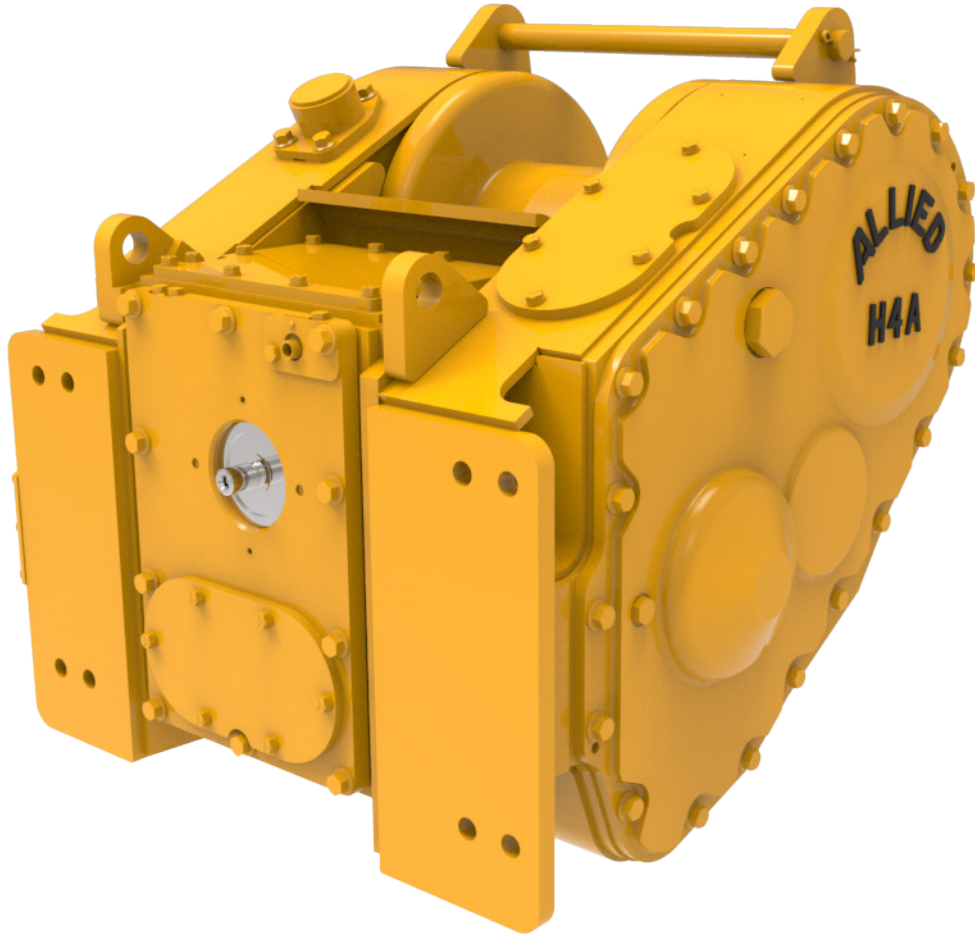


# Parts Manual



# H4A

## Hydraulic Winch for CAT Dozers

**NOTE:**

For winch models using internal options B, E, R, and Z, refer to manual 599015W.

For serial numbers prior to 1162, refer to manual 599015W

A Product of

**Allied Systems**  
COMPANY

Sherwood, OR USA

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[www.alliedsystems.com](http://www.alliedsystems.com)



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## Safety Precautions

Read, understand and observe the Safety Summary on pages 1 through 3 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

This signal word 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.

### 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’s country, the national regulations should be followed.

### Operation, Inspection, and Maintenance Warnings

### WARNING

Multiple hazards.

Ignoring safety warnings may cause equipment damage, personal injury or death.

All possible safety hazards cannot be foreseen and included in this manual. The operator must always be alert to possible hazards that could endanger personnel or damage the equipment.

### Training

- Do not operate the winch unless you are authorized and trained to do so.
- Read, understand, and follow the operating, inspection, and maintenance instructions in this manual.
- Keep yourself informed of any applicable codes, regulations and standards for the job.

### Personnel Safety

- 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.

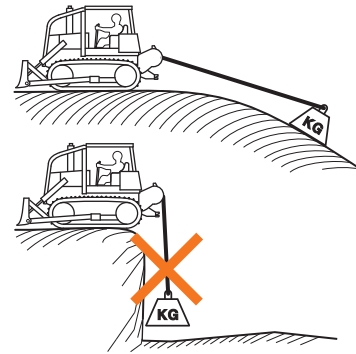


- Make sure ground personnel are in plain view of the operator, and at a distance of at least 1½ times the working length of the wire rope.
- Observe jobsite rules.
- Do not use the control levers for hand holds when entering or leaving the vehicle.
- Be in complete control at all times.
- Do not use 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.

### Operation Warnings

- Do not operate the winch unless the vehicle is equipped with a screen to protect the operator if the wire rope breaks.
- Be aware of the ground conditions, and make sure the ground and dozer are stable enough to pull the intended load.
- Do not attempt to pull loads in excess of the rated capacity of the winch.
- 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.

- Your winch may have temperature shut-off system for protection of dozer and winch. Manual override of high temperature shut-off will cause damage to dozer and winch.
- This winch is neither intended, designed, nor rated for any application involved in the lifting or moving of personnel.
- 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. Dozer and skidder mounted winches are designed for towing.



### Wire Rope Safety

- 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.

 **WARNING**

**Wire rope or tail chain failure may cause serious injury or death.**

**Inspect rigging before use and obey all safety warnings.**

- 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).
- 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 dozer 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.

### Maintenance Warnings

- 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.
- Replace any parts only with genuine Allied Winch parts.
- Use only the lubricants listed in the Recommended Oil List. See page 8.

- The hydraulic system must be kept clean and free of contamination at all times.
- Do not weld on any part of the winch. Contact Allied Systems if weld repairs are needed.

### Hydraulic Hazards

- 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.

 **DANGER**

#### Injection hazard.

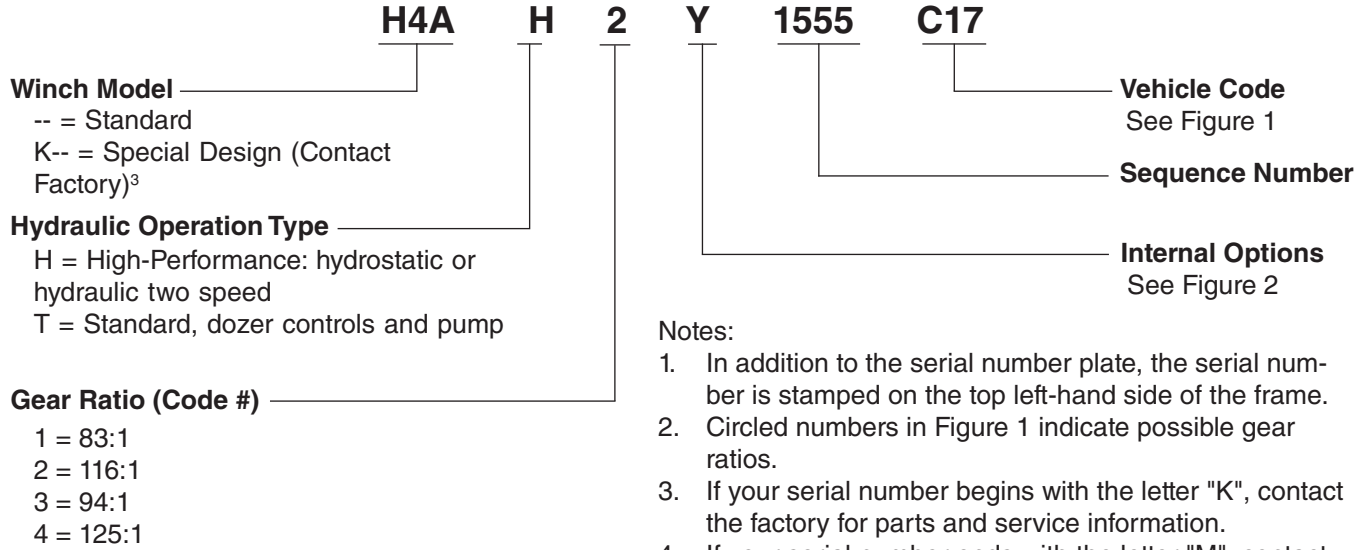
**Infection and gangrene will result when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.**

**Use a piece of cardboard to check for hydraulic leaks.**



## Unit Identification

Allied Winch Serial Number Nameplate Data For Dozer Mountings



**Notes:**

1. In addition to the serial number plate, the serial number is stamped on the top left-hand side of the frame.
2. Circled numbers in Figure 1 indicate possible gear ratios.
3. If your serial number begins with the letter "K", contact the factory for parts and service information.
4. If your serial number ends with the letter "M", contact the factory for parts and service information.

C O D E	<b>C</b> Caterpillar
<b>17</b>	D3/4/5G ②③ *a
<b>18</b>	D4/5G ②③ *b
<b>19</b>	D3/4/5K, D3/4/5K2 T4i ②③④
<b>191</b>	D3/4/5K2 T4f ②③④ *c
<b>20</b>	D5K & D5K2 T4i ②③④
<b>201</b>	D5K2 with Fireplow ②③④

\*a D3/4/5G with dozer s/n prefix BYR, CFC, CFF, CFN, CKA, CLB, CLF, CLW, CXT, FDC, FDH, FDW, JMH, ZDN,

\*b D4/5G with dozer s/n prefix HYD, TLX, WGB, DKT, RKG, RSC

\*c With dozer s/n prefix:

**D3K2:** FT3, JPJ, KF2, KL2, LT3

**D4K2:** KM2, KR2, MT3, RT3

**D5K2:** KW2, KY2, RRE, WT3, YT3

**Figure 1, Dozer or Skidder Identification Codes and Available Gear Ratios**

Circled numbers in Figure 1 indicate possible gear ratios.



---

	Y	C
Freespool	X	
External (Pump) Hydraulics (Non-SCH)	X	
Power Forward & Reverse (PFR)	X	
Open Frame	X	
Integral Mounting Plate, Fairlead, Manual Freespool		X

Figure 2, Internal Options

**NOTE:**

For winch models using internal options B, E, R, and Z, refer to manual 599015W.

For serial numbers prior to 1162, refer to manual 599015W.

## Using this Manual

### 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 4 for serial number information.

### Abbreviations

Abbreviations are used both on the winch and in this manual. For example, a manifold may have a port stamped "FS". That port is related to the "freespool" circuit. This abbreviation is also used on pages in this manual that reference this port, or the ports connected to this port. Figure 3 lists the most common abbreviations used in this manual.

Abbreviation	Full Name
P	Pressure
T	Tank
BO	Brake Off
FA	Filter Outlet
FE	Filter Inlet
FS	Freespool
HS	High Speed
LS	Load Sense
PD	Pilot Drain
PP	Pilot Pressure
PS	Pilot Supply
RI	Reel In
RO	Reel Out
TP	Test Port
TS	Temperature Switch

Figure 3, Abbreviations

## Oil Specifications

### Oil Selection

Winch Type	Winch Oil Capacity	Winch Housing Oil	Hydraulic Circuit Oil
SCH Model (Internal Option Code R)	14 Gal (54L)	See Recommended Oils in Figure 5 (Winch housing is oil reservoir for pump)	
Non-SCH, Open Frame Model (Internal Option Code Y)	4 Gal (15L)	See Recommended Oils in Figure 5	Use Recommended Tractor Oil Only

Figure 4, Recommended Oils - 1

Recommended Oils* - General Conditions			
Manufacturer	Oil Type	Ambient Temperature Range	
		°F	°C
ExxonMobil	Mobil Fluid 424 (Factory fill)	-13 to 104	-25 to 40
John Deere	Hy-Gard™	-13 to 122	-25 to 50
Chevron	1000 THF	-13 to 104	-25 to 40
Caterpillar	Multipurpose Tractor Oil (MTO)	-13 to 104	-25 to 40
Case	Hy-Tran Ultra	-20 to 122	-29 to 50
Recommended Oils* - Low Temperature Conditions			
Manufacturer	Oil Type	Ambient Temperature Range	
		°F	°C
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 a non-recommended oil may void warranty.

\*\* For winches using tractor-supplied hydraulics for winch operation, recommended oil is used only in the winch gear case.

Figure 5, Recommended Oil List

## Ordering Parts

When ordering replacement parts, give the 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, OR 97140 U.S.A.

Phone: 503-625-2560  
Fax: 503-625-5132

E-mail: [parts@alliedsystems.com](mailto: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.**

## Serial Number

The winch serial number is stamped into the nameplate, mounted on the winch case. It is also stamped into the winch frame.

The serial number is described in Figure 1. This serial number is important; always have the serial number of your winch ready when discussing the winch with your dealer or when ordering parts.

## Nameplate

Each winch is shipped from the factory with a nameplate as shown in Figure 2. The nameplate is stamped with:

- winch model
- winch serial number
- maximum bare drum line pull
- maximum wire rope diameter

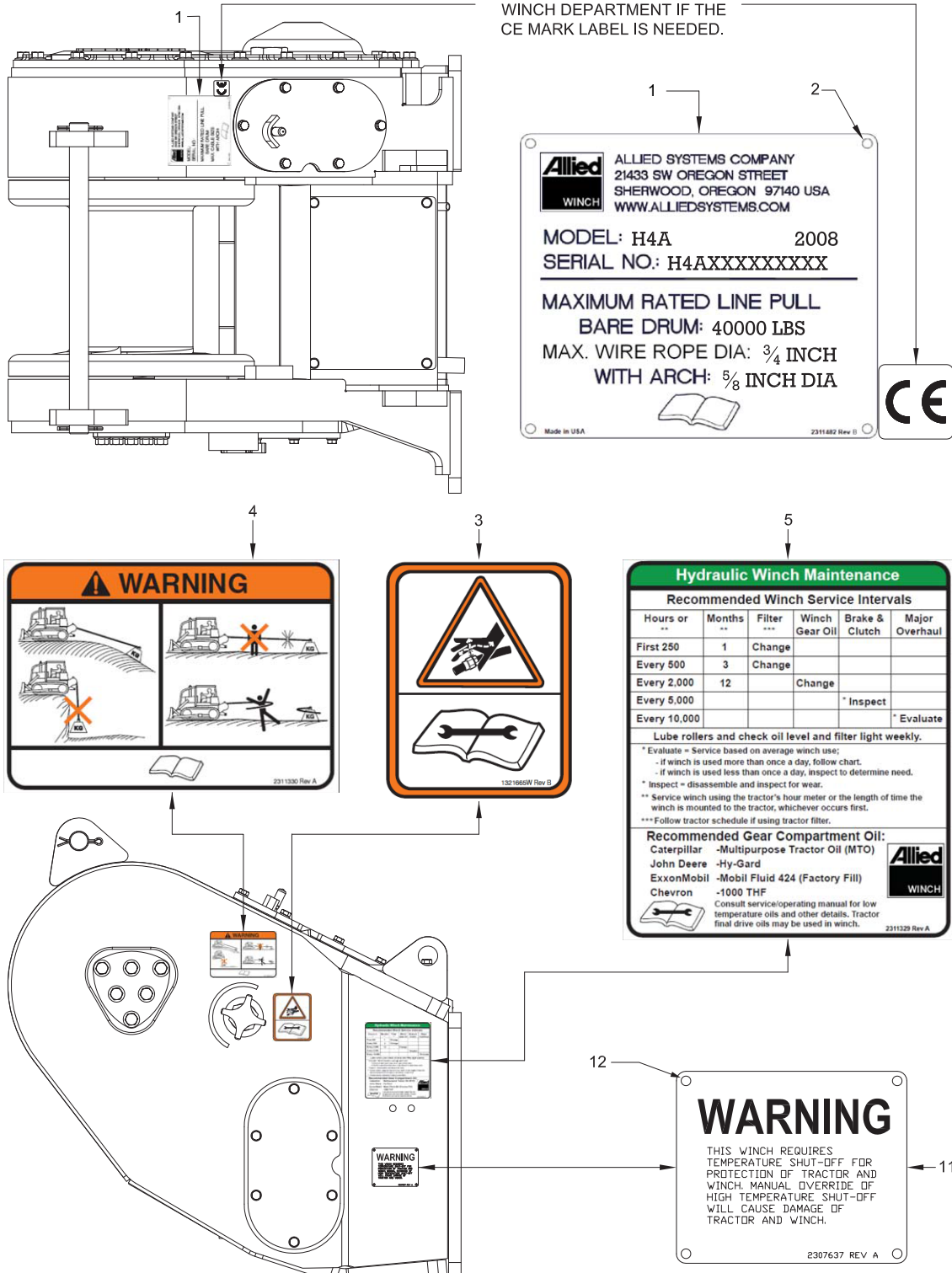
DO NOT operate the winch with larger diameter wire rope. If the nameplate is missing, DO NOT operate the winch until its capacity is known.

If the winch is equipped with an arch, the maximum cable size will be reduced. Refer to the nameplate for details.

## Nameplate & Decals

### Winches with Open Frames H4AY

CONTACT ALLIED SYSTEMS WINCH DEPARTMENT IF THE CE MARK LABEL IS NEEDED.



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	*	-----	1 Nameplate	5	2311329	1	Decal, Maintenance
2	16602W	4	Screw	11	2307637W	1	Plate, Warning*
3	1321665W	1	Decal, Warning	12	16602W	4	Screw
4	2311330	1	Decal, Load & Wire Rope				

\*Contact Factory

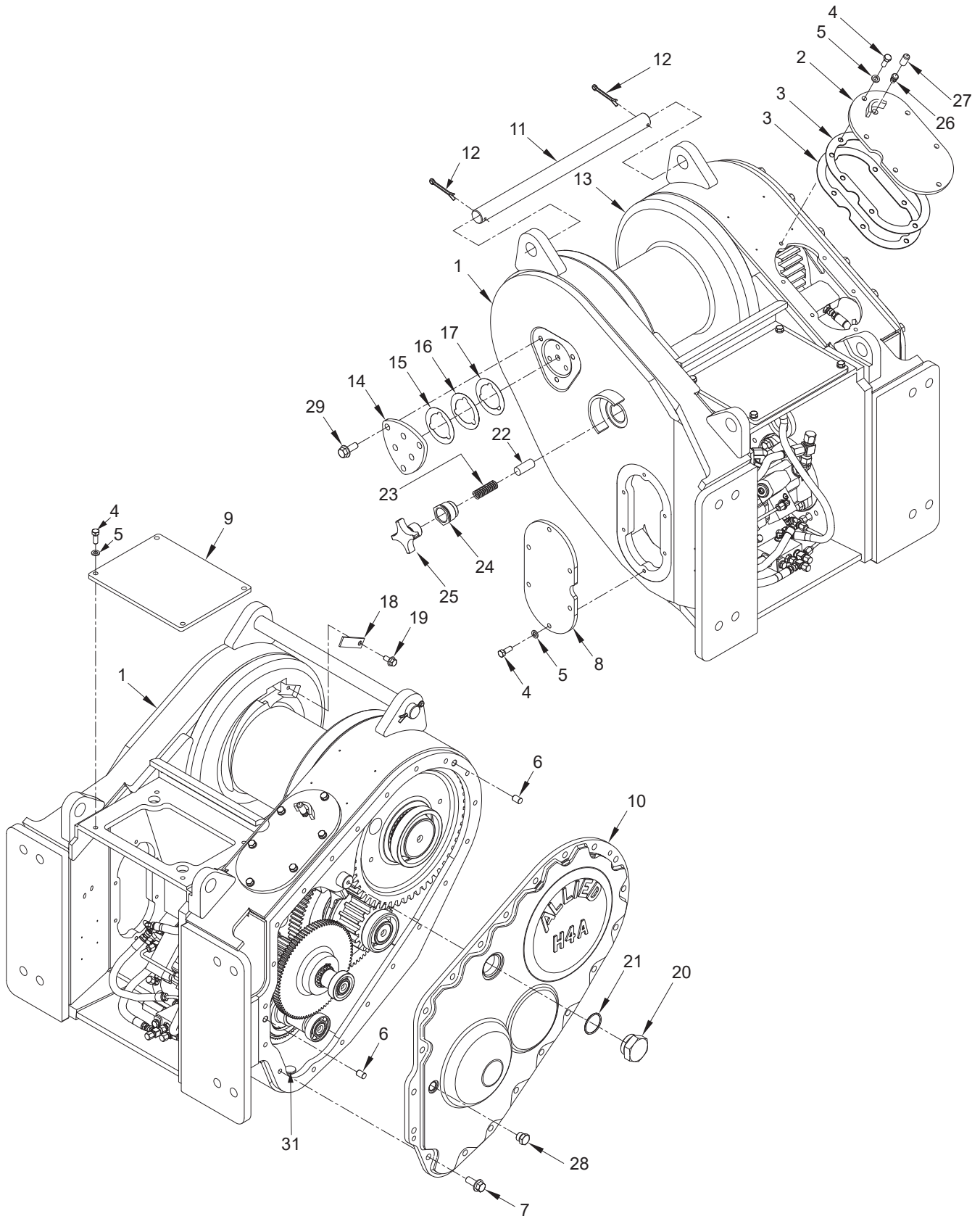
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**Section 1**  
**Frames/Covers/Mounting Parts**

### Frame/Covers

Caterpillar (All except H4AT4C\*\*C191)

Page 1 of 2





**Frame/Covers**

Caterpillar (All except H4AT4C\*\*C191)

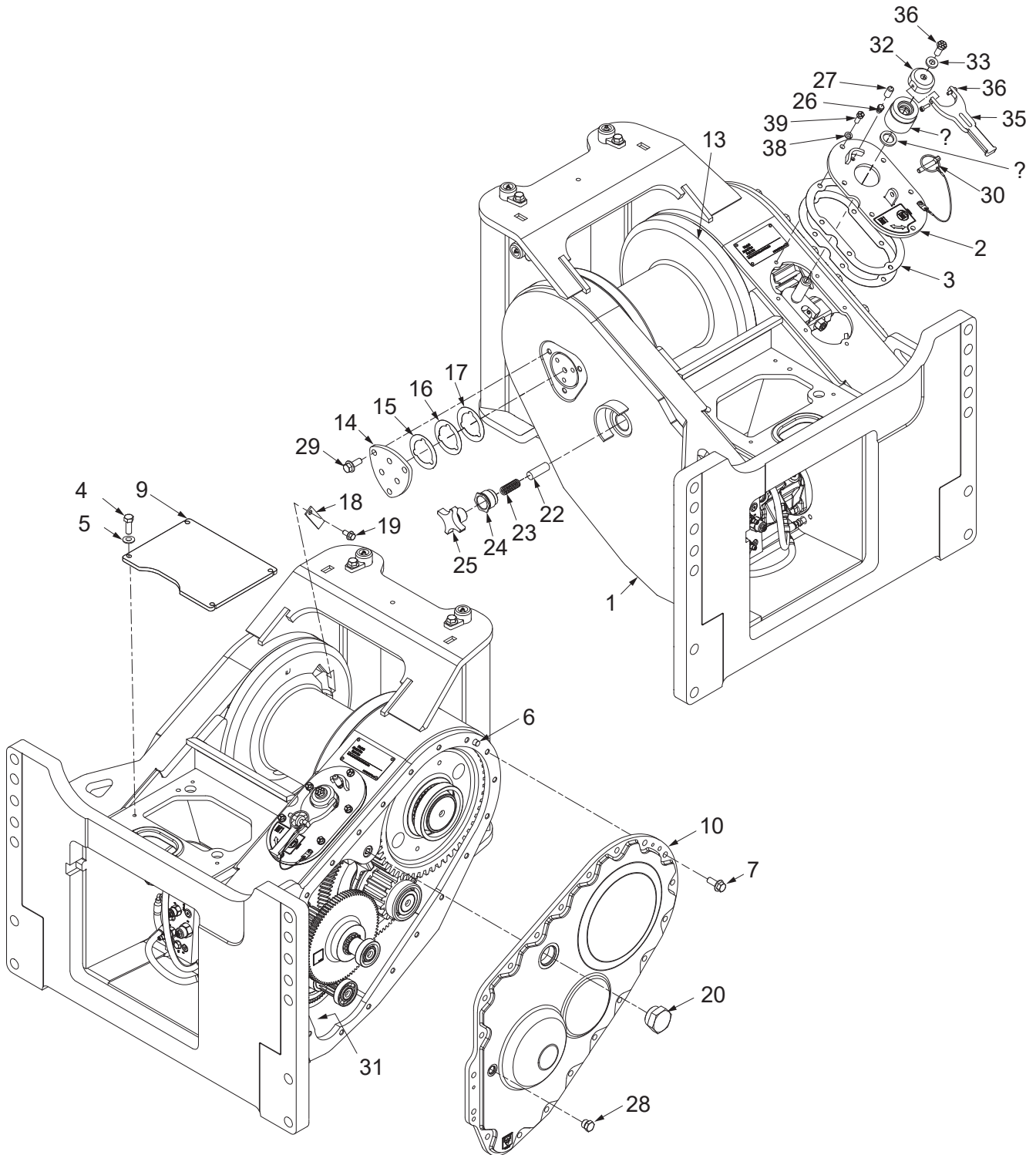
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2312989	1	Frame	17	2304124W	AR	Shim, .020
2	2305663W	1	Cover, Breather	18	1314503W	1	Keeper, Ferrule
3	2315377	2	Gasket, Breather	19	134803W	1	Screw, Flange
4	179443W	16	Capscrew	20	2304174W	1	Plug, Freespool Shaft
5	15156W	16	Washer	21	16984W	1	O-Ring
6	176208W	2	Pin	22	2311889	1	Pad, Freespool Drag
7	2303848W	20	Screw, Flanged	23	1314502W	1	Spring, Freespool Drag
8	*a 2304099W	1	Cover	24	2300174W	1	Insert
9	2305662W	1	Cover, Top	25	1314547W	1	Knob, Freespool Drag
10	*a 2304092W	1	Cover, LH	26	21420W	1	Plug, Breather
11	2305020W	1	Bar, Tie (Except w/ Arch)	27	2300962W	1	Cap, Breather
12	15256W	2	Pin (Except w/Arch)	28	14595W	1	Fitting, O-Ring
13	2304069W	1	Drum	29	2303848W	16	Screw, Flanged
14	2304070W	1	Cover, Drum Shaft	31	R525293	1	Magnet
15	2304122W	AR	Shim, .005				
16	2304123W	AR	Shim, .007	*a	Use 313022W Adhesive		

### Frame and Covers

Caterpillar D3K2/4K2/5K2 (H4AT4C\*\*C191) only

Page 1 of 2



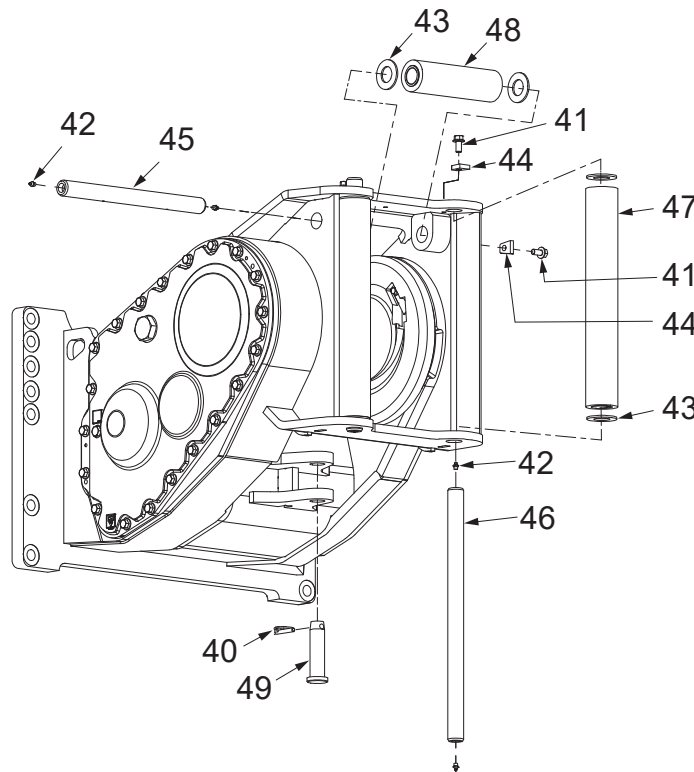
### Frame and Covers

Caterpillar D3K2/4K2/5K2 (H4AT4C\*\*C191) only

Page 2 of 2

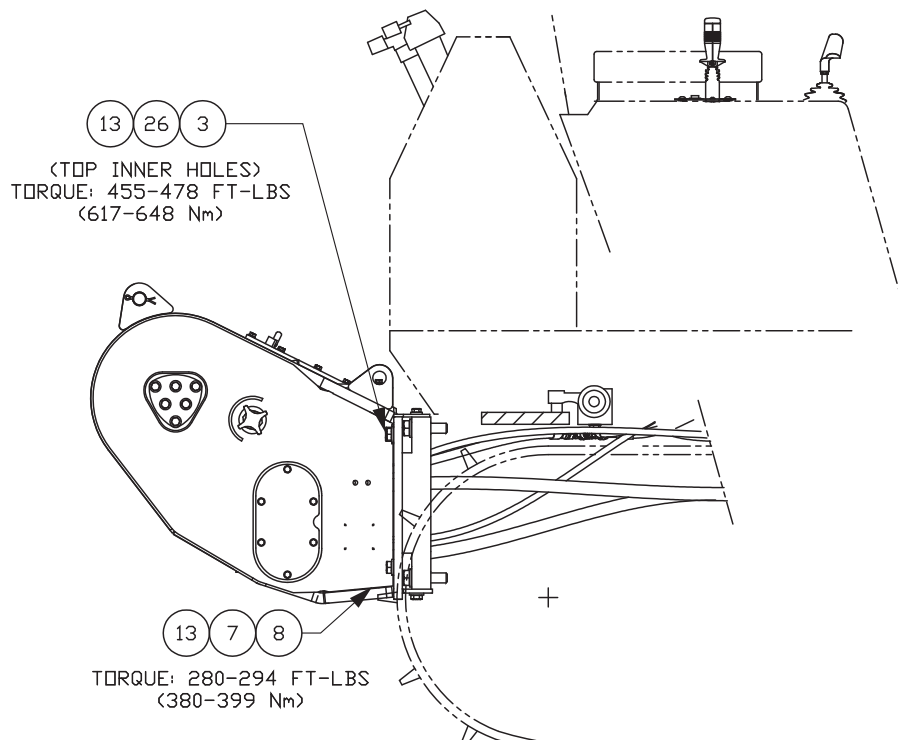
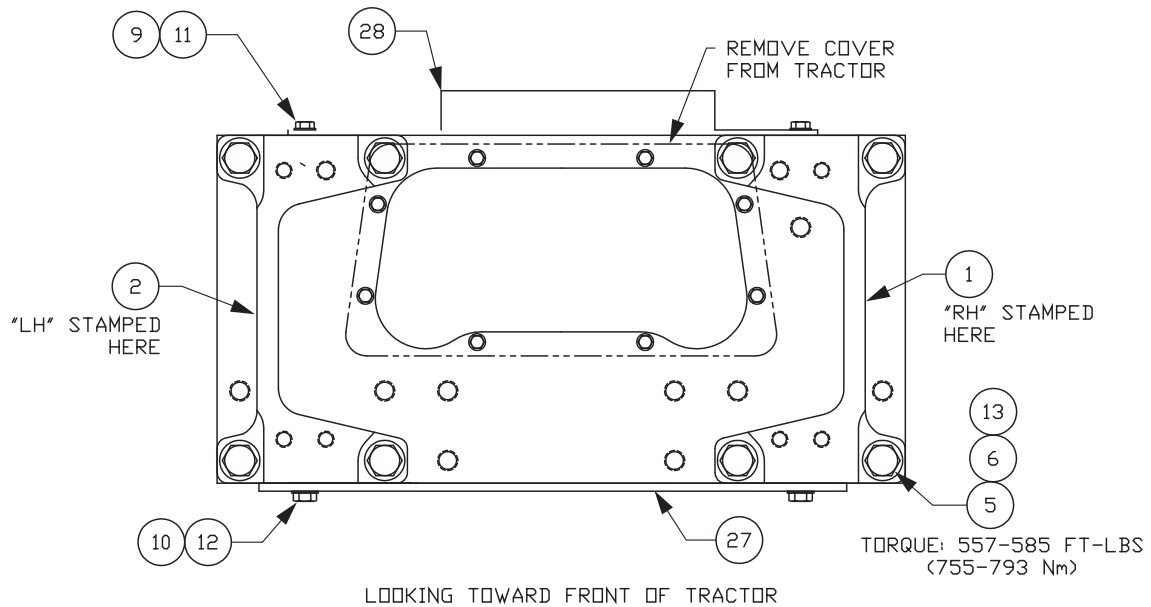
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2316310	1	Frame	30	2303221W	1	Pin, Retaining
2	2316488	1	Cover, Manual Freespool	31	R525293	1	Magnet, Ceramic
3	2315377	2	Gasket, Cover	32	2316364	1	Hub
4	179443W	16	Capscrew	33	221771W	1	Washer
5	15156W	16	Washer	34	Y18C-0820	1	Capscrew
6	176208W	2	Pin	35	2316365	1	Lever, Manual Freespool
7	2303848W	20	Screw, Flanged	36	85749W	2	Bolt
9	2316506	1	Cover, Top	37	209140	1	Fitting
10	*a 2316354	1	Cover, LH	38	R13812514	6	Lockwasher
13	2304069W	1	Drum	39	179443W	6	Capscrew
14	2304070W	1	Cover, Drum Shaft	40	2303221W	1	Pin, Retain
15	2304122W	AR	Shim, .005	41	398817W	3	Screw, Flange
16	2304123W	AR	Shim, .007	42	16001W	6	Fitting, Lube
17	2304124W	AR	Shim, .020	43	344825W	6	Washer
18	1314503W	1	Keeper, Ferrule	44	2303815W	3	Keeper
19	134803W	1	Screw, Flange	45	2305249W	1	Shaft
20	2304174W	1	Plug, Freespool Shaft	46	2303754W	2	Shaft
22	2311889	1	Pad, Freespool Drag	47	2303755W	2	Roller Assembly
23	1314502W	1	Spring, Freespool Drag		59419W	2	. Bushing
24	2300174W	1	Insert	48	2301708W	1	Roller Assembly
25	1314547W	1	Knob, Freespool Drag		59419W	2	. Bushing
26	21420W	1	Plug, Breather	49	2304161W	1	Pin, Drawbar
27	2300962W	1	Cap, Breather				
28	14595W	1	Fitting, O-Ring				
29	2303848W	20	Screw, Flanged				

\*a Use 313022W Adhesive



## Mounting Parts

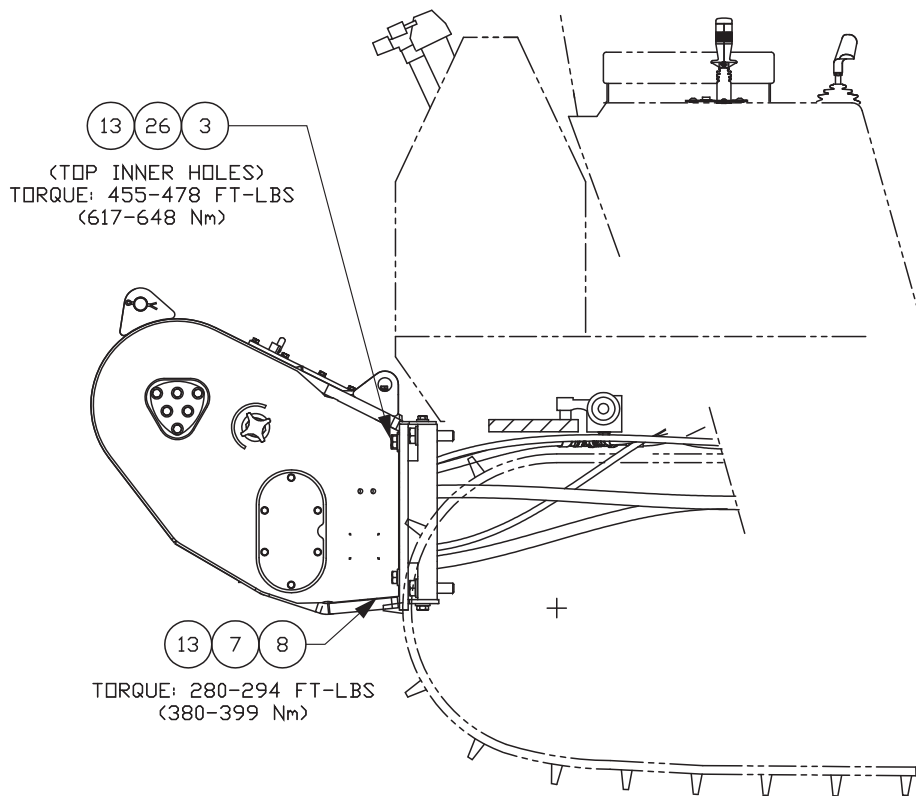
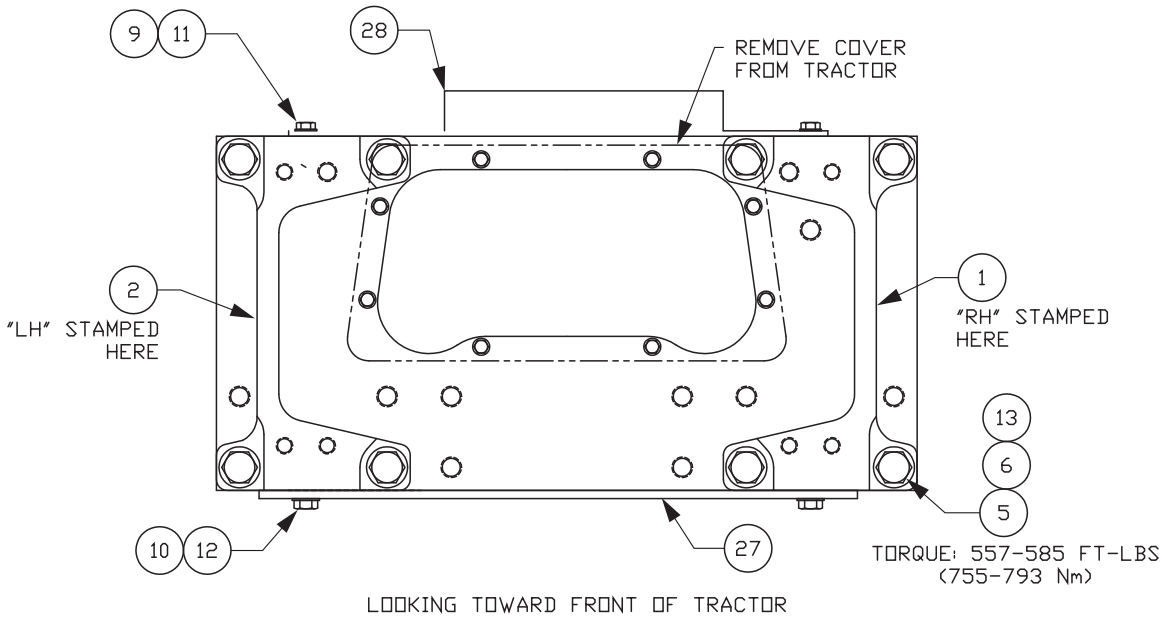
Caterpillar D4/5G (H4AH2Y\*\*C18)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311837	1	Bracket, Mounting, RH	10	221616W	2	Capscrew
2	2311838	1	Bracket, Mounting, LH	11	221771W	2	Washer
3	218760	2	Capscrew	12	234271	2	Washer
5	293729W	8	Capscrew	13	318702W	AR	Threadlock
6	296434W	8	Washer	26	Y27E-14	2	Washer
7	221657W	6	Capscrew	27	2306422W	1	Guard, Bottom
8	221777W	6	Washer	28	2306575W	1	Guard, Top
9	221560W	2	Capscrew				

### Mounting Parts

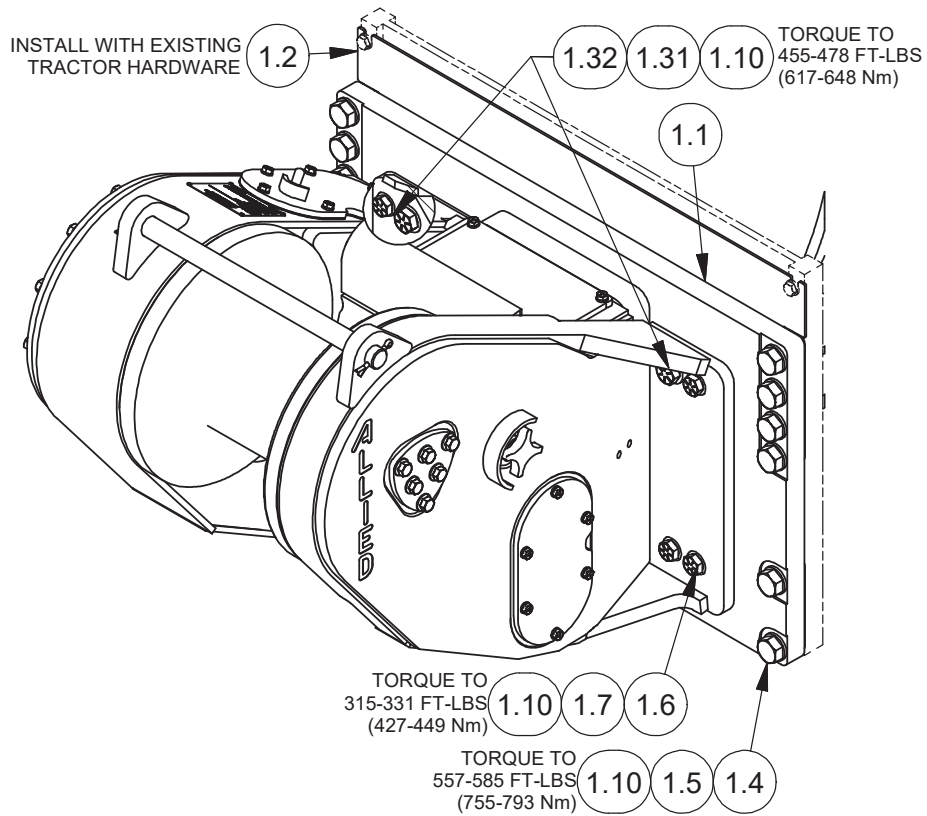
Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17), D4G/5G (H4AH3Y\*\*C18)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311837	1	Bracket, Mounting, RH	10	221616W	2	Capscrew
2	2311838	1	Bracket, Mounting, LH	11	221771W	2	Washer
3	218760	2	Capscrew	12	234271	2	Washer
5	293729W	8	Capscrew	13	318702W	1BTL	Threadlock
6	296434W	8	Washer	26	Y27E-14	2	Washer
7	221657W	6	Capscrew	27	2306422W	1	Guard, Bottom
8	221777W	6	Washer	28	2306575W	1	Guard, Top
9	221560W	2	Capscrew				

### Mounting Parts

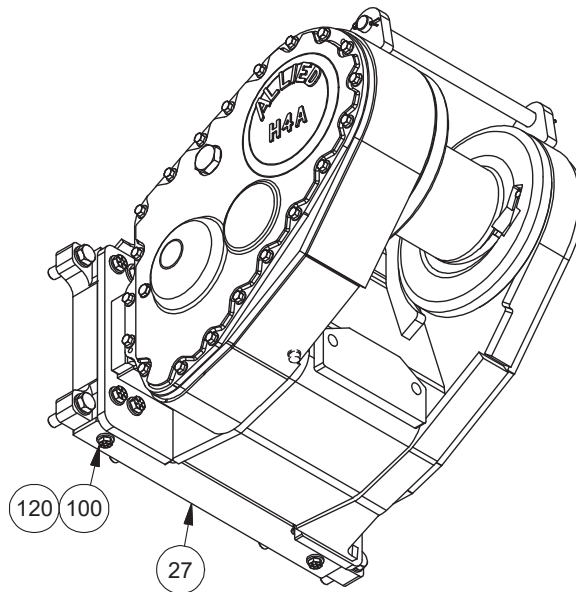
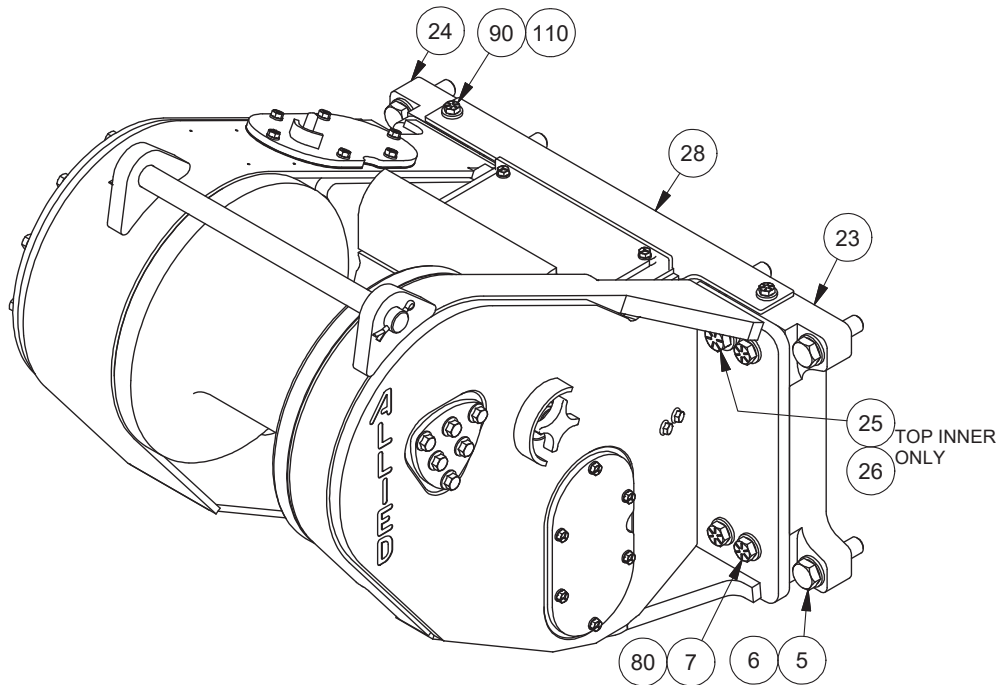
Caterpillar D5K/5K2 (H4AH3Y\*\*C19, H4AH2Y\*\*C20, H4AH3Y\*\*C20)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2311756	1	Bracket, Mounting	1.7	221777W	6	Washer
1.2	2310888	1	Guard, Cover	1.10	318702W	AR	Threadlock
1.4	1308451W	12	Capscrew	1.31	R13813326	2	Washer
1.5	296434W	12	Washer	1.32	221672W	2	Capscrew
1.6	Y17C-1236	6	Capscrew				

### Mounting Parts

Caterpillar D3G/4G/5G (H4AT4Y\*\*C17)

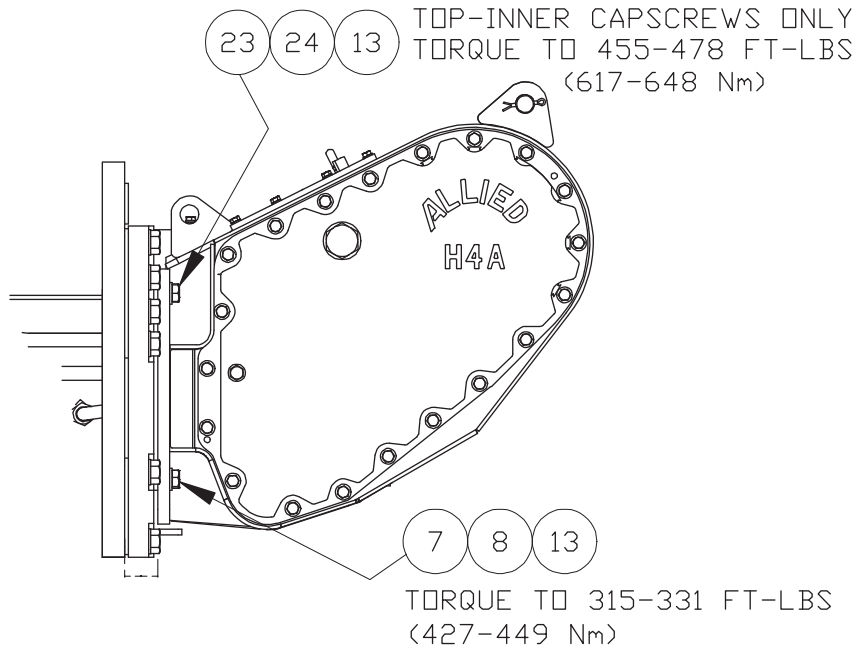
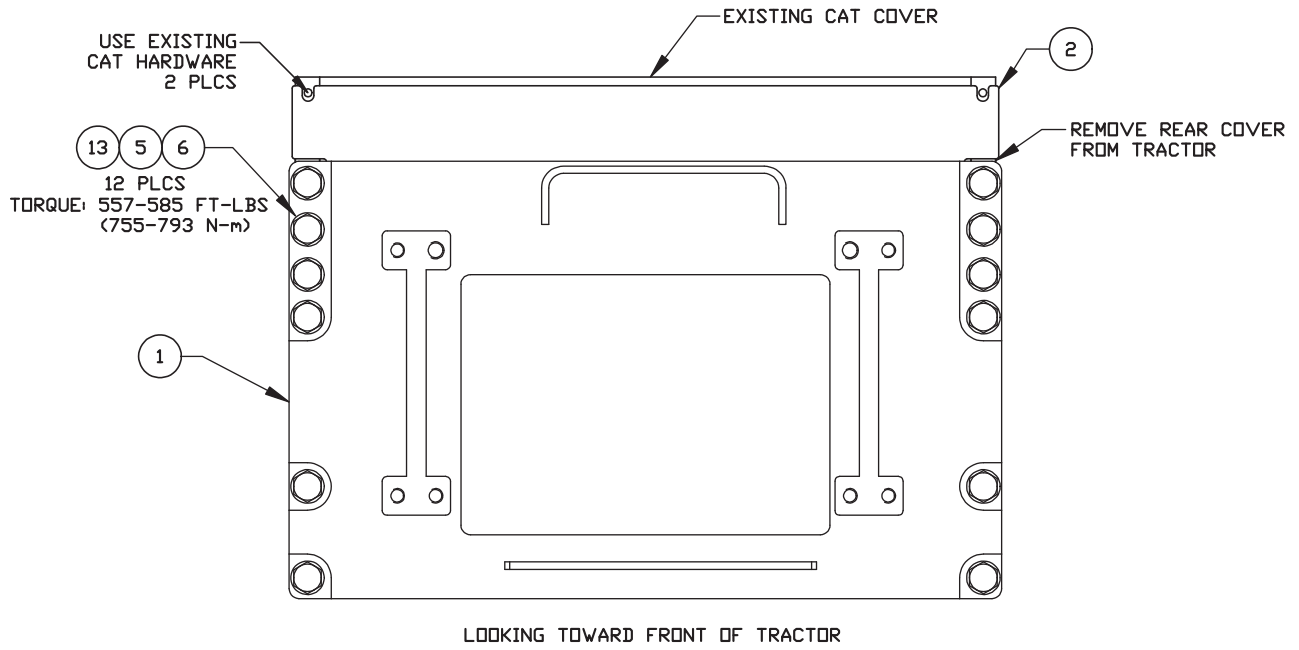


### WINCH MOUNTING

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
5	293729W	8	Capscrew	27	2306422W	1	Guard, Bottom
6	296434W	8	Washer	28	2306575W	1	Guard, Top
7	221657W	6	Capscrew	80	221777W	6	Washer
23	2311837	1	Bracket, Mounting, RH	90	221560W	2	Capscrew
24	2311838	1	Bracket, Mounting, LH	100	221616W	2	Capscrew
25	218760	2	Capscrew	110	221771W	2	Washer
26	Y27E-14	2	Washer	120	234271	2	Washer

### Mounting Parts

Caterpillar D3K/4K (H4AT2Y\*\*C19, H4AT4Y\*\*C19)

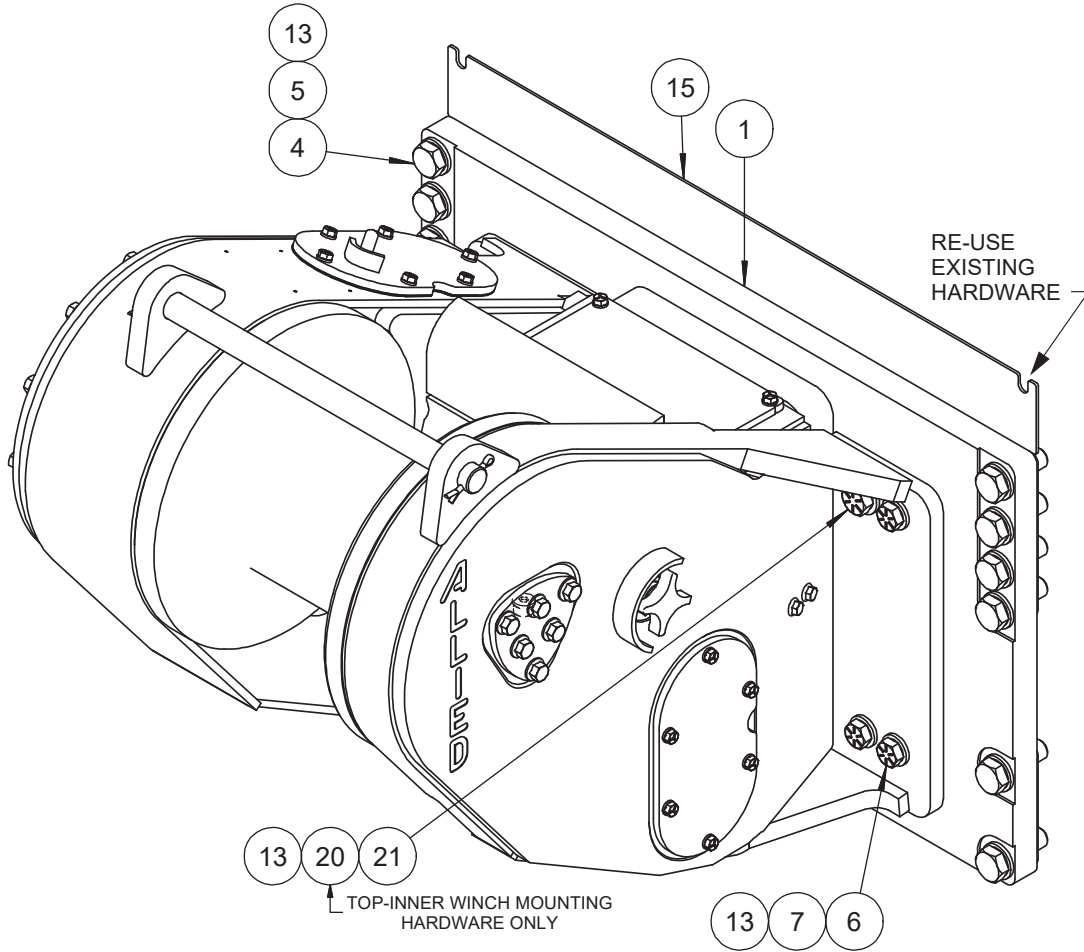


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311756	1	Bracket, Mounting	8	221777W	6	Washer
2	2310888	1	Guard, Cover	13	318702W	AR	Threadlock
5	1308451W	12	Capscrew	23	Y2E-14	2	Washer
6	296434W	12	Washer	24	221672W	2	Capscrew
7	Y17C-1236	6	Capscrew				



**Mounting Parts**

Caterpillar D3K2/4K2/5K2 (H4AH2Y\*\*C191, H4AT2Y\*\*C191, H4AH3Y\*\*C191, H4AT4Y\*\*C191)

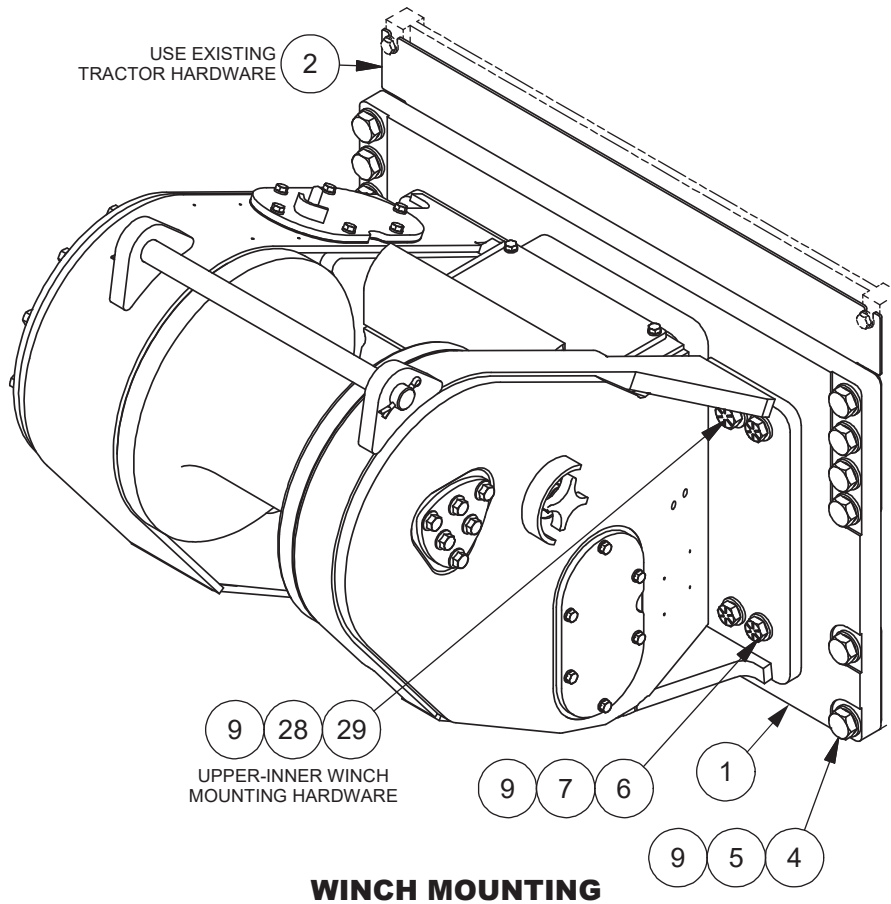


**WINCH MOUNTING**

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311756	1	Bracket, Mounting	13	318702W	AR	Threadlock
4	1308451W	12	Capscrew	15	2310888	1	Guard, Cover
5	296434W	12	Washer	20	R13813326	2	Washer
6	Y17C-1236	6	Capscrew	21	221672W	2	Capscrew
7	221777W	6	Washer				

## Mounting Parts

Caterpillar D5K/D5K2 (H4AH3Y\*\*C201)

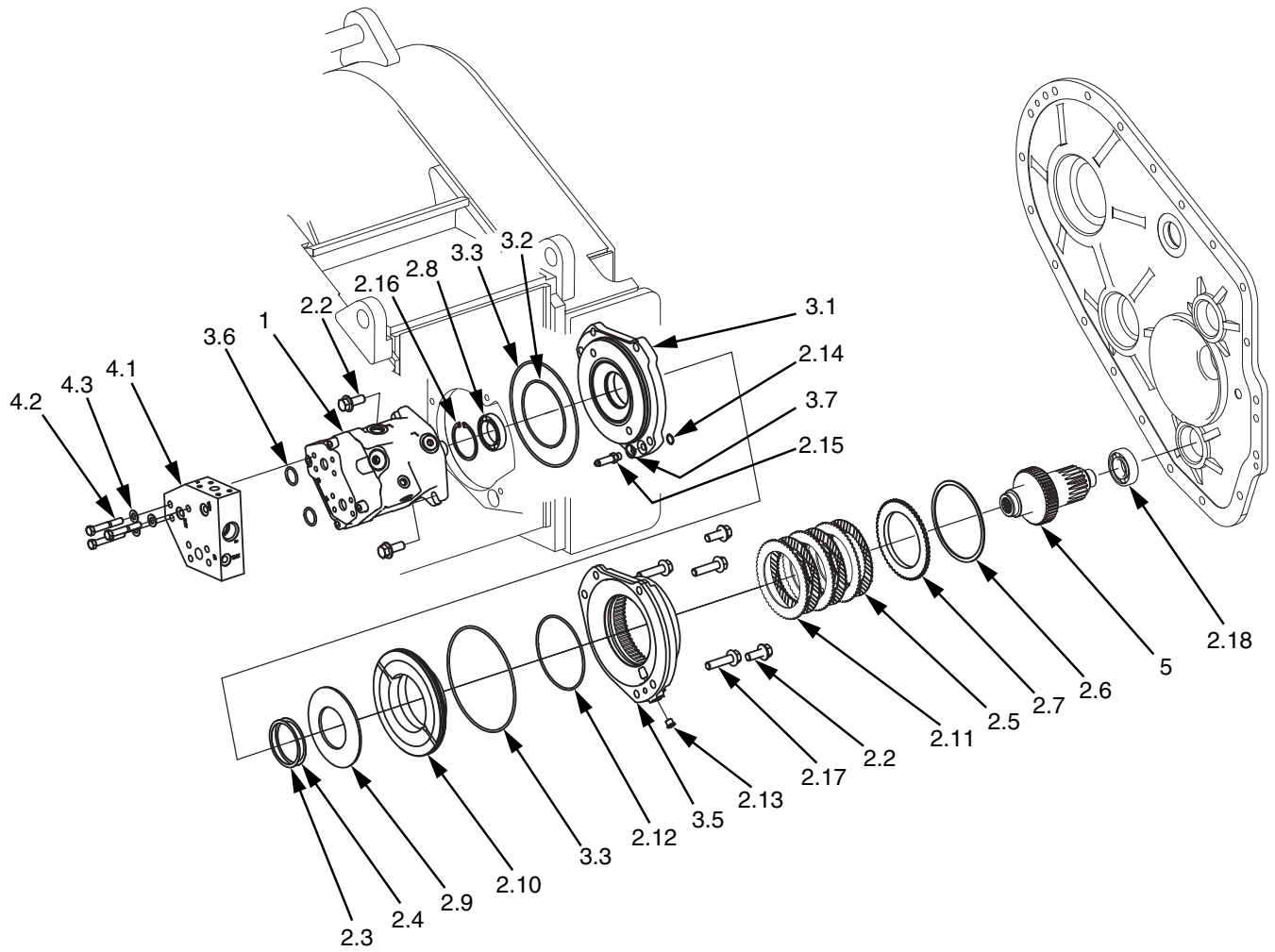


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311756	1	Bracket, Mounting	7	221777W	6	Washer
2	2310888	1	Guard, Cover	9	318702W	1BTL	Threadlock
4	1308451W	12	Capscrew	28	R13813326	2	Washer
5	296434W	12	Washer	29	221672W	2	Capscrew
6	Y17C-1236	6	Capscrew				

**Section 2**  
**Gear/Shaft Train**

# Motor & Brake Group

Caterpillar (All "H" High-Performance Models)  
Page 1 of 2



## Motor & Brake Group

Caterpillar D3/4/5G (H4AH2Y\*\*C17), D4/5G (H4AH2Y\*\*C18), D3K/4K (H4AT2Y\*\*C19), D5K/5K2 (H4AH2Y\*\*C20),  
D3/4/5K2 (H4AH2Y\*\*C191), D3/4/5K2 (H4AT2Y\*\*C191)

Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2303788W	1	Motor, Hydraulic	2.17	918906W	3	Screw
2.2	2303848W	4	Screw, Flange	2.18	*a 41206W	1	Bearing, Ball
2.3	*a 2304711W	AR	Shim, 0.005"	3.1	2305651W	1	Plate, Mounting, Motor
2.4	*a 2304712W	AR	Shim, 0.007"	3.2	*b 15888W	1	O-Ring
2.5	*a 2304873W	3	Disc, Friction	3.3	*a*b 2316507	2	O-Ring
2.6	334475W	1	Ring, Snap, Int	3.5	2316526	1	Housing, Brake
2.7	334442W	1	Plate, Pressure	3.6	*b 2304110W	2	O-Ring
2.8	*a 2300831W	1	Bearing, Ball	3.7	*b 17064	1	O-Ring
2.9	2303845W	1	Spring, Belleville	4.1	2310966	1	Assy, Manifold (See p. 68)
2.10	2316525	1	Piston, Brake	4.2	Y73G-0640	3	Capscrew
2.11	*a 2304874W	3	Plate, Separator	4.3	177947W	3	Hard Washer
2.12	*a*b 2316517	1	O-Ring	5	2303829W	1	Motor Shaft, 16T (116:1)
2.13	222442W	1	Fitting				
2.14	*b 26883	1	O-Ring				
2.15	16547W	1	Fitting	*a	Included in Brake Kit 2306545W		
2.16	12921W	1	Snap Ring	*b	Included in Motor Shaft Rebuild Kit 2315351		

## Motor & Brake Group

Caterpillar D3/4/5G (H4AH3Y\*\*C17), D4G/5G (H4AH3Y\*\*C18), D3K/4K (H4AH3Y\*\*C19),  
D5K/5K2 (H4AH3Y\*\*C20)

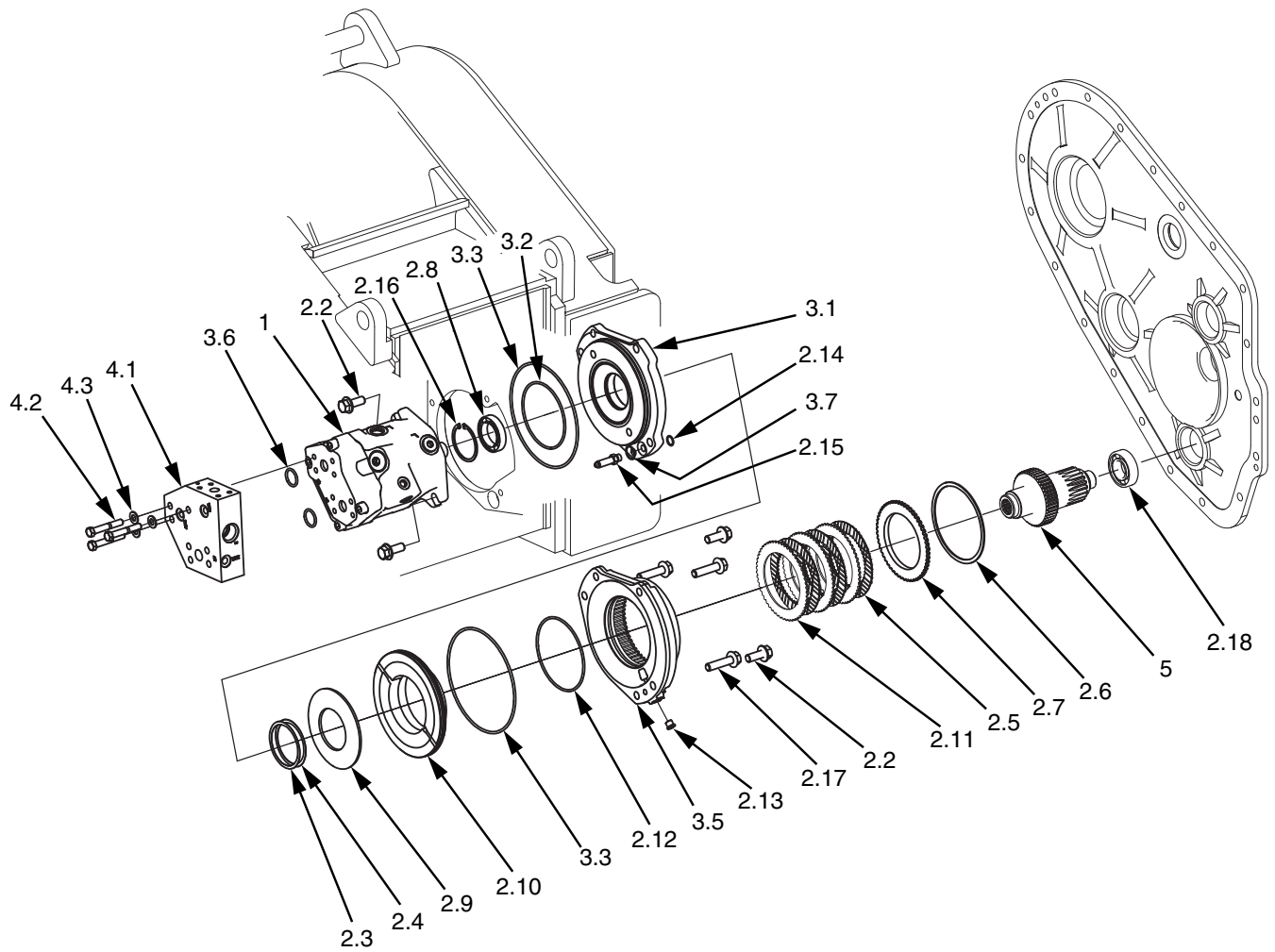
D3K2/4K2/5K2 (H4AH3Y\*\*C191), D5K/5K2 (H4AH3Y\*\*C201)

Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2303788W	1	Motor, Hydraulic	2.17	918906W	3	Screw
2.2	2303848W	4	Screw, Flange	2.18	*a 41206W	1	Bearing, Ball
2.3	*a 2304711W	AR	Shim, 0.005"	3.1	2305651W	1	Plate, Mounting, Motor
2.4	*a 2304712W	AR	Shim, 0.007"	3.2	*b 15888W	1	O-Ring
2.5	*a 2304873W	3	Disc, Friction	3.3	*a*b 2316507	2	O-Ring
2.6	334475W	1	Ring, Snap, Int	3.5	2316526	1	Housing, Brake
2.7	334442W	1	Plate, Pressure	3.6	*b 2304110W	2	O-Ring
2.8	*a 2300831W	1	Bearing, Ball	3.7	*b 17064	1	O-Ring
2.9	2303845W	1	Spring, Belleville	4.1	2310966	1	Assy, Manifold (See p. 68)
2.10	2316525	1	Piston, Brake	4.2	Y73G-0640	3	Capscrew
2.11	*a 2304874W	3	Plate, Separator	4.3	177947W	3	Hard Washer
2.12	*a*b 2316517	1	O-Ring	5	2311303	1	Motor Shaft, 19T (94:1)
2.13	222442W	1	Fitting				
2.14	*b 26883	1	O-Ring				
2.15	16547W	1	Fitting	*a	Included in Brake Kit 2306545W		
2.16	12921W	1	Snap Ring	*b	Included in Motor Shaft Rebuild Kit 2315351		

### Motor & Brake Group

Caterpillar D3G/4G/5G (H4AT4Y\*\*C17), D3/4/5K (H4AT4Y\*\*C19), D3/4/5K2 (H4AT4Y\*\*C191),  
Page 1 of 2



## Motor & Brake Group

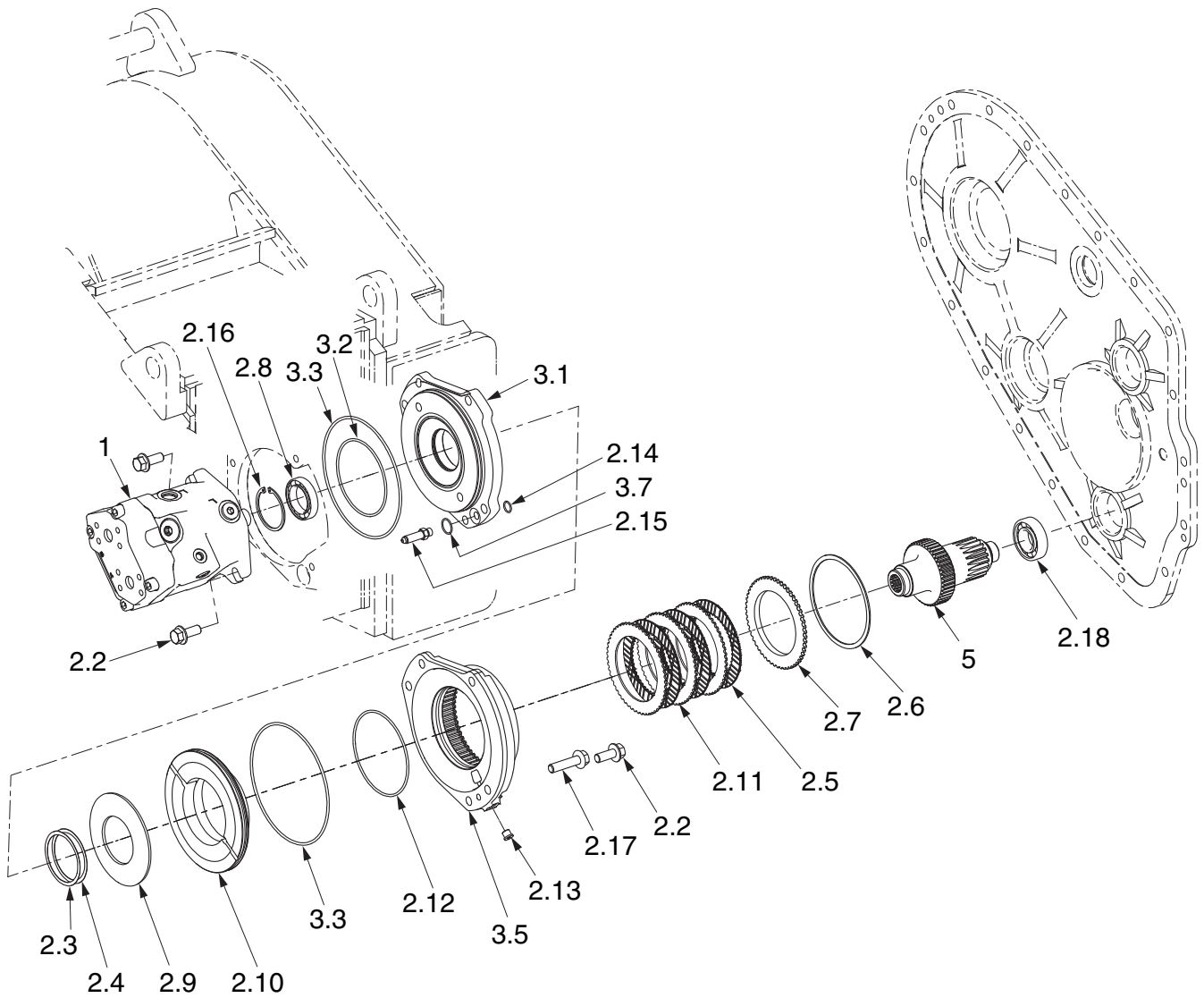
Caterpillar D3G/4G/5G (H4AT4Y\*\*C17), D3/4/5K (H4AT4Y\*\*C19), D3/4/5K2 (H4AT4Y\*\*C191),  
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2303788W	1	Motor, Hydraulic	2.17	918906W	3	Screw
2.2	2303848W	4	Screw, Flange	2.18	*a 41206W	1	Bearing, Ball
2.3	*a 2304711W	AR	Shim, 0.005"	3.1	2305651W	1	Plate, Mounting, Motor
2.4	*a 2304712W	AR	Shim, 0.007"	3.2	*b 15888W	1	O-Ring
2.5	*a 2304873W	3	Disc, Friction	3.3	*a*b 2316507	2	O-Ring
2.6	334475W	1	Ring, Snap, Int	3.5	2316526	1	Housing, Brake
2.7	334442W	1	Plate, Pressure	3.6	*b 2304110W	2	O-Ring
2.8	*a 2300831W	1	Bearing, Ball	3.7	*b 17064	1	O-Ring
2.9	2303845W	1	Spring, Belleville	4.1	2307568W	1	Assy, Manifold (See p. 74)
2.10	2316525	1	Piston, Brake	4.2	180959W	3	Capscrew
2.11	*a 2304874W	3	Plate, Separator	4.3	221767W	3	Hard Washer
2.12	*a*b 2316517	1	O-Ring	5	2311305	1	Motor Shaft, 15T (125:1)
2.13	222442W	1	Fitting				
2.14	*b 26883	1	O-Ring				
2.15	16547W	1	Fitting				
2.16	12921W	1	Snap Ring				

\*a Included in Brake Kit 2306545W

\*b Included in Motor Shaft Rebuild Kit 2315351

**Motor & Brake Group**  
Caterpillar D3/4/5K2 (H4AT4C\*\*C191)  
Page 1 of 2

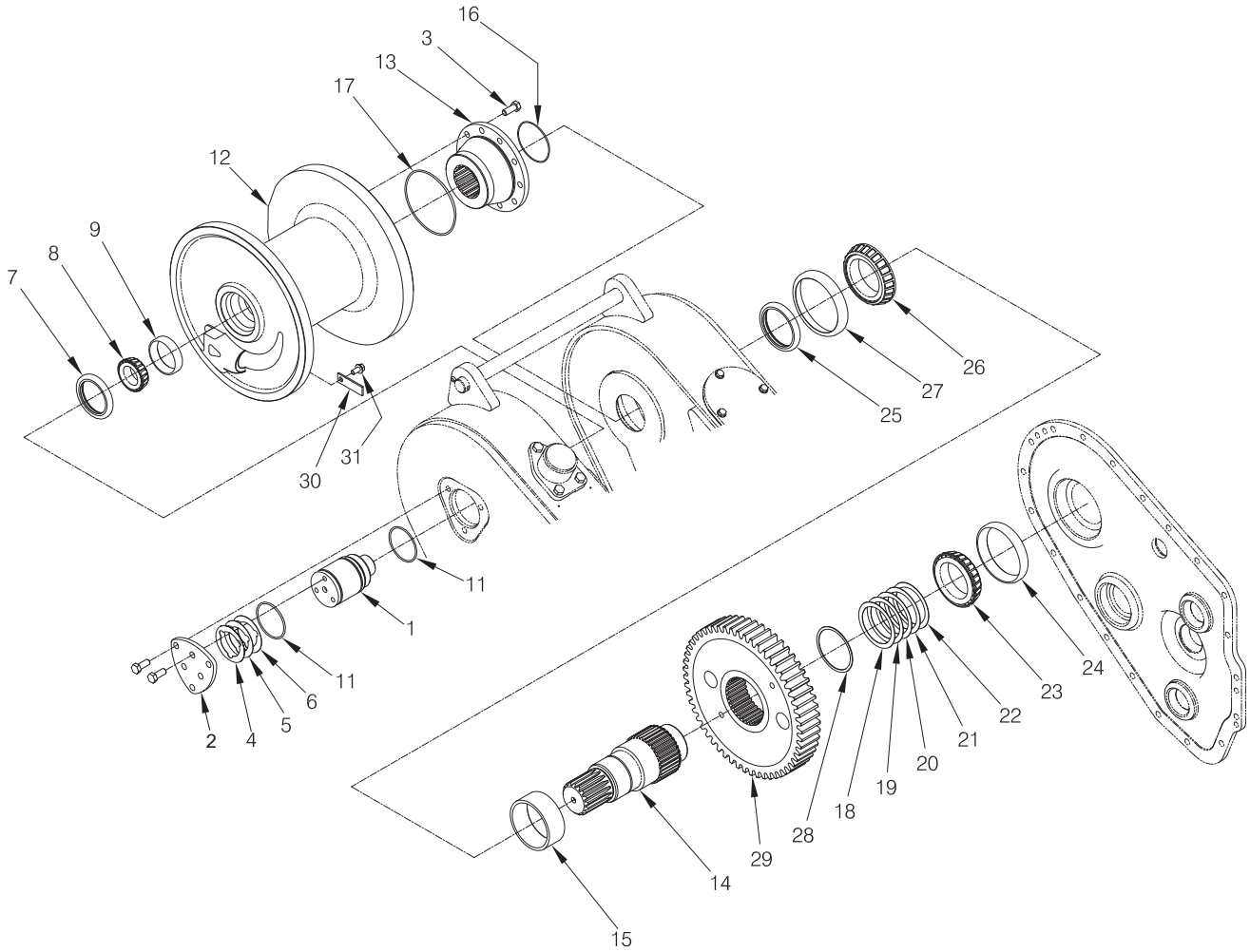




**Motor & Brake Group**  
Caterpillar D3/4/5K2 (H4AT4C\*\*C191)  
Page 2 of 2

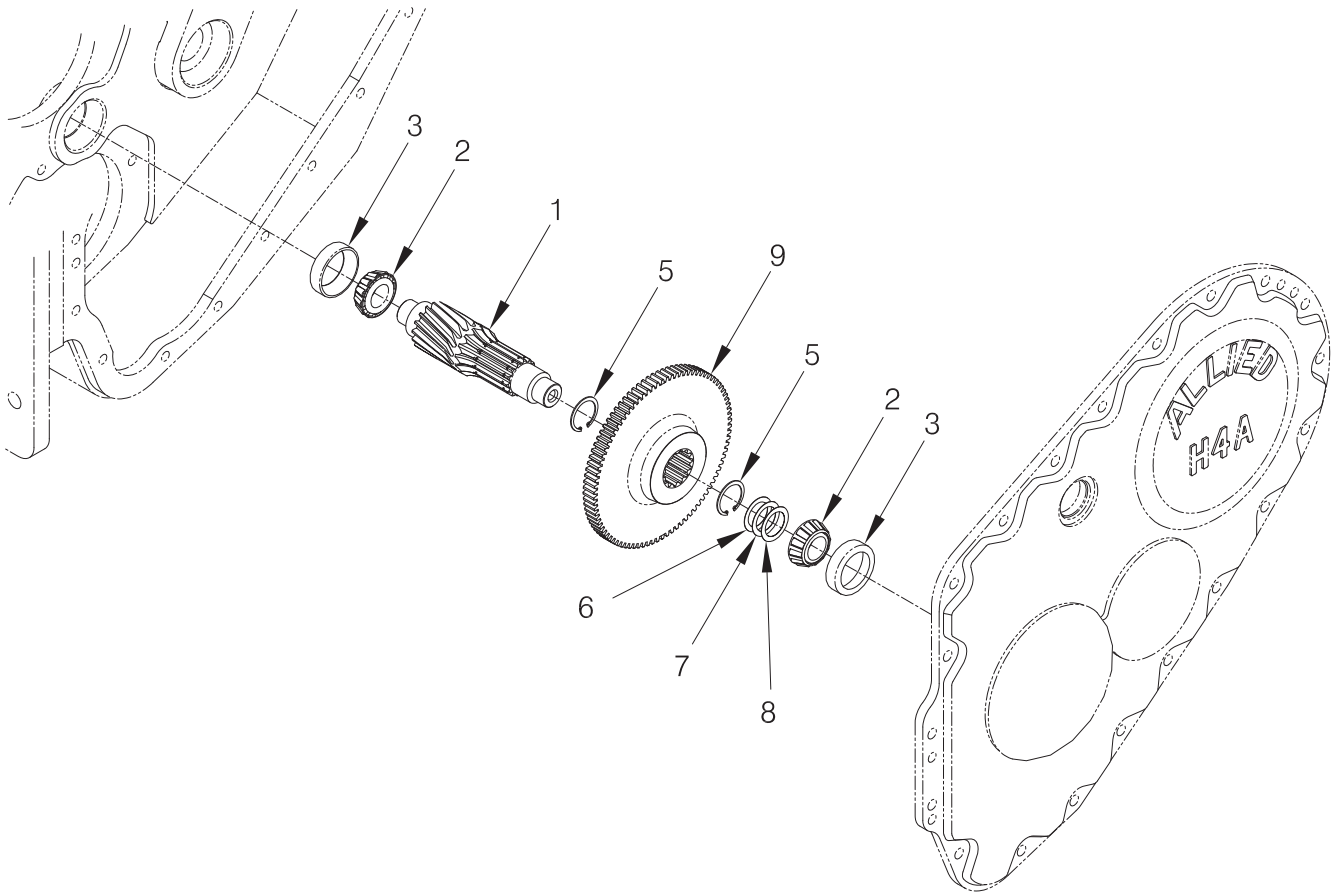
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2303788W	1	Motor, Hydraulic	2.15	16547W	1	Fitting
2.2	2303848W	4	Screw, Flange	2.16	12921W	1	Snap Ring
2.3	*a 2304711W	AR	Shim, 0.005"	2.17	918906W	3	Screw
2.4	*a 2304712W	AR	Shim, 0.007"	2.18	*a 41206W	1	Bearing, Ball
2.5	*a 2304873W	3	Disc, Friction	3.1	2305651W	1	Motor Mounting Plate
2.6	334475W	1	Ring, Snap, Int	3.2	*b 15888W	1	O-Ring
2.7	334442W	1	Pressure Plate	3.3	*a*b 2316507	2	O-Ring
2.8	*a 2300831W	1	Bearing, Ball	3.5	2316526	1	Housing, Brake
2.9	2303845W	1	Spring, Belleville	5	2311305	1	Motor Shaft, 15T (125:1)
2.10	2316525	1	Piston, Brake				
2.11	*a 2304874W	3	Plate, Separator				
2.12	*a*b 2316517	1	O-Ring		*a		Included in Brake Kit 2306545W
2.13	222442W	1	Fitting		*b		Included in Motor Shaft Rebuild Kit 2315351
2.14	*b 26883	1	O-Ring				

Drum Shaft



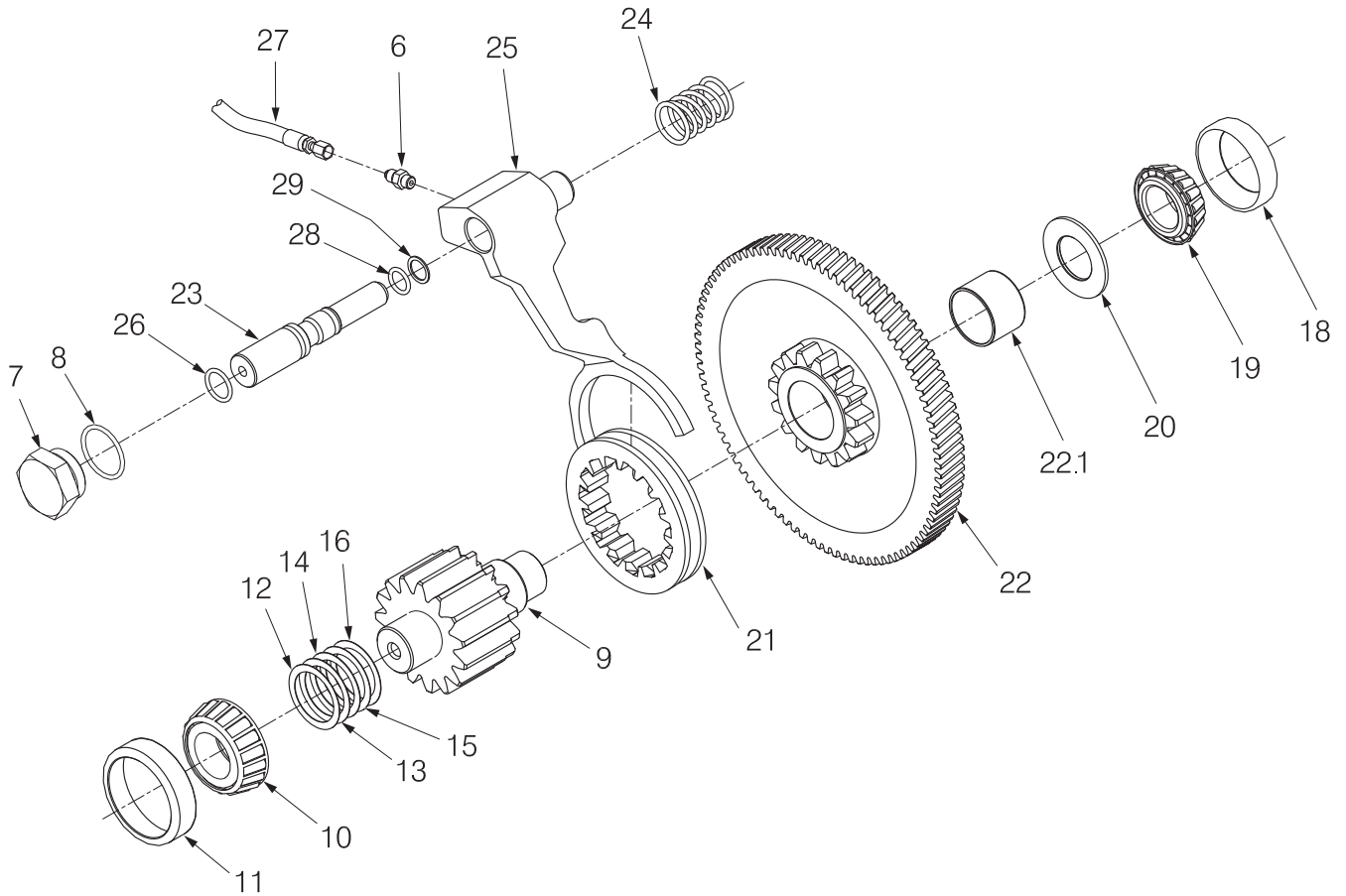
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2305653W	1	Shaft, Drum	17	15895W	1	O-Ring
2	2304070W	1	Cover, Drum Shaft	18	1314470W	AR	Shim, .025
3	2303848W	16	Screw, Flange	19	1314485W	AR	Shim, .015
4	2304122W	AR	Shim, .005	20	1314486W	AR	Shim, .018
5	2304123W	AR	Shim, .007	21	1314487W	AR	Shim, .020
6	2304124W	AR	Shim, .020	22	1314488W	AR	Shim, .022
7	87355W	1	Seal, Oil	23	1314483W	1	Cone, Bearing
8	2303853W	1	Cone, Bearing	24	30190W	1	Cup, Bearing
9	2303854W	1	Cup, Bearing	25	R2109170	1	Seal
11	203525	1	O-Ring	26	2304126W	1	Cone, Bearing
12	2304069W	1	Drum	27	2304127W	1	Cup, Bearing
13	2304060W	1	Adapter, Drum	28	2304128W	1	Snap Ring
14	2304058W	1	Shaft, Drum	29	2303827W	1	Gear, 55T
15	2304125W	1	Spacer	30	1314503W	1	Keeper, Ferrule
16	46629W	1	O-Ring	31	134803W	1	Screw, Ser Flg

Idler Shaft



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2305564W	1	Shaft, Idler, 16T	*a	Used on 116:1 Gear Ratio Only		
2	2304179W	2	Cone, Bearing	*b	Used on 83:1 Gear Ratio Only		
3	2304180W	2	Cup, Bearing	*c	Used on 94:1 Gear Ratio Only		
5	12916W	2	Ring, Snap	*d	Used on 125:1 Gear Ratio Only		
6	*e 2304197W	AR	Shim, .010	*e	Consult Service Manual		
7	*e 2304198W	AR	Shim, .012				
8	*e 2304199W	AR	Shim, .015				
9	*a 2305566W	1	Gear, Idler, 88T				
	*b 2305565W	1	Gear, Idler, 83T				
	*c 2311304	1	Gear, Idler, 85T				
	*d 2311306	1	Gear, Idler, 89T				

## Intermediate Gear Shaft With Freespool



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
6	16538W	1	Fitting	21	2304171W	1	Collar, Freespool
7	2304174W	1	Plug, Freespool Shaft	22	2316504	1	Assy, Gear, Intermed, 92T
8	16984W	1	O-Ring	22.1	2304181W	1	. Bushing
9	2303825W	1	Shaft	23	2305563W	1	Shaft, Freespool
10	225262W	1	Cone, Bearing	24	2303906W	1	Spring, Freespool
11	230351W	1	Cup, Bearing	25	2305562W	1	Fork, Freespool Shifter
12	* 1314433W	AR	Shim, .020	26	61056W	1	O-Ring
13	* 1314434W	AR	Shim, .022	27	2305580W	1	Assy, Hose
14	* 1314435W	AR	Shim, .025	28	100153W	1	O-Ring
15	* 1314467W	AR	Shim, .015	29	238671	1	Ring, Backup
16	* 1314468W	AR	Shim, .018				
18	R1314774	1	Cup, Bearing				
19	R1314773	1	Cone, Bearing				
20	2304172W	1	Washer, Thrust				

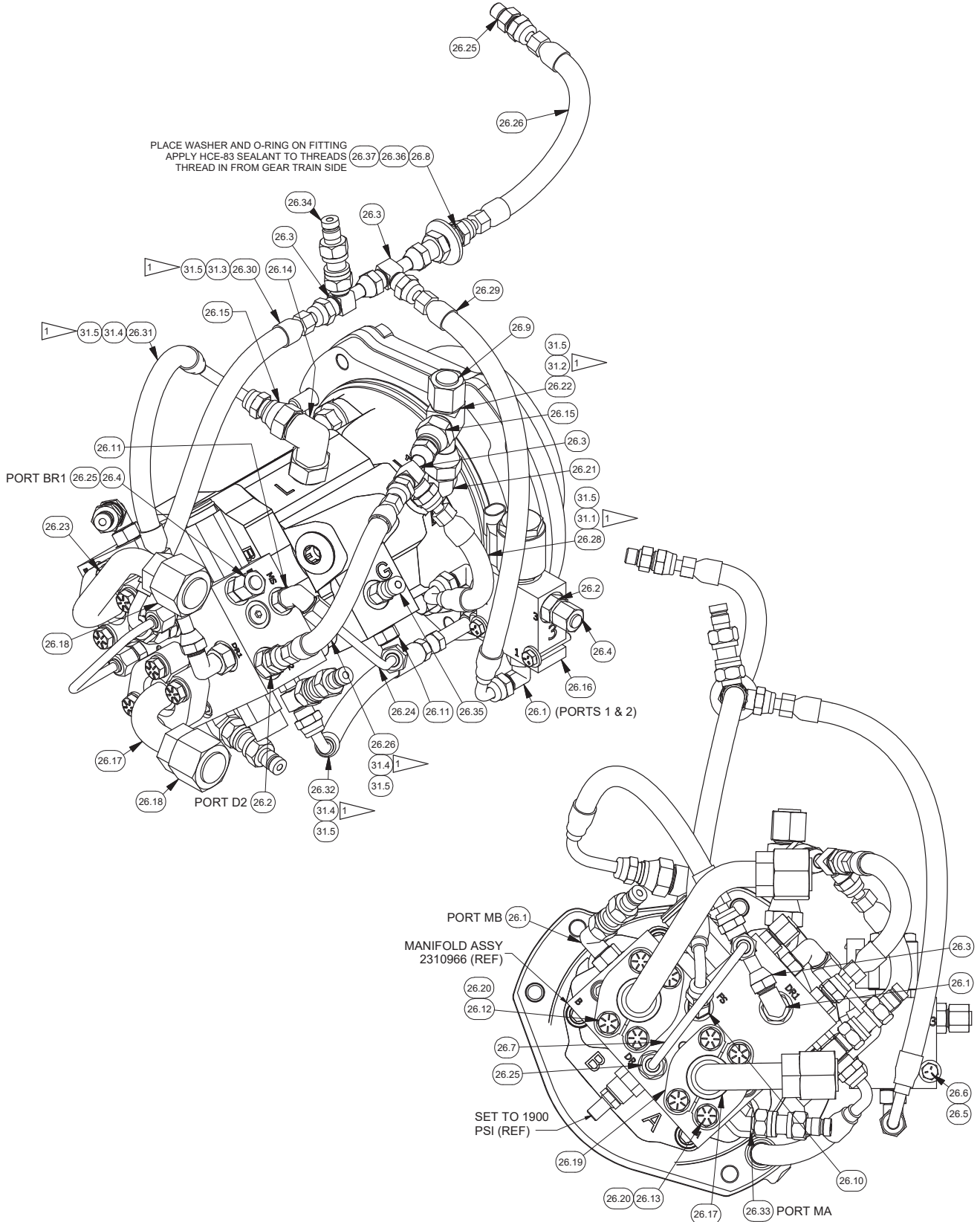
\* Shim as required to achieve 0.002" to 0.005" bearing endplay.

**Section 3**  
**Hydraulics/Electrical/Controls**

### Hydraulic Group

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17)  
 D4/5G (H4AH2Y\*\*C18, H4AH3Y\*\*C18), D3K/D4K (H4AH3Y\*\*C19)  
 D3/4/5K2 (H4AH2Y\*\*C191, H4AH3Y\*\*C191)  
 D5K/5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20, H4AH3Y\*\*C201)

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## Hydraulic Group

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17)  
 D4/5G (H4AH2Y\*\*C18, H4AH3Y\*\*C18), D3K/D4K (H4AH3Y\*\*C19)  
 D3/4/5K2 (H4AH2Y\*\*C191, H4AH3Y\*\*C191)  
 D5K/5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20, H4AH3Y\*\*C201)

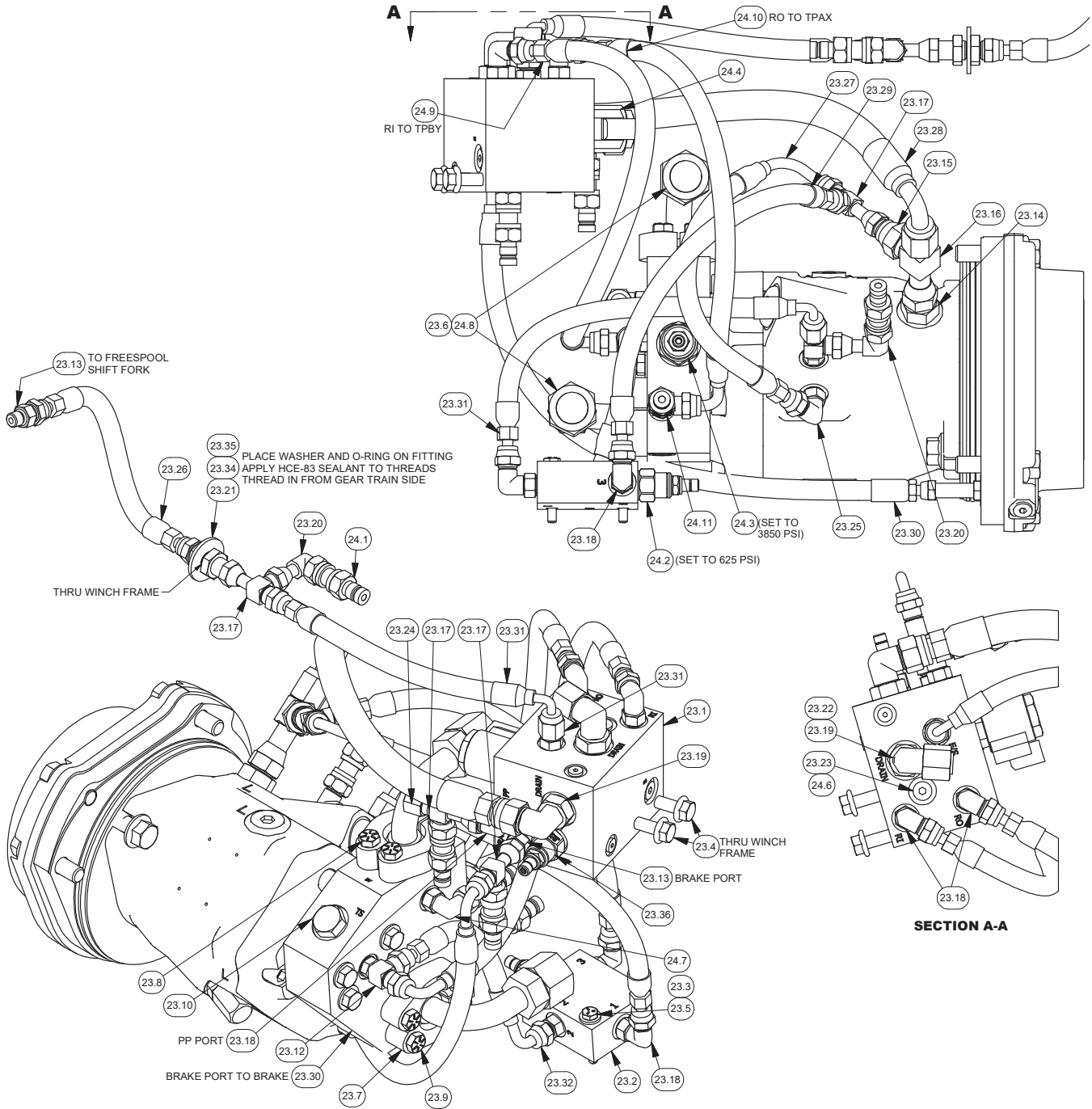
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
26.1	R833253	4	Fitting	26.20	R13812514	8	Washer
26.2	R833103	2	Fitting	26.21	R833208	1	Fitting
26.3	236855	4	Fitting	26.22	R834052	1	Fitting
26.4	232984	2	Fitting	26.23	2311899	1	Tube w/O-Rings
26.5	221763W	2	Washer	26.24	2311737	1	Assembly, Tube
26.6	18468W	2	Capscrew	26.25	231439	3	Fitting
26.7	2310854	1	Assembly, Tube	26.26	2311356	2	Hose Assembly
26.8	R834100	1	Fitting	26.28	2311234	1	Hose Assembly
26.9	R834253	1	Fitting	26.29	249537	1	Hose Assembly
26.10	2311739	1	Fitting	26.30	2311744	1	Hose Assembly
26.11	R833251	2	Fitting	26.31	2311235	1	Hose Assembly
26.12	R13811046	4	Capscrew	26.32	2311748	1	Hose Assembly
26.13	Y17C-0624	4	Capscrew	26.33	R833201	1	Fitting
26.14	237983	1	Fitting	26.34	2307625W	4	Fitting
26.15	R833700	2	Fitting	26.35	R14040	1	Coupler, Male
26.16	2310011	1	Manifold	26.36	15178W	1	Washer
	2310010	1	. Valve, Cartridge	26.37	211564	1	O-Ring
	R15668	1	. . Seal Kit	31.1	*a 2314880	1	Fire Sleeve
	2310009	1	. . Coil	31.2	*a 2314881	1	Fire Sleeve
	R12973129	1	. Valve Body	31.3	*a 2314882	1	Fire Sleeve
26.17	2311360	1	Assy, Fitting w/O-Rings	31.4	*a 2314883	3	Fire Sleeve
26.18	231821	2	Fitting	31.5	*a 589423	12	Clamp
	232382	1	. O-Ring				
26.19	222535W	4	Fitting		*a H4AH3Y**C201 only		

# Hydraulic Group

Caterpillar D3/4/5G (H4AT4Y\*\*C17)  
 D3K/4K and D3K/4K/5K (H4AT2Y\*\*C19, H4AT4Y\*\*C19)  
 D3K2/4K2/5K2 (H4AT2Y\*\*C191, H4AT4Y\*\*C191)

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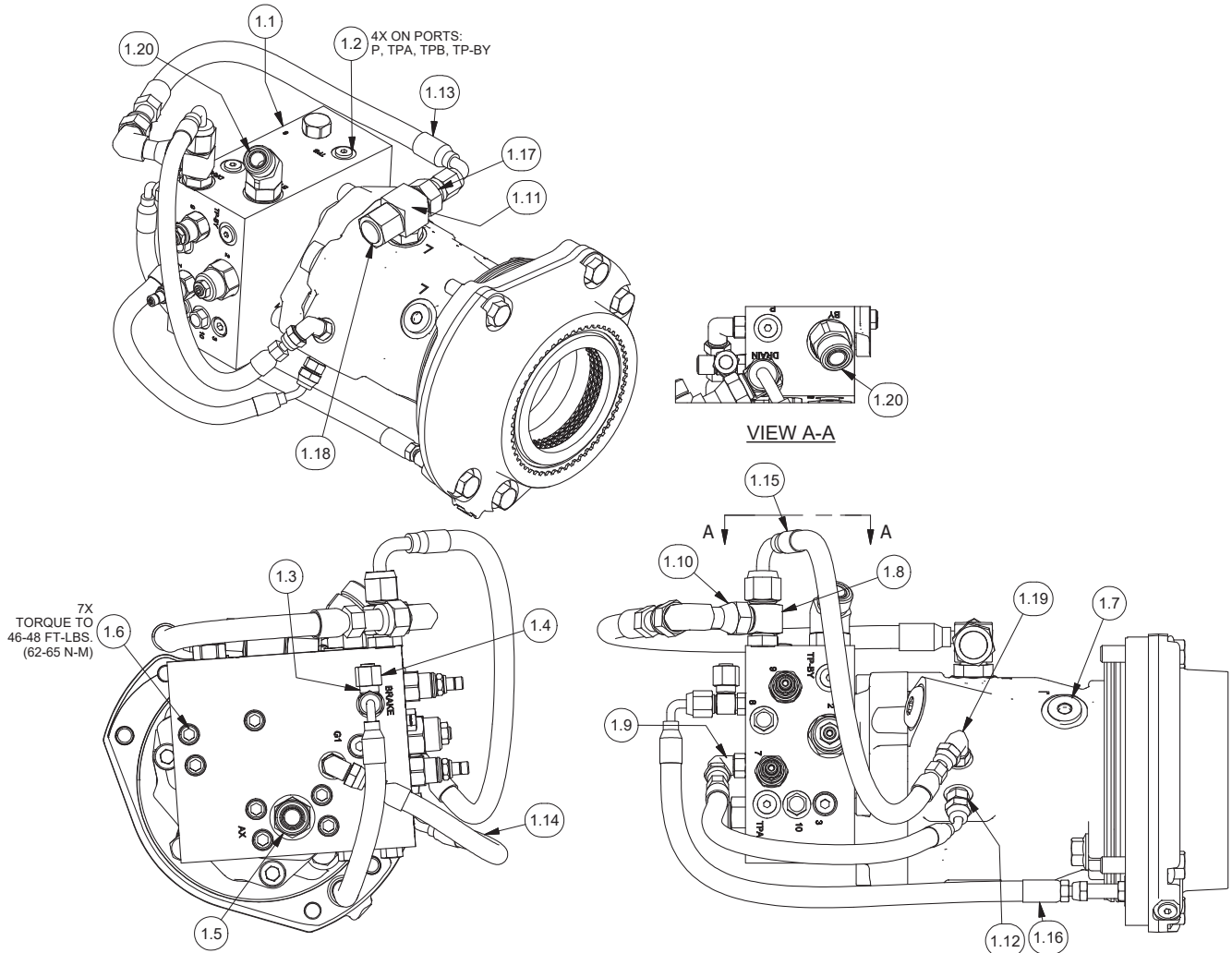
## Hydraulic Group

Caterpillar D3/4/5G (H4AT4Y\*\*C17)  
 D3K/4K and D3K/4K/5K (H4AT2Y\*\*C19, H4AT4Y\*\*C19)  
 D3K2/4K2/5K2 (H4AT2Y\*\*C191, H4AT4Y\*\*C191)  
 Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
23.1	2311591	1	Assy, Manifold, Rescue Control (See p. 69)	23.28	242111	1	Hose Assy
23.2	248918	1	Valve Body	23.29	2311353	1	Hose Assy
23.3	221763W	2	Washer	23.30	2311233	1	Hose Assy
23.4	398599W	2	Capscrew	23.31	2311744	2	Hose Assy
23.5	Y01C-0428	2	Capscrew	23.32	2311234	1	Hose Assy
23.6	2311360	2	Assy, Fitting w/O-Rings	23.34	15178W	1	Washer
23.7	222535W	4	Fitting	23.35	211564	1	O-Ring
23.8	Y17C-0624	4	Capscrew	23.36	2311592	1	Valve, Directional
23.9	221518W	4	Capscrew		252566	1	. Seal Kit
23.10	210709	1	Fitting	24.1	2307625W	6	Fitting
23.12	R833400	2	Fitting	24.2	2311220	1	Cartridge, Pressure Reducing
23.13	231439	4	Fitting		234655	1	. Seal Kit
23.14	R833114	1	Fitting	24.3	2311221	1	Valve, Cartridge
23.15	R833700	1	Fitting		2501643	1	. Seal Kit
23.16	R834052	1	Fitting	24.4	2311212	1	Valve, Cartridge, 3 Way Spool
23.17	236855	4	Fitting		2310009	1	. . Coil, Solenoid
23.18	R833251	5	Fitting		R15668	1	. . Seal Kit
23.19	231452	2	Fitting	24.6	2310181	1	Plug
23.20	R833800	2	Fitting	24.7	R833251	1	Fitting
23.21	R834100	1	Fitting	24.8	231821	2	Fitting
23.22	R834253	1	Fitting	24.9	2311228	1	Hose Assy
23.23	222442W	1	Fitting	24.10	2311229	1	Hose Assy
23.24	232984	1	Fitting	24.11	R833400	1	Fitting
23.25	2311500	1	Fitting Assy				
23.26	2311356	1	Hose Assy				
23.27	2311235	1	Hose Assy				

## Hydraulic Group

Caterpillar D3/4/5K2 (H4AT4CC\*\*C191)



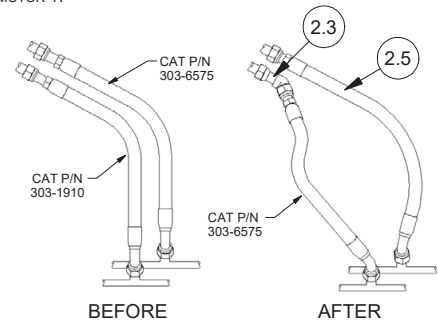
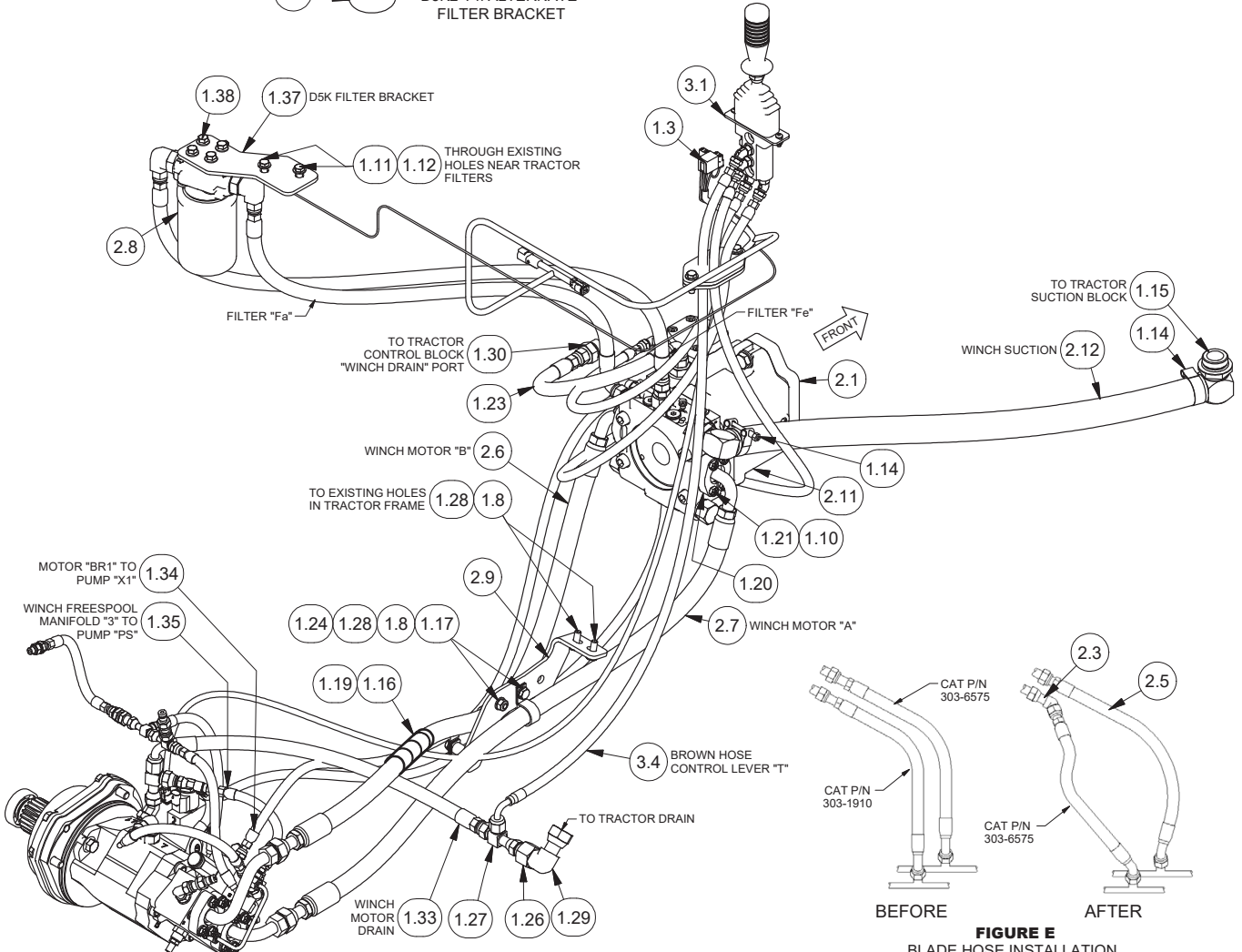
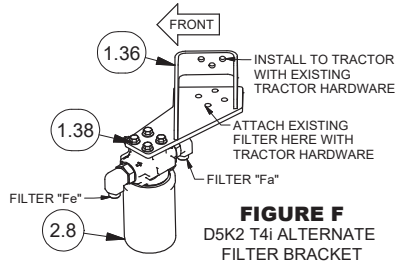
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2316353	1	Manifold Assembly (See p. 70)	1.11	R833355	1	Fitting
1.2	235387	4	Fitting	1.12	231439	1	Fitting
1.3	R833400	1	Fitting	1.13	2316385	1	Hose Assembly
1.4	232984	1	Fitting	1.14	2312878	1	Hose Assembly
1.5	R833119	1	Fitting	1.15	2316387	1	Hose Assembly
1.6	18889W	7	Capscrew	1.16	2316459	1	Hose Assembly
1.7	228773	1	Fitting	1.17	74618	1	Fitting
1.8	231466	1	Fitting	1.18	R834254	1	Fitting
1.9	R833251	1	Fitting	1.19	2311500	1	Fitting Assembly
1.10	R833802	1	Fitting	1.20	R833211	1	Fitting

**Intentionally Blank**

# Attaching Hydraulics and Controls

Caterpillar D5K/D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20)

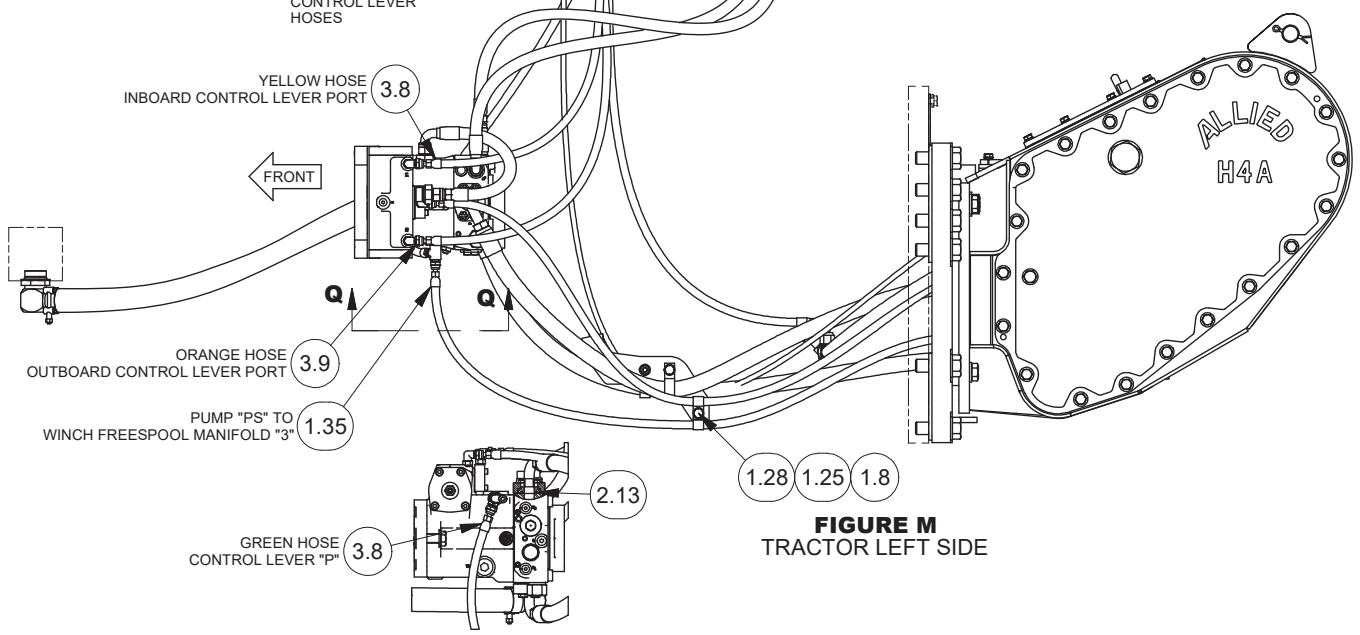
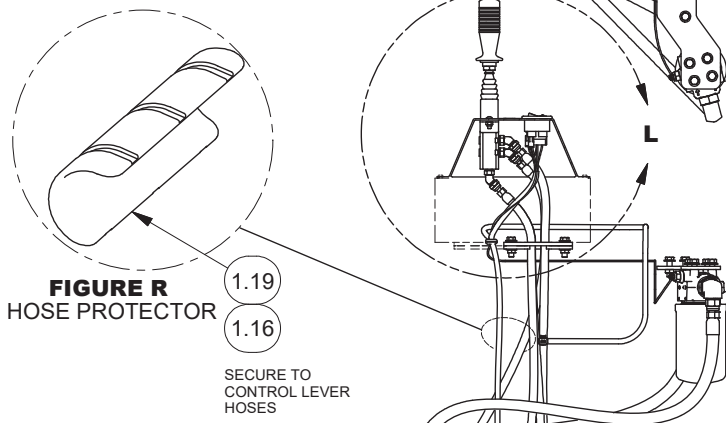
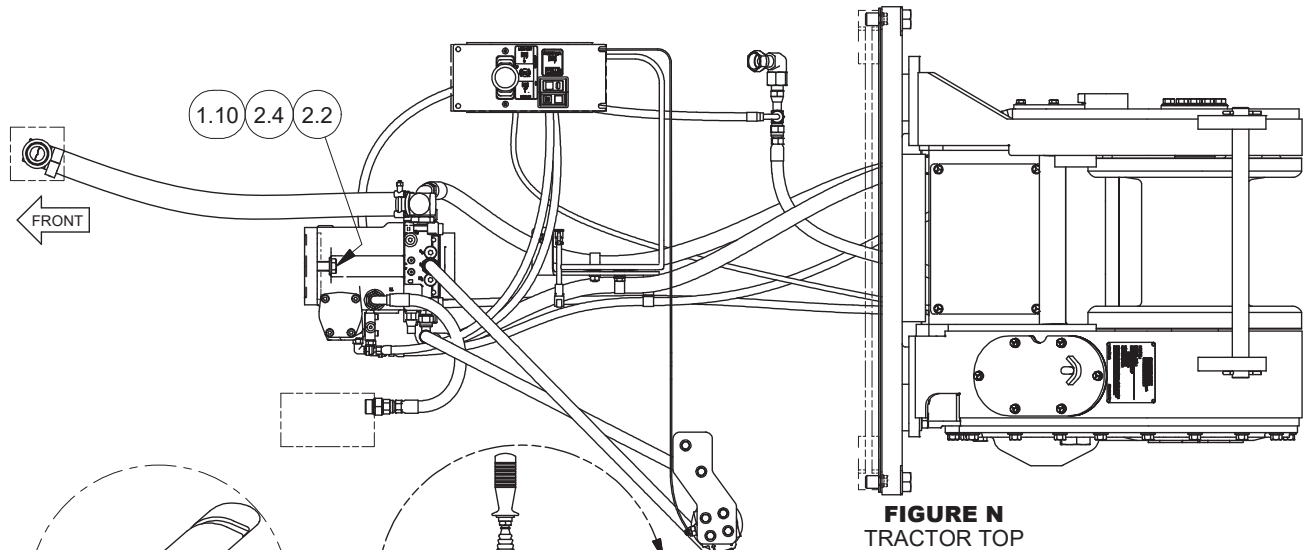
Page 1 of 4



# Attaching Hydraulics and Controls

Caterpillar D5K/D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20)

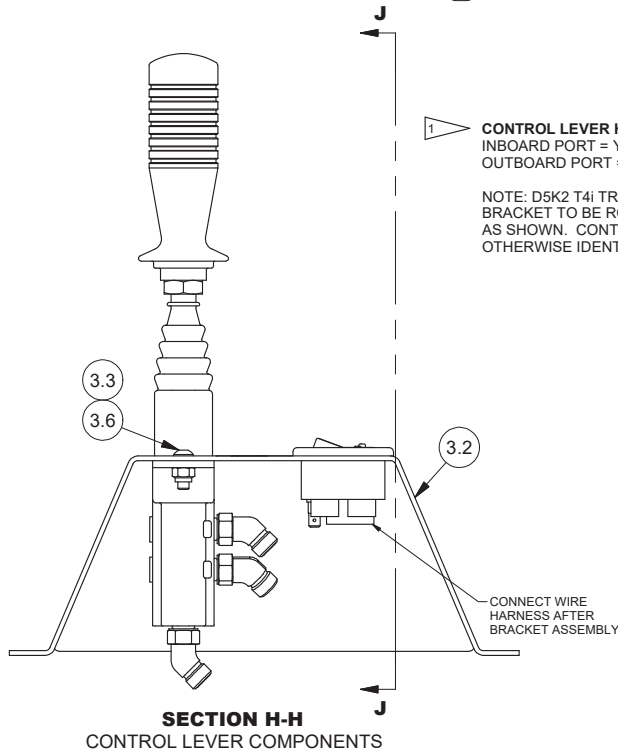
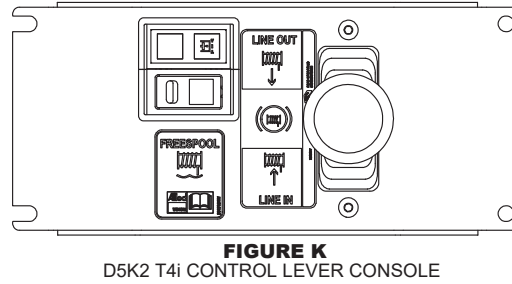
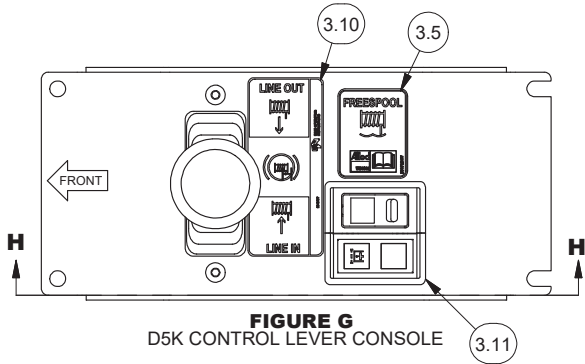
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# Attaching Hydraulics and Controls

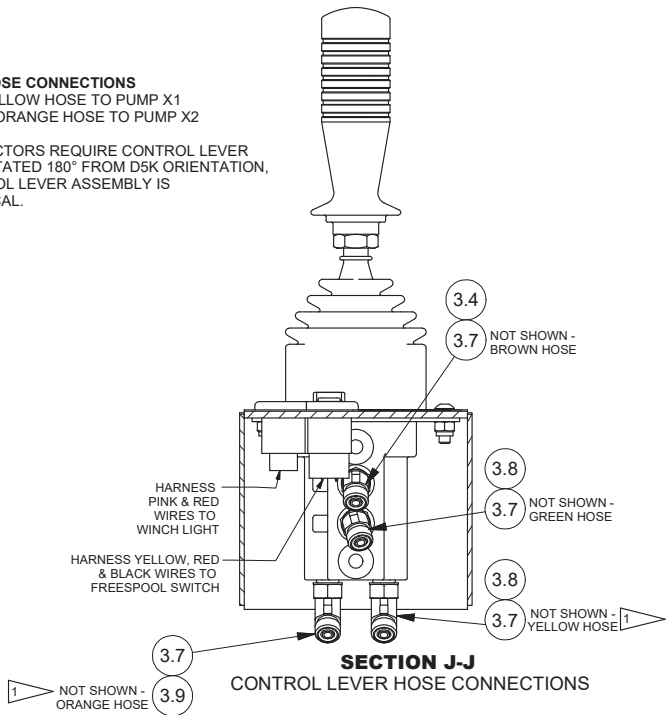
Caterpillar D5K/D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20)

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**CONTROL LEVER HOSE CONNECTIONS**  
 INBOARD PORT = YELLOW HOSE TO PUMP X1  
 OUTBOARD PORT = ORANGE HOSE TO PUMP X2

NOTE: D5K2 T4i TRACTORS REQUIRE CONTROL LEVER BRACKET TO BE ROTATED 180° FROM D5K ORIENTATION, AS SHOWN. CONTROL LEVER ASSEMBLY IS OTHERWISE IDENTICAL.

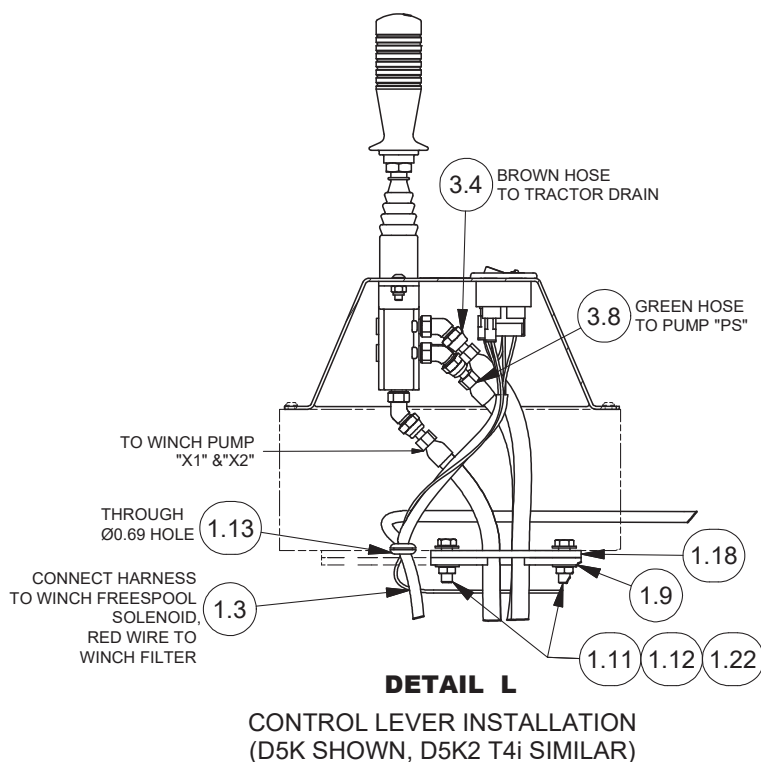


## Attaching Hydraulics and Controls

Caterpillar D5K/D5K2K (H4AH2Y\*\*C20, H4AH3Y\*\*C20)

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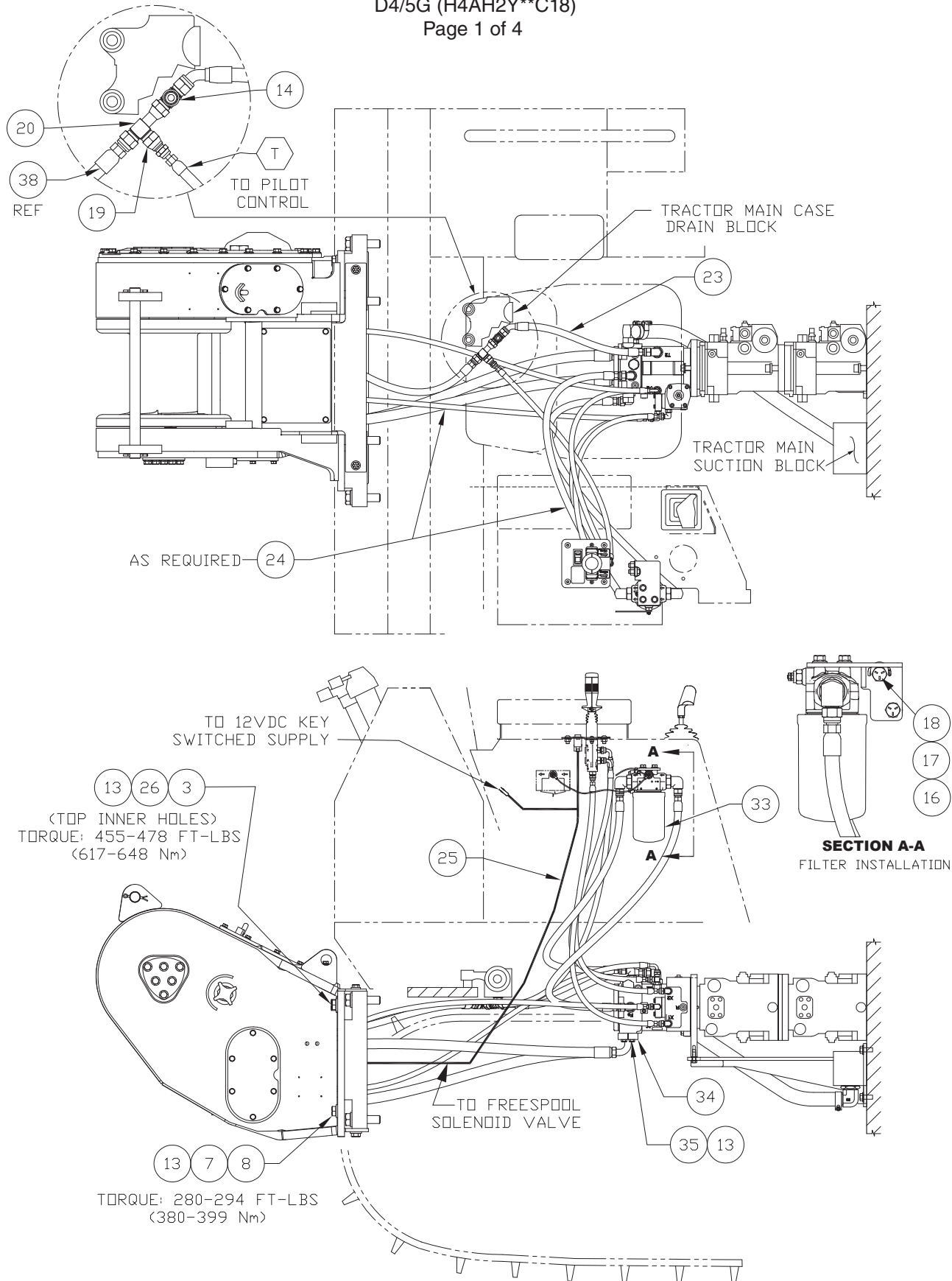
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.3	2314312	1	Wire Harness	1.37	2310814	1	Bracket Weldment, Filter Used on D5K
1.8	293628W	6	Capscrew	1.38	134803W	4	Screw, Ser Flg
1.9	2307226W	1	Cover	2.1	2310872	1	Kit, Through Drive (See p. 66)
1.10	318702W	AR	Threadlock	2.2	Y19C-M1650	2	Capscrew
1.11	16828W	4	Capscrew	2.3	2310943	1	Fitting
1.12	15134W	6	Washer	2.4	296426W	2	Washer
1.13	227025	1	Grommet	2.5	2311028	1	Hose Assembly
1.14	R13809935	2	T-Bolt Clamp	2.6	2311758	1	Hose Assembly
1.15	213619W	1	Fitting	2.7	2311759	1	Hose Assembly
1.16	137852W	25	Cable Tie	2.8	2310844	1	Filter Assy (See p. 80)
1.17	292655W	2	Nut	2.9	2310954	1	Bracket, Hose
1.18	2311310	1	Gasket	2.11	2311753	1	Assembly, Pump, Cat (See p. 71)
1.19	HSP0000006	2	Hose Protector	2.12	258879	3'	Hose
1.20	222535W	4	Fitting	2.13	2304110W	2	O-Ring
1.21	Y17C-0624	8	Capscrew	3.1	2315561	1	Lever, Control
1.22	15086W	2	Jam Nut	3.2	2315755	1	Weldment, Bracket
1.23	2311021	1	Hose Assembly	3.3	15113W	2	Locknut
1.24	R2528352	2	Clip, Insul	3.4	2311024	1	Hose Assembly
1.25	209579	3	Clip, Insul	3.5	2307924W	1	Decal
1.26	2307958W	1	Fitting	3.6	18720W	2	Capscrew
1.27	R834052	1	Fitting	3.7	R833200	4	Fitting
1.28	296420W	8	Washer	3.8	2312328	2	Hose Assembly
1.29	R833804	1	Fitting	3.9	2311027	1	Hose Assembly
1.30	R833115	1	Fitting	3.10	2312177	1	Decal, Line In, Line Out
1.33	242120	1	Hose Assembly	3.11	2314321	1	Switch Assembly (See p. 75)
1.34	2311701	1	Hose Assembly				
1.35	2311699	1	Hose Assembly				
1.36	2314310	1	Bracket Weldment, Filter Used on D5K2 T4i				



### Attaching Hydraulics and Controls

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17), D4/5G (H4AH3Y\*\*C18),  
D4/5G (H4AH2Y\*\*C18)

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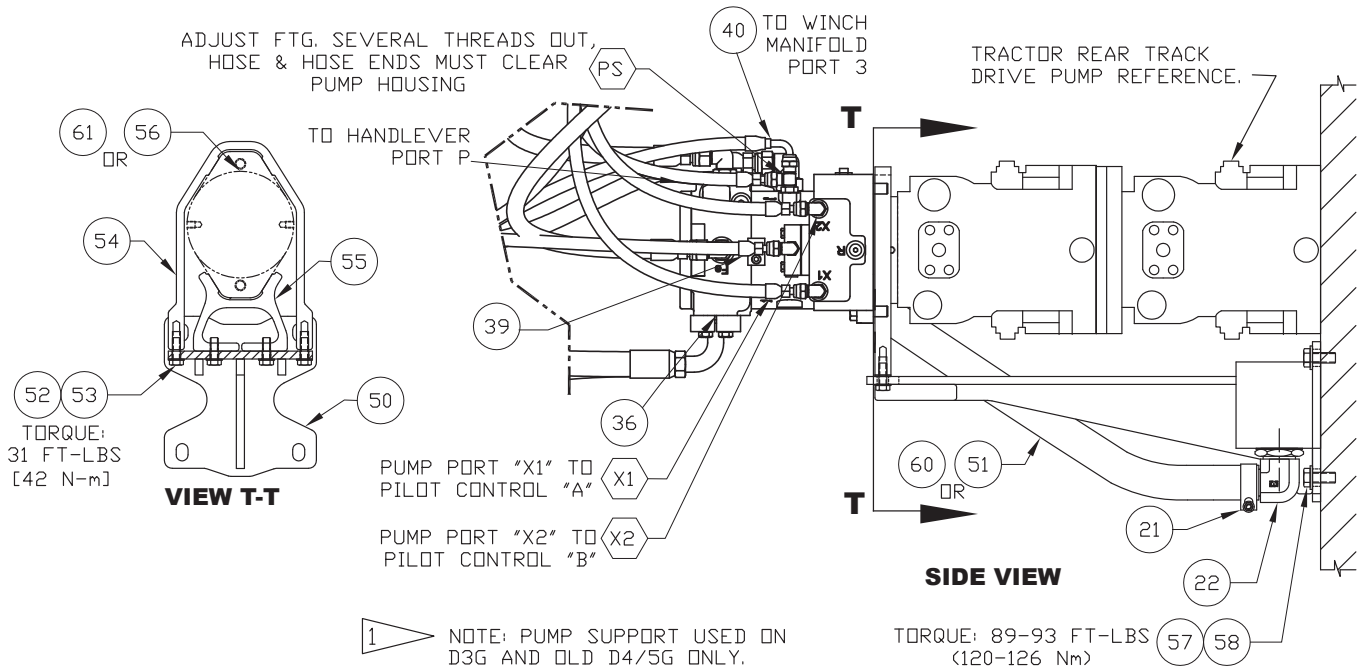
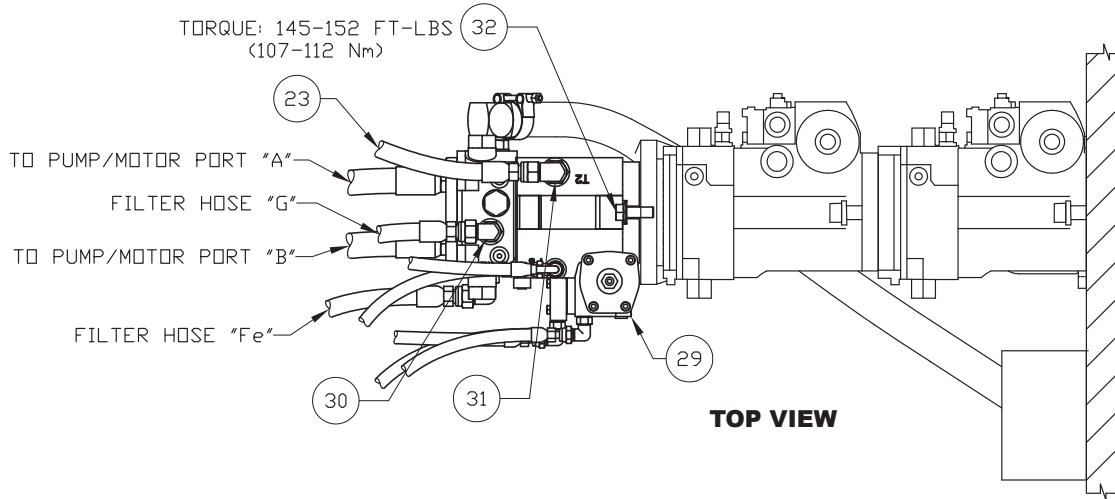




### Attaching Hydraulics and Controls

Caterpillar D3/4/5G (H4AH2YC17, H4AH3Y\*\*C17), D4/5G (H4AH3Y\*\*C18),  
D4/5G (H4AH2Y\*\*C18)

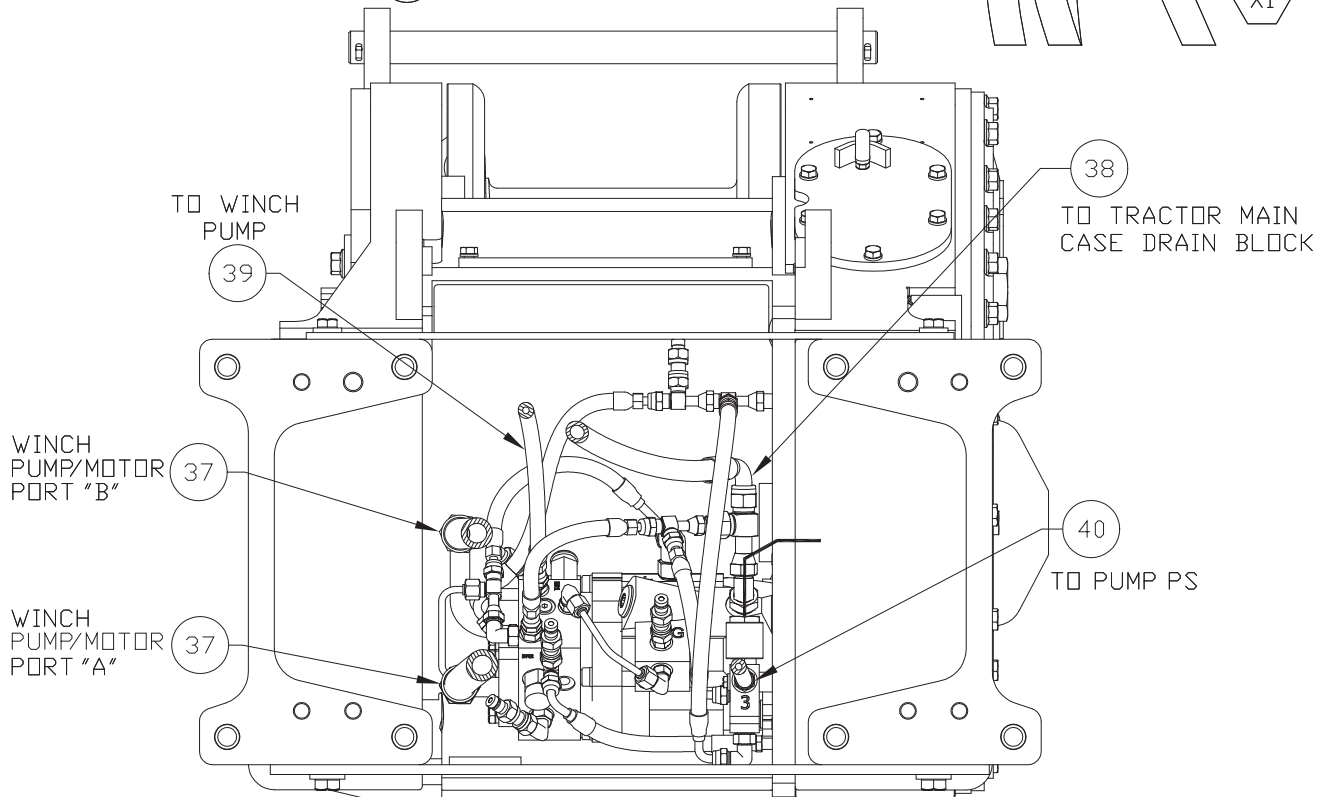
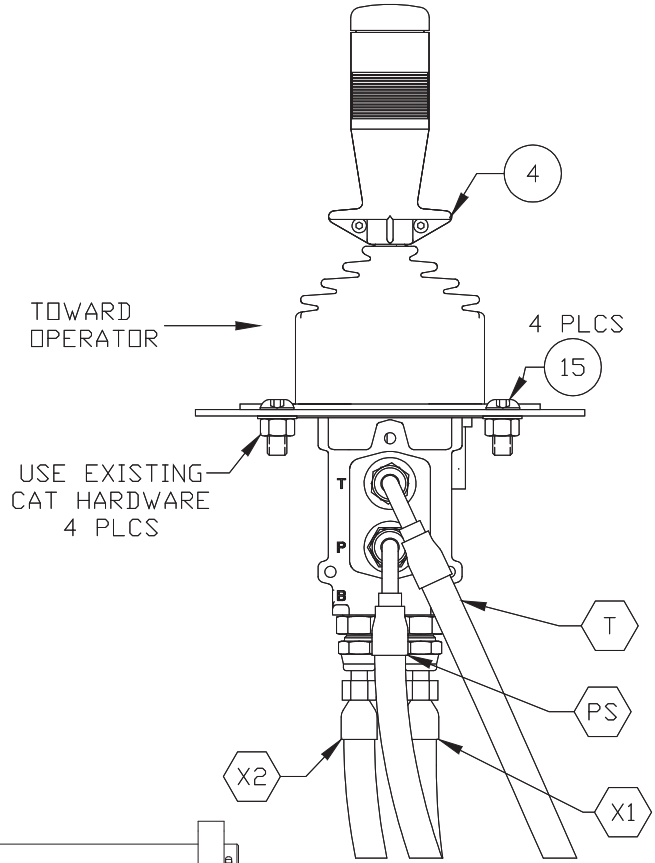
Page 2 of 4



### Attaching Hydraulics and Controls

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17), D4/5G (H4AH3Y\*\*C18),  
D4/5G (H4AH2Y\*\*C18)

HOSE	FUNCTION	LEVER PORT
T	TANK	T
PS	SUPPLY	PS
X2	LINE-OUT	B
X1	LINE-IN	A



## Attaching Hydraulics and Controls

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17), D4/5G (H4AH3Y\*\*C18),  
D4/5G (H4AH2Y\*\*C18)

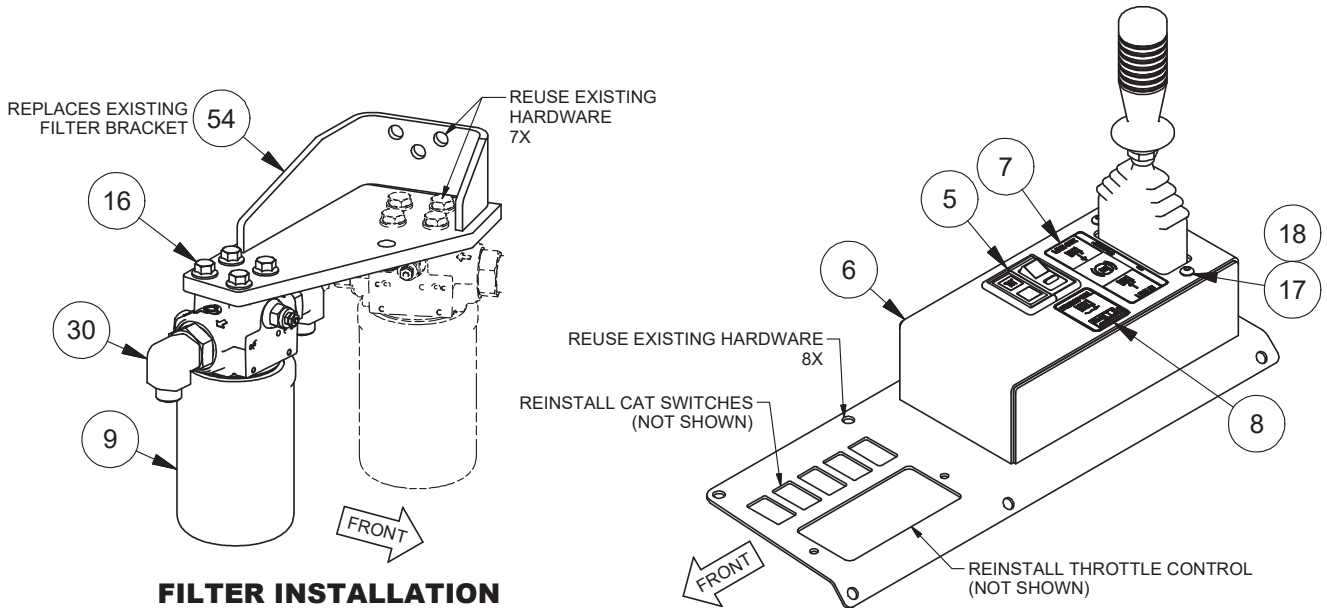
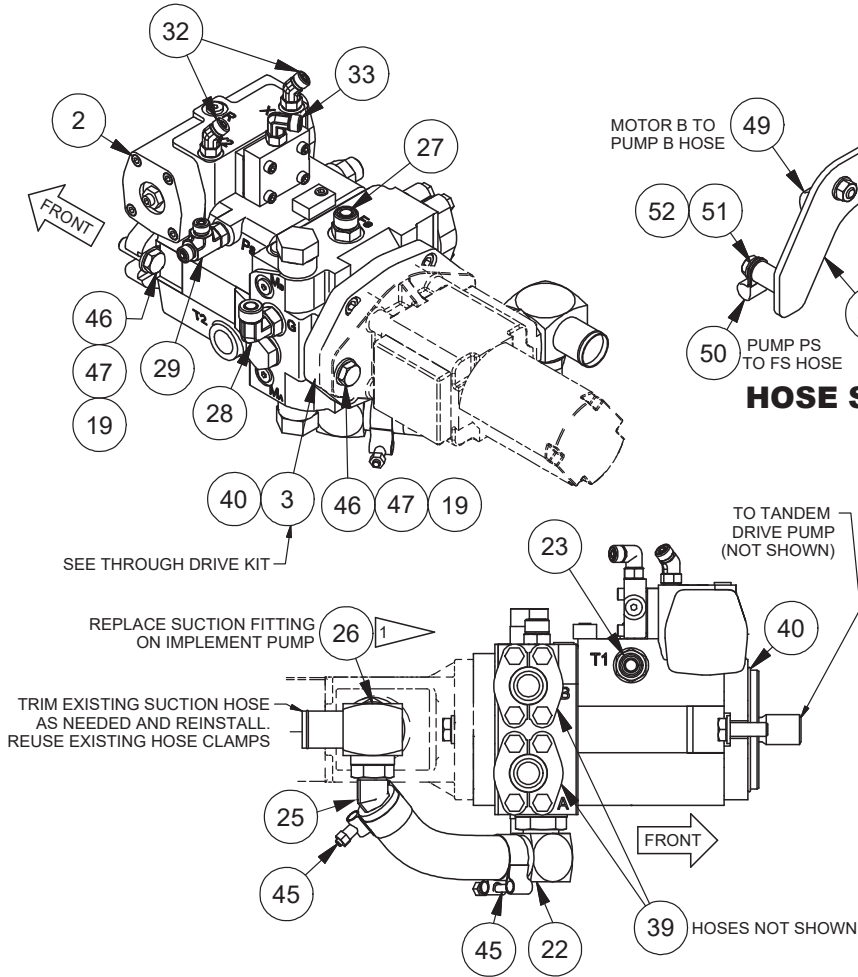
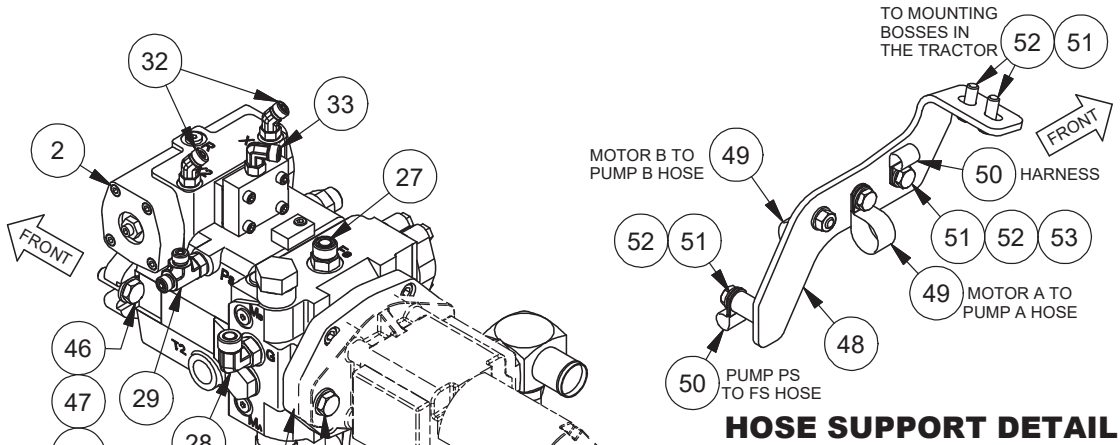
Page 4 of 4

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3	218760	2	Capscrew	33	2311843	1	Assembly, Filter (See p. 77)
4	2311752	1	Assembly, Handlever (See p. 76)	34	222535W	4	Fitting
7	221657W	6	Capscrew	35	Y17C-0624	8	Capscrew
8	221777W	6	Washer	36	2304110W	2	O-Ring
13	318702W	1BTL	Threadlock	38	2311569	1	Hose Assembly
14	2311841	1	Fitting	39	2311492	1	Hose Assembly
15	18738W	4	Capscrew	40	2311847	1	Hose Assembly
16	16829W	2	Capscrew	50	2304225W	1	Support, Pump
17	15135W	2	Washer	51	*a 2304259W	1	Hose
18	221711W	2	Hex Nut	52	179443W	4	Capscrew
19	R833700	1	Fitting	53	221767W	4	Washer
20	R834052	1	Fitting	54	2304245W	1	Clamp, Upper Pump Support
21	R13809935	2	T-Bolt Clamp	55	2304244W	1	Clamp, Lower Pump Support
22	213619W	1	Fitting	56	*a 2304212W	1	Kit, Through Drive (See p. 64)
23	2311845	1	Hose Assembly	57	293645W	4	Capscrew
24	137852W	10	Cable Tie	58	296422W	4	Washer
25	2307927W	1	Harness, Wire	60	*b 2306251W	1	Hose, Suction
26	Y27E-14	2	Washer	61	*b 2306258W	1	Kit, Through Drive (See p. 63)
29	2311840	1	Pump Assembly				
30	231452	1	Fitting				
31	237983	1	Fitting,				
32	2303848W	2	Screw, Flange				
				*a	C17 models only		
				*b	C18 models only		

# Attaching Hydraulics and Controls Installation

Caterpillar D3/4/5K2 (H4AH3Y\*\*C191, H4AH2Y\*\*C191)

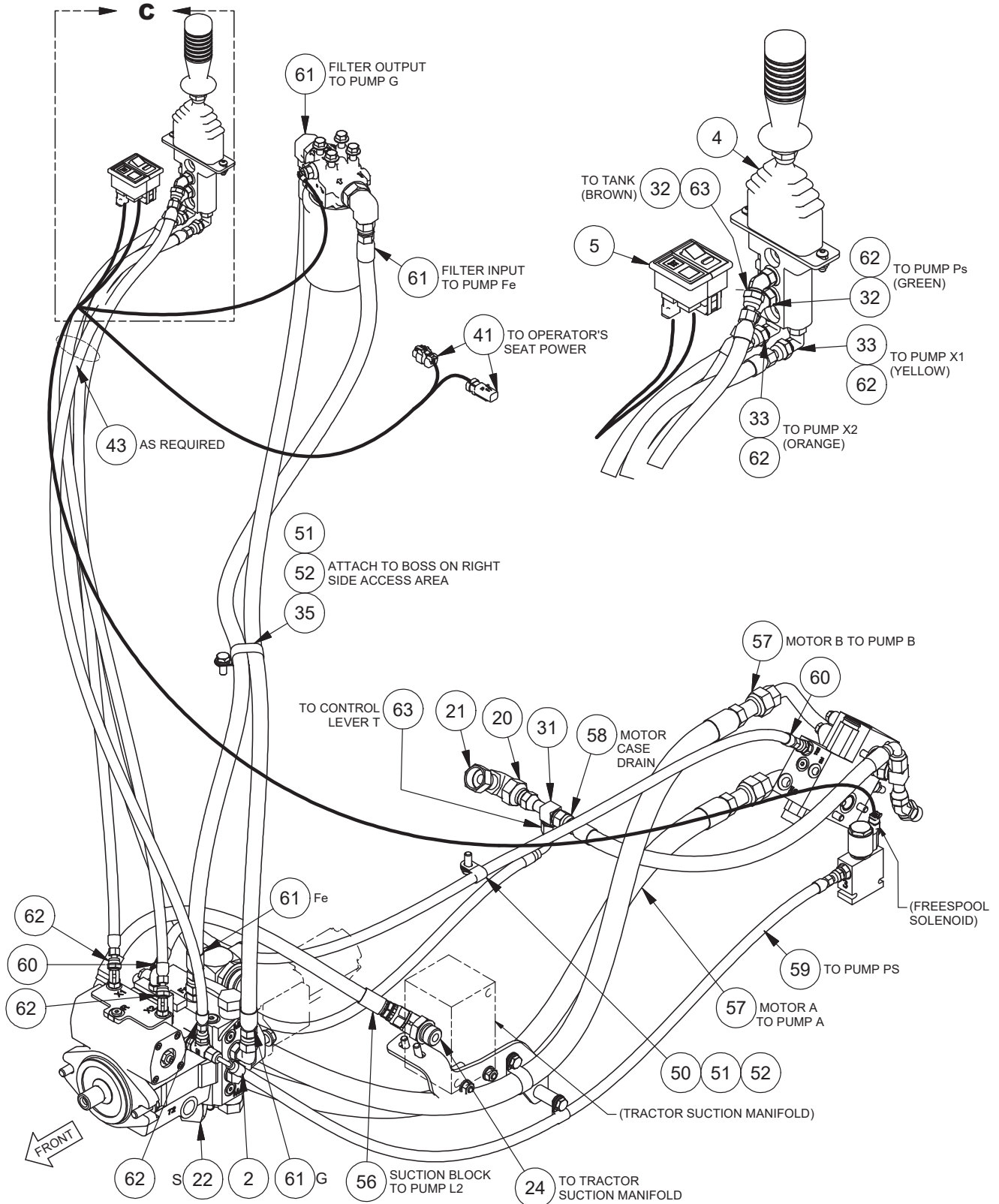
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# Attaching Hydraulics and Controls Installation

Caterpillar D3/4/5K2 (H4AH3Y\*\*C191, H4AH2Y\*\*C191)

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## HOSE CONNECTIONS

## Attaching Hydraulics and Controls Installation

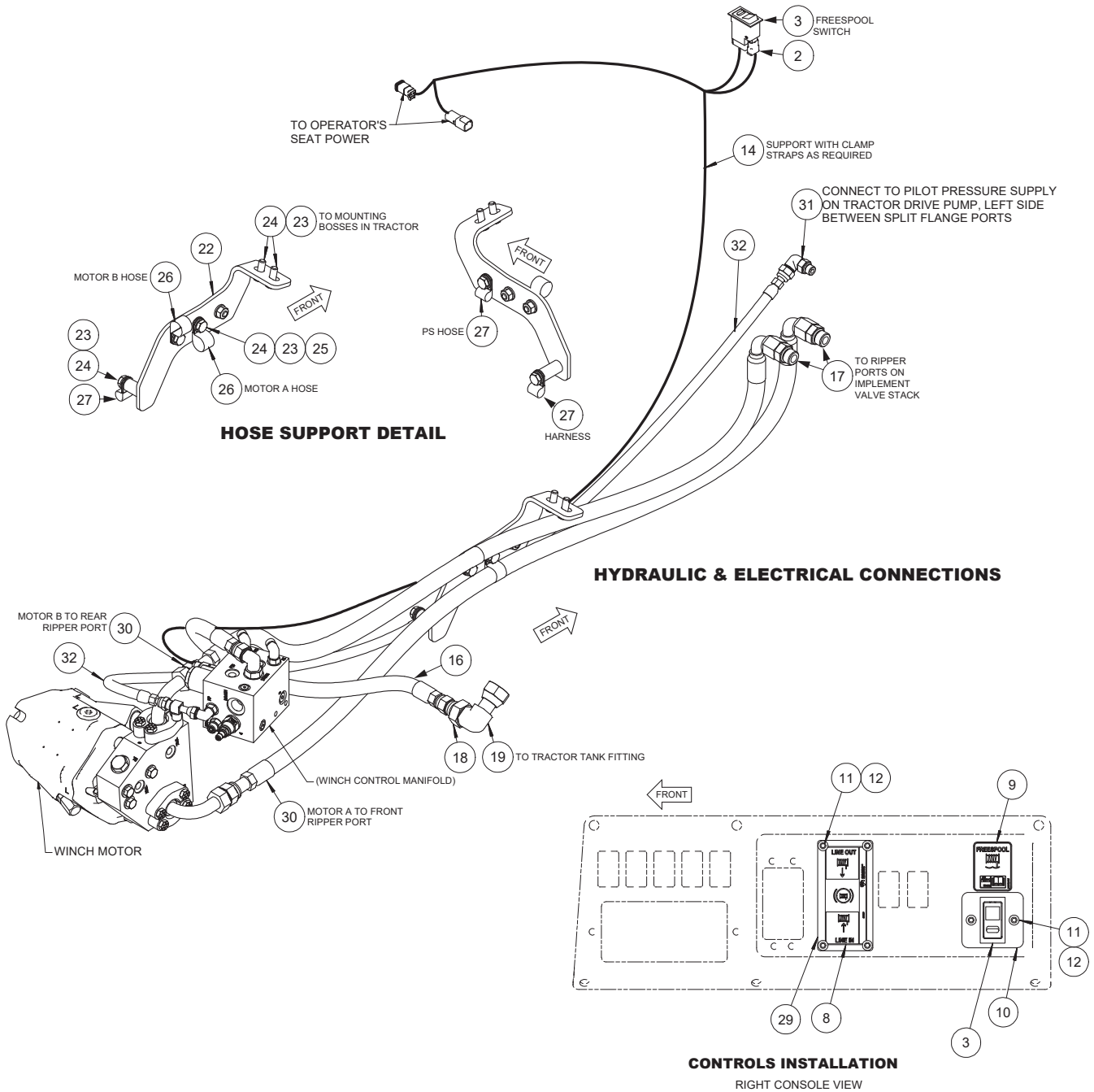
Caterpillar D3/4/5K2 (H4AH3Y\*\*C191, H4AH2Y\*\*C191)

Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2	2316407	1	Assembly, Pump (See p. 72)	35	R13810028	1	Clamp, Insul
3	2316008	1	Pump	39	229447	2	Kit, Split Flange
4	2315561	1	Lever, Control		203438	1	. O-Ring
5	2314321	1	Switch Assembly (See p. 75)		236972	2	. Clamp Half
6	2316014	1	Weldment, Bracket	40	Y17C-0624	4	. Capscrew
7	2312177	1	Decal, Line In, Line Out	41	39742W	2	O-Ring
8	2307924W	1	Decal, Switch Panel	43	2314312	1	Wire Harness
9	2305713W	1	Assembly, Filter	45	137852W	25	Cable Tie
	2305132W	1	. Filter Head	46	R13809931	2	T-Bolt Clamp
	2304112W	1	. Filter Element	47	293646W	4	Capscrew
	2305712W	1	. Pressure Switch	48	296422W	4	Washer
16	134803W	4	Screw, Ser Flg	49	2310954	1	Bracket, Hose
17	18720W	2	Capscrew	50	R2528352	2	Clip, Insul
18	15113W	2	Locknut	51	209579	3	Clip, Insul
19	318702W	AR	Threadlock	52	296420W	11	Washer
20	2307958W	1	Fitting	53	293628W	8	Capscrew
21	R833804	1	Fitting	54	292655W	3	Nut
22	112470W	1	Fitting	56	2316039	1	Filter Bracket
23	R833114	1	Fitting	57	2316395	1	Hose Assembly
24	R833212	1	Fitting,	58	2316394	2	Hose Assembly
25	89056W	1	Fitting	59	R12203	1	Hose Assembly
26	2316010	1	Fitting	60	242252	1	Hose Assembly
27	231441	1	Fitting	61	2316396	1	Hose Assembly
28	231452	1	Fitting	62	2316397	2	Hose Assembly
29	2311842	1	Fitting	63	2312328	3	Hose Assembly
30	235314	2	Fitting		2316398	1	Hose Assembly
31	R834052	1	Fitting				
32	R833200	4	Fitting				
33	R833251	3	Fitting				

# Attaching Hydraulics and Controls Installation

Caterpillar D3/4/5K2 (H4AT4Y\*\*C191, H4AT2Y\*\*C191)

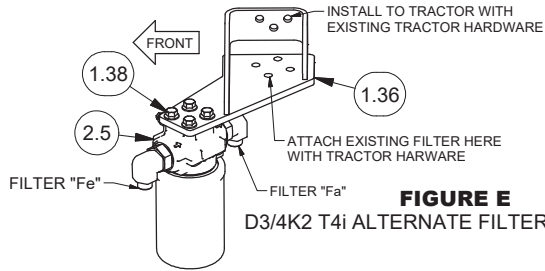


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2	2311768	1	Harness, Wire	19	R833804	1	Fitting
3	2310017	1	Switch	22	2310954	1	Bracket, Hose
8	2312177	1	Decal	23	296420W	9	Washer
9	2307924W	1	Decal	24	293628W	6	Capscrew
10	2307643W	1	Plate	25	292655W	3	Nut
11	296159W	6	Capscrew	26	R13803051	2	Clip, Insul
12	302399W	6	Locknut	27	209579	2	Clip, Insul
14	137852W	25	Cable Tie	29	2316080	1	Plate, Decal Backing
16	2311199	1	Hose Assembly	30	2316298	2	Hose Assembly
17	R833119	2	Fitting	31	R833257	1	Fitting
18	2307958W	1	Fitting	32	2315382	1	Hose Assembly

# Hydraulic/Electrical Installation

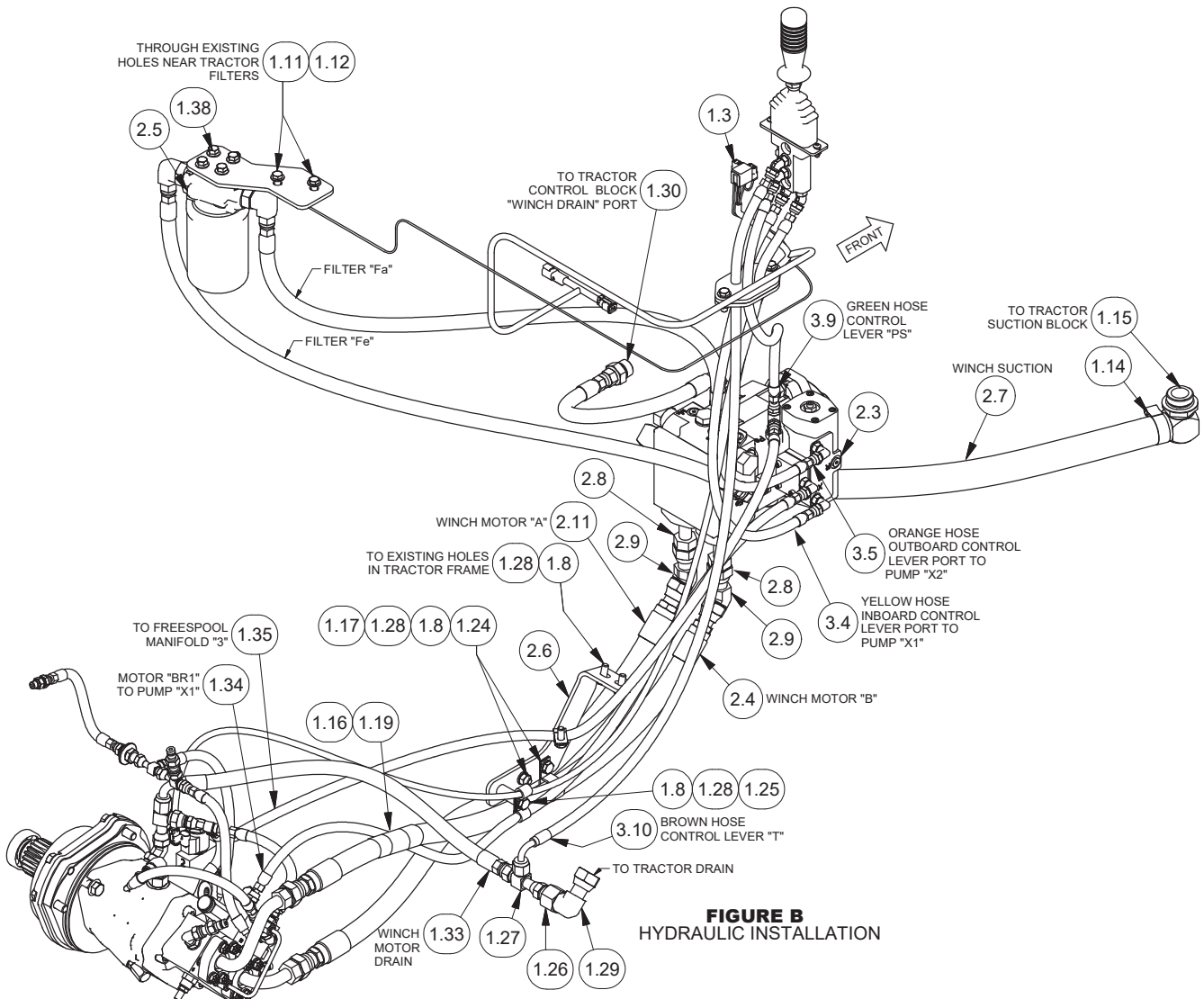
Caterpillar D3K/4K (H4AH3Y\*\*C19)

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**FIGURE E**

D3/4K2 T4i ALTERNATE FILTER BRACKET



**FIGURE B**

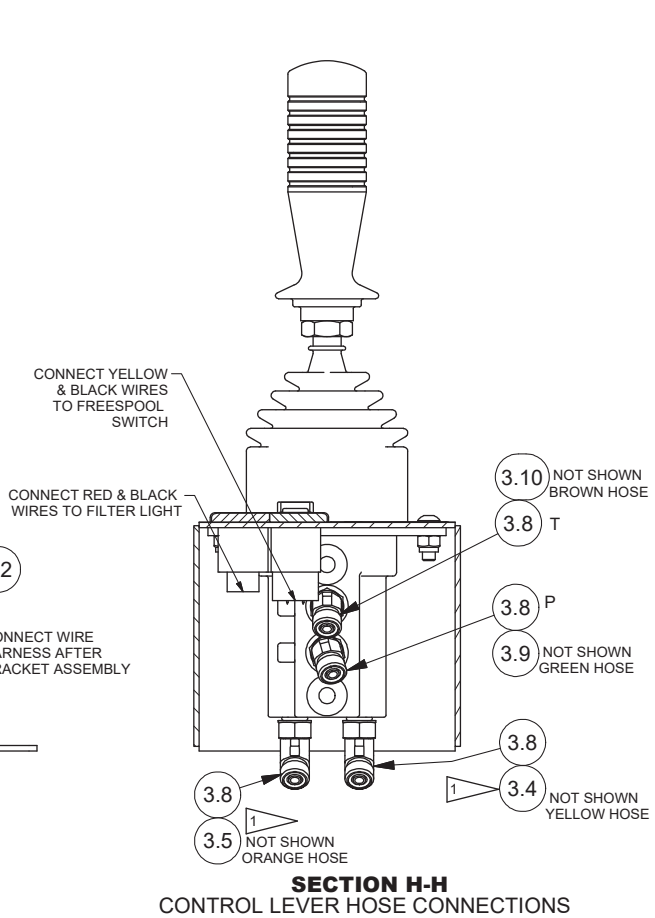
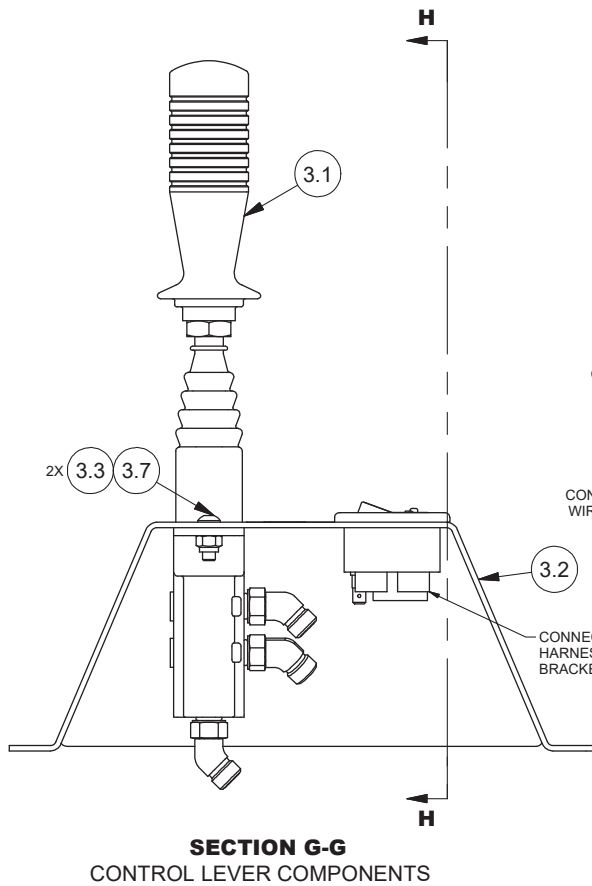
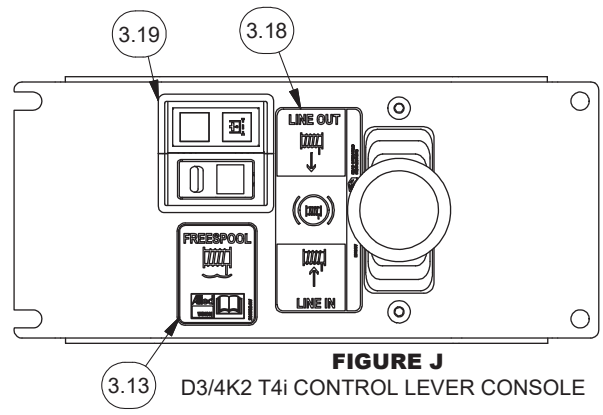
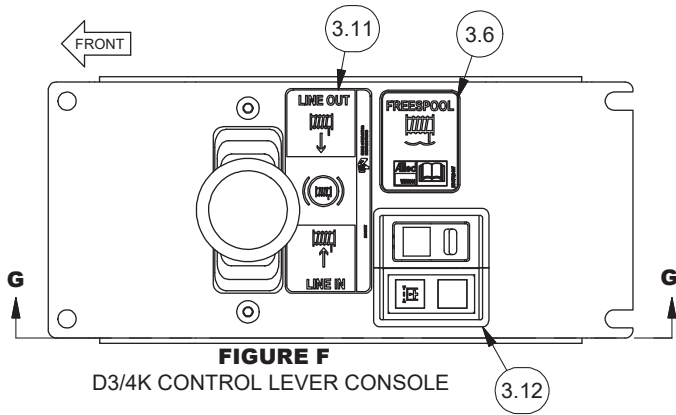
HYDRAULIC INSTALLATION



# Hydraulic/Electrical Installation

Caterpillar D3K/4K (H4AH3Y\*\*C19)

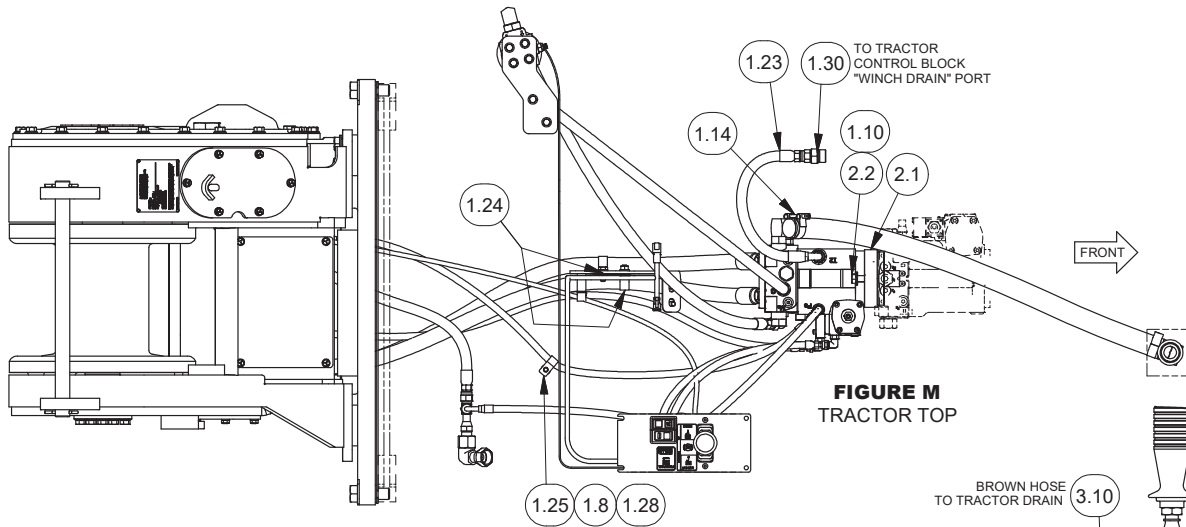
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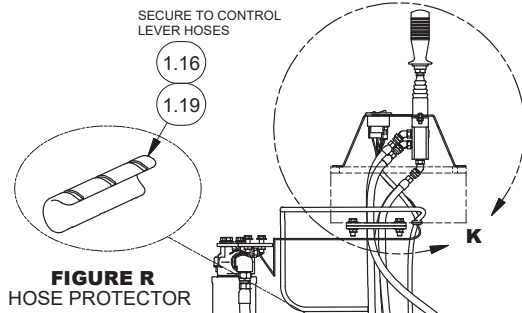
# Hydraulic/Electrical Installation

Caterpillar D3K/4K (H4AH3Y\*\*C19)

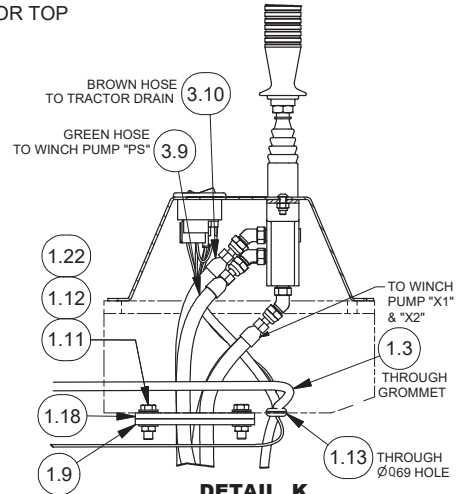
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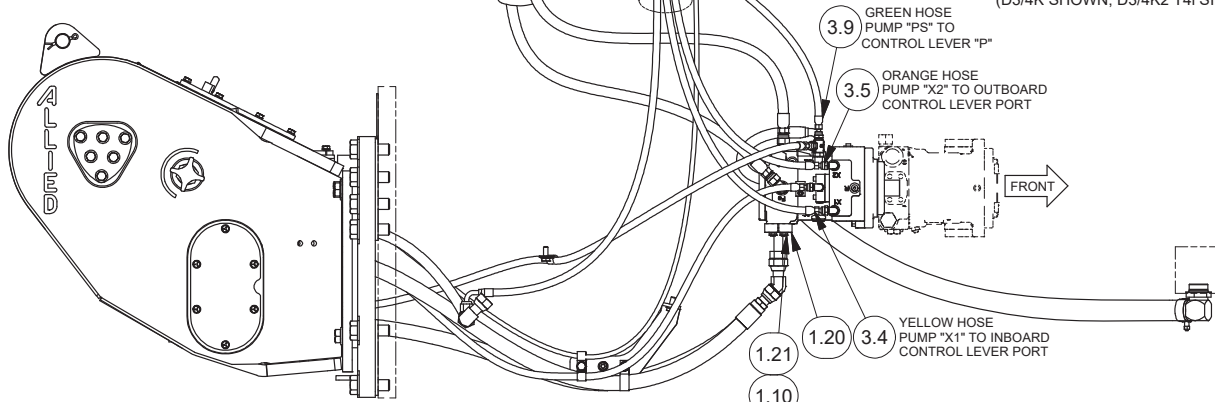
**FIGURE M**  
TRACTOR TOP



**FIGURE R**  
HOSE PROTECTOR



**DETAIL K**  
CONTROL LEVER INSTALLATION  
(D3/4K SHOWN, D3/4K2 T4i SIMILAR)



**FIGURE L**  
TRACTOR RIGHT SIDE

## Hydraulic/Electrical Installation

Caterpillar D3K/4K (H4AH3Y\*\*C19)

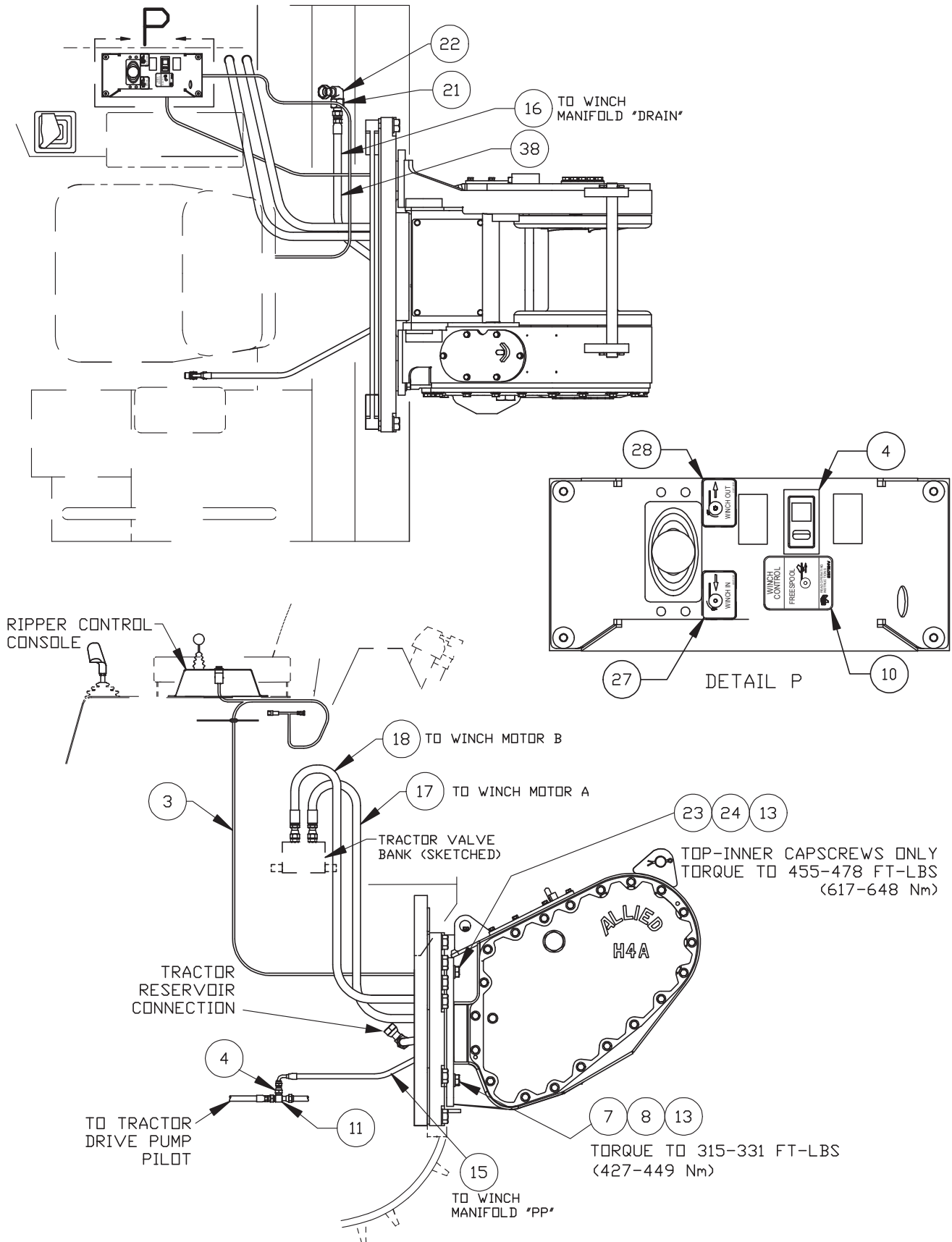
Page 4 of 4

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2311756	1	Bracket, Mounting	2.1	2310889	1	Pump, Charge
1.2	2310888	1	Guard, Cover	2.2	2303848W	2	Screw, Flange
1.3	2314312	1	Wire Harness	2.3	2311773	1	Pump (See p. 62)
1.8	293628W	6	Capscrew	2.4	2311698	2	Hose Assembly
1.9	2307226W	1	Cover	2.5	2311479	1	Filter Assy (See p. 79)
1.10	318702W	1BTL	Threadlock	2.6	2311483	1	Bracket
1.11	16828W	4	Capscrew	2.7	258879	5'	Hose Assembly
1.12	15134W	6	Washer	2.8	2311488	2	Fitting, O-Ring
1.13	227025	1	Grommet	2.9	2311485	2	Fitting
1.14	R13809935	2	T-Bolt Clamp	2.11	2311697	1	Hose Assembly
1.15	213619W	1	Fitting	3.1	2315561	1	Lever, Control
1.16	137852W	25	Cable Tie	3.2	2315755	1	Weldment, Bracket
1.17	292655W	2	Nut	3.3	15113W	2	Locknut
1.18	2311310	1	Gasket	3.4	2311492	1	Hose Assembly
1.19	HSP0000006	2	Hose Protector	3.5	2311491	1	Hose Assembly
1.20	222535W	4	Fitting	3.6	2307924W	1	Decal, Freespool
1.21	Y17C-0624	8	Capscrew	3.7	18720W	2	Capscrew
1.22	15086W	2	Jam Nut	3.8	R833200	4	Fitting
1.23	2311021	1	Hose Assembly	3.9	2311493	1	Hose Assembly
1.24	R2528352	2	Clip, Insul	3.10	2311024	1	Hose Assembly
1.25	209579	3	Clip, Insul	3.11	2312177	1	Decal, Line In-Line Out
1.26	2307958W	1	Fitting	3.12	2314321	1	Switch Assembly
1.27	R834052	1	Fitting	3.13	2307924W	1	Decal, Freespool
1.28	296420W	8	Washer	3.18	2312177	1	Decal, Line In- Line Out
1.29	R833804	1	Fitting	3.19	2314321	1	Switch Assembly
1.30	R833115	1	Fitting				
1.33	242120	1	Hose Assembly				
1.34	2311701	1	Hose Assembly				
1.35	2311699	1	Hose Assembly				
1.36	2314310	1	Bracket, Filter				
1.38	134803W	4	Screw, Ser Flg				

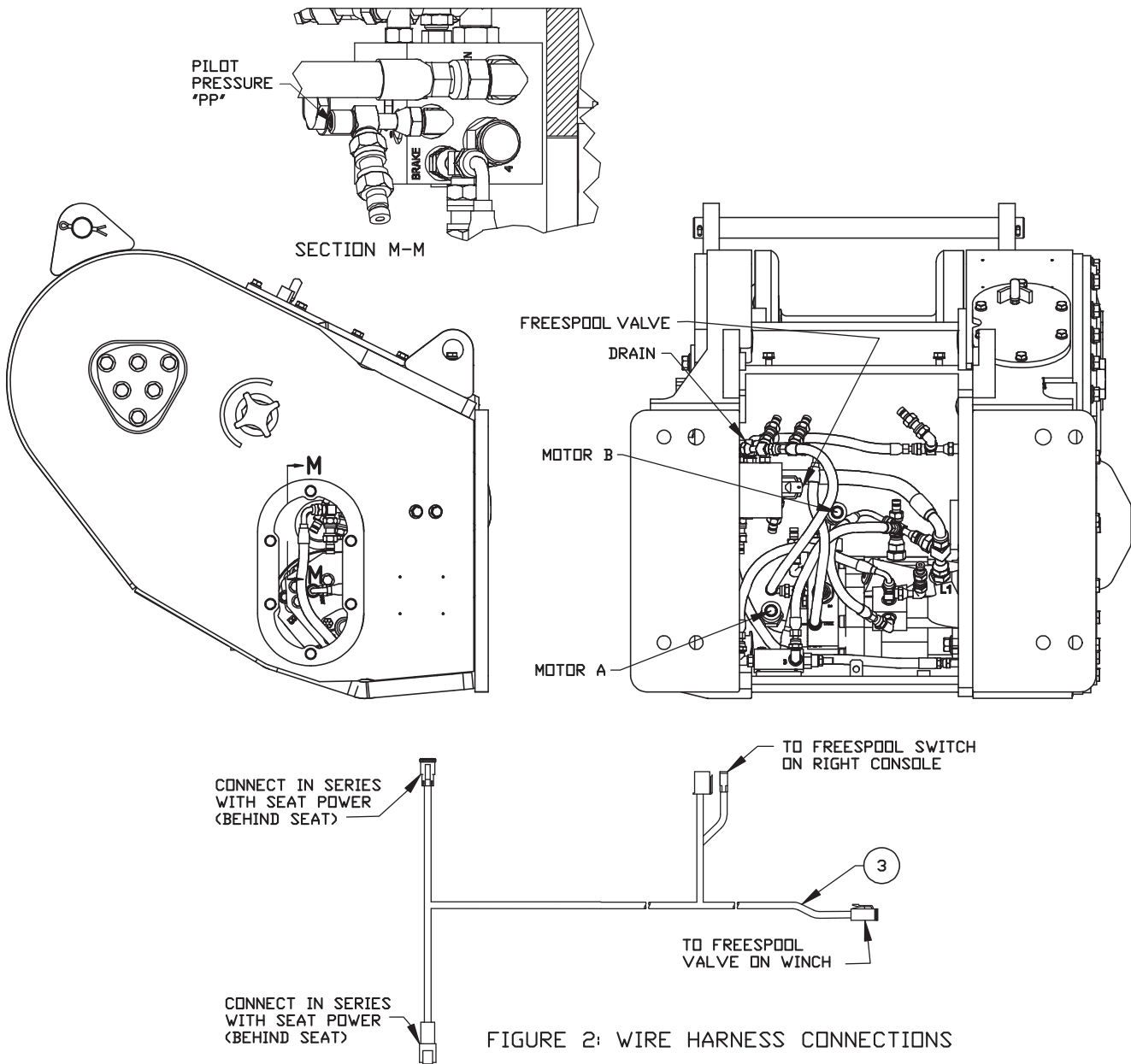
# Hydraulic/Electrical Installation

Caterpillar D3K/4K (H4AT2Y\*\*C19, H4AT4Y\*\*C19)

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**Hydraulic/Electrical Installation**  
 Caterpillar D3K/4K (H4AT2Y\*\*C19, H4AT4Y\*\*C19)  
 Page 2 of 2

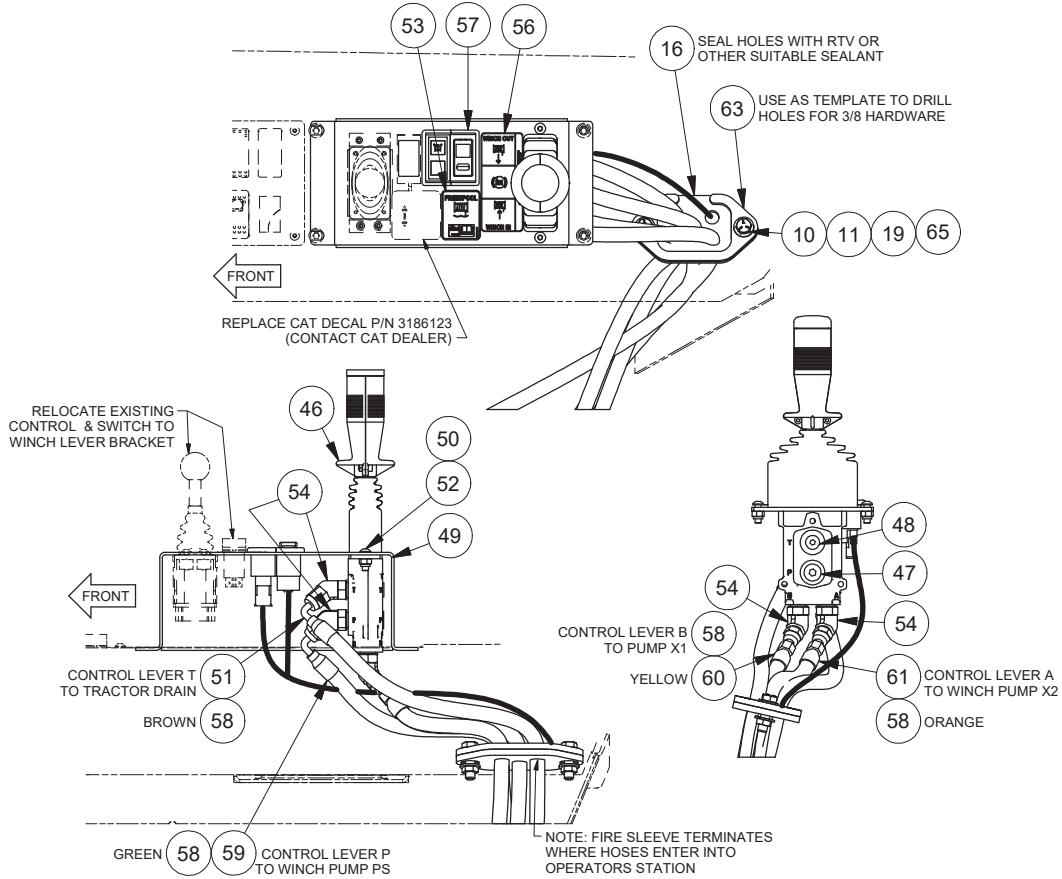


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311756	1	Bracket, Mounting	14	137852W	25	Cable Tie
2	2310888	1	Guard, Cover	15	2311198	1	Hose Assembly
3	2311768	1	Harness, Wire	16	2311199	1	Hose Assembly
4	2310017	1	Switch Assy	17	2311200	1	Hose Assembly
5	1308451W	12	Capscrew	18	2311201	1	Hose Assembly
6	296434W	12	Washer	19	227025	1	Grommet
7	Y17C-1236	6	Capscrew	21	2307958W	1	Fitting
8	221777W	6	Washer	22	R833804	1	Fitting
10	2307924W	1	Decal, Switch Panel	23	Y27E-14	2	Washer
11	231955	1	Fitting	24	221672W	2	Capscrew
12	242629	1	Fitting	27	2307121W	1	Decal, Line In
13	318702W	1BTL	Threadlock	28	2307122W	1	Decal, Line Out

# Hydraulic/Electrical Installation

Caterpillar D5K/5K2 (H4AH3Y\*\*C201)

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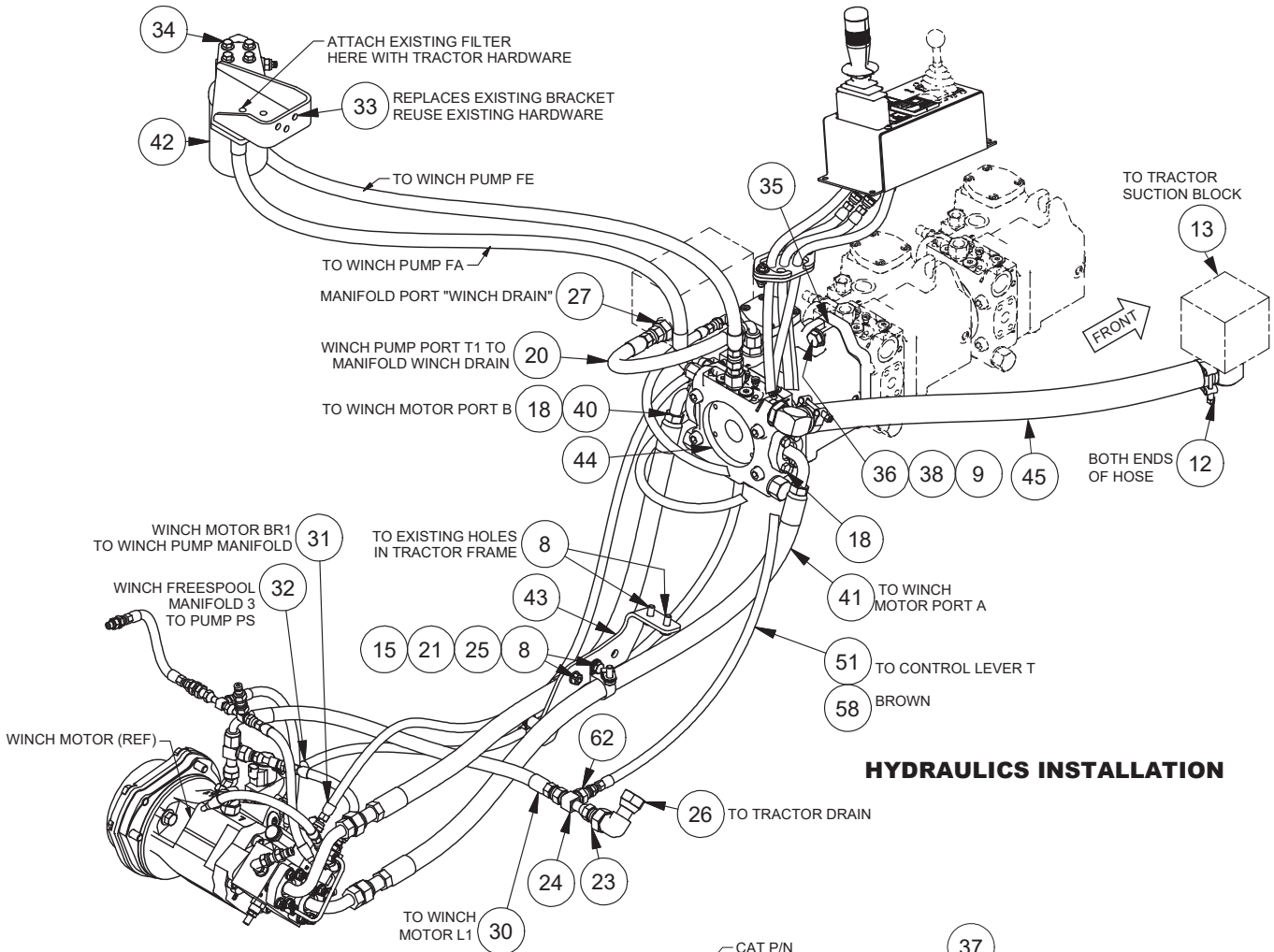


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3	2314884	1	Wire Harness	36	Y19C-M1650	2	Capscrew
8	293628W	6	Capscrew	38	296426W	2	Washer
9	318702W	AR	Threadlock	40	2314887	1	Hose Assembly
10	16828W	2	Capscrew	41	2314886	1	Hose Assembly
11	15134W	4	Washer	42	2314892	1	Assy, Filter (See p. 78)
13	213619W	1	Fitting	43	2310954	1	Bracket, Hose
15	292655W	2	Nut	44	2311753	1	Assy, Pump (See p. 71)
16	2314873	1	Gasket, Hose Seal	45	2314899	1	Hose Assembly, Suction
18	229447	2	Kit, Split Flange	46	2310929	1	Handlever (See p. 81)
	203438	1	. O-Ring	47	229383	1	Fitting
	236972	2	. Clamp Half	48	235387	1	Fitting
	Y17C-0624	4	. Capscrew	49	2314856	1	Control Lever Bracket
19	15086W	2	Jam Nut	50	15113W	2	Locknut
20	2314890	1	Hose Assembly	51	2314904	1	Hose Assy w/Firesleeve
21	R13805003	2	Clip, Insul	52	18720W	2	Capscrew
22	209579	1	Clip, Insul	53	2307924W	1	Decal, Switch Panel
23	2307958W	1	Fitting	54	R833201	4	Fitting
24	R834052	1	Fitting	56	2312177	1	Decal, Winch In, Winch Out
25	296420W	8	Washer	57	2314321	1	Switch Assy (See p. 75)
26	R833804	1	Fitting	58	2304988W	1	Kit, Tie Strap
27	R833115	1	Fitting	59	2314901	1	Hose Assy w/Firesleeve
30	2314895	1	Hose Assembly	60	2314902	1	Hose Assy w/Firesleeve
31	2314889	1	Hose Assembly	61	2314903	1	Hose Assy w/Firesleeve
32	2314888	1	Hose Assembly	63	2307226W	1	Cover
33	2314310	1	Bracket Weldment, Filter	64	209588	2	Clip, Insul
34	134803W	4	Screw, Ser Flg	65	2312119	2	Spacer
35	2310872	1	Kit, Through Drive (See p. 66)	67	589423	12	Clamp

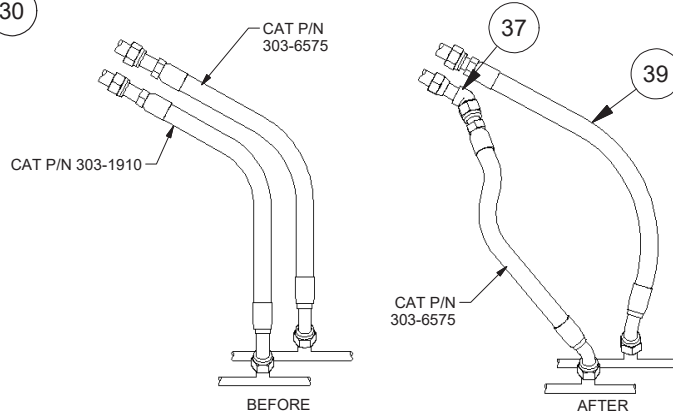
## Hydraulic/Electrical Installation

Caterpillar D5K/5K2 (H4AH3Y\*\*C201)

Page 2 of 3



### HYDRAULICS INSTALLATION



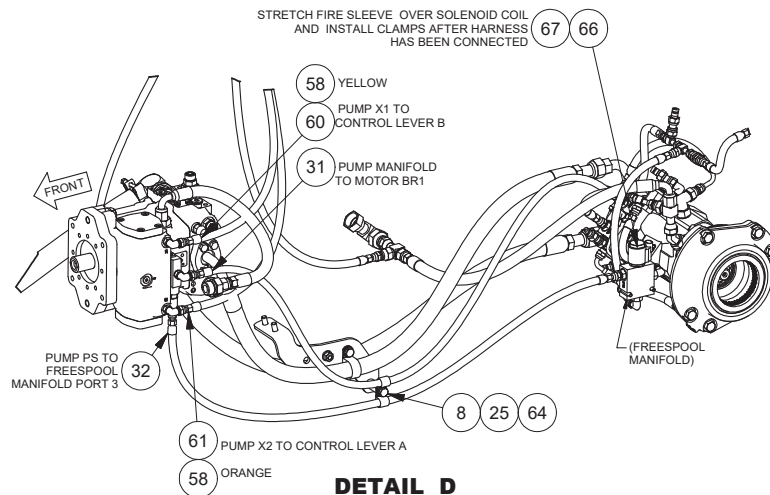
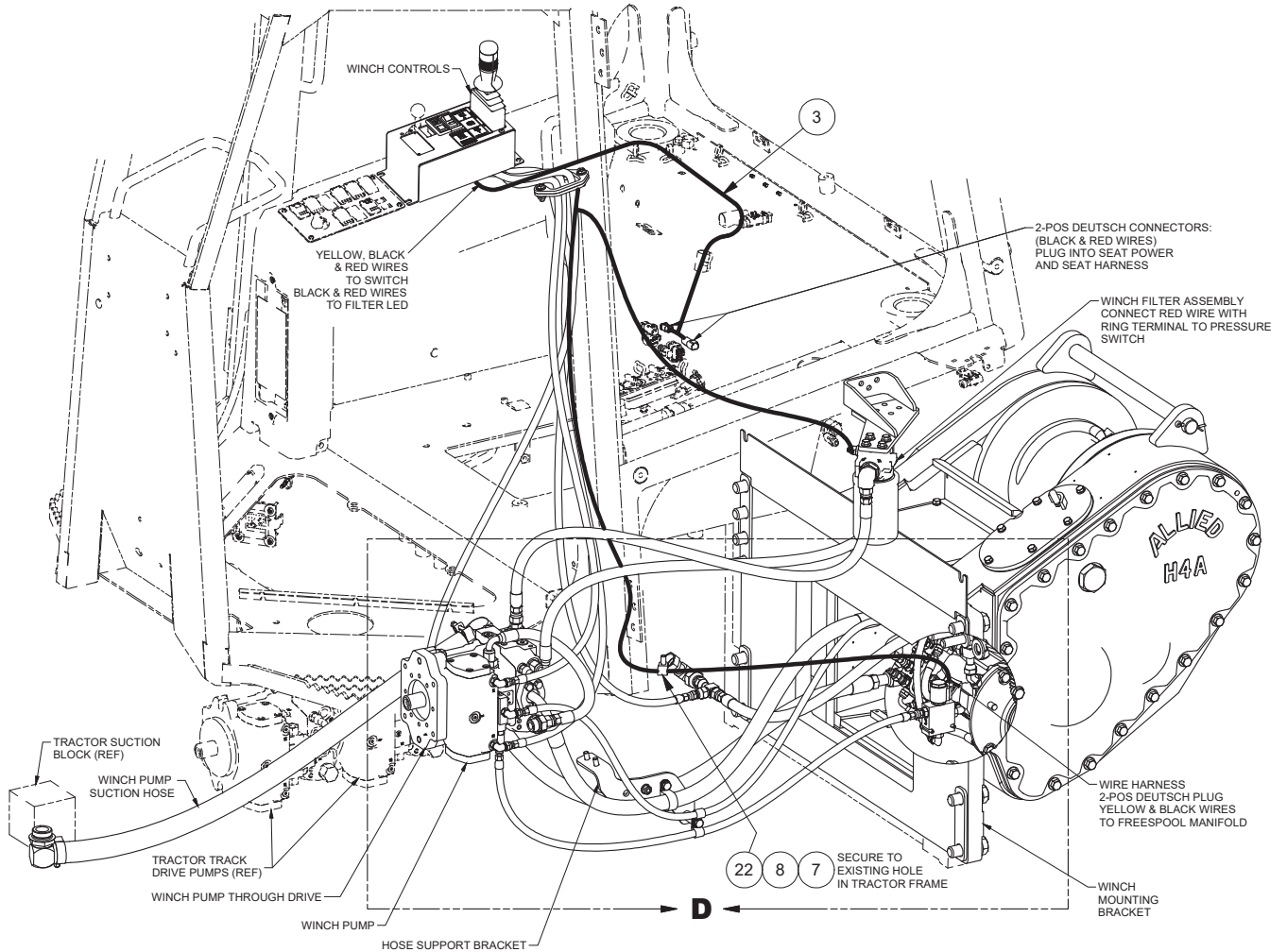
### BLADE HOSE INSTALLATION

VIEWED LOOKING TOWARD REAR OF TRACTOR  
(LOCATED DIRECTLY IN FRON OF THE FUEL TANK)

# Hydraulic/Electrical Installation

Caterpillar D5K/5K2 (H4AH3Y\*\*C201),

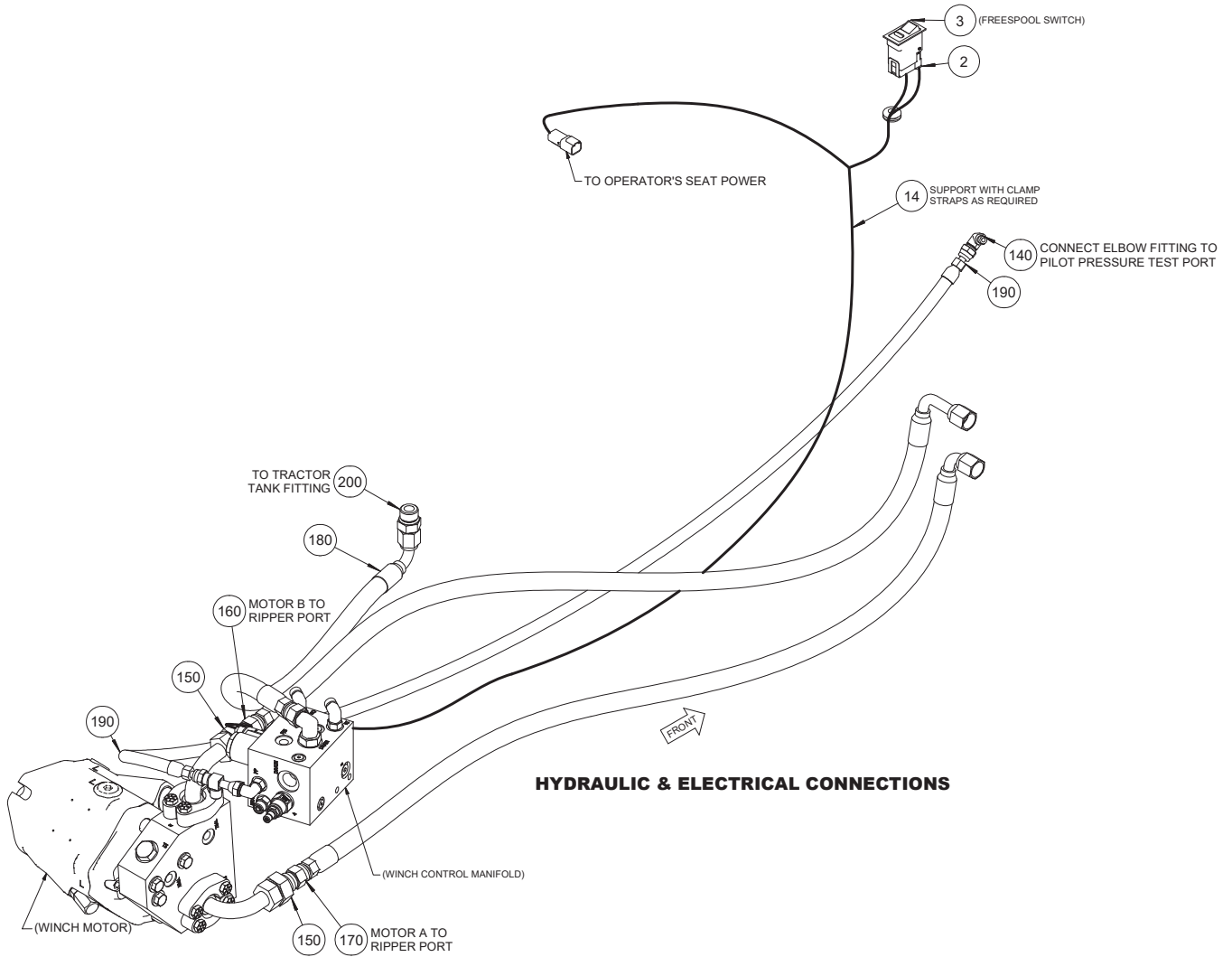
Page 3 of 3





# Hydraulic/Electrical Installation

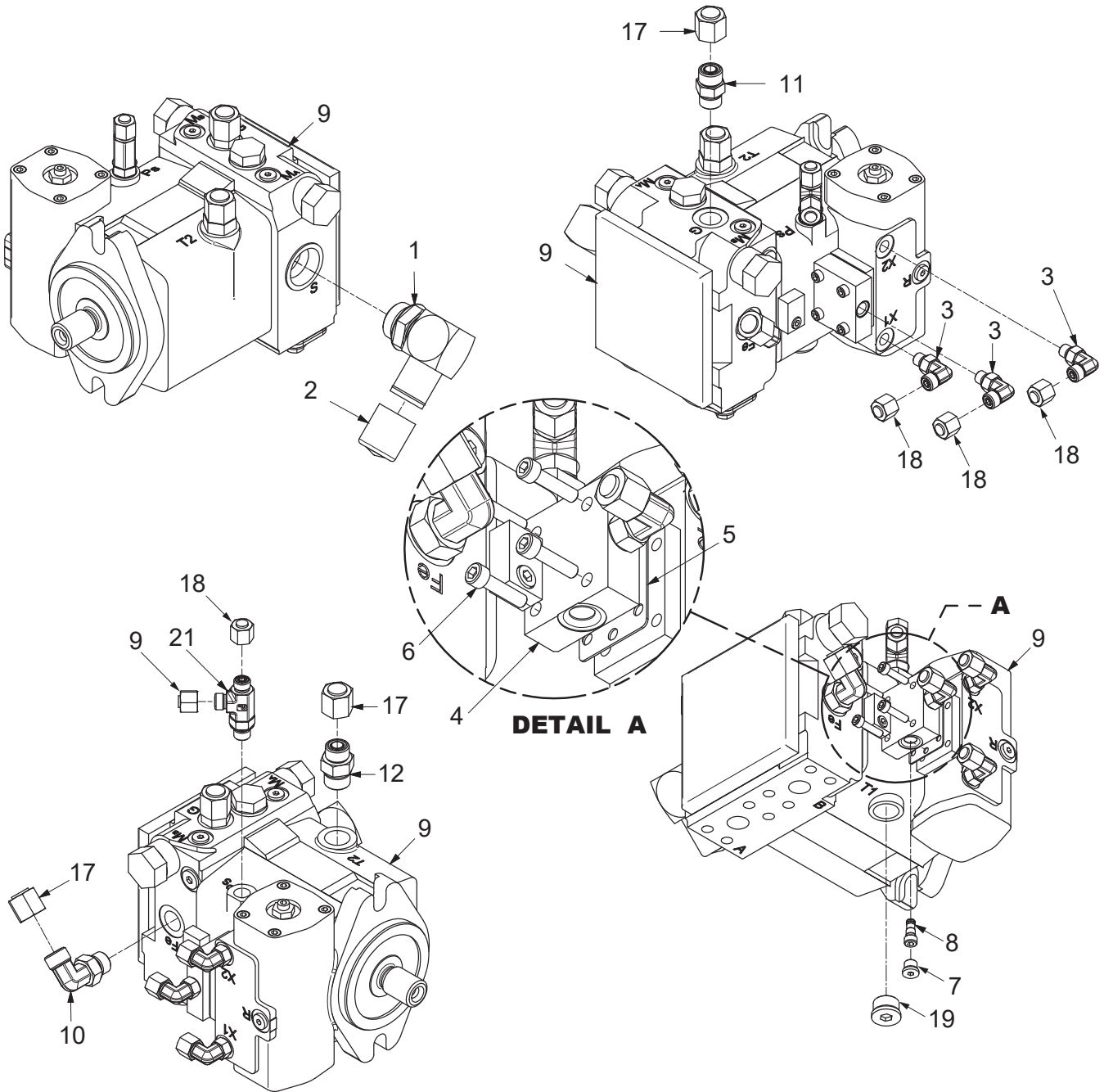
Caterpillar D3/4/5G (H4AT4Y\*\*C17)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2	2316412	1	Harness, Wire, Console	170	R12201	1	Hose Assembly
3	2310017	1	Switch	180	242120	1	Hose Assembly
14	137852W	25	Cable Tie	190	2316411	1	Hose Assembly
140	R833550	1	Fitting	200	R833114	1	Fitting
150	2307958W	2	Fitting				
160	R12202	1	Hose Assembly				

# Pump, Hydrostatic 45CC

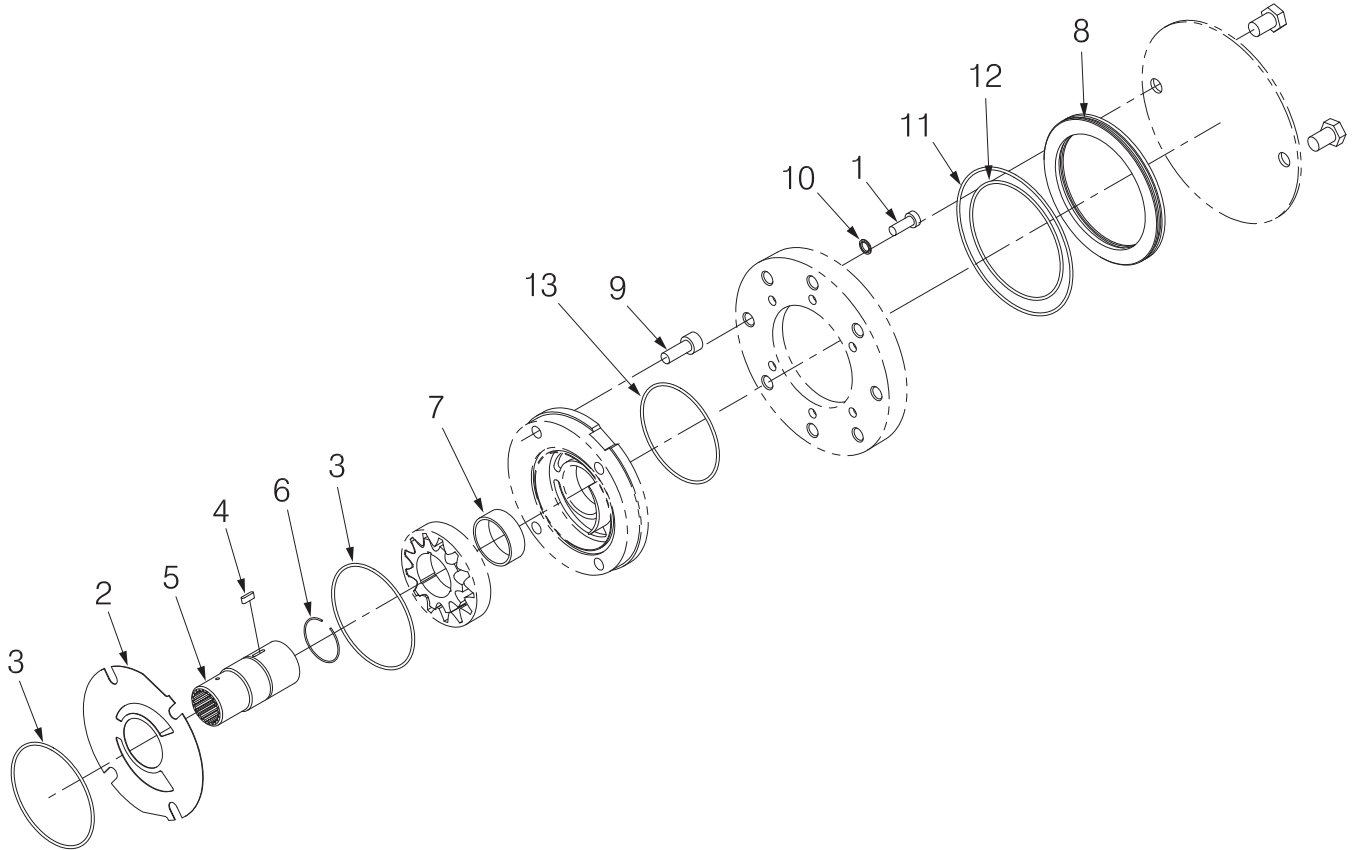
Caterpillar D3/4K (H4AH3Y\*\*C19)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311773</b>		<b>Pump Assembly</b>				
1	2304233W	1	. Fitting, Hose	9	2303789W	1	. Pump
2	2306026W	1	. Cap	10	231452	1	. Fitting
3	R833251	3	. Fitting	11	231441	1	. Fitting
4	2304014W	1	. Manifold	12	R833114	1	. Fitting
5	2304193W	1	. Gasket	17	R834253	3	. Fitting
6	293796W	4	. Capscrew	18	232984	5	. Fitting
7	235387	1	. Fitting	19	228773	1	. Fitting
8	2304195W	1	. Valve, Shuttle	21	2311842	1	. Fitting

## Kit, Through Drive

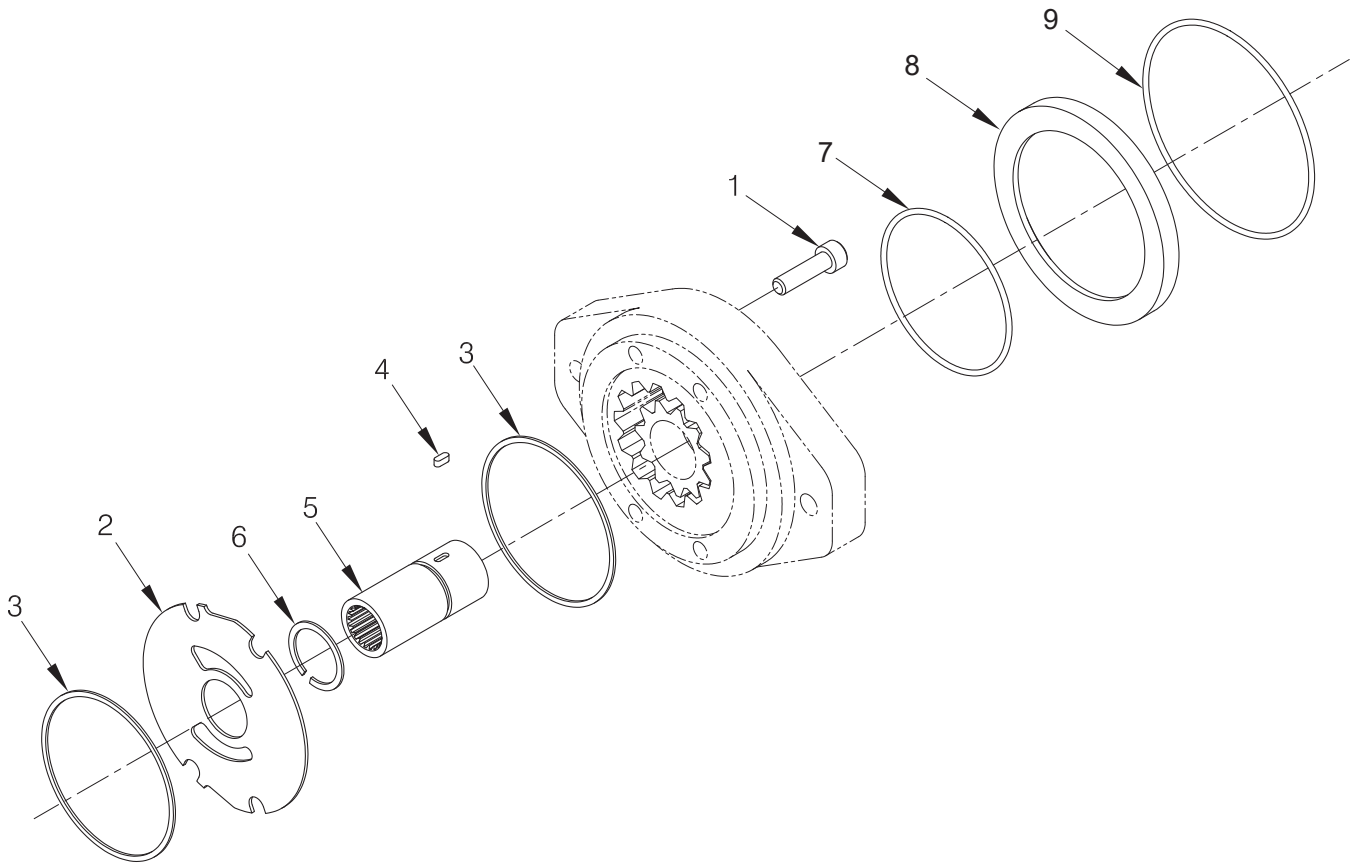
Caterpillar D4/5G (H4AH2Y\*\*C18, H4AH3Y\*\*C18)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2306258W</b>		<b>Kit, Through Drive</b>				
1	2306268W	6	. Capscrew	8	2306275W	1	. Centering Ring
2	2306269W	1	. Plate, Wear	9	2306276W	4	. Capscrew
3	2306270W	2	. O-Ring	10	2306277W	6	. Ring, Seal
4	2306271W	1	. Shaft, Key	11	2306278W	1	. O-Ring
5	2306272W	1	. Shaft, Through Drive	12	2306279W	1	. O-Ring
6	2306273W	1	. Snap Ring	13	2306280W	1	. O-Ring
7	2306274W	1	. Bearing Bushing				

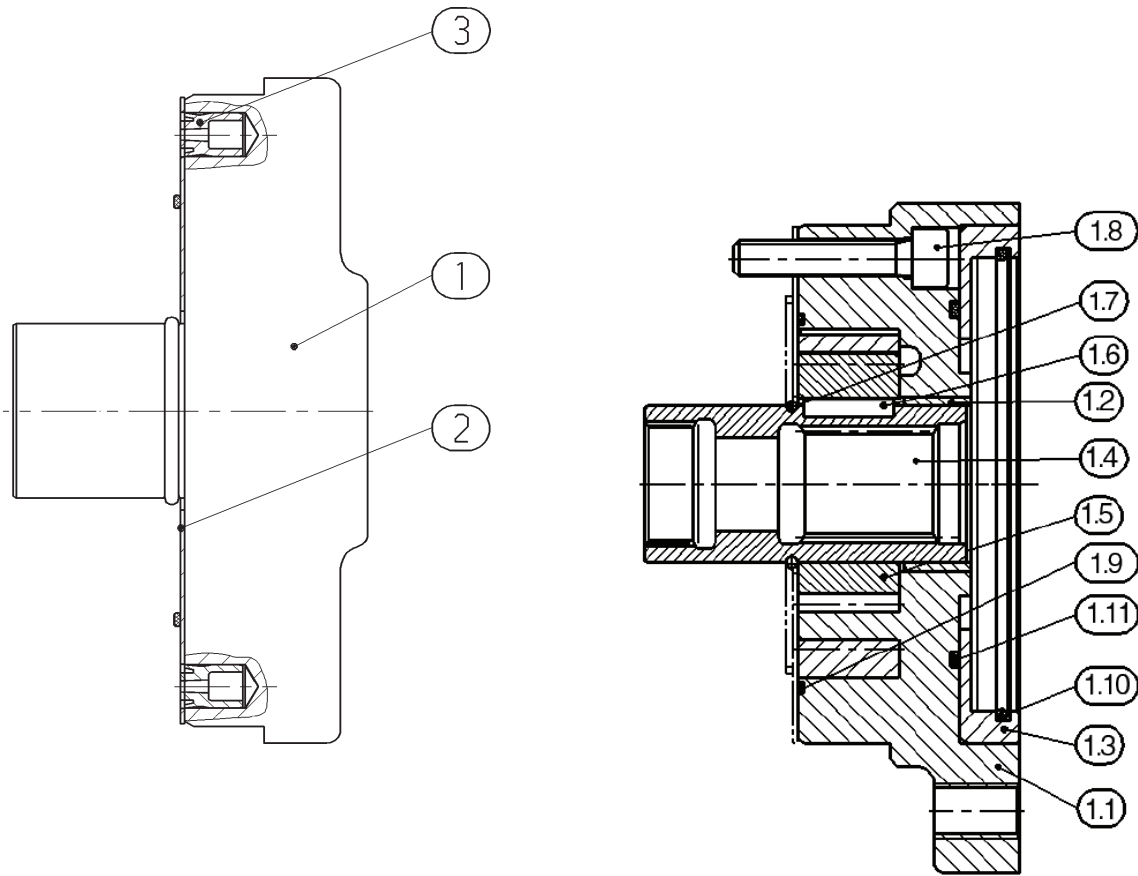
### Kit, Through Drive

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2304212W</b>		<b>Kit, Through Drive</b>				
1	2304248W	4	. Capscrew	6	2304253W	1	. Retaining Ring
2	2304249W	1	. Plate, Wear	7	20550	1	. O-Ring
3	2304250W	2	. Quad Ring	8	2304255W	1	. Centering Ring
4	2304251W	1	. Key	9	39742W	1	. O-Ring
5	2304252W	1	. Coupling				

**Kit, Through Drive**  
Caterpillar CAT D3-4K (H4AH3Y\*\*C19)

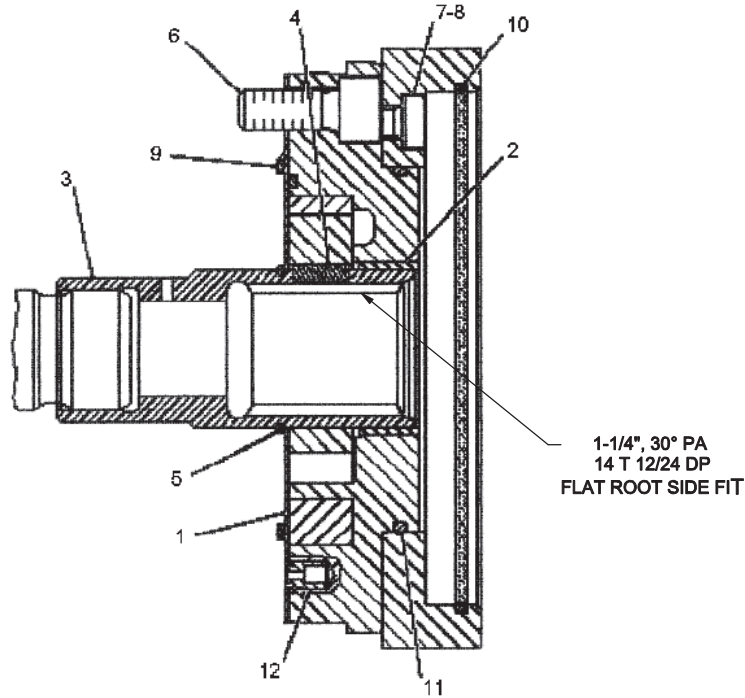


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2310889</b>		<b>Kit, Through Drive</b>				
1	2318278	1	. Internal Gear Pump	1.8	2318261	4	. . Capscrew
1.1	2318254	1	. . Flange Housing	1.9	* 2318262	1	. . Kantseal
1.2	2318255	1	. . Through Drive Shaft	1.10	* 2318263	1	. . O-Ring
1.3	2318256	1	. . Bushing	1.11	* 2318264	1	. . Burl Seal Ring
1.4	2318257	1	. . Intermediate Ring	2	2318279	1	. Wear Plate
1.5	2318258	1	. . Wheel Set	3	2318280	2	. Holding Plug
1.6	2318259	1	. . Parallel Key				
1.7	2318260	1	. . Snap Ring				

\* Included in Seal Kit 2318281

### Kit, Through Drive

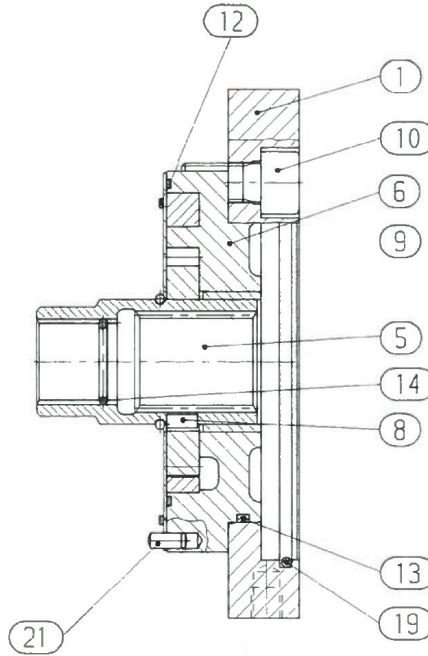
Caterpillar D5K, D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20, H4AH3Y\*\*C201)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2310872</b>		<b>Kit, Through Drive</b>				
1	2311186	1	. Wear Plate	8	2311193	8	. Seal, Bonded
2	2311187	1	. Bushing	9	2311194	2	. Seal, O-Ring
3	2311188	1	. Coupling	10	2311195	1	. Seal, O-Ring
4	2311189	1	. Key, Shaft	11	2311196	1	. Seal, O-Ring
5	2311190	1	. Ring	12	2311197	2	. Plug
6	2311191	4	. Bolt, Socket Head				
7	2311192	8	. Bolt, Socket Head				

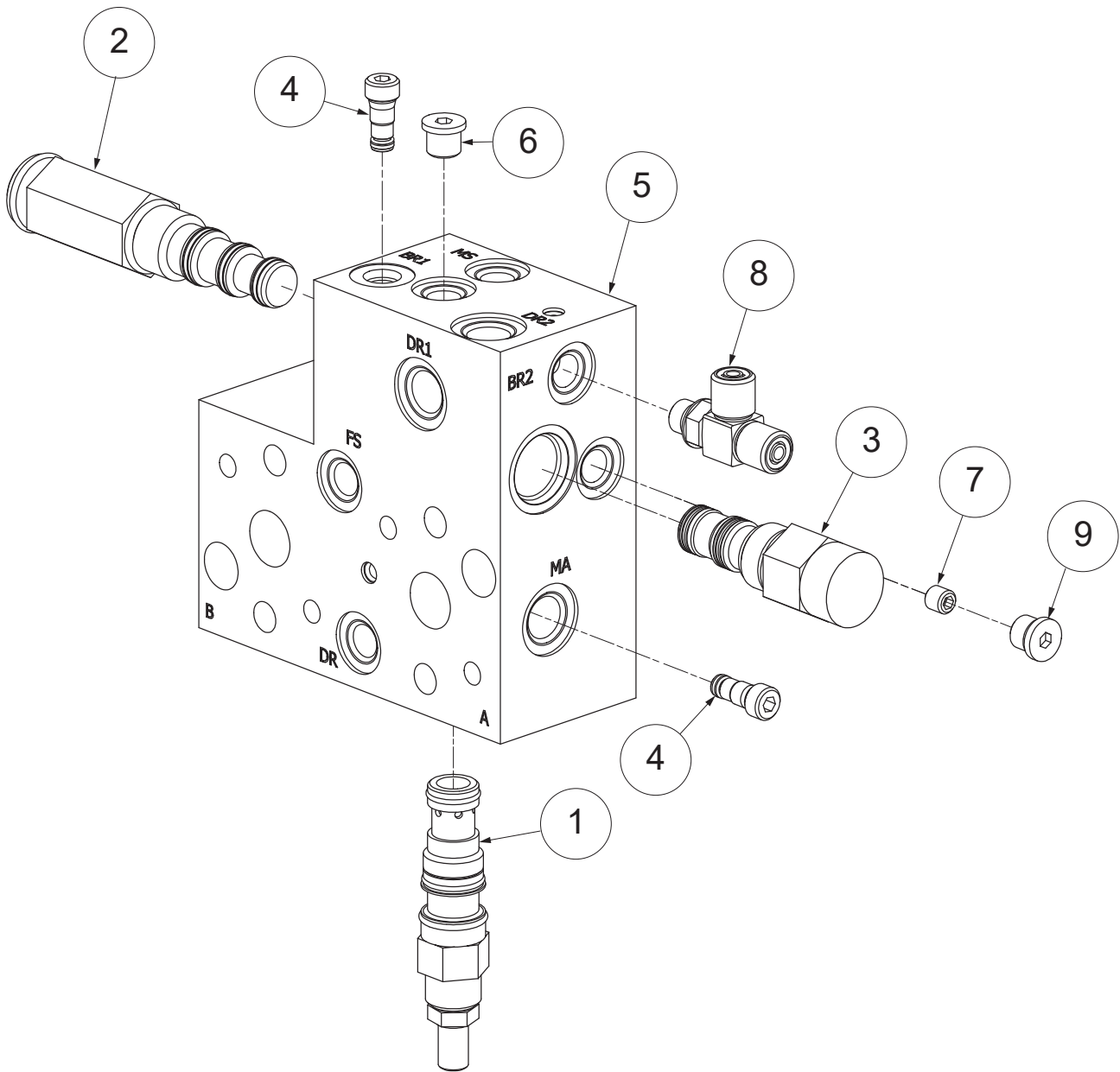
### Kit, Through Drive

Caterpillar CAT D3/4/5K2 (H4AH2Y\*\*C191, H4AH3Y\*\*C191)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2316008</b>		<b>Kit, Through Drive</b>				
1	2318265	1	. Intermediate Flange	13	* 2318271	4	. O-Ring
5	2318266	1	. Through Drive Shaft	14	2318272	1	. Snap Ring
6	2318267	1	. Internal Gear Pump Case	19	* 2318263	1	. O-Ring
8	2318268	1	. Shaft Key	21	2318273	1	. Cylinder Pin
9	2318269	1	. Snap Ring				
10	2318270	4	. Socket Head Screw				* Included in Seal Kit 2318274
12	* 2318262	1	. Kantseal-ring				

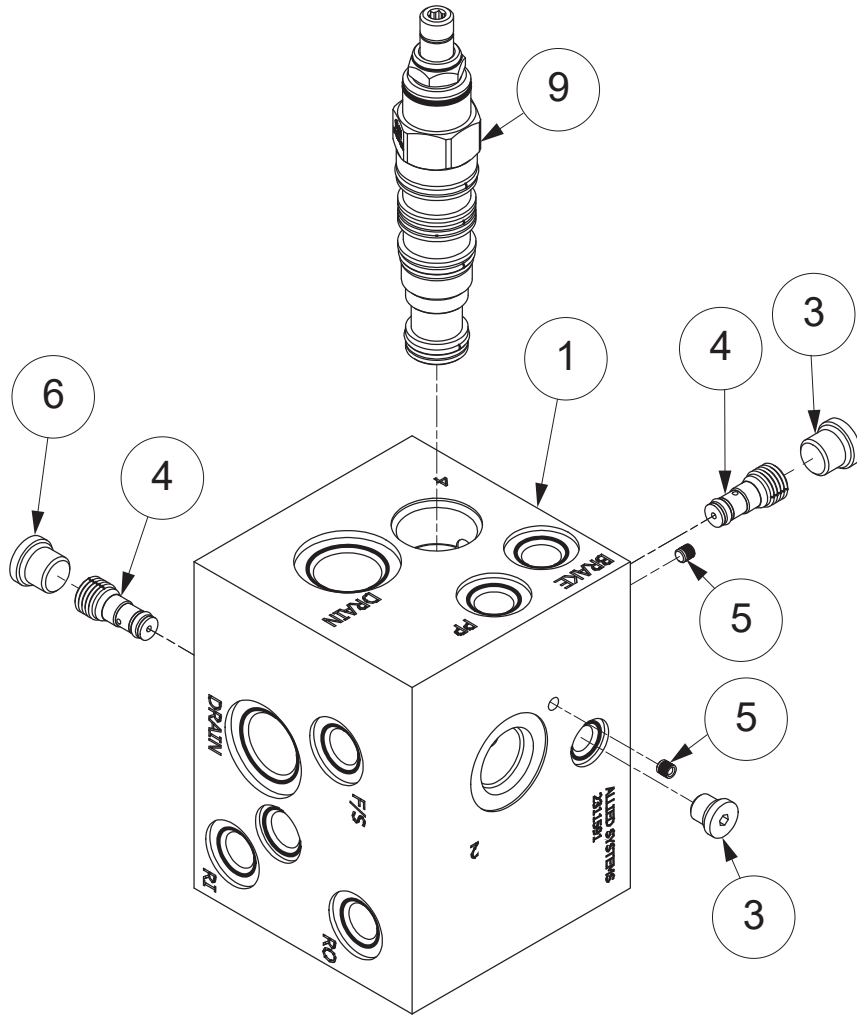
## Motor Speed Manifold Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2310966</b>		<b>Manifold Assembly</b>	4	2307169W	2	. Valve, Shuttle
1	2311172	1	. Cartridge, Press. Reducer		2307171W	1	. . Seal Kit
	234655	1	. . Seal Kit	5	2310190	1	. Assy, Manifold, Motor Spd
2	2310192	1	. Valve, Cartridge	6	222442W	1	. Fitting
	252563	1	. . Seal Kit	7	2312196	1	. Set Screw
	2307221W	1	. . Seal, Vent Cap	8	R833400	1	. Fitting
3	2307170W	1	. Valve, Sequence	9	235387	1	. Fitting
	2307172W	1	. . Seal Kit				

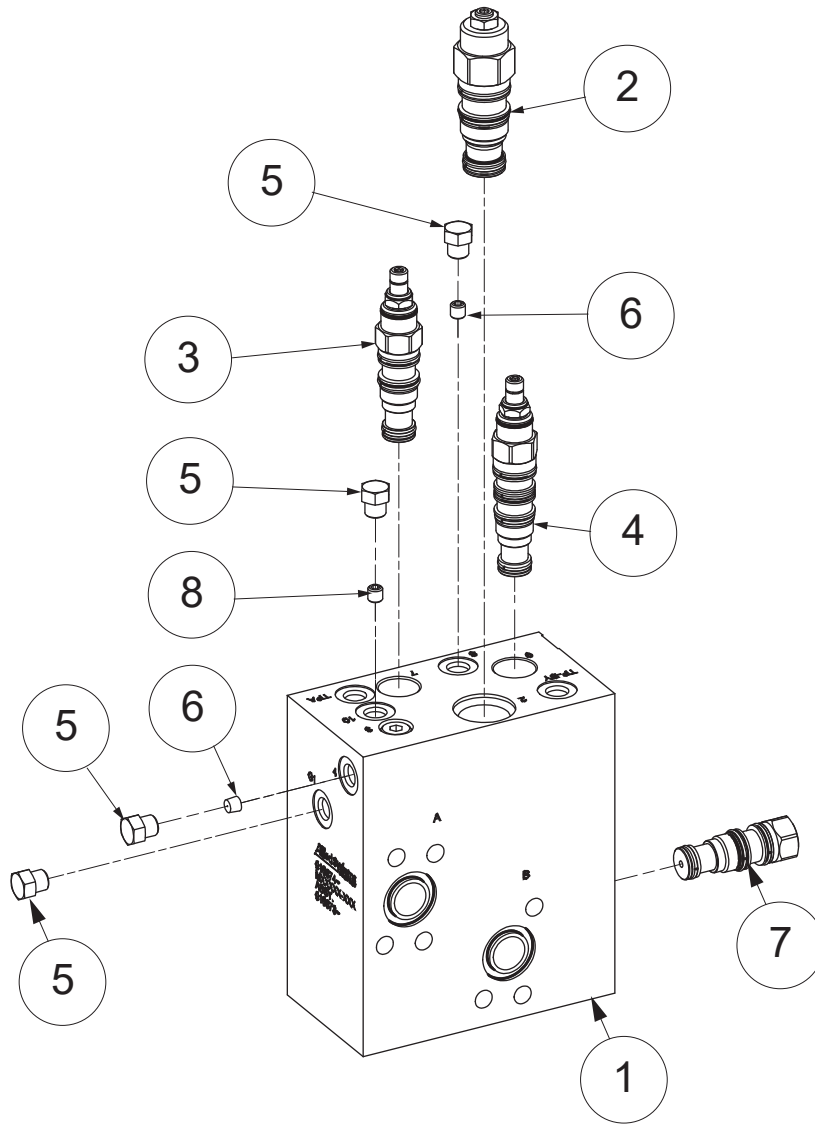


### Cross Port Relief Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311591</b>		<b>Manifold Assy, Rescue Control</b>				
1	2311590	1	. Manifold, Control	5	2307480W	2	. Plug, Expansion
3	242230	4	. Fitting	6	235387	2	. Fitting
4	2307227W	2	. Valve, Shuttle	9	2311592	1	. Valve, Directional
	2307231W	1	.. Seal Kit		252566	1	.. Seal Kit

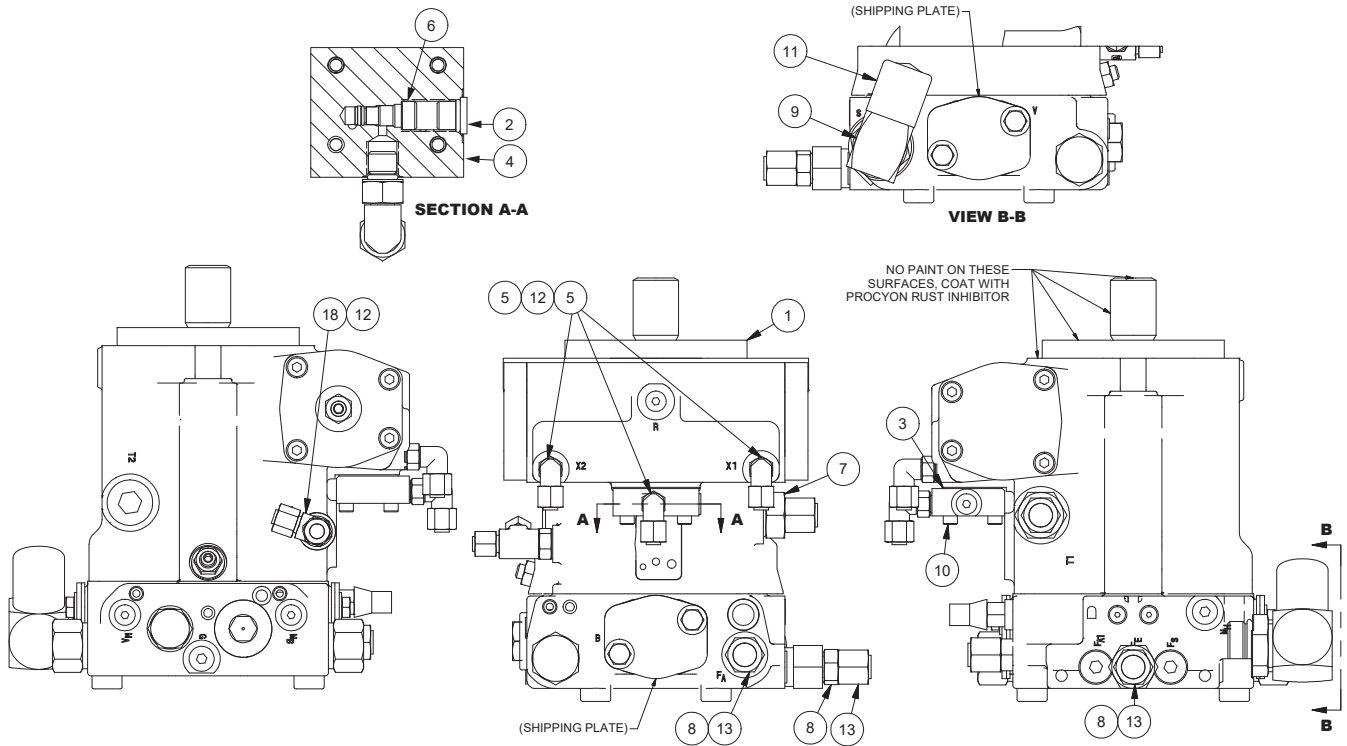
# Manifold Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2316353</b>		<b>Manifold Assembly</b>				
1	-----	1	. Body, Manifold	4	2311592	1	. Valve, Brake
2	2311221	1	. Valve Cartridge		252566	1	.. Seal Kit
	2501643	1	.. Seal Kit, Flow Control Valve	5	14591W	4	. Fitting, O-Ring
3	2311220	1	. Cartridge, Pressure Reducing	6	2314808	2	. Plug, Orifice
	234655	1	.. Seal Kit	7	232515	1	. Cartridge, Valve
					242101	1	.. Seal Kit
				8	2307233W	1	. Plug

# Pump Assembly

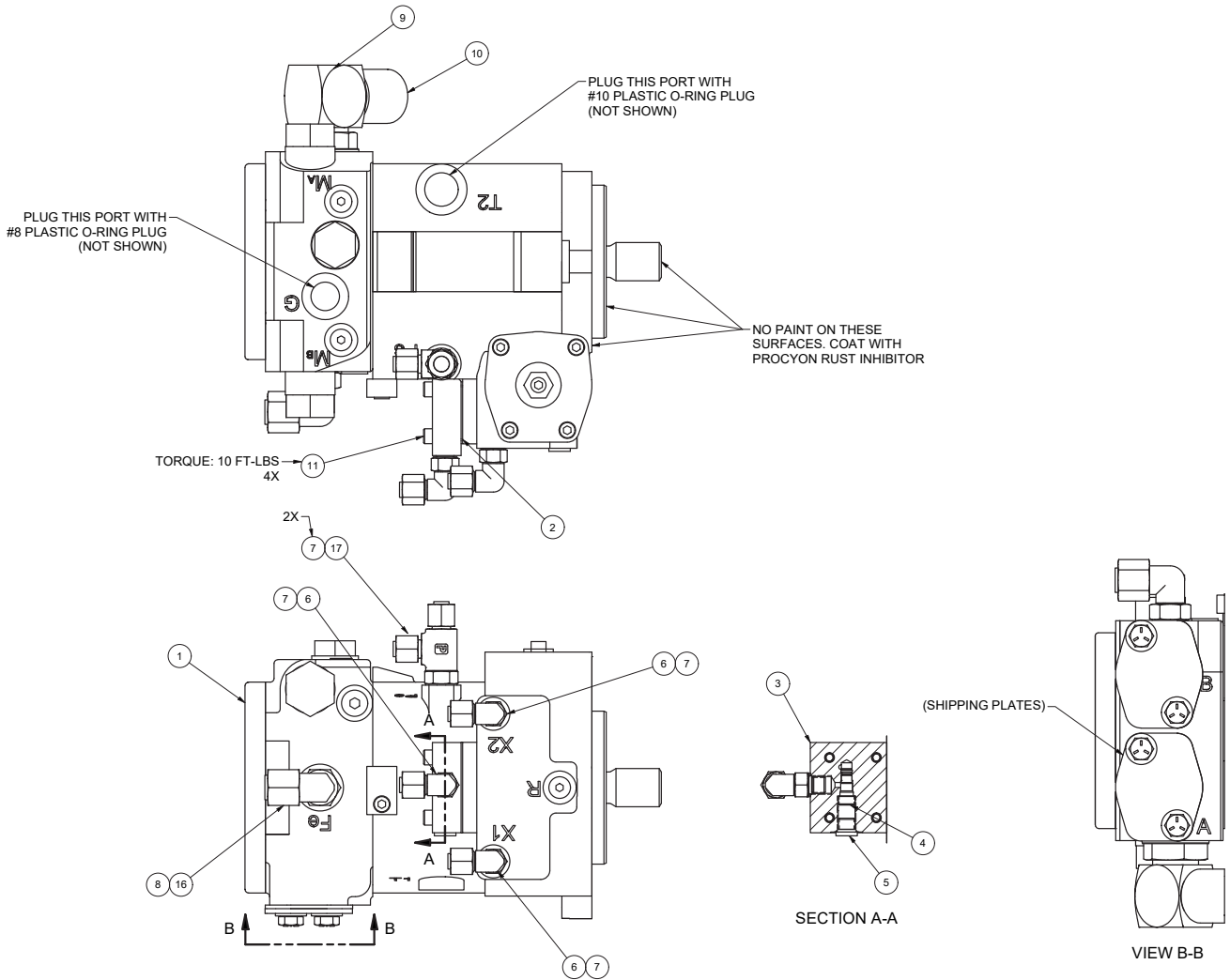
Caterpillar D5K/D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20, H4AH3Y\*\*C201)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311753</b>		<b>Assembly, Pump</b>				
1	2310890	1	. Pump, Hydrostatic	8	231441	2	. Fitting
2	235387	1	. Fitting	9	2304233W	1	. Fitting, Hose
3	2304193W	1	. Gasket	10	293796W	4	. Capscrew
4	2304014W	1	. Manifold	11	2306026W	1	. Cap
5	R833251	3	. Fitting	12	232984	5	. Fitting
6	2304195W	1	. Valve, Shuttle	13	R834253	3	. Fitting
	2305073W	1	. Seal Kit	18	2311842	1	. Fitting
7	R833115	1	. Fitting				

### Pump Assembly

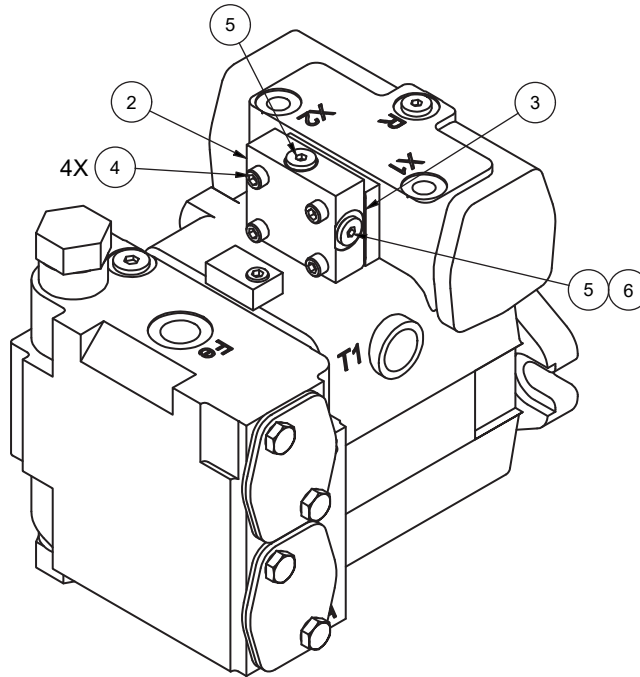
Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17)  
 Caterpillar D4/5G (H4AH2Y\*\*C18, H4AH3Y\*\*C18)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311840</b>		<b>Pump Assembly</b>				
1	2303789W	1	. Pump	7	232984	5	. Fitting
2	92689	1	. Gasket	8	231452	1	. Fitting
3	2304014W	1	. Manifold	9	2304233W	1	. Fitting
4	2304195W	1	. Valve, Shuttle	10	2306026W	1	. Cap
	2305073W	1	. . Seal Kit	11	293796W	4	. Capscrew
5	235387	1	. Fitting	16	R834253	1	. Fitting
6	R833251	3	. Fitting	17	2311842	1	. Fitting

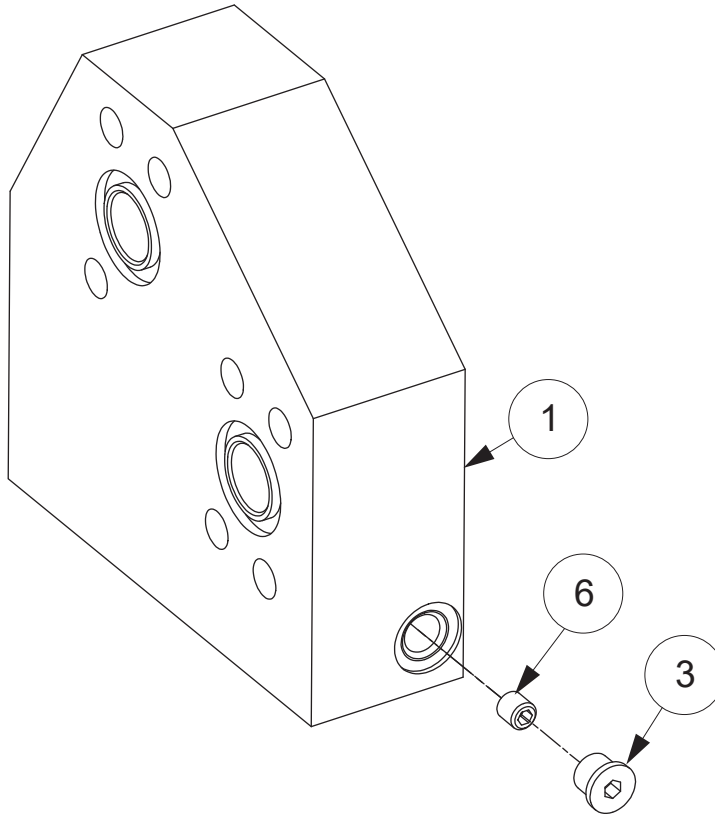
### Pump Assembly

Caterpillar D3/4/5K2 (H4AH2Y\*\*C191, H4AH3Y\*\*C191)



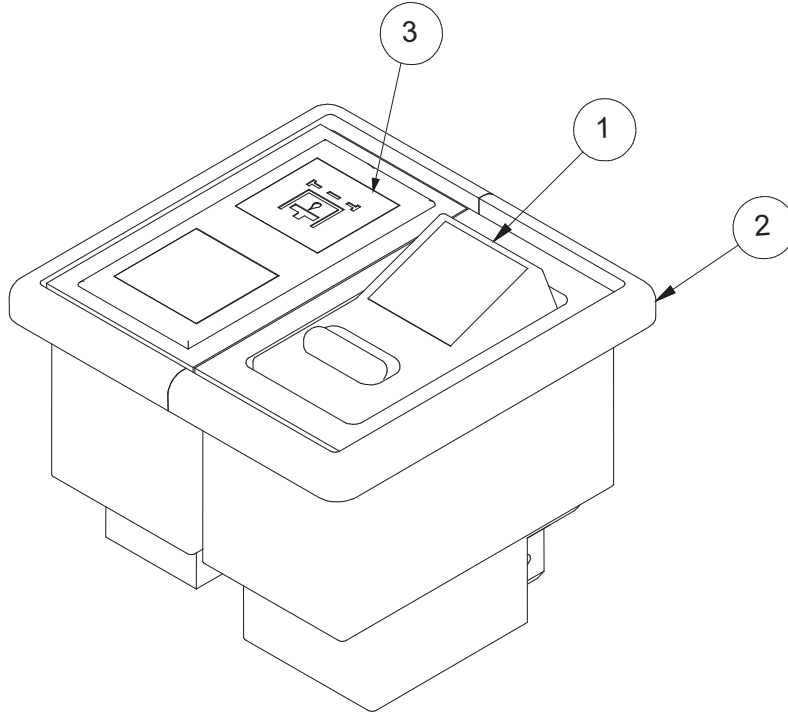
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2316407</b>		<b>Pump Assembly</b>				
1	2303789W	1	. Pump	5	235387	2	. Fitting
2	2304014W	1	. Manifold	6	2304195W	1	. Valve, Shuttle
3	92689	1	. Gasket				
4	293796W	4	. Capscrew				

**Manifold Assembly**



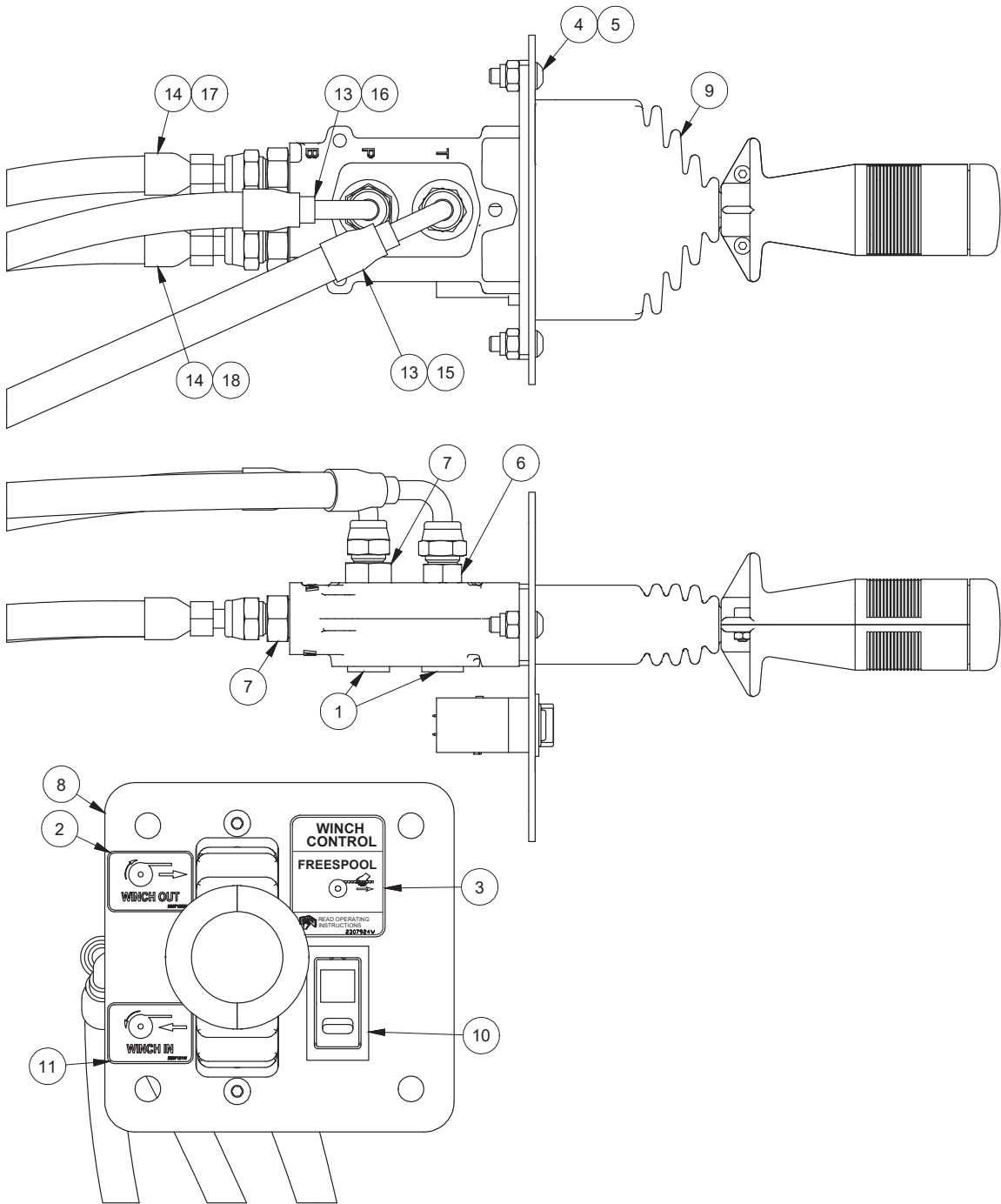
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2307568W</b>		<b>Assembly, Manifold</b>				
1	2307567W	1	. Manifold				
3	222442W	1	. Fitting				
6	2310978	1	. Orifice				

**Switch Assembly**



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2314321</b>		<b>Switch Assembly</b>				
1	2310017	1	. Switch				
2	234505	2	. Frame				
3	2311352	1	. Indicator Assy, Oil Filter				

# Handlever Assembly



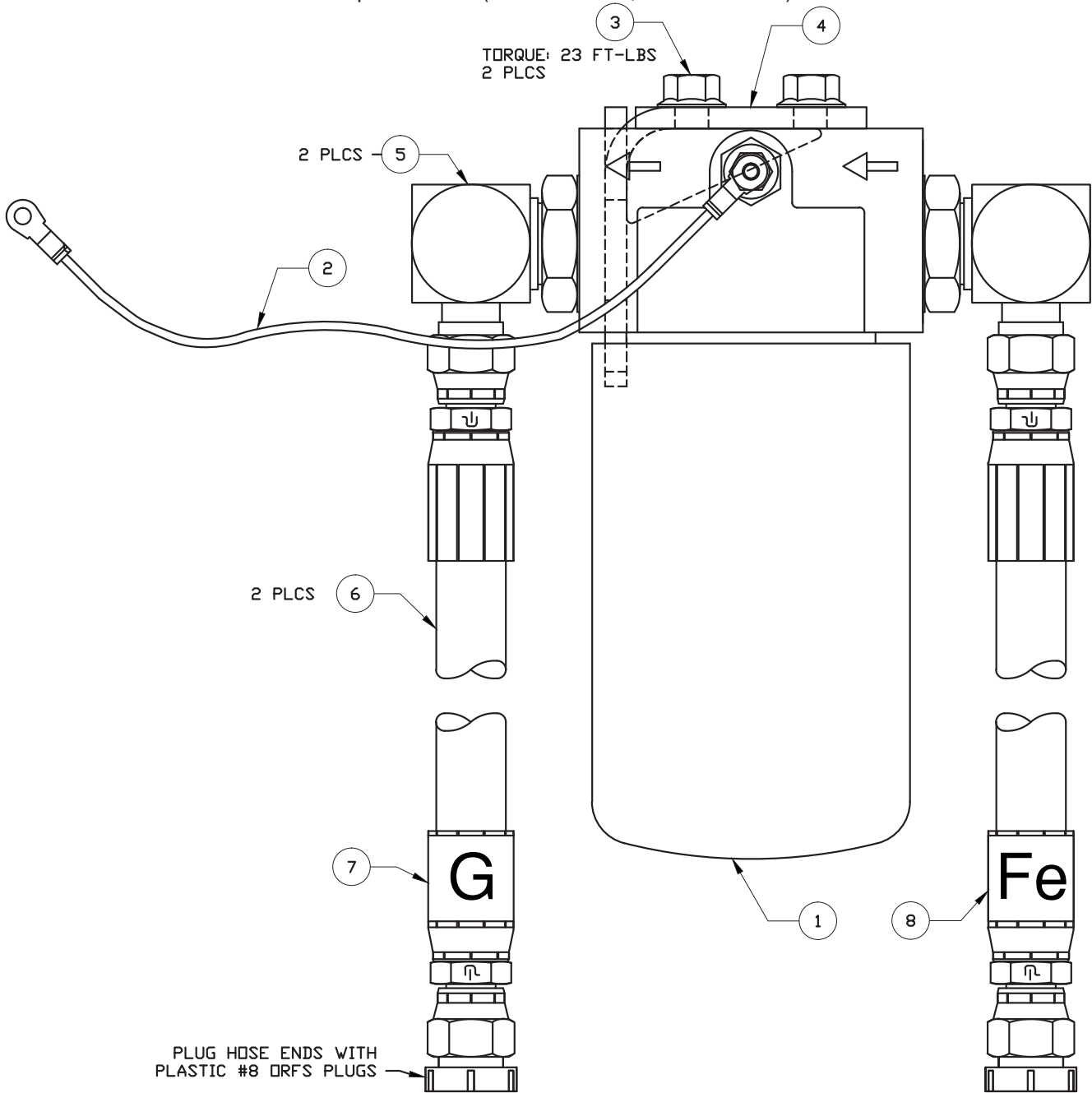
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311752</b>		<b>Assembly, Handlever</b>				
1	229383	2	. Fitting	10	2310017	1	. Switch
2	2307122W	1	. Decal, Line Out	11	2307121W	1	. Decal, Line In
3	2307924W	1	. Decal, Switch Panel	13	2311198	2	. Hose Assembly
4	18720W	2	. Capscrew	14	2311492	2	. Hose Assembly
5	15113W	2	. Locknut	15	2306151W	1	. Label, T
6	231439	1	. Fitting	16	2306152W	1	. Label, Ps
7	R833103	3	. Fitting	17	2306154W	1	. Label, X2
8	2311751	1	. Mounting, Handlever	18	2306155W	1	. Label, X1
9	2310929	1	. Handlever (See p. 81)				



### Filter Assembly

Caterpillar D3/4/5G (H4AH2Y\*\*C17, H4AH3Y\*\*C17)

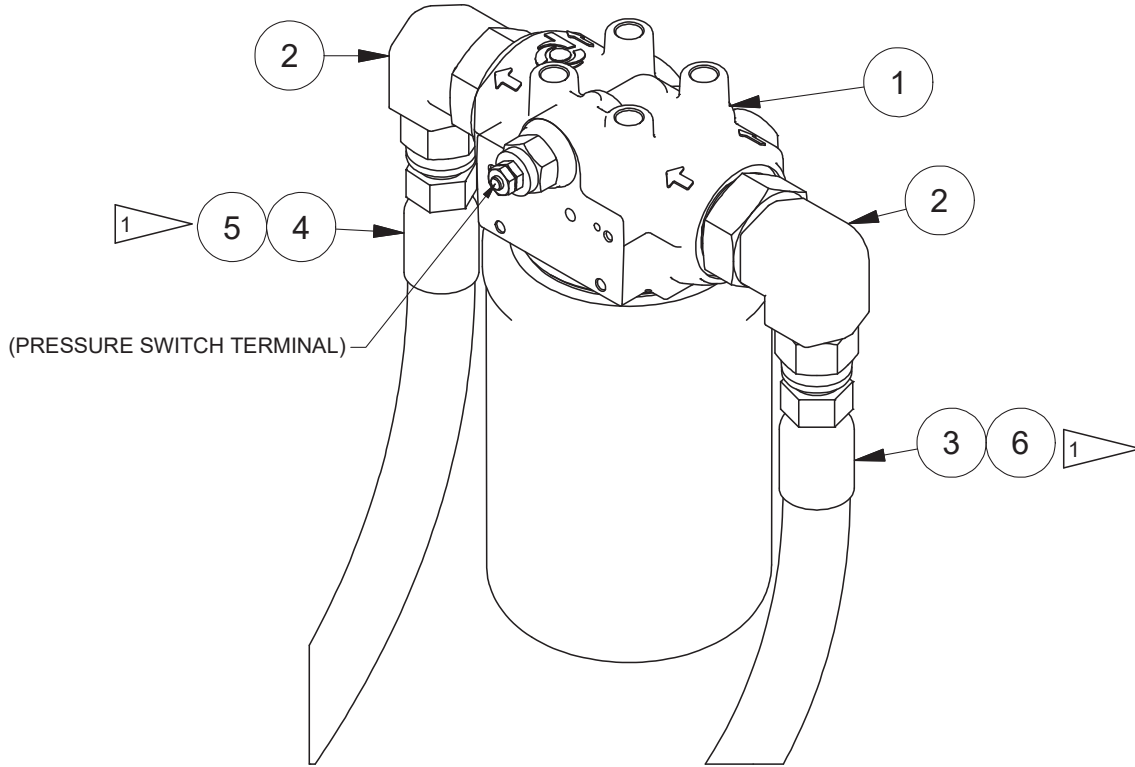
Caterpillar D4/5G (H4AH2Y\*\*C18, H4AH3Y\*\*C18)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
<b>2311843 Assembly, Filter</b>							
1	2305713W	1	. Assembly, Filter	4	2304223W	1	. Bracket, Filter
	2305132W	1	. . Filter Head	5	235314	2	. Fitting
	2304112W	1	. . Filter Element	6	2311019	2	. Hose Assembly
	2305712W	1	. . Pressure Switch	7	2306156W	1	. Label, G
2	2305714W	1	. Wire, Filter	8	2306157W	1	. Label, Fe
3	134803W	2	. Screw, Ser Flg				

### Filter Assembly

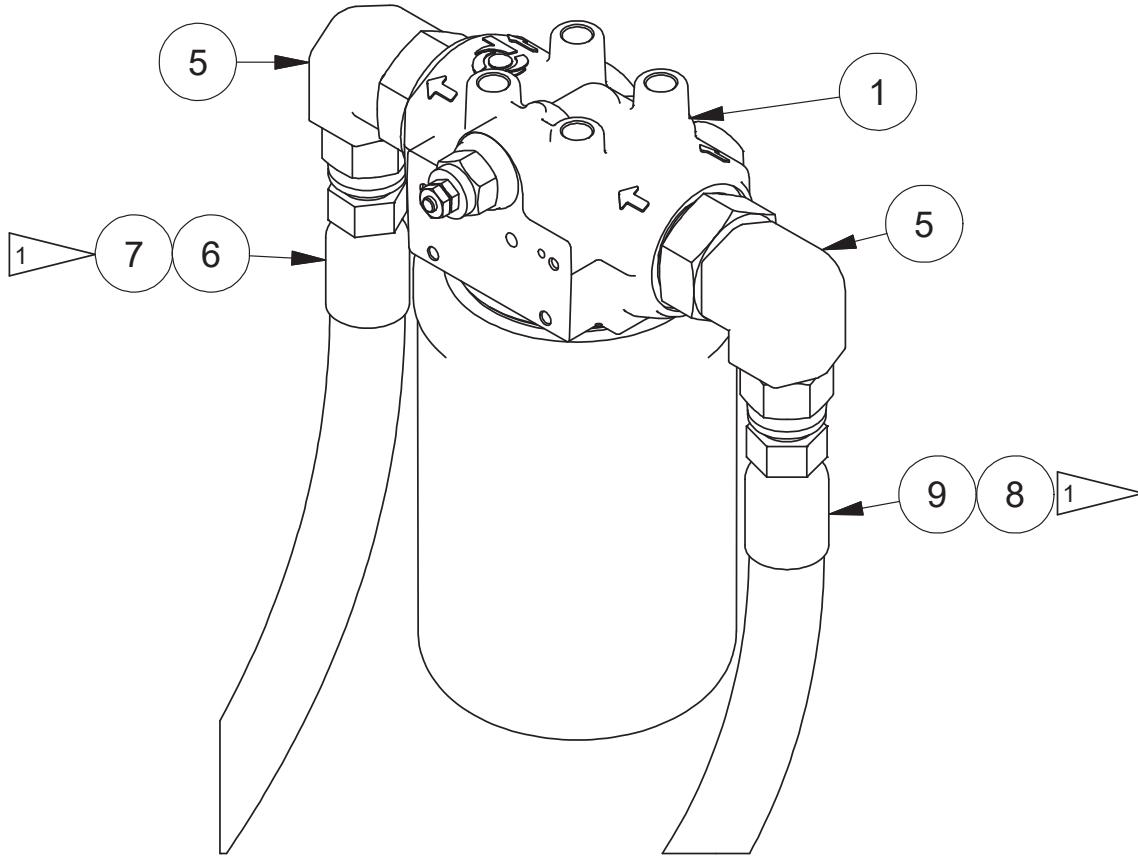
Caterpillar D5K/5K2 (H4AH3Y\*\*C201)



1 ATTACH LABELS TO FREE END OF HOSE & PLUG OPEN HOSE ENDS WITH WITH PLASTIC PLUGS.

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2314892</b>		<b>Assembly, Filter</b>				
1	2305713W	1	. Assembly, Filter	3	2314893	1	. Hose Assembly
	2305132W	1	. Filter Head	4	2314894	1	. Hose Assembly
	2304112W	1	. Filter Element	5	2310918	1	. Label, Fa
	2305712W	1	. Pressure Switch	6	2306157W	1	. Label, Fe
2	235314	2	. Fitting				

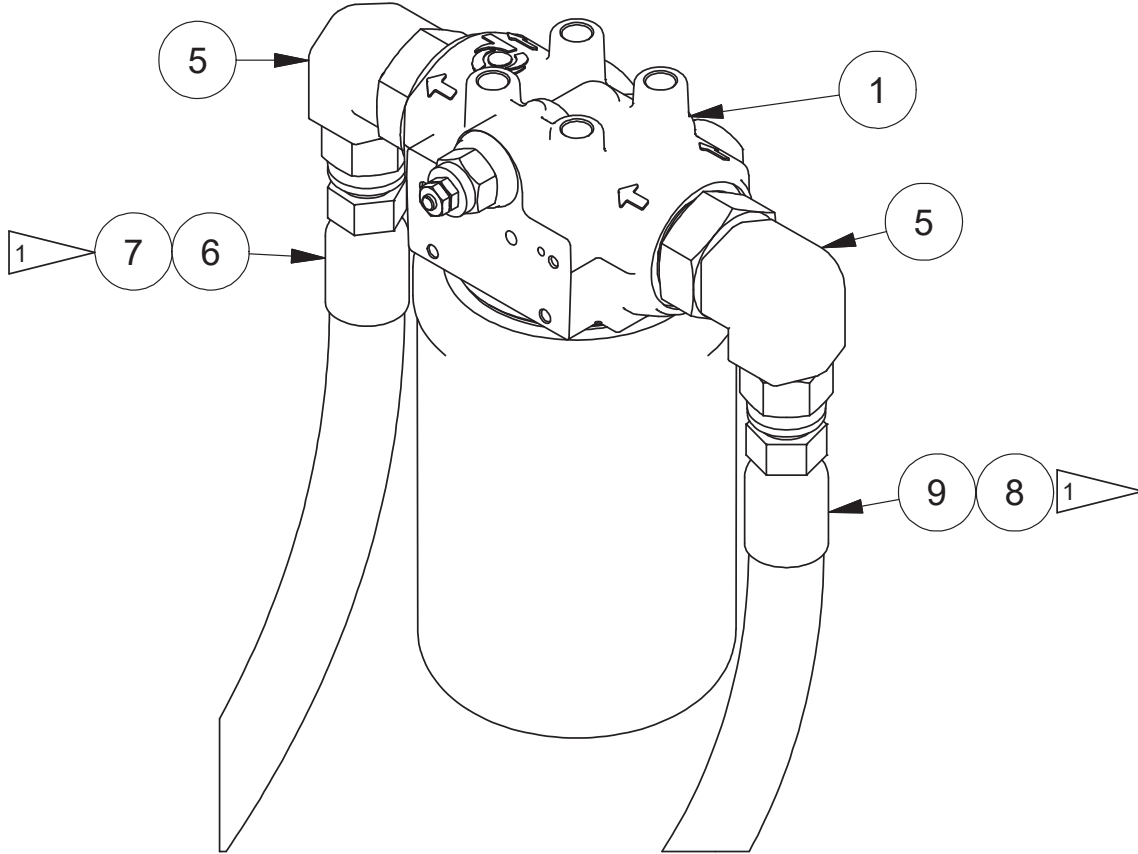
**Filter Assembly**  
Caterpillar D3-4K (H4AH3Y\*\*C19)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2311479</b>		<b>Filter Assembly</b>				
1	2305713W	1	. Assembly, Filter	6	2311019	1	. Hose Assembly
	2305132W	1	. . Filter Head	7	2306156W	1	. Label, G
	2304112W	1	. . Filter Element	8	2306157W	1	. Label, Fe
	2305712W	1	. . Pressure Switch	9	242265	1	. Hose Assembly
5	235314	2	. Fitting				

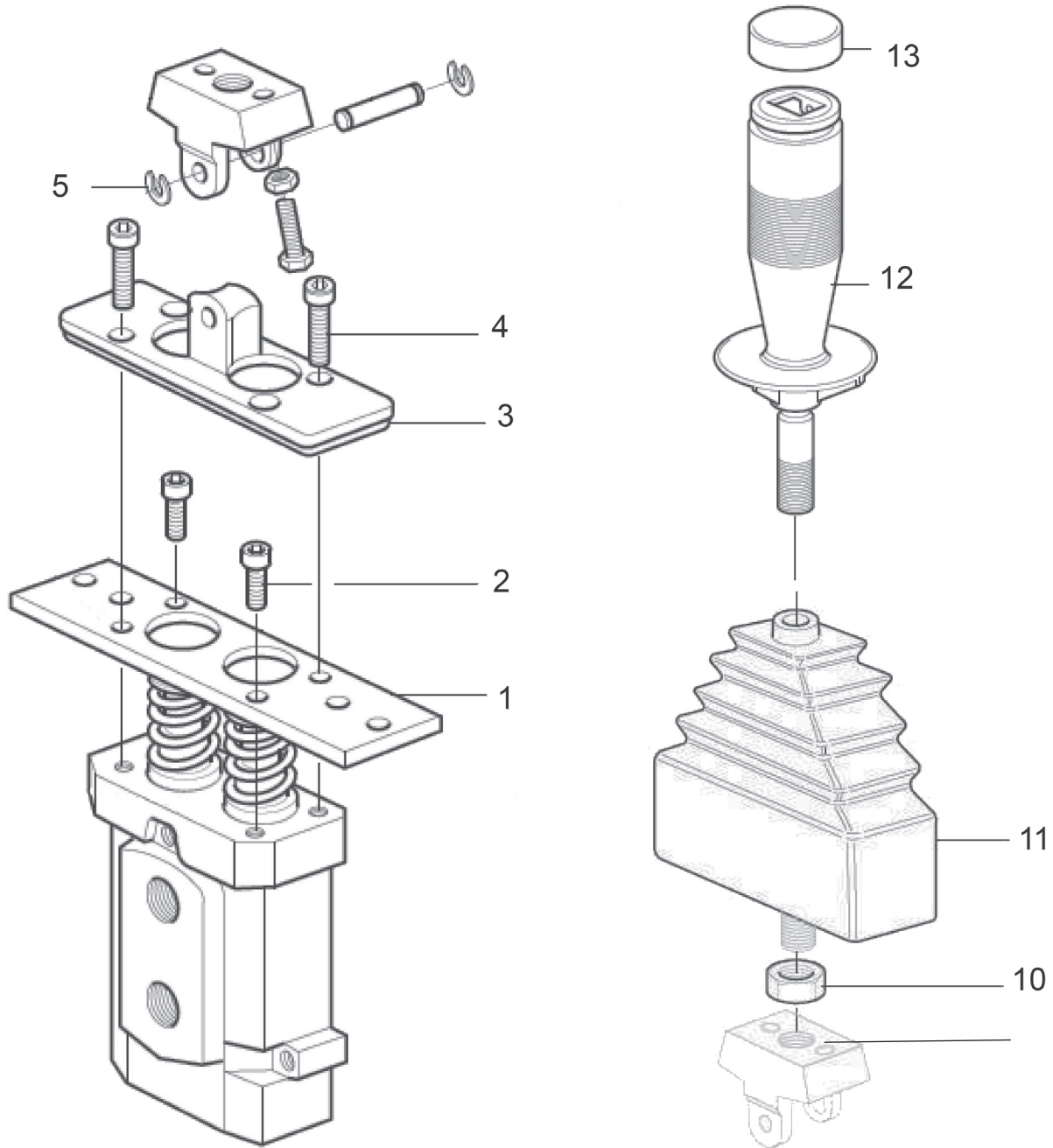
**Filter Assembly**

Caterpillar D5K/D5K2 (H4AH2Y\*\*C20, H4AH3Y\*\*C20)



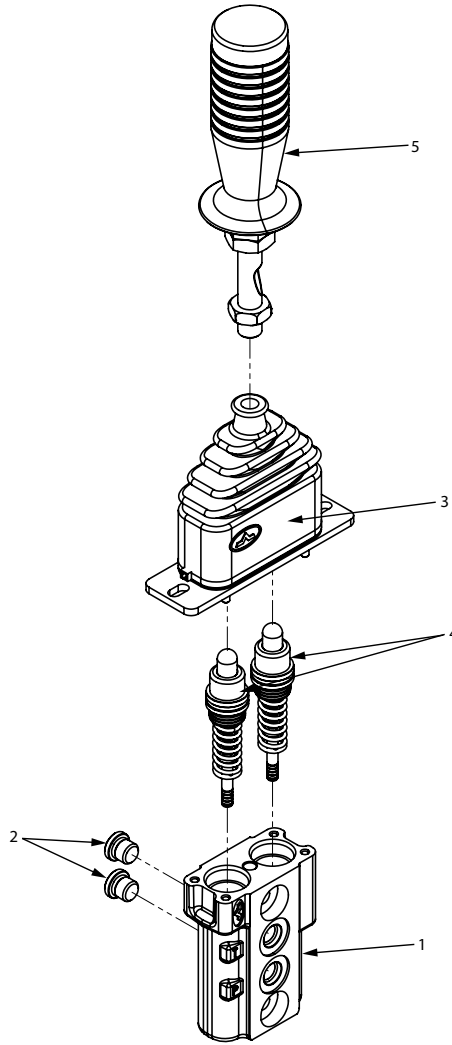
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2310844</b>		<b>Filter Assembly</b>				
1	2305713W	1	. Assembly, Filter	6	2311020	1	. Hose Assembly
	2305132W	1	. . Filter Head	7	2310918	1	. Label, Fa
	2304112W	1	. . Filter Element	8	2306157W	1	. Label, Fe
	2305712W	1	. . Pressure Switch	9	2311019	1	. Hose Assembly
5	235314	2	. Fitting				

**Control Lever Assembly**



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2310929</b>		<b>Handlever Assembly</b>				
1	2312611	1	. Plate, Mounting	10	2312606	1	. Nut
2	2312612	2	. Screw	11	230387	1	. Boot, Rubber
3	2312613	1	. Link, Lever	12	2312609	1	. Lever, Handle
4	2312614	1	. Screw	13	2312610	1	. Cap
5	2312615	2	. Lockwasher				

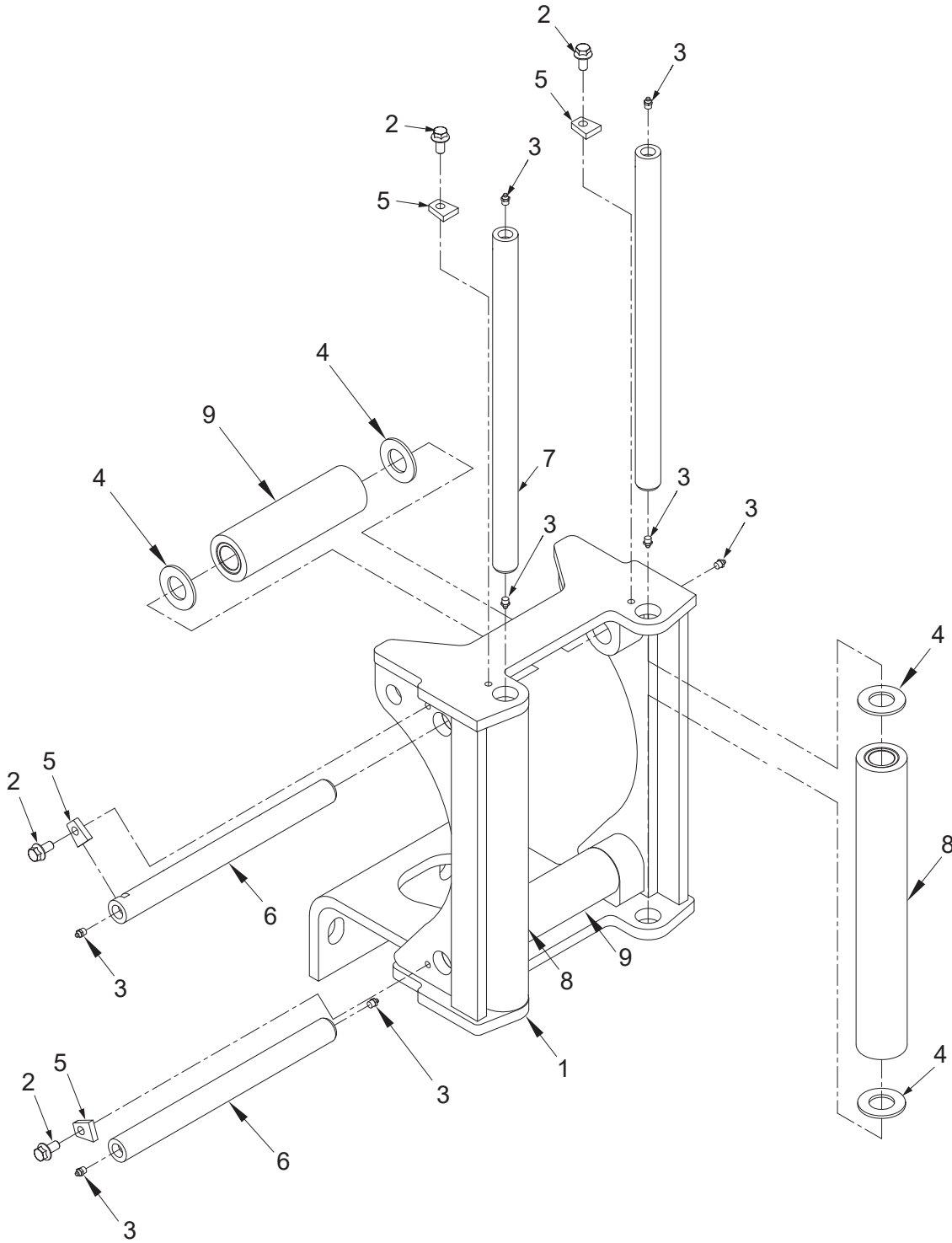
## Control Lever Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2315561</b>		<b>Control Lever Assembly</b>				
1	2318249	1	. Body SVM100/SAE				
2	2318250	2	. Plug				
3	2318251	1	. Kit, Rubber Boot				
4	2318252	2	. Kit, Spring Assembly				
5	2318253	1	. Lever, Handle				

**Section 4**  
**Optional Equipment**

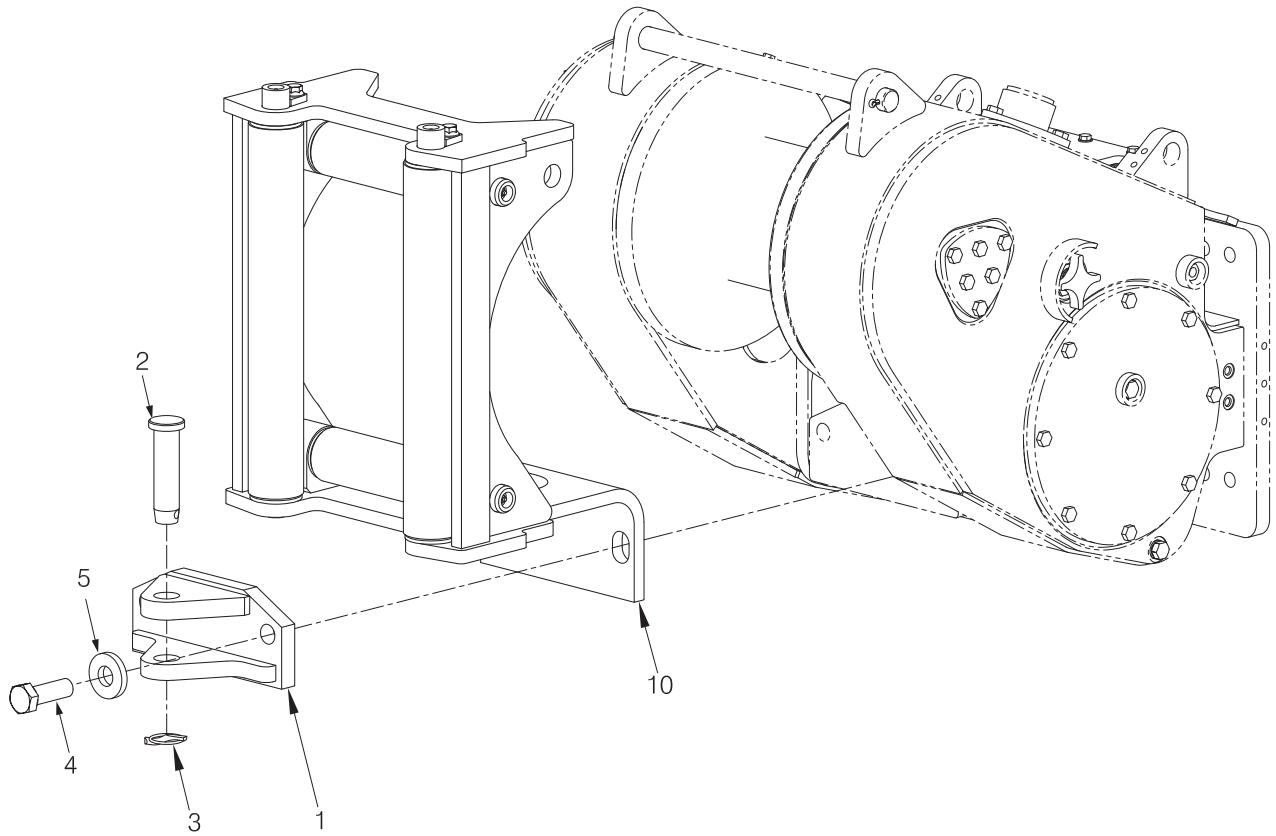
# Fairlead Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty A/B	Description
	<b>2305252W</b>		<b>Assembly, Fairlead</b>				
1	2305251W	1	. Frame	7	2303754W	2	. Shaft
2	398817W	4	. Screw, Flange	8	2303755W	2	. Assembly, Roller
3	16001W	8	. Fitting, Lube		59419W	2	. Bushing
4	344825W	8	. Washer	9	2301708W	2	. Assembly, Roller
5	2303815W	4	. Keeper		59419W	2	. Bushing
6	2305249W	2	. Shaft				



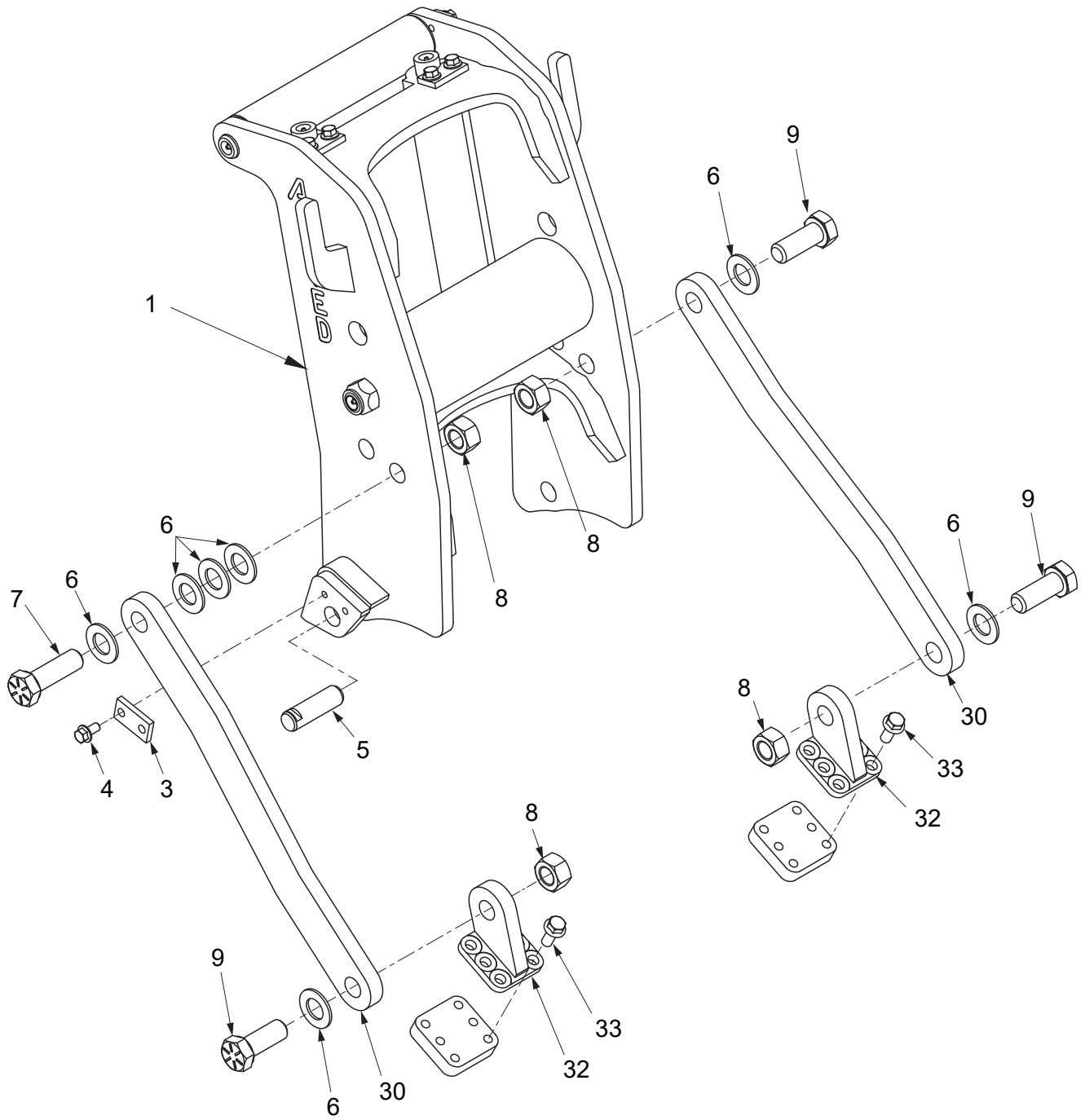
## Fairlead/Drawbar Installation



- A. Fairlead Installation with Drawbar
- B. Fairlead Installation ONLY
- C. Drawbar Installation ONLY

Item	Part No.	Description	Qty	A	B	C	Item	Part No.	Description	Qty	A	B	C
1	2304155W	Drawbar	1	--	1			221694W	Capscrew	2	--	--	
2	2304161W	Pin, Drawbar	1	--	1		5	2305256W	Washer	2	2	--	
3	2303221W	Pin, Retaining	1	--	1			221780W	Washer	--	--	2	
4	221686W	Capscrew	--	2	2		10	2305252W	Assy Fairlead (See 4-6)	1	1	--	

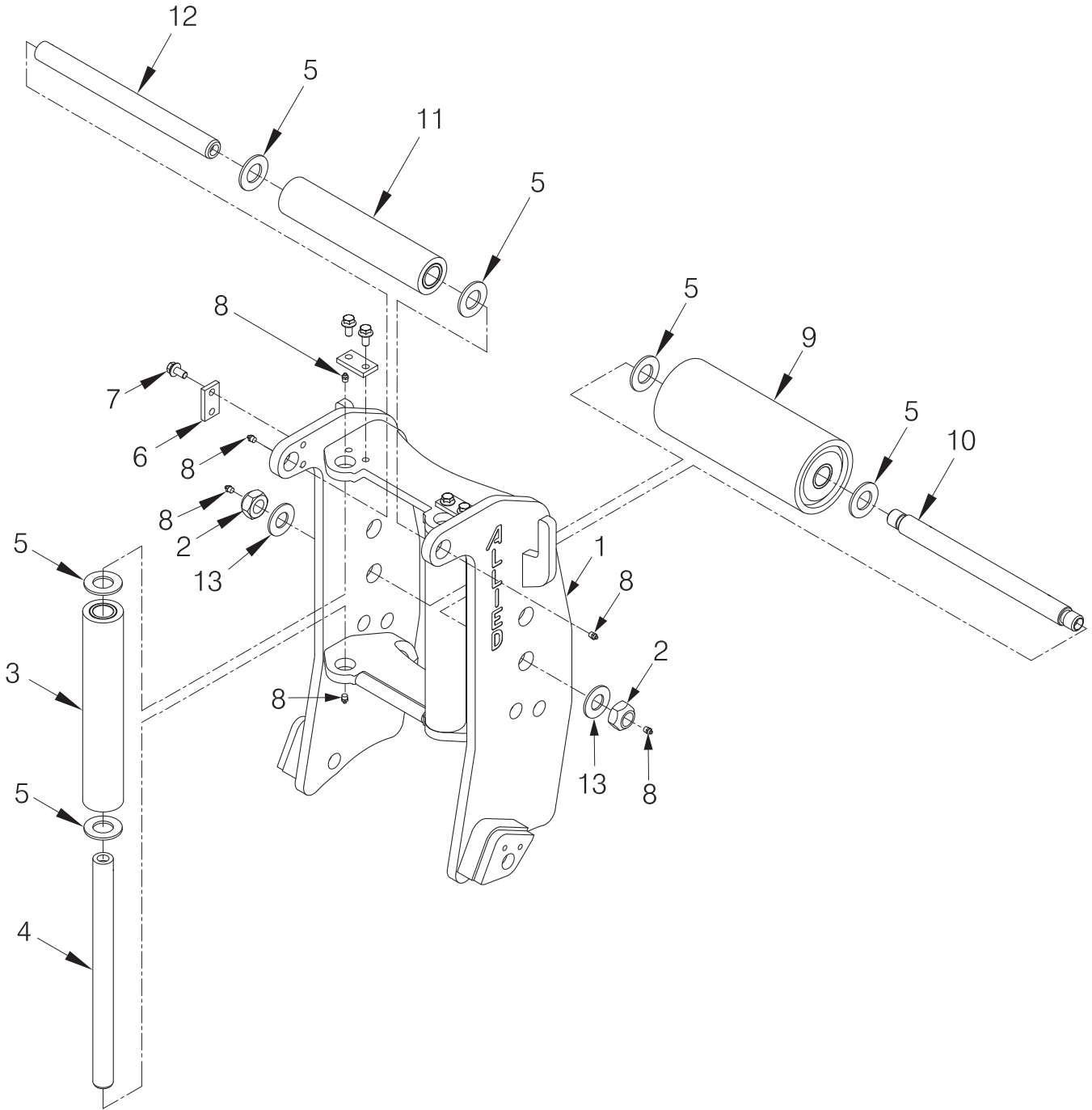
Arch Installation



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2305145W	1	Assy, Arch (See p. 87)	30	2312995	2	Bar, Support, Arch
3	93166W	2	Keeper	32	2312997	2	Ear, Arch
4	398817W	4	Screw, Flange	33	918085W	12	Screw, Flange
5	1314629W	2	Pin				
6	225851	7	Washer				
7	2300478W	1	Capscrew				
8	*a 221372W	4	Locknut				
9	2305268W	3	Capscrew				

\*a Use 318702W Thread Lock

Arch Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2305145W</b>		<b>Assembly, Arch</b>				
1	2305142W	1	. Frame, 4 Roller	10	2300948W	1	. Shaft
2	221724W	2	. Hex Nut	11	344826W	1	. Roller Assembly
3	342448W	2	. Roller Assembly	12	344835W	1	. Shaft
4	342447W	2	. Shaft	13	225851	1	. Washer
5	344825W	8	. Washer				
6	93166W	3	. Keeper				
7	398817W	6	. Screw, Flange				*a Use 318702W Thread Lock
8	16001W	8	. Fitting, Lube				*b Use only if required to protect threads.
9	2300125W	1	. Roller				

## Wire Rope Assemblies

### Wire Rope Drum End



Junior Ferrule

### Wire Rope Loose End Options



Tail Chain & Hook (TC)



Wedge Socket (WS)



Open Spelter Socket (OS)



Loop (LP)

Part Number	Wire Rope Diameter	Wire Rope Type	Loose End Type	Loose End Rating (lbs)	Length (ft)	Weight (lbs)	Drum Fill	Maximum Rated Line Pull (lbs)
WR4-279B	1/2"	EIPS	TC	13,000	279	133	2/3	42,000
WR4-422B					422	199	Full	
WR5-183B	5/8"	EIPS	TC	13,000	183	137	2/3	130,700
WR5-277B					277	205	Full	
WR6-129B	3/4"	EIPS	TC	34,200	129	153	2/3	186,800
WR6-195B					195	222	Full	
WR6-129BLP			LP	55,860	129	140	2/3	
WR6-195BLP					195	205	Full	
YS6-129BWS		EEIPS	WS	51,840	129	153	2/3	205,600
YS6-195BWS					195	205	Full	

## **Section 5**

### **Recommended Service Parts, Intervals and Kits**

The following pages list some of the service parts and kits that are available for your Allied H4A Winch.

Page 83 shows the recommended service intervals and service kits for the H4A winch. Kits are shown on pages 84-87.

Page 88 lists gaskets and seals. Keep these parts in stock at all times for regular maintenance. Order parts from the table based on your winch.

Page 88 and page 89 contain kits for 5,000 hour and 10,000 hour scheduled maintenance. Order these kits in preparation for these intervals. Each kit includes all parts listed in the table. Order parts from the table based on your winch.

Page 89 also contains a list of operator controls components. Order parts or kits as required and as relevant for your installation.

Page 90 contains lists of wire rope assemblies and general spare parts. Order parts as required and as relevant for your installation.

Page 91 contains lists of tool kits and diagnostic tools, which are useful when you install, maintain and service your winches.

**Note: Allied Winch parts manuals are available for no charge download at <http://www.alliedsystems.com/pubs/pubs.htm>.**

## Recommended Winch Service Intervals and Kits

Follow the service schedule recommended here to help keep dozer winch downtime to a minimum, optimize winch operation, and extend the life of your investment. See Table 1 for recommended service intervals, and Table 2 for recommended service kits.

Recommended Winch Service Intervals					
Hours or **	Months **	Filter ***	Winch Gear Oil	Brake & Clutch	Major Overhaul
First 250	1	Change			
Every 500	3	Change			
Every 2,000	12		Change		
Every 5,000				*Inspect	
Every 10,000					*Evaluate
Lube rollers and check oil level and filter light every week.					

\* Evaluate = Service based on average winch use;

If used more than once a day, perform an 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 dozer's hour meter or the length of time the winch is mounted to the dozer, whichever occurs first.

\*\*\* Follow dozer schedule if using dozer filter.

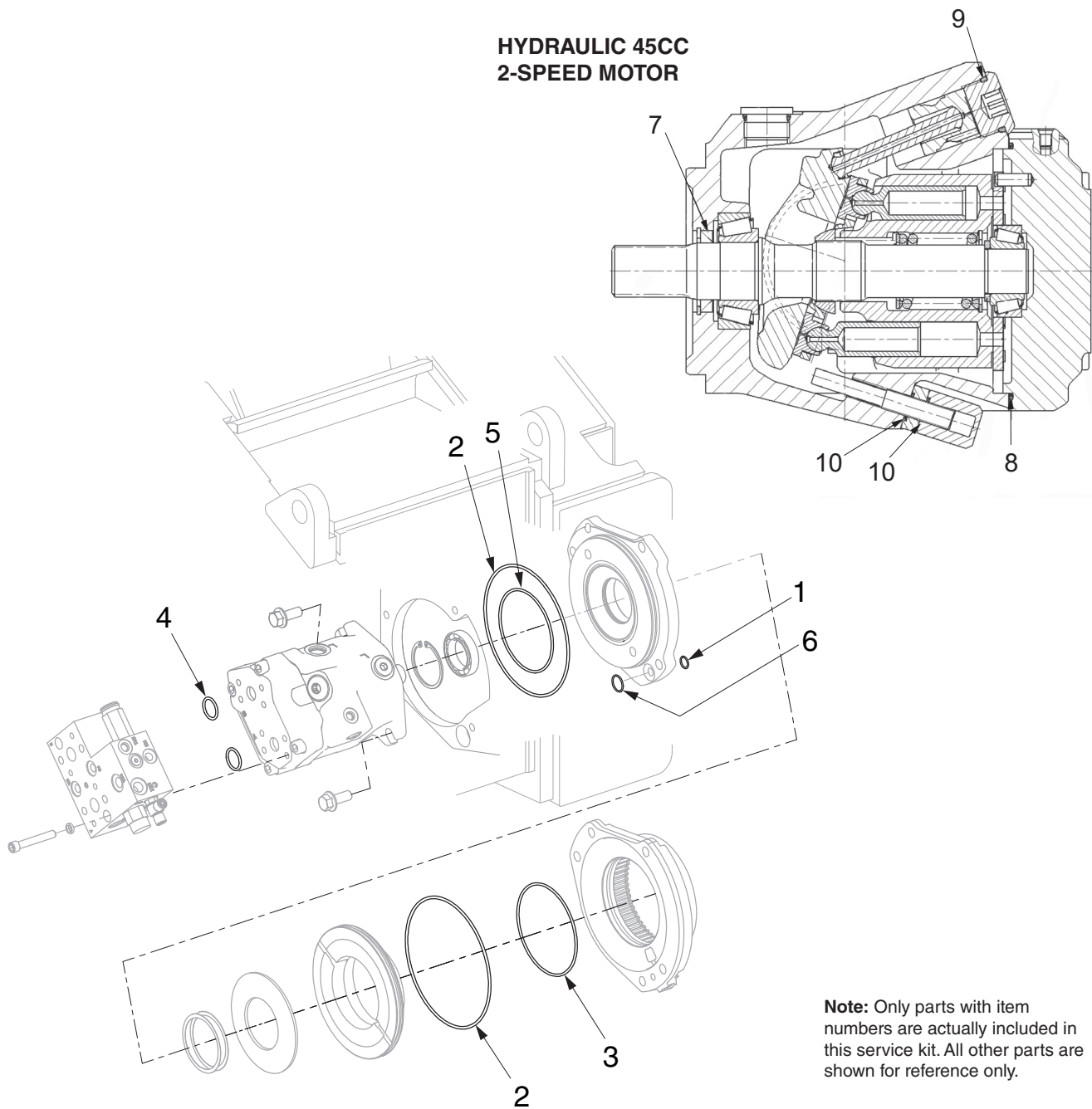
**Table 1 Recommended Winch Service Intervals**

Service Kits for H4A Winches			
Service Description	Kit Description	Winch Serial Number	Kit Part#
Filter change	Filter kit	All	Refer to dozer operator and service manuals
Complete oil change (every 1,000 hours)	N/A	All	Check our website for current operator's and service manuals for appropriate oils
Clutch and brake overhaul (every 5,000 hours)	Motor, reducer & brake assembly rebuild kit	All	2312857
Major overhaul (every 10,000 hours)	Intermediate/drum shaft & brake assembly rebuild kit	All	2311896

**Table 2 Routine Maintenance Kits**

### Motor Shaft Rebuild Kit: 2315351

Standard Winches without Self-Contained Hydraulics (Non-SCH)

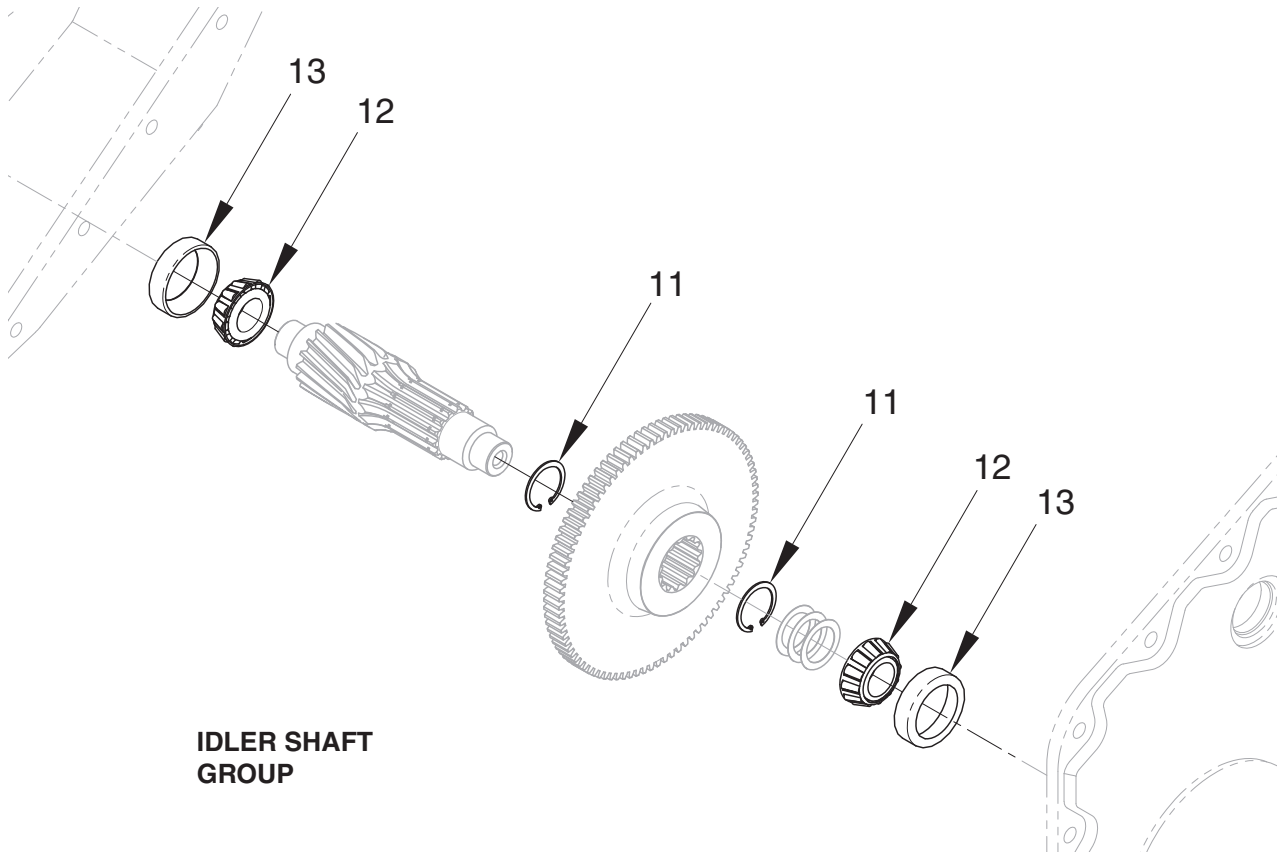


#### MOTOR & BRAKE GROUP

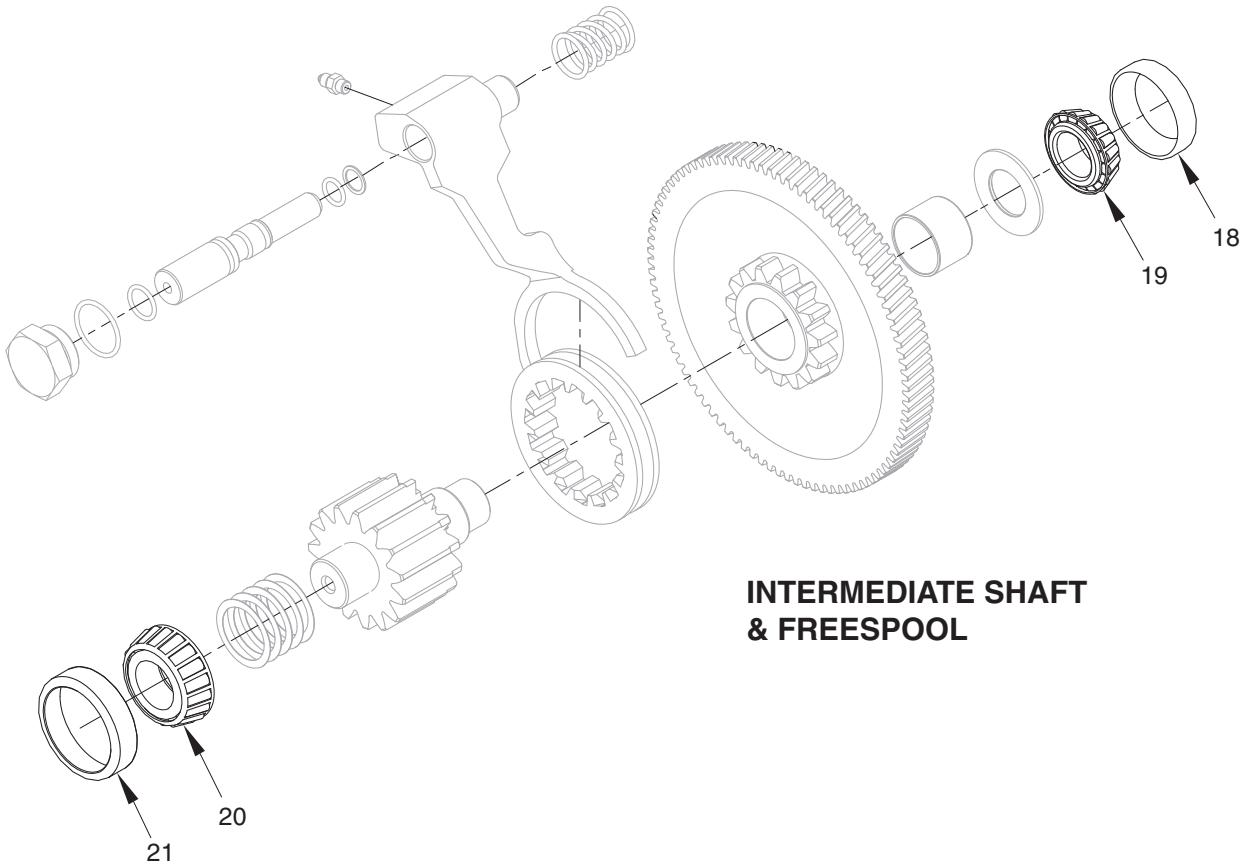
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2315351</b>	<b>1</b>	<b>Rebuild Kit, Motor Shaft</b>				
1	26883	1	. O-Ring	7	2305760W	1	. Seal, Shaft
2	2316507	2	. O-Ring	8	2305761W	1	. O-Ring
3	2316517	1	. O-Ring	9	2305762W	1	. O-Ring
4	2304110W	2	. O-Ring	10	2305763W	2	. O-Ring
5	15888W	1	. O-Ring				
6	17064	1	. O-Ring				

**Motor, Idler, Intermediate & Drum Shaft Rebuild Kit: 2315288**

Page 1 of 3



**IDLER SHAFT GROUP**



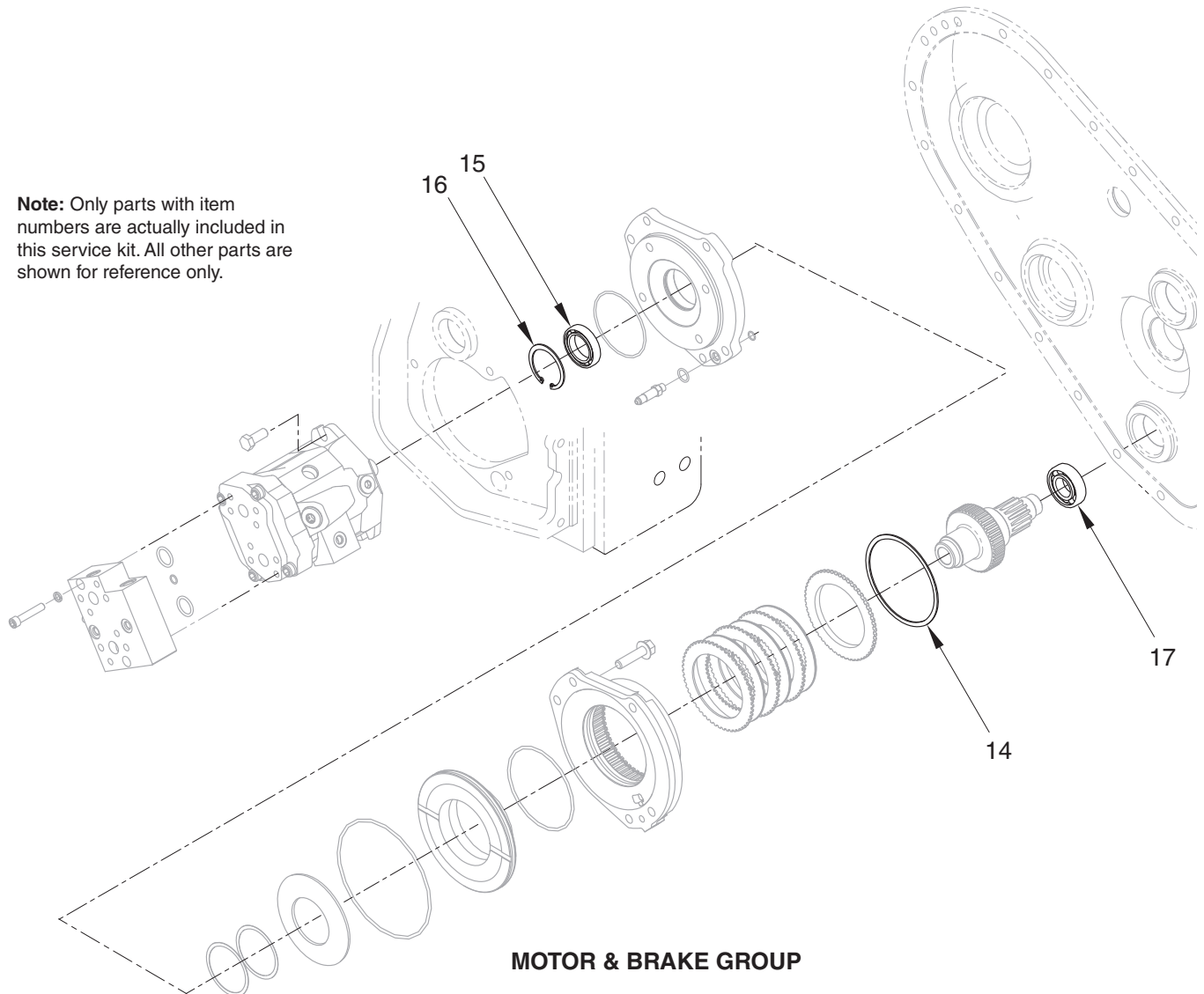
**INTERMEDIATE SHAFT & FREESPOOL**



**Motor, Idler, Intermediate & Drum Shaft Rebuild Kit: 2315288**

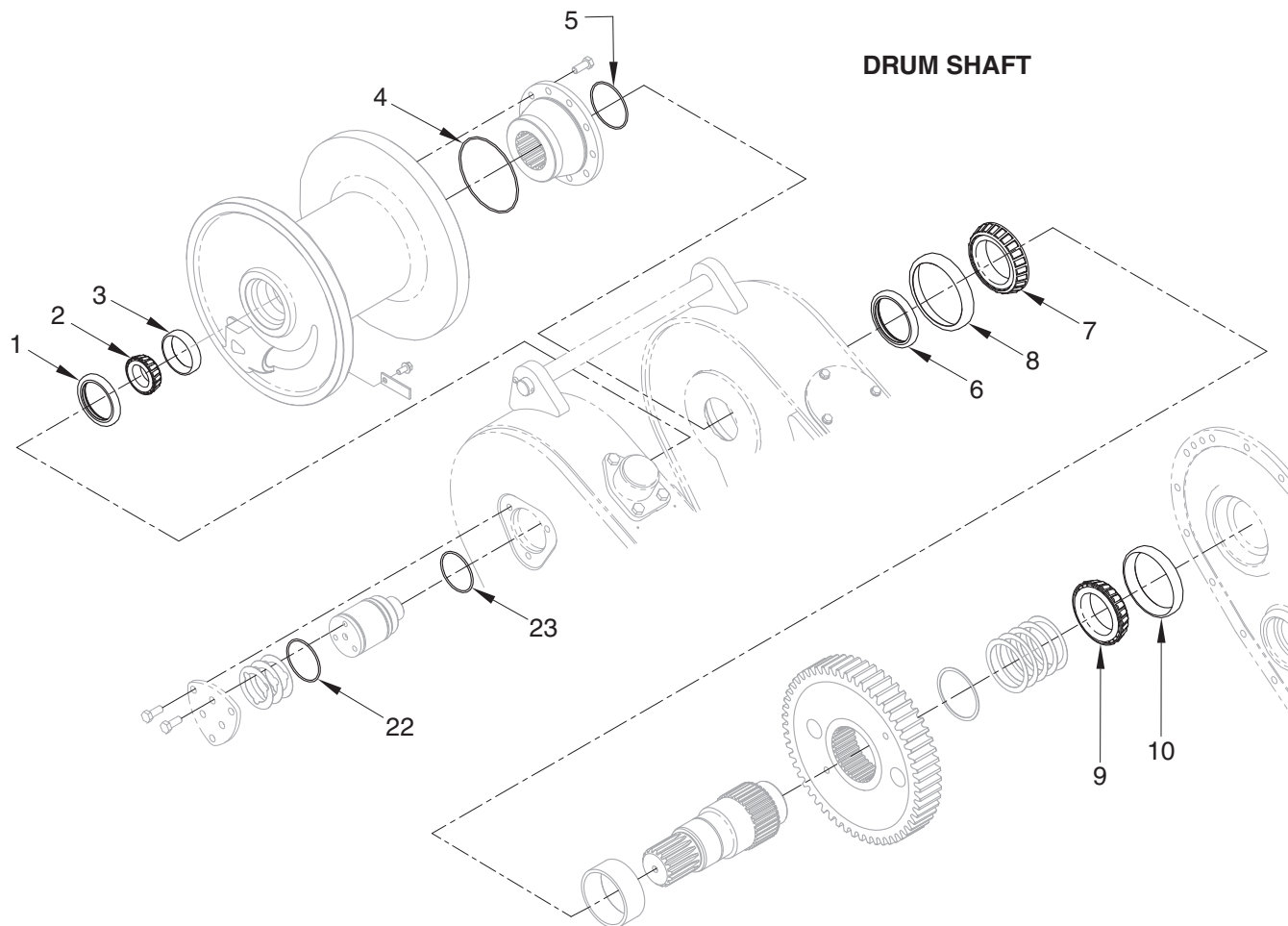
Page 2 of 3

**Note:** Only parts with item numbers are actually included in this service kit. All other parts are shown for reference only.



**Motor, Idler, Intermediate & Drum Shaft Rebuild Kit: 2315288**

Page 3 of 3



**Note:** Only parts with item numbers are actually included in this service kit. All other parts are shown for reference only.

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	<b>2315288</b>	<b>1</b>	<b>Motor, Idler, Intermediate &amp; Drum Shaft Rebuild Kit</b>				
1	87355W	1	. Seal, Oil	13	2304180W	2	. Cup, Roller Bearing
2	2303853W	1	. Bearing Cone	14	334475W	1	. Ring, Snap, Int
3	2303854W	1	. Bearing Cup	15	2300831W	1	. Bearing, Ball
4	15895W	1	. O-Ring	16	12921W	1	. Snap Ring
5	46629W	1	. O-Ring	17	41206W	1	. Bearing, Ball
6	R2109170	1	. Seal	18	R1314774	1	. Bearing Cup
7	2304126W	1	. Bearing Cone	19	R1314773	1	. Bearing Cone
8	2304127W	1	. Bearing, Cup	20	225262W	1	. Bearing Cone
9	1314483W	1	. Bearing Cone	21	230351W	1	. Bearing Cup
10	30190W	1	. Bearing Cup	22	15881W	1	. O-Ring
11	12916W	2	. Snap Ring	23	203525	1	. O-Ring
12	2304179W	2	. Cone, Roller Bearing				

Gaskets & Seals		Order as Required		
Allied P/N	Description	Quantity on Winch	See Parts Manual Page	Order Quantity
2315377	Gasket, Breather Cover	1	Frames and Covers	
209744	O-Ring, Plug	2	Frames and Covers	
16984W	O-Ring, Plug	1	Frames and Covers	
118358W	O-Ring (C17)	1	Through Drive Charge Pump (High Performance Winches Only) D3G (C17), D4/5G (C18), D3/4/5K (C19), D5K/D5K2 (C20), D5K2 with Fireplow (C201)	
39742W	O-Ring (C17)	1		
2306270W	O-Ring (C18)	2		
2306277W	Seal Ring (C18)	6		
2306278W	O-Ring (C18)	1		
2306279W	O-Ring (C18)	1		
2306280W	O-Ring (C18)	1		
2311194	O-Ring (C20, C201)	2		
2311195	O-Ring (C20, C201)	1		
2311196	O-Ring (C20, C201)	1		

Motor Shaft Rebuild Kit, P/N: 2315351				
Applies to: All				
Service Interval: Every 5,000 Hours				
Allied P/N	Description	Quantity in Kit	See Parts Manual Page	Order Quantity
<b>2315351</b>	<b>Rebuild Kit, Motor Shaft</b>			
26883	. O-Ring	1	Motor & Brake Group (Non-SCH)	
2316507	. O-Ring	2		
2316517	. O-Ring	1		
2304110W	. O-Ring	2		
15888W	. O-Ring	1		
17064	. O-ring	1		
2305760W	. Seal, Shaft	1	Hydraulic 45CC 2 Speed Motor	
2305761W	. O-Ring	1		
2305762W	. O-Ring	1		
2305763W	. O-Ring	2		

**Motor, Idler, Intermediate and Drum Shaft Assembly Rebuild Kit, P/N: 2315288****Service Interval: Every 10,000 hours**

Allied P/N	Description	Quantity in Kit	See Parts Manual Page	Order Qty
<b>2315288</b>	<b>Rebuild Kit, Motor, Idler, Intermediate and Drum Shaft</b>			
12916W	. Ring, Snap	2	Idler Shaft Group	
2304179W	. Cone, Bearing	2		
2304180W	. Cup, Bearing	2		
R1314774	. Cup, Bearing	1	Intermediate Shaft & Freespool	
R1314773	. Cone, Bearing	1		
225262W	. Cone, Bearing	1		
230351W	. Cup, Bearing	1		
334475W	. Ring, Snap	1	Motor & Brake Group	
2300831W	. Bearing, Ball	1		
12921W	. Ring, Snap	1		
41206W	. Bearing, Ball	1		
87355W	. Seal, Oil	1	Drum Shaft Group	
2303853W	. Cone, Bearing	1		
2303854W	. Cup, Bearing	1		
15895W	. O-ring	1		
46629W	. O-ring	1		
R2109170	. Seal, Oil	1		
2304126W	. Cone, Bearing	1		
2304127W	. Cup, Bearing	1		
1314483W	. Cone, Bearing	1		
30190W	. Cup, Bearing	1		
15881W	. O-ing	1		
203525	. O-ring	1		

**Operator Control Components****Order as Required**

Allied P/N	Description	Qty on Winch	Relevant for Installation	Order Qty
2310017	Assembly, 12V Switch	1	D3/4/5G (H4AH*Y**C17), D4/5G (H4AH*Y**C18), D3/4K (H4AH*Y**C19), D5K (H4AH*Y**C20), D3/4K (H4AT*Y**C19), D5K (H4AT*Y**C20)	
2311352	Assembly, Oil Filter Indicator	1	Caterpillar D3/4K/K2 (H4AH*Y**C19), D5K/K2 (H4AH*Y**C20), D5K2 With Fireplow (H4AH*Y**C201)	


Wire Rope Assemblies		Order as Required		
Allied P/N	Description	Length	Will Fill Drum To:	Order Qty
WR4-279B	Wire Rope Assembly, 1/2"	279 (85)	2/3 Capacity (Recommended)	
WR4-422B	Wire Rope Assembly, 1/2"	422 (129)	Full Capacity	
WR5-183B	Wire Rope Assembly, 5/8"	183 (56)	2/3 Capacity (Recommended)	
WR5-277B	Wire Rope Assembly, 5/8"	277 (84)	Full Capacity	
WR6-129B	Wire Rope Assembly, 3/4"	129 (39)	2/3 Capacity (Recommended)	
WR6-195B	Wire Rope Assembly, 3/4"	195 (59)	Full Capacity	
WR6-129BLP	Wire Rope Assembly w/Loop, 3/4"	129 (39)	2/3 Capacity (Recommended)	
WR6-195BLP	Wire Rope Assembly w/Loop, 3/4"	195 (59)	Full Capacity	
YS6-129BWS	Wire Rope Assembly, 3/4"	129 (39)	2/3 Capacity (Recommended)	
YS6-195BWS	Wire Rope Assembly, 3/4"	195 (59)	Full Capacity	

LP = Loop  
WS = Wedge socket

Spare Parts		Order as Required		
Allied P/N	Description	Qty on Winch	See Parts Manual Page	Order Qty
2303788W	Motor, Hydraulic	1	Motor & Brake Group	
2304873W	Plate, Friction	3		
21420W	Plug, Breather	1	Frame/Covers	
2304161W	Pin, Drawbar	1	Fairlead/Drawbar Installation	
2303221W	Pin, Retaining	1		
59419W	Bushing	8		
134803W	Capscrew	1	Drum Shaft Group	
1314503W	Keeper, Ferrule	1		

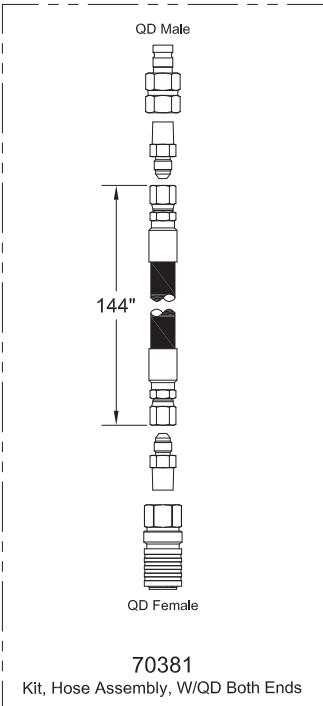
Tool Kits		
Order these Tool Kits as required for installation, maintenance and service of your winch(es).		
Allied P/N	Description	Order Quantity
588466	Socket Set, 3/8DR 3/8" to 7/8" STD/Deep, 22 PC	
588467	Socket Set, 1/2DR 3/8" to 1-1/4" STD/Deep, 30 PC	
588468	Socket Set, 3/4DR 7/8" to 2-3/8" STD, 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	

Diagnostic Tools		Order as Required
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

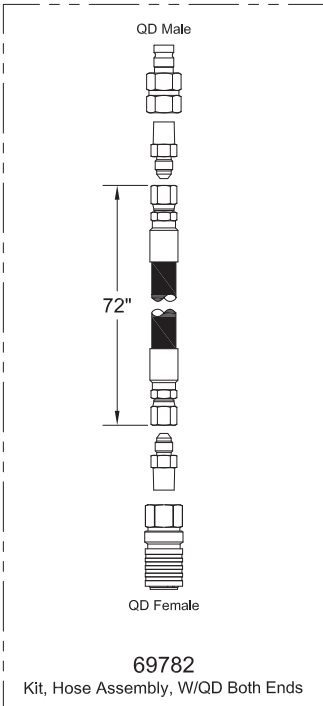


QD Male

144"

QD Female

**70381**  
Kit, Hose Assembly, W/QD Both Ends

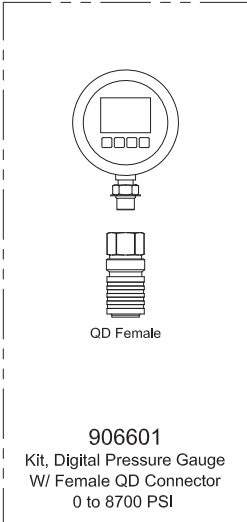


QD Male

72"

QD Female

**69782**  
Kit, Hose Assembly, W/QD Both Ends



QD Female

**906601**  
Kit, Digital Pressure Gauge  
W/ Female QD Connector  
0 to 8700 PSI

**Numerical Index**  
**(to come when parts sections are approved)**

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17064	24	3.7	231441	68	8	242252	50	59
17064	27	3.7	231452	37	23.19	242265	75	9
17064	86	6	231452	47	30	242629	57	12
20550	64	7	231452	50	28	248918	37	23.2
26883	24	2.14	231452	62	10	249537	35	26.29
26883	24	2.14	231466	38	1.8	252566	37	
26883	27	2.14	231821	35	26.18	252566	66	
26883	29	2.14	231821	37	24.8	252566	67	
26883	86	1	231955	57	11	258879	43	2.12
74618	38	1.17	232382	35		258879	55	2.7
203438	50		232515	67	7	589423	35	31.5
203438	58		232984	35	26.4	589423	58	67
203525	30	11	232984	37	23.24	2310010	35	
203525	89	23	232984	38	1.4	2310011	35	26.16
209140	15	37	232984	62	18	2310017	51	3
209579	43	1.25	232984	68	12	2310017	57	4
209579	50	50	234271	16	12	2310017	61	3
209579	51	27	234271	17	12	2310017	69	1
209579	55	1.25	234271	19	120	2310017	70	10
209579	58	22	234505	69	2	2310181	37	24.6
209588	58	64	234655	67		2310190	65	5
210709	37	23.1	235314	50	30	2310192	65	2
211564	35	26.37	235314	71	5	2310814	43	1.37
211564	37	23.35	235314	74	2	2310844	43	2.8
218760	16	3	235314	75	5	2310844	76	
218760	17	3	235314	76	5	2310854	35	26.7
218760	19	25	235387	38	1.2	2310872	43	2.1
218760	47	3	235387	58	48	2310872	58	35
225851	81	6	235387	62	7	2310888	18	1.2
225851	82	13	235387	65	9	2310888	20	2
227025	43	1.13	235387	66	6	2310888	21	15
227025	55	1.13	235387	68	2	2310888	22	2
227025	57	19	235387	72	5	2310888	55	1.2
228773	38	1.7	236855	35	26.3	2310888	57	2
228773	62	19	236855	37	23.17	2310889	55	2.1
229383	58	47	236972	50		2310890	68	1
229383	70	1	236972	58		2310918	74	5
229447	50	39	237983	35	26.14	2310918	76	7
229447	58	18	237983	47	31	2310929	58	46
230387	77	11	238671	32	29	2310929	70	9
231439	35	26.25	242101	67		2310929	77	
231439	37	23.13	242111	37	23.28	2310943	43	2.3
231439	38	1.12	242120	43	1.33	2310954	43	2.9
231439	70	6	242120	55	1.33	2310954	50	48
231441	50	27	242120	61	180	2310954	51	22



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2310966	24	4.1	2311479	55	2.5	2311768	57	3
2310966	24	4.1	2311479	75		2311773	55	2.3
2310966	65		2311483	55	2.6	2311773	62	
2310978	73	6	2311485	55	2.9	2311837	16	1
2311019	71	6	2311488	55	2.8	2311837	17	1
2311019	75	6	2311491	55	3.5	2311837	19	23
2311019	76	9	2311492	47	39	2311838	16	2
2311020	76	6	2311492	55	3.4	2311838	17	2
2311021	43	1.23	2311492	70	14	2311838	19	24
2311021	55	1.23	2311493	55	3.9	2311840	47	29
2311024	43	3.4	2311500	37	23.25	2311841	47	14
2311024	55	3.1	2311500	38	1.19	2311842	50	29
2311027	43	3.9	2311569	47	38	2311842	62	21
2311028	43	2.5	2311590	66	1	2311842	68	18
2311172	65	1	2311591	37	23.1	2311843	47	33
2311198	57	15	2311591	66		2311843	71	
2311198	70	13	2311592	37	23.36	2311845	47	23
2311199	51	16	2311592	66	9	2311847	47	40
2311199	57	16	2311592	67	4	2311889	13	22
2311200	57	17	2311697	55	2.11	2311889	15	22
2311201	57	18	2311698	55	2.4	2311899	35	26.23
2311212	37	24.4	2311699	43	1.35	2312119	58	65
2311220	37	24.2	2311699	55	1.35	2312177	43	3.1
2311220	67	3	2311701	43	1.34	2312177	50	7
2311221	37	24.3	2311701	55	1.34	2312177	51	8
2311221	67	2	2311737	35	26.24	2312177	55	3.11
2311228	37	24.9	2311739	35	26.1	2312177	55	3.18
2311229	37	24.1	2311744	35	26.3	2312177	58	56
2311233	37	23.3	2311744	37	23.31	2312196	65	7
2311234	35	26.28	2311748	35	26.32	2312328	43	3.8
2311234	37	23.32	2311751	70	8	2312328	50	62
2311235	35	26.31	2311752	47	4	2312606	77	10
2311235	37	23.27	2311752	70		2312609	77	12
2311304	31		2311753	43	2.11	2312610	77	13
2311306	31		2311753	58	44	2312611	77	1
2311310	43	1.18	2311753	68		2312612	77	2
2311310	55	1.18	2311756	18	1.1	2312613	77	3
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2311356	35	26.26	2311756	57	1	2312997	81	32
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