308	2307119W	2-41	23
2306201W	2-39	9	2306350W	2-9	19	2306736W	3-105	4	2307119W	2-9	23
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2306201W	2-9	9	2306380W	4-5	18	2306736W	3-113	4	2307311W	1-55	1.28
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2306202W	2-13	16	2306398W	2-45	19	2306736W	3-117	4	2307599W	2-13	11
2306202W	2-15	28	2306399W	2-43	19	2306736W	3-119	308	2307599W	2-17	11
2306202W	2-17	16	2306399W	2-45	19	2306736W	3-123	4	2307599W	2-19	13
2306202W	2-19	20	2306400W	2-43	19	2306736W	3-125	308	2307599W	2-23	11
2306202W	2-23	16	2306400W	2-45	19	2306736W	3-127	4	2307599W	2-27	11
2306202W	2-27	16	2306423W	2-13	9	2306736W	3-129	308	2307599W	2-31	11
2306202W	2-31	16	2306423W	2-17	9	2306739W	3-101	12	2307599W	2-35	11
2306202W	2-35	16	2306423W	2-19	11	2306739W	3-103	214	2307599W	2-39	11
2306202W	2-39	16	2306423W	2-23	9	2306739W	3-105	12	2307599W	2-41	11
2306202W	2-41	16	2306423W	2-27	9	2306739W	3-107	214	2307599W	2-9	
2306202W	2-7	28	2306423W	2-31	9	2306739W	3-113	12	230760W	3-15	85
2306202W	2-9	16	2306423W	2-35	9	2306739W	3-115	214	230760W	3-23	85
2306203W	2-11	27	2306423W	2-39	9	2306739W	3-117	12	230760W	3-31	85
2306203W	2-13	17	2306423W	2-41	9	2306739W	3-119	214	230760W	3-39	85
2306203W	2-15	27	2306423W	2-9		2306739W	3-123	12	230760W	3-9	85
2306203W	2-17	17	2306547W	3-101	6	2306739W	3-125	214	2307643W	3-149	89
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2306203W	2-31	17	2306547W	3-117	6	2306836W	3-193	19	2307769W	3-101	39
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2306203W	2-39	17	2306547W	3-125	205	2306857W	1-33	12	2307769W	3-105	39
2306203W	2-41	17	2306547W	3-127	6	2306857W	3-193	21	2307769W	3-107	281
2306203W	2-7	27	2306547W	3-138		2306857W	3-194	12	2307769W	3-113	39
2306203W	2-9	17	2306561W	2-13	10	2306858W	1-33	15	2307769W	3-115	281
2306204W	2-11	29	2306561W	2-17	10	2306858W	3-193	24	2307769W	3-117	39
2306204W	2-13	18	2306561W	2-19	12	2306858W	3-194	15	2307769W	3-119	281
2306204W	2-15	29	2306561W	2-23	10	2306983W	2-51	22	2307769W	3-123	39
2306204W	2-17	18	2306561W	2-27	10	2306983W	2-53	22	2307769W	3-125	281
2306204W	2-23	18	2306561W	2-31	10	2307029W	2-45	18	2307769W	3-127	39
2306204W	2-27	18	2306561W	2-35	10	2307117W	2-13	23	2307769W	3-129	281
2306204W	2-31	18	2306561W	2-39	10	2307117W	2-17	23	2307769W	3-141	8
2306204W	2-35	18	2306561W	2-41	10	2307117W	2-23	23	2307770W	3-101	40
2306204W	2-39	18	2306561W	2-9		2307117W	2-27	23	2307770W	3-105	40
2306204W	2-41	18	2306564W	2-13	11	2307117W	2-31	23	2307770W	3-113	40
2306204W	2-7	29	2306564W	2-17	11	2307117W	2-35	23	2307770W	3-117	40
2306204W	2-9	18	2306564W	2-23	11	2307117W	2-39	23	2307770W	3-123	40
2306215W	2-39	38	2306564W	2-27	11	2307117W	2-41	23	2307770W	3-127	40
2306216W	2-19	142	2306564W	2-31	11	2307117W	2-9	23	2307770W	3-138	4
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2307851W	1-41	28	2311393	5-20		2570W	4-3	6	276037W	3-67	9
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2307853W	1-41	30	2311394	5-4		258217W	3-52	21	276043W	3-67	11
2307872W	3-163	120	2311394	6-2		258220W	3-52	22	276043W	3-67	18
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2307893W	1-33	25	2314008	6-3		259543W	1-49	23	276043W	3-84	1
2307893W	3-191	25	2314908	3-139	7	259543W	1-51	7	276043W	3-84	2
2307894W	1-33	24	233693W	3-101	26	259543W	1-53	23	276081W	3-84	4
2307894W	3-191	24	233693W	3-103	235	259543W	1-55	1.11	276090W	3-13	39
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2307895W	1-33	22	233693W	3-107	235	261542W	2-47	18	276090W	3-29	39
2307895W	3-191	22	233693W	3-113	26	261542W	2-49	10	276090W	3-37	39
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2307896W	3-191	23	233693W	3-117	26	261542W	2-51	5	277276W	3-54	6
2307911W	1-33	30	233693W	3-119	235	261542W	2-53	5	277276W	3-55	5
2307911W	3-191	30	233693W	3-123	26	261542W	5-10	1.3	277276W	3-56	16
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2307919W	3-149	81	233693W	3-137	11	261567W	3-84	14	277276W	3-60	10
2307919w	3-153	116	235691W	3-101	29	261676W	1-57	24	277276W	3-61	56
2307919W	3-159	161	235691W	3-101	43	261676W	1-59	24	277276W	3-87	3.5
2307919W	3-161	66	235691W	3-103	238	262088W	3-52	20	277663W	3-11	58
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2307919W	3-165	4.18	235691W	3-105	29	264150W	3-143	67	277663W	3-15	90
2307919W	3-167	73	235691W	3-105	43	264150W	3-163	114	277663W	3-17	58
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2307919W	3-173	58	235691W	3-107	290	265401W	2-51	10	277663W	3-23	90
2307920W	3-151	122	235691W	3-113	29	265401W	2-53	10	277663W	3-25	58
2307920W	3-165	4.19	235691W	3-113	43	265787W	3-137	2	277663W	3-27	90
2307925W	3-143	70	235691W	3-115	238	265787W	3-52	38	277663W	3-29	80
2307925W	3-147	4	235691W	3-115	290	267018W	3-52	4	277663W	3-3	90
2307925W	3-177	5	235691W	3-117	29	267487W	3-13	5	277663W	3-31	90
2307942W	3-143	71	235691W	3-117	43	267487W	3-21	5	277663W	3-33	58
2307942W	3-147	5	235691W	3-119	238	267487W	3-29	5	277663W	3-35	90
2307942W	3-177	6	235691W	3-119	290	267487W	3-37	5	277663W	3-39	90
2307944W	3-143	50	235691W	3-123	29	267487W	3-45	5	277663W	3-41	58
2307944W	3-147	6	235691W	3-123	43	267488W	3-13	13	277663W	3-43	90
2307944W	3-173	43	235691W	3-125	238	267488W	3-21	13	277663W	3-45	110
2307944W	3-177	7	235691W	3-125	290	267488W	3-29	13	277663W	3-47	90
2307974W	3-95	11	235691W	3-127	29	267488W	3-37	13	277663W	3-49	49
2307974W	3-96	11	235691W	3-127	43	271731W	3-63	7	277663W	3-5	49
2307974W	3-97	11	235691W	3-129	238	271731W	3-65	7	277663W	3-51	90
2310256	3-138	7	235691W	3-129	290	271731W	3-67	24	277663W	3-7	90
2311167	5-5		235691W	3-137	10	271731W	3-69	5	279392W	3-101	17
2311167	6-2		238992W	3-52	27	271731W	3-71	6	279392W	3-103	224
2311168	5-6		241778W	3-52	2	271731W	3-73	95	279392W	3-105	17
2311168	6-3		242831W	2-63	15A	271731W	3-75	3.6	279392W	3-107	224
2311387	5-12		242838W	2-63	7A	271731W	3-77	7	279392W	3-109	21
2311387	6-3		243189W	3-67	4	271731W	3-78	6	279392W	3-11	23
2311388	5-10		243189W	3-83	16	271731W	3-80	7	279392W	3-113	17
2311388	5-11		243189W	3-84	3	271731W	3-81	12	279392W	3-115	224
2311388	6-4		246769W	2-43	17	271731W	3-82	7	279392W	3-117	17
2311389	5-14		246769W	2-45	17	271731W	3-83	32	279392W	3-119	224
2311389	5-15		248321W	1-45	7	271731W	3-84	18	279392W	3-123	17
2311389	6-5		250833W	2-3	39	271731W	3-85	6	279392W	3-125	224
2311390	5-16		250833W	2-5	39	271731W	3-87	2.1	279392W	3-127	17
2311390	5-17		250834W	2-3	41	271731W	3-89	6	279392W	3-129	224
2311390	6-5		250834W	2-5	41	274044W	1-19	6	279392W	3-13	9
2311391	5-18		253939W	1-21	3	274044W	1-59	2	279392W	3-15	40
2311391	6-5		253939W	1-22	2	276031W	3-84	1	279392W	3-17	23

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279392W	3-23	40	293629W	1-57	20	3001363W	6-2		303945W	3-58	8
279392W	3-25	23	293632W	1-57	25	30058W	2-54	19	303945W	3-59	8
279392W	3-27	40	293632W	1-59	25	30058W	5-18	3	303945W	3-80	15
279392W	3-29	9	293647W	1-33	26	30058W	6-5		303945W	3-80	16
279392W	3-3	40	293647W	3-191	26	30059W	2-54	17	303945W	3-81	10
279392W	3-31	40	293710W	1-27	29	30059W	2-55	17	303945W	3-82	8
279392W	3-33	23	293710W	1-29	29	30059W	2-56	17	303945W	3-85	7
279392W	3-35	40	293710W	1-31	19	30059W	2-57	17	303945W	3-85	8
279392W	3-37	9	293710W	1-33	19	30059W	2-58	17	303946W	1-3	18
279392W	3-39	40	293710W	1-35	1.13	30059W	2-59	17	303946W	1-5	18
279392W	3-41	23	293710W	1-37	1.13	30059W	2-60	5	303946W	3-103	21
279392W	3-43	40	293729W	1-57	2	30059W	5-16	2	303946W	3-107	21
279392W	3-45	9	293730W	1-59	3	30059W	5-18	2	303946W	3-109	29
279392W	3-47	40	293731W	1-57	3	30059W	5-19	2	303946W	3-11	20
279392W	3-49	21	295752W	2-47	2	30059W	5-20	2	303946W	3-111	21
279392W	3-5	21	295752W	2-49	2	30059W	5-21	2	303946W	3-115	21
279392W	3-51	40	296027W	3-189	17	30059W	6-5		303946W	3-119	21
279392W	3-7	40	296160W	3-87	2.2	30059W	6-5		303946W	3-121	21
279392W	3-9	40	296160W	3-87	3.4	30059W	6-6		303946W	3-125	21
279397W	3-52	35	296162W	3-57	14	30059W	6-6		303946W	3-129	21
280262W	1-15	23	296162W	3-77	14	30080W	2-56	19	303946W	3-13	48
280262W	1-7	23	296417W	3-87	2.7	30080W	2-58	19	303946W	3-15	21
280262W	1-9	23	296417W	3-87	3.6	30080W	2-60	7	303946W	3-17	20
280262W	2-60	6	296420W	1-19	29	30080W	5-16	3	303946W	3-19	21
280985W	2-54	5	296420W	3-159	163	30080W	5-20	3	303946W	3-21	48
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280985W	2-56	5	296420W	3-175	3	30080W	6-6		303946W	3-25	20
280985W	2-57	5	296420W	3-193	28	302399W	3-87	2.6	303946W	3-27	21
2816W	4-4	10	296420W	3-91	2	303938W	3-63	9	303946W	3-29	48
2817W	4-5	16	296422W	1-19	14	303938W	3-84	19	303946W	3-3	21
2817W	4-4	11	296422W	3-192	1.18	303939W	3-65	8	303946W	3-31	21
282148W	2-54	21	296434W	1-19	7	303939W	3-69	13	303946W	3-33	20
282148W	2-57	21	296434W	1-20	4	303939W	3-71	13	303946W	3-35	21
282148W	2-59	21	296434W	1-42	4	303939W	3-73	107	303946W	3-37	48
282149W	2-55	13	296434W	1-43	4	303941W	3-19	79	303946W	3-39	21
282149W	2-56	13	296434W	1-57	8	303941W	3-43	79	303946W	3-41	20
2821W	4-4	12	296434W	1-59	8	303941W	3-56	21	303946W	3-43	21
2821W	4-5	10	3001363W	3-11	33	303941W	3-57	9	303946W	3-45	48
282724W	2-55	13	3001363W	3-13	32	303941W	3-63	8	303946W	3-47	21
282724W	2-56	13	3001363W	3-15	50	303941W	3-84	20	303946W	3-49	20
283427W	2-54	20	3001363W	3-17	33	303942W	3-55	6	303946W	3-5	20
283433W	2-55	13	3001363W	3-19	147	303942W	3-62	68	303946W	3-51	21
283433W	2-57	13	3001363W	3-21	32	303942W	3-65	9	303946W	3-7	21
283433W	2-58	13	3001363W	3-23	50	303942W	3-67	23	303946W	3-9	21
283433W	2-59	13	3001363W	3-25	33	303942W	3-69	14	303946W	3-99	21
283434W	2-54	13	3001363W	3-27	147	303942W	3-71	14	303946W	5-8	4
283434W	2-57	13	3001363W	3-29	32	303942W	3-73	108	303946W	6-3	
283434W	2-58	13	3001363W	3-3	50	303942W	3-77	8	307788W	1-11	30
283434W	2-59	13	3001363W	3-31	50	303942W	3-78	8	307788W	1-13	30
287816W	3-159	141	3001363W	3-33	33	303942W	3-79	29	307788W	1-15	30
287816W	3-173	41	3001363W	3-35	147	303942W	3-83	21	307788W	1-3	30
292526W	1-19	15	3001363W	3-37	32	303943W	3-19	79	307788W	1-5	30
292527W	1-49	43	3001363W	3-39	50	303944W	3-27	79	307788W	1-7	30
292527W	1-53	43	3001363W	3-41	33	303944W	3-43	79	307788W	1-9	30
292527W	1-55	1.4	3001363W	3-43	147	303944W	3-54	7	307788W	2-21	21
292655W	3-193	29	3001363W	3-45	32	303944W	3-60	9	307788W	2-29	21
292659W	1-17	7	3001363W	3-47	50	303944W	3-61	96	314833W	3-180	
292680W	3-159	140	3001363W	3-49	31	303944W	3-62	67	31541W	4-4	5
292680W	3-173	40	3001363W	3-5	31	303944W	3-67	22	316823W	3-180	1
292682W	3-189	18	3001363W	3-51	147	303944W	3-77	9	316823W	3-181	1
293628W	1-19	28	3001363W	3-7	147	303944W	3-78	7	316823W	3-182	5
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327610W	3-13	53	383881W	3-92	23	398817W	3-149	79	44310W	2-39	1
327610W	3-21	53	383881W	3-93	19	398817W	3-153	115	44310W	2-41	1
327610W	3-29	53	383881W	3-94	24	398817W	3-159	160	44310W	2-7	1
327610W	3-37	53	383892W	3-11	42	398817W	3-161	63	44310W	2-9	1
327610W	3-45	53	383892W	3-15	59	398817W	3-163	150	44547W	2-63	12
327611W	3-13	52	383892W	3-17	42	398817W	3-165	4.17	44547W	5-17	8
327611W	3-21	52	383892W	3-19	148	398817W	3-167	71	44547W	5-18	8
327611W	3-29	52	383892W	3-23	59	398817W	3-169	71	44547W	5-19	8
327611W	3-37	52	383892W	3-25	42	398817W	3-173	59	44547W	5-20	8
327611W	3-45	52	383892W	3-27	148	398817W	4-2	5	44547W	5-21	8
328715W	2-47	11	383892W	3-3	59	398817W	4-2	7	44547W	6-5	
328715W	2-49	11	383892W	3-31	59	398817W	4-3	2	44547W	6-5	
328715W	2-51	6	383892W	3-33	42	398817W	4-5	6	44547W	6-6	
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328715W	5-10	1.4	383892W	3-39	59	41210W	2-13	1	46578W	2-54	6
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328715W	6-3		383892W	3-43	148	41210W	2-19	1	46578W	2-56	6
328715W	6-4		383892W	3-47	59	41210W	2-23	1	46578W	2-57	6
328740W	4-5	17	383892W	3-49	40	41210W	2-27	1	46629W	2-51	4
328744W	4-5	23	383892W	3-5	40	41210W	2-31	1	46629W	2-53	4
328748W	4-4	21	383892W	3-51	148	41210W	2-35	1	53038W	1-57	24
331750W	4-4	17	383892W	3-7	148	41210W	2-39	1	53038W	1-59	24
331751W	4-4	2	383892W	3-9	59	41210W	2-41	1	53559W	2-63	20
331752W	4-4	7	383982W	3-107	148	41210W	2-9		55289W	1-11	54
331756W	4-4	13	383982W	3-119	148	43210W	2-61	2	55289W	1-13	54
331767W	4-4	9	383982W	3-129	148	43210W	5-14	2	55289W	1-15	54
331767W	4-5	4	387316W	1-33	13	43210W	6-5		55289W	1-3	54
332822W	3-56	12	387316W	3-193	22	43211W	2-43	9	55289W	1-5	54
332822W	3-67	1	388610W	1-44	4	43211W	2-45	9	55289W	1-7	54
33394W	4-2	12	388611W	1-44	33	43211W	5-15	5	55289W	1-9	54
33394W	4-3	7	388611W	1-45	14	43211W	6-5		55289W	2-3	28
335468W	3-83	3	388612W	1-44	32	43310W	2-61	1	55289W	2-5	28
335470W	3-83	14	388612W	1-45	13	43310W	5-14	1	55289W	5-11	3
336854W	3-83	13	388613W	3-83	31	43310W	6-5		55289W	6-4	
336855W	3-83		391016W	3-83	11	44308W	2-11	2	55468W	3-11	33
336858W	3-83	17	39371W	2-11	5	44308W	2-13	2	55468W	3-13	32
344839W	3-13	23	39371W	2-13	5	44308W	2-15	2	55468W	3-15	50
344839W	3-21	23	39371W	2-15	5	44308W	2-17	2	55468W	3-17	33
344839W	3-29	23	39371W	2-17	5	44308W	2-19	2	55468W	3-19	147
344839W	3-37	23	39371W	2-19	6	44308W	2-21	2	55468W	3-21	32
344839W	3-45	23	39371W	2-21	5	44308W	2-23	2	55468W	3-23	50
35135W	4-4	8	39371W	2-23	5	44308W	2-25	2	55468W	3-25	33
35135W	4-4	18	39371W	2-25	5	44308W	2-27	2	55468W	3-27	147
35135W	4-5	3	39371W	2-27	5	44308W	2-29	2	55468W	3-29	32
35135W	4-5	8	39371W	2-29	5	44308W	2-31	2	55468W	3-3	50
360378W	1-45	2	39371W	2-31	5	44308W	2-33	2	55468W	3-31	50
36206W	4-2	10	39371W	2-33	5	44308W	2-35	2	55468W	3-33	33
381199W	3-56	1	39371W	2-35	5	44308W	2-37	2	55468W	3-35	147
381199W	3-67	15	39371W	2-37	5	44308W	2-39	2	55468W	3-37	32
383150W	3-67		39371W	2-39	5	44308W	2-41	2	55468W	3-39	50
383170W	1-24	32	39371W	2-41	5	44308W	2-7	2	55468W	3-41	33
383880W	3-63	3	39371W	2-7	5	44308W	2-9	2	55468W	3-43	147
383880W	3-78	2	39371W	2-9	5	44310W	2-11	1	55468W	3-45	32
383880W	3-81	2	39376W	3-52	32	44310W	2-13	1	55468W	3-47	50
383880W	3-89	2	39442W	2-45	10	44310W	2-15	1	55468W	3-49	31
383880W	3-92		39442W	5-10	1.6	44310W	2-17	1	55468W	3-5	31
383881W	3-60	12	39442W	5-11	6	44310W	2-21	1	55468W	3-51	147
383881W	3-61	55	39442W	6-4		44310W	2-23	1	55468W	3-7	147
383881W	3-69	7	39442W	6-4		44310W	2-25	1	55468W	3-9	50
383881W	3-71	8	397161W	3-58	7	44310W	2-27	1	56995W	1-33	3
383881W	3-73	97	397161W	3-59	6	44310W	2-29	1	56995W	3-189	4
383881W	3-73	106	397161W	3-81	9	44310W	2-31	1	56995W	3-191	3
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588468	6-7		83857W	3-29	305	R13801782	3-177	14	Y01C-0840	1-29	43
588469	6-7		83857W	3-31	305	R13801898	1-23	23	Y01C-0840	1-31	52
588526	6-7		83857W	3-37	305	R13801898	1-24	30	Y01C-0840	1-35	2.13
588527	6-7		83857W	3-39	305	R13801901	1-31	43	Y01C-0840	1-37	2.13
588528	6-7		83857W	3-41	76	R13801901	1-33	43	Y01C-1048	1-19	24
588529	6-7		83857W	3-45	307	R13801901	1-35	2.4	Y09C-M1030	3-193	27
588530	6-7		83857W	3-47	307	R13801901	1-37	2.4	Y09C-M1255	3-192	1.19
58903W	3-95	5	83857W	3-9	305	R13803034	3-147	18	Y09G-0616	1-33	27
58903W	3-96	5	85749W	2-54	12	R1381901	1-27	34	Y09G-0616	3-191	27
58903W	3-97	5	85749W	2-55	12	R1381901	1-29	34	Y17C-1024	1-27	9
58916W	1-19	18	85749W	2-56	12	R15005	3-111	218	Y17C-1024	1-29	9
58916W	1-49	40	85749W	2-57	12	R15005	3-121	218	Y17C-1024	1-31	8
58916W	1-53	40	89777W	2-47	8	R15005	3-137	7	Y17C-1024	1-33	8
58916W	1-55	1.13	89777W	2-49	8	R15005	3-99	218	Y17C-1024	1-35	1.8
58924W	2-43	7	89777W	5-10	1.2	R15006	3-137	6	Y17C-1024	1-37	1.8
58924W	2-45	7	89777W	6-4		R15012	3-137	4	Y17C-1636	1-38	11
58924W	5-11	5	90263W	2-63	23	R16271	3-101	53	Y17C-1636	1-39	11
58924W	6-4		90263W	5-16	4	R16271	3-105	53	Y17C-1636	3-173	34
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58929W	2-5	16	90263W	5-19	4	R16271	3-109	53	Y17C-1664	1-38	5
58941W	2-3	7	90263W	5-20	4	R16271	3-11	18	Y17C-1664	1-39	5
58941W	2-5	7	90263W	5-21	4	R16271	3-111	19	Y17C-1664	3-173	24
59229W	2-43	10	90263W	6-5		R16271	3-113	53	Y25G-(1024)16	3-177	8
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61056W	2-58	2	90263W	6-6		R16271	3-119	304	Y25G-0408	3-79	24
61056W	2-59	2	90263W	6-6		R16271	3-121	19	Y25G-0410	3-95	9
63105W	1-11	49	906601	6-8		R16271	3-123	53	Y25G-0410	3-96	9
63105W	1-13	49	90937W	1-21	6	R16271	3-127	53	Y25G-0410	3-97	9
63105W	1-15	49	90937W	1-22	5	R16271	3-129	304	Y25G-0414	3-147	12
63105W	1-3	49	90937W	1-40	16	R16271	3-15	19	Y25G-0416	3-151	69
63105W	1-5	49	90937W	1-41	16	R16271	3-17	18	Y25G-0416	3-159	157
63105W	1-7	49	92212W	4-2	13	R16271	3-19	144	Y25G-0416	3-161	75
63105W	1-9	49	92720W	4-2	18	R16271	3-23	19	Y25G-0416	3-173	57
63105W	5-11	9	92867W	2-51	8	R16271	3-25	18	Y25G-0426	3-143	68
63105W	6-4		92867W	2-53	8	R16271	3-27	144	Y35E-#10	3-177	9
6348W	2-54	4	93166W	4-2	6	R16271	3-3	19	Y35E-#10	3-179	5
6348W	2-55	4	93166W	4-2	8	R16271	3-31	19	YS8-210L WS	4-7	
6348W	2-56	4	93878W	4-2	21	R16271	3-33	18			
6348W	2-57	4	93878W	4-3	14	R16271	3-35	144			
6607W	2-63	15	9554W	1-20	11	R16271	3-39	19			
67355W	2-54	7	9554W	1-21	9	R16271	3-41	18			
67355W	2-55	7	9554W	1-22	8	R16271	3-43	144			
67355W	2-56	7	9554W	1-40	21	R16271	3-47	19			
67355W	2-57	7	9554W	1-41	21	R16271	3-49	18			
68370W	3-52	35	9554W	1-42	11	R16271	3-5	18			
69727W	3-83	22	9554W	1-43	11	R16271	3-51	144			
69778	6-8		95959W	1-11	43	R16271	3-7	144			
69782	6-8		95959W	1-13	43	R16271	3-9	19			
70381	6-8		95959W	1-15	43	R16271	3-99	19			
77418W	3-84	6	95959W	1-3	43	R330325	3-19	69			
79972W	2-47	9	95959W	1-5	43	R330325	3-27	69			
79972W	2-49	9	95959W	1-7	43	R330325	3-35	69			
79972W	5-10	1.1	95959W	1-9	43	R330325	3-43	69			
79972W	6-4		95959W	4-6	2	R330325	3-51	69			
79979W	2-51	4	95959W	6-7		R330325	3-7	69			
79979W	2-53	4	95972W	2-60	8	R833217	3-192	1.17			
79979W	5-12	3	95973W	2-60	9	R833276W	3-85	16			
79979W	6-3		95977W	2-63	9	R833806W	3-85	17			
83857W	2-5	48	95978W	2-63	10	WR6-263L	4-7				
83857W	3-13	305	96024W	2-60	1	WR6-399L	4-7				
83857W	3-15	305	96031W	2-60	1	WR7-189L	4-7				
83857W	3-17	76	96086W	4-2	17	WR7-287L	4-7				
83857W	3-21	305	96087W	4-2	16	WR8-100L	4-7				





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