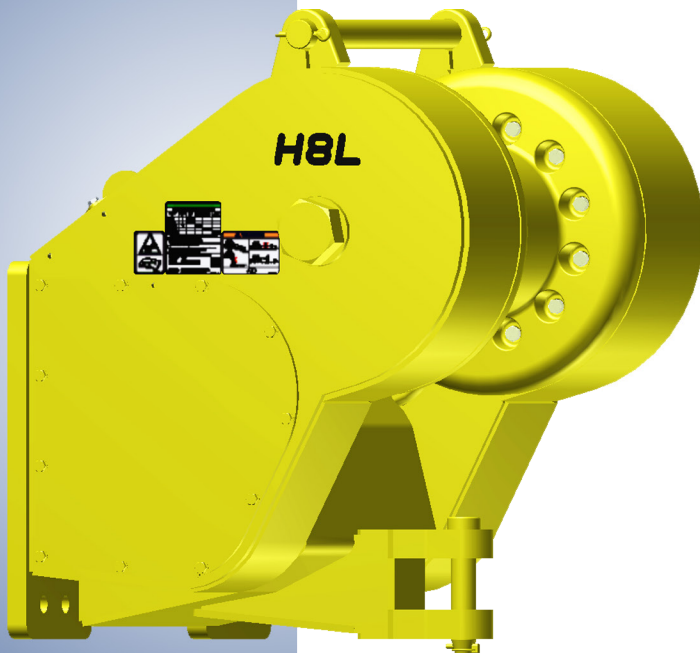




# Parts Manual



# Allied H8L

## Hydraulic Winch

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

# CUSTOMER EDITION

A PRODUCT OF

**Allied Systems**  
COMPANY

SHERWOOD, OREGON USA

P/N 599044W

Printed in USA

10/17/2017

# Safety Precautions

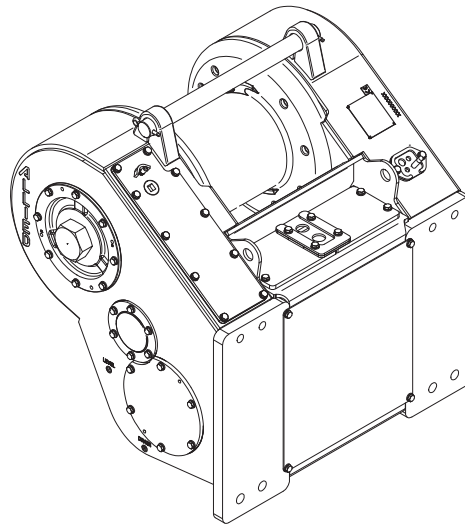
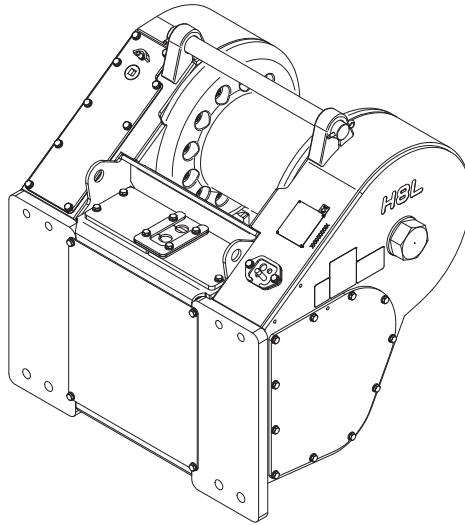
**Read, understand and observe the Safety Summary  
on pages 0-3 through 0-5  
to prevent injury to personnel and damage to equipment.**

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

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

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

Index



Ref	Item	Page
1	Frame/Covers/Mounting Parts/Decals. . . . .	1-1
2	Gear/Shaft Train . . . . .	2-1
3	Hydraulics/Controls . . . . .	3-1
4	Optional Equipment. . . . .	4-1
5	Recommended Service Kits . . . . .	5-1
6	Suggested Spares Guide . . . . .	6-1
7	Numerical Index . . . . .	7-1



---

**Index - Master**

<b>Description</b>	<b>Page No.</b>
Brake, Dry Disc .....	2-8
Clutch Assembly .....	2-12
Fairlead .....	4-2
Frame & Covers .....	1-2
Control Lever Assembly .....	3-22
Electrical & Control Lever Installation .....	3-12
Hydraulic Group, External .....	3-8
Hydraulic Group, Internal .....	3-2
Manifold Assembly, Control .....	3-15
Manifold Assembly, Counterbalance Relief .....	3-13
Manifold Assembly, Directional .....	3-18
Mounting Parts .....	1-6
Nameplate & Decals .....	1-10
Numerical Index .....	7-1
Oil Capacity .....	0-9
Oil Specifications .....	0-9
Recommended Service Kits .....	5-1
Suggested Spares Guide .....	6-1
Shaft, Drum .....	2-11
Shaft, Intermediate Gear .....	2-10
Shaft Assembly, Motor .....	2-4
Shaft Group, Motor .....	2-2
Wire Rope Assemblies .....	4-3

## 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.

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

### Safety Regulations

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

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

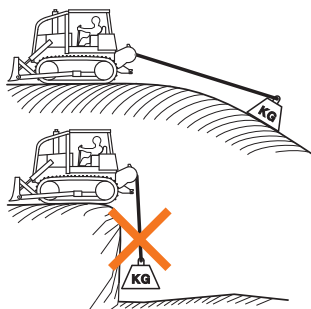
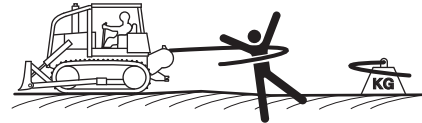
### Operation, Inspection, and Maintenance Warnings

### WARNING

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

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

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

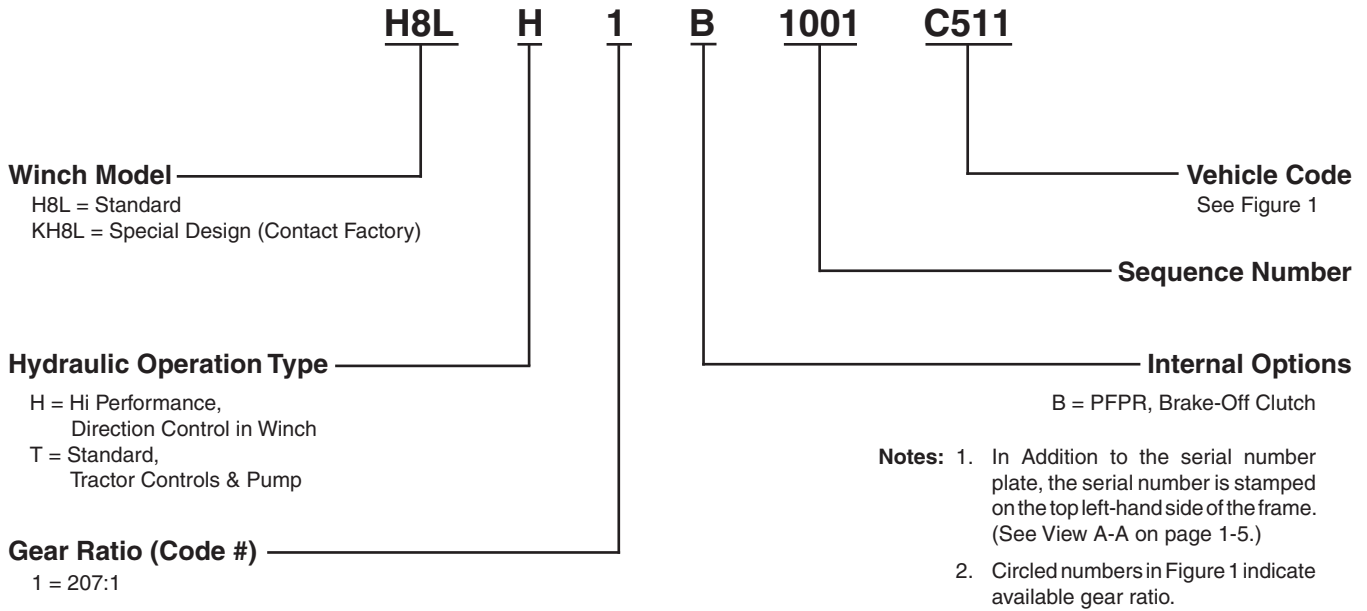


- Do not terminate wire rope to tail chain by the use of a knot.
- Do not handle wire rope if the hook end is not free. A load could break away, suddenly tensioning the wire rope, resulting in serious injury or death.
- Stay clear of wire rope entry areas (fairlead or arch rollers, winch drum etc).
-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

- Do not handle wire rope with bare hands. Wear leather gloves at all times.
- Align the tractor with the load to prevent side loading the winch, and to maintain even spooling of the wire rope.
- If applying tension to the wire rope manually during spooling:
  - » ensure that the operator is winching in slowly,
  - » keep your hands and clothing well clear of any rollers or the winch drum,
  - » do not maintain tension by letting the wire rope to slip through your hands,
  - » use a hand-over-hand technique to maintain tension.
- Be aware of the ground conditions, and make sure the ground and tractor are stable enough to pull the intended load.
- Do not attempt to pull loads in excess of the rated capacity of the winch.
- Keep yourself informed of any applicable codes, regulations and standards for the job.
- Your winch may have temperature shut-off system for protection of tractor and winch. Manual override of high temperature shut-off will cause damage to tractor and winch.
- This winch is neither intended, designed, nor rated for any application involved in the lifting or moving of personnel.
- Use only the lubricants listed in the Recommended Oil List. See page 0-9.
- Do not weld on any part of the winch. Contact Allied Systems if weld repairs are needed.
- The hydraulic system must be kept clean and free of contamination at all times.
- Be aware of the hazards of pressurized hydraulics:
  - » Wear personal protective equipment, such as gloves and safety glasses, whenever servicing or checking a hydraulic system.
  - » Assume that all hydraulic hoses and components are pressurized. Relieve all hydraulic pressure before disconnecting any hydraulic line.
  - » Never try to stop or check for a hydraulic leak with any part of your body; use a piece of cardboard to check for hydraulic leaks.
  - » Small hydraulic hose leaks are extremely dangerous, and can inject hydraulic oil under the skin, even through gloves.
  - » Infection and gangrene are possible when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.



**Identification - Unit**  
Allied Winch S/N Nameplate Data For Tractor Mountings



Tractor Make Model and Starting Tractor Serial Number Where Applicable

<b>C O D E</b>	<b>A</b> New Holland & Fiat	<b>C</b> Caterpillar	<b>E</b> John Deere	<b>H</b> Dressta	<b>K</b> Komatsu	<b>R</b> Case
<b>50</b>					D85X-15 ①	
<b>511</b>		D7E ①				

**Figure 1 - Tractor Identification Codes and Available Gear Ratios for H8L Winch**



How to use the Illustrated Parts manual

5-2

**Numerical Index**

Part No.	Page	Item	Description	Part No.
108877W	2-8	23	O-Ring	1305093W
109453W	1-9	9	O-Ring	1306001W
109453W	2-2	10	O-Ring	1306002W
110322W	3-12	9	Clamp	1306003W
110322W	3-27	11	Clamp	1306003W
110931W	2-5	23	Shim, .005	1308400W
110932W	2-5	23	Shim, .020	1308401W
110933W	2-5	23	Clamp, Strap	1308402W
114312W	3-10	24	O-Ring	1308403W
118361W	3-7	13	O-Ring	1308406W
118361W	3-8	16	O-Ring	1308436W
118361W	3-9	21	O-Ring	1308437W
118365W	3-9	26	O-Ring	1308438W
119491W	2-6	17	Seal, Oil	1308439W
12327W	2-5	3	Capcrew	1308440W
12447W	2-11	9	Bearing	1308441W
125399W	2-2	8	Clamp	1308442W
127045W	3-3	4	Clamp	1308443W
127045W	3-5	14	Snap-Ring	1311010W
127045W	2-10	3	Snap-Ring	1311011W

0-2

**Index-Master**

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

2-2

**Shaft-PTO**

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

Tractor Model	Shaft-PTO (Item 3)		Bearing Carrier (Item 4)	Pin (Item 5)	Lo Pin (Item 6)
	Gear Ratio	Part No.			
Caterpillar D7 DD	49.8:1	132909W	98362W	19929W	96
Caterpillar D7 FS	25977W	132909W	98362W	19929W	
Caterpillar 572	25977W	129209W	98362W	9583W	
Flat-Allis 16B	25373W		216222W	19929W	
Flat-Allis 20		132909W	216222W	9583W	
Dresser TD-20E	25876W		98362W	19929W	
Komatsu D65A-12E-16	219032W		98362W	213139W	
Deere D65C-16	258954W	253030W	98362W		
John Deere D700A					

0-1

**Index-Illustrated**

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

6  
5  
14  
10  
4  
1  
7  
3  
12

2  
3  
4  
5  
6  
7  
8  
9  
10

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

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

F77

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

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

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

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

**When the part number is known:**

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

**General:**

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

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

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

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

Serial numbers are shown to allow for the most current parts information to be incorporated into the parts manual. See page 0-3 for serial number information.

**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 USA

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

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

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## Oil Specifications

### Oil Selection

The main consideration while selecting hydraulic fluid is the estimated oil temperature extremes that will be experienced during service so the most suitable temperature-viscosity characteristics are obtained.

VISCOSITY GRADE		OIL OPERATING TEMPERATURE RANGE		TYPICAL AMBIENT TEMPERATURE RANGE	
ISO	SAE	°F	°C	°F	°C
VG 22	10W	-5 to 140	-20 to 60	-5 to 40	-20 to 4
VG 32	15W	10 to 160	-12 to 71	10 to 55	-12 to 13
VG 46	20	20 to 180	-7 to 82	20 to 70	-7 to 21
VG 68	20	30 to 200	-1 to 93	30 to 90	-1 to 32
VG 100	30	40 to 220	4 to 104	40 to 110	4 to 43

Figure 2 - Oil Selection Chart

Factory fill is TO-4, which has an ISO Viscosity Grade 46 to 68.

**Note: Some hydraulic system oils are not recommended for use inside the winch case.**

The hydraulic circuit and winch gear housing have different fluids.

### Recommended Oil List

	HYDRAULIC SYSTEM (MOTOR & CONTROLS)	WINCH CASE (GEAR TRAIN)
<b>Caterpillar</b>	Use Tractor Fluid	TO-4
<b>Chevron</b>	Use Tractor Fluid	Drive Train Fluids HD
<b>Exxon-Mobil</b>	Use Tractor Fluid	Mobil Trans HD Series

Figure 3 - Recommended Oil List

### Oil Capacity (Gear Cavity)

The oil capacity for H8L winch is 4 gallons (15 liters).

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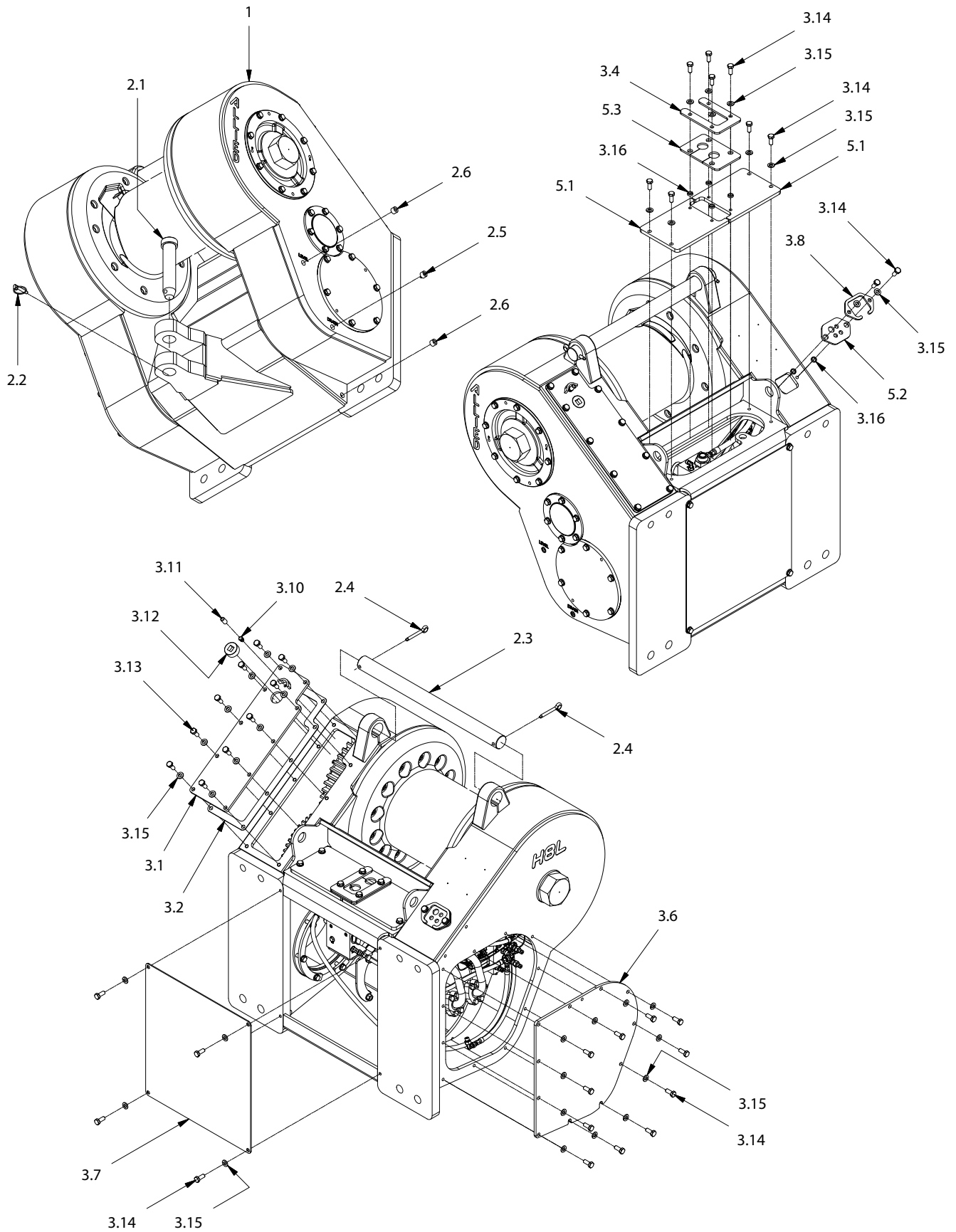
## Frame/Covers/Mounting Parts/Decals

Frame & Covers ..... 1-2 thru 1-5  
Mounting Parts ..... 1-6 thru 1-9  
Nameplate & Decals ..... 1-10

# Frame & Covers

Caterpillar D7E (C511)

Page 1 of 2



**Frame & Covers**

Caterpillar D7E (C511)

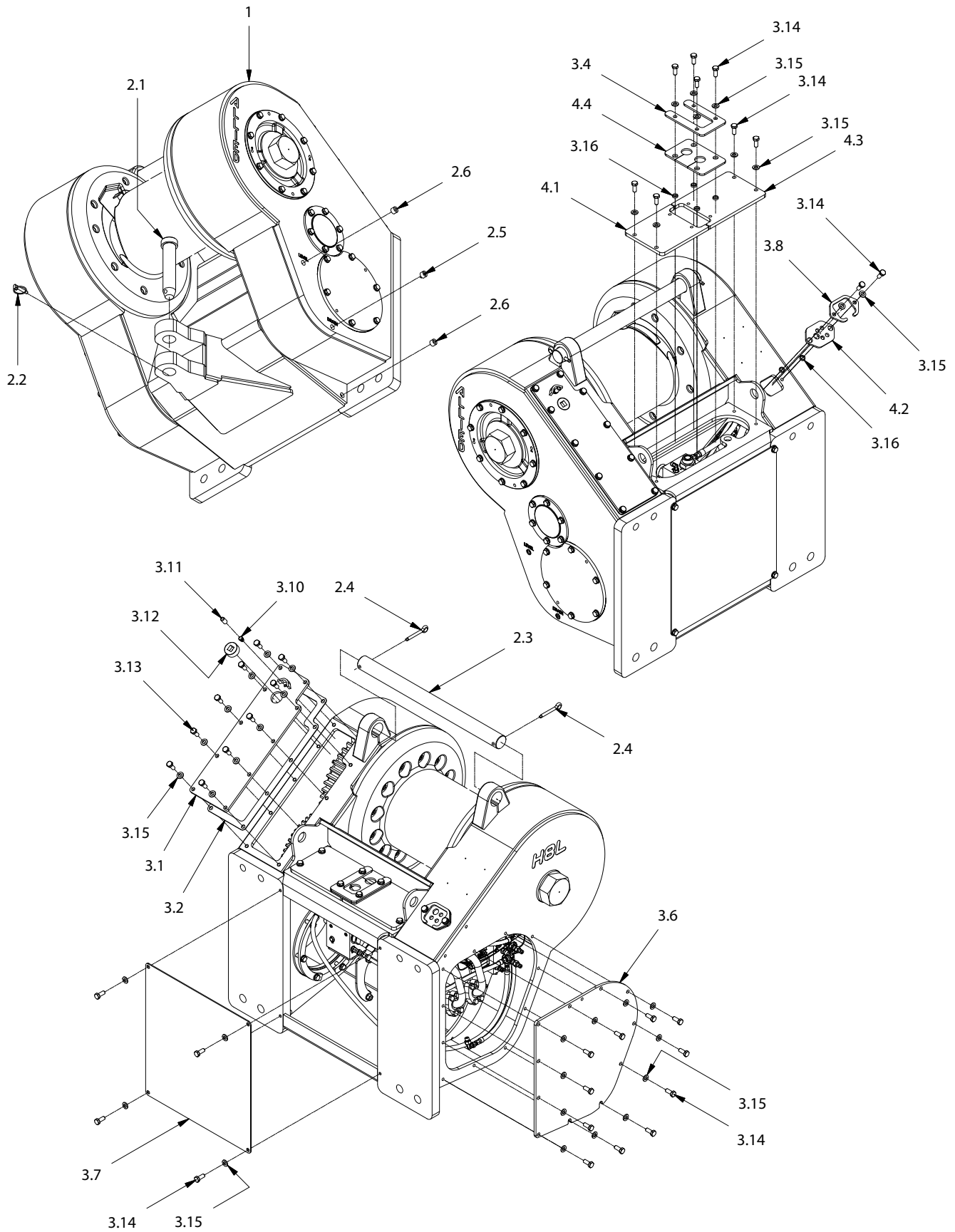
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	-----	Frame, H8L	1	3.7	2312538	Cover, Front	1
2.1	95959W	Pin, Drawbar	1	3.8	2312117	Clamp, Top LH	1
2.2	2303221W	Pin, Retaining	1	3.10	21420W	Plug, Breather	1
2.3	2312494	Rod, Tie	1	3.11	2300962W	Cap, Breather	1
2.4	15272W	Pin	2	3.12	15319W	Fitting	1
2.5	15290W	Fitting	1	3.13	2312486	Capscrew	10
2.6	15315W	Fitting	2	3.14	293645W	Capscrew	25
3.1	2312531	Cover, Top RH	1	3.15	296422W	Washer	35
3.2	2312533	Gasket, Top RH	1	3.16	2312119	Spacer	6
3.4	2312535	Clamp, Top	1	5.1	2312534	Cover, Top	2
3.6	2312537	Cover, LH	1	5.2	2312574	Seal, Top LH	1
				5.3	2314105	Seal, Top	1

# Frame & Covers

Komatsu D85X-15 (K50)

Page 1 of 2





**Frame & Covers**

Komatsu D85X-15 (K50)

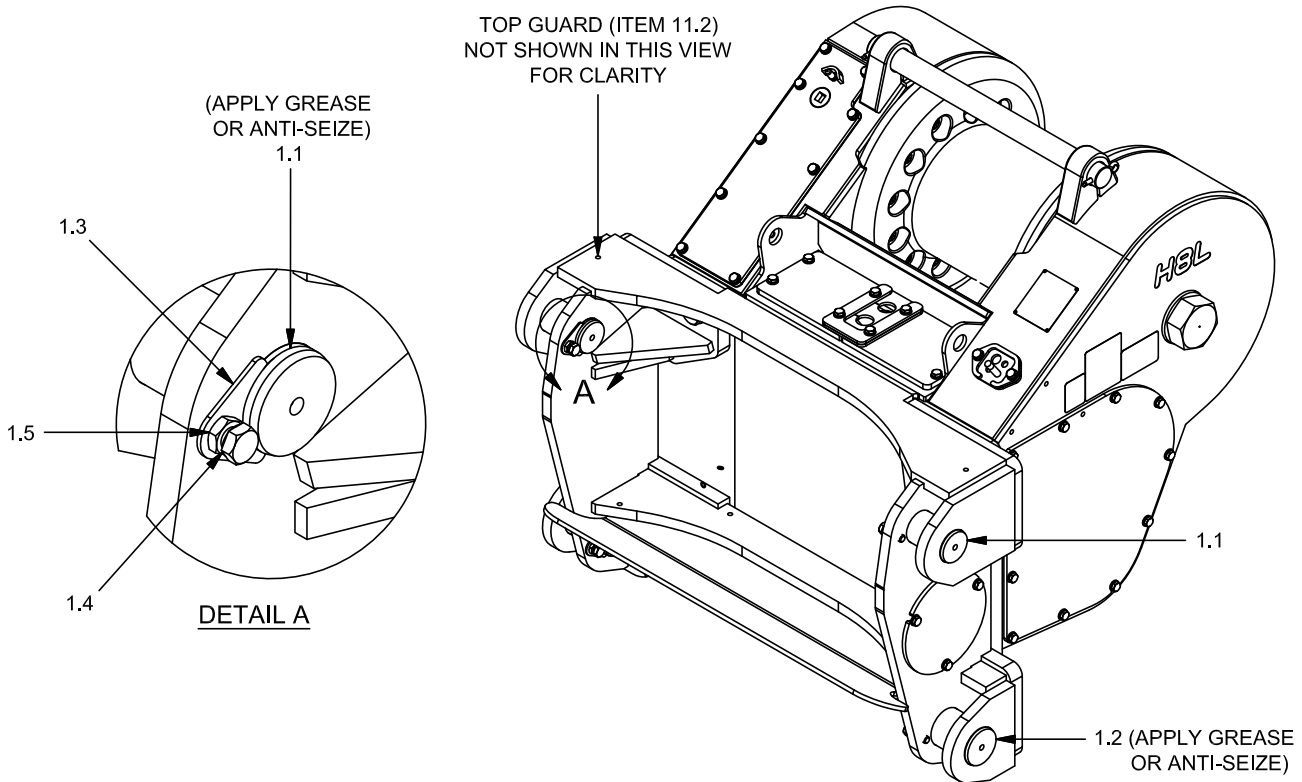
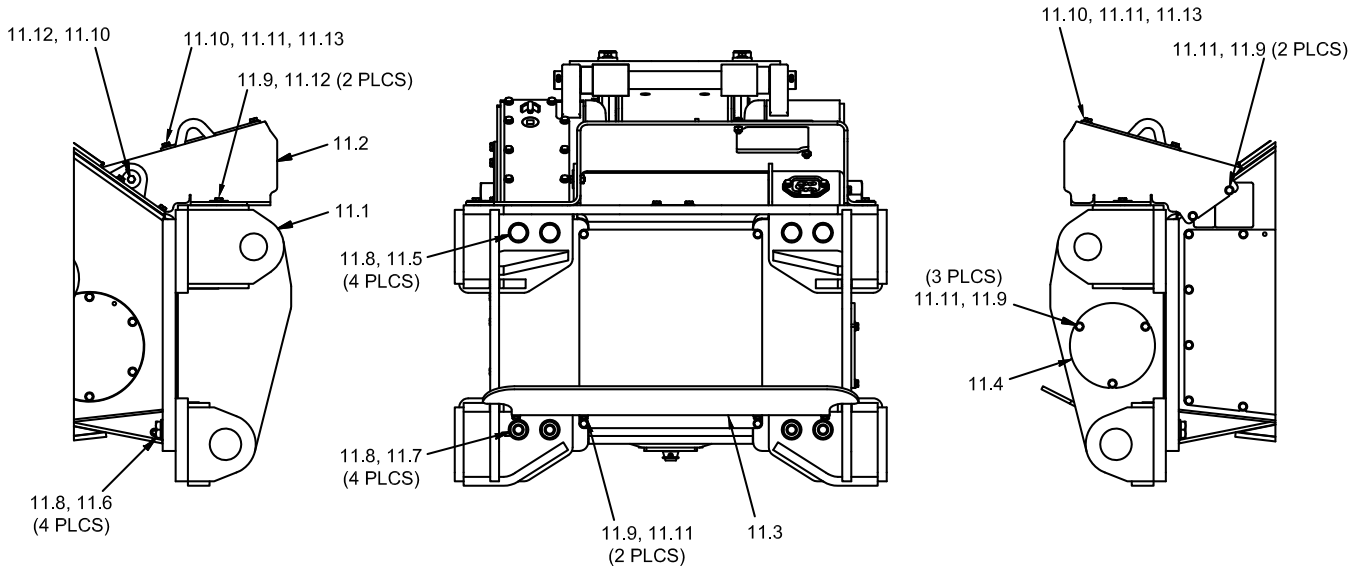
Page 1 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	-----	Frame, H8L	1	3.8	2312117	Clamp, Top LH	1
2.1	95959W	Pin, Drawbar	1	3.10	21420W	Plug, Breather	1
2.2	2303221W	Pin, Retaining	1	3.11	2300962W	Cap, Breather	1
2.3	2312494	Rod, Tie	1	3.12	15319W	Fitting	1
2.4	15272W	Pin	2	3.13	2312486	Capscrew	10
2.5	15290W	Fitting	1	3.14	293645W	Capscrew	25
2.6	15315W	Fitting	2	3.15	296422W	Washer	35
3.1	2312531	Cover, Top RH	1	3.16	2312119	Spacer	6
3.2	2312533	Gasket, Top RH	1	4.1	2312026	Cover, Top	1
3.4	2312535	Clamp, Top	1	4.2	2312208	Gasket, Hose Seal	1
3.6	2312537	Cover, LH	1	4.3	2314027	Cover, Top	1
3.7	2312538	Cover, Front	1	4.4	2312536	Seal, Top	1

**Mounting Parts**

Caterpillar D7E (C511)

Page 1 of 2



**Mounting Parts**

Caterpillar D7E (C511)

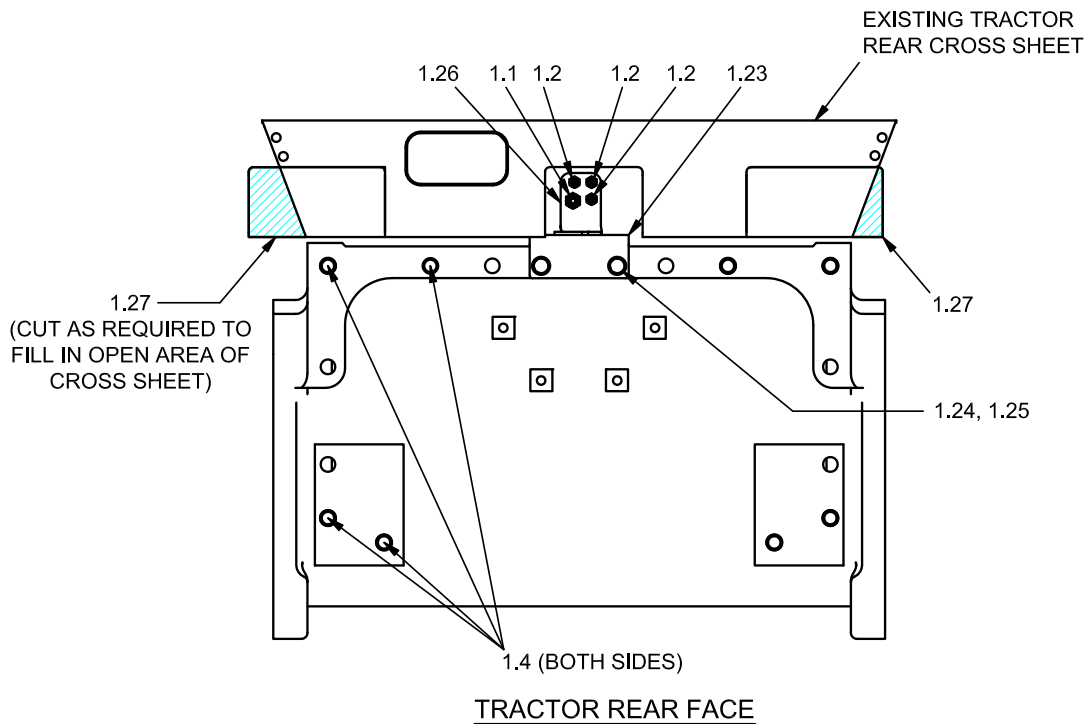
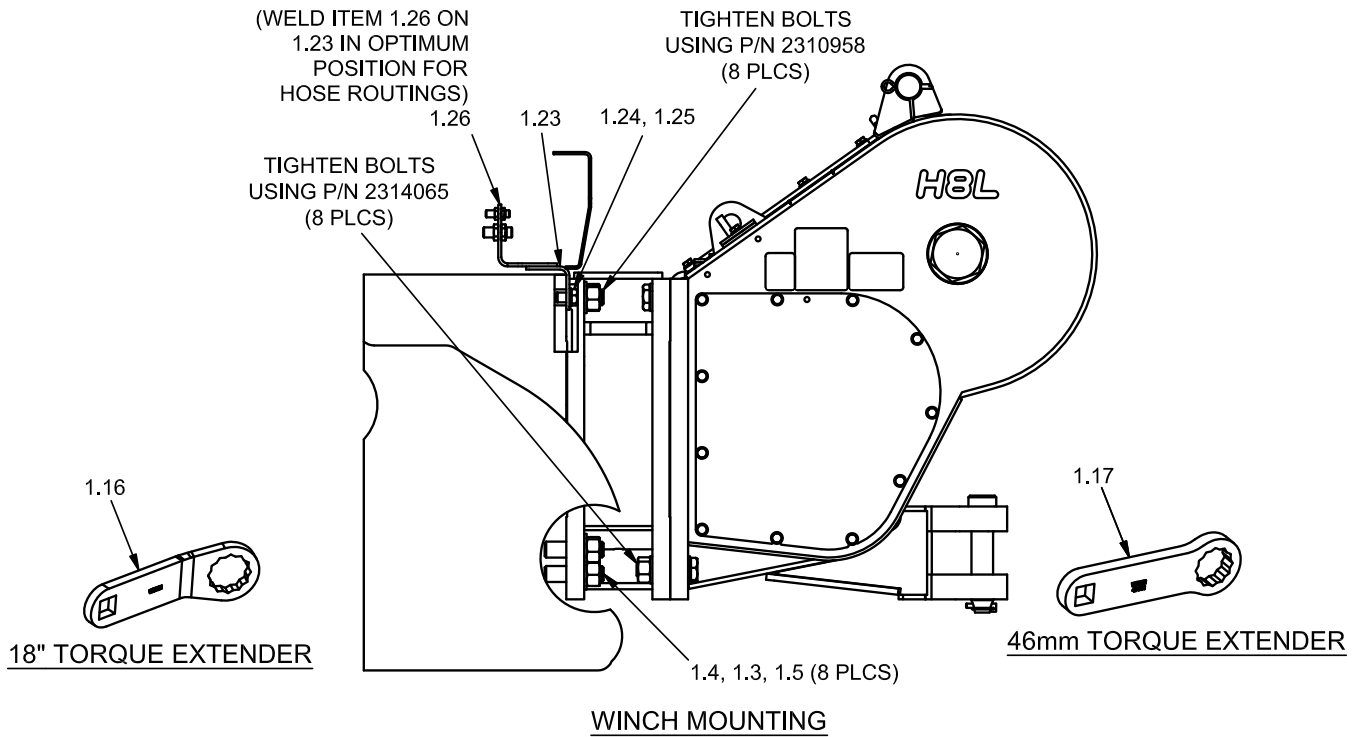
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2312745	Pin, Top	2	11.5	Y19C-M3080	Capscrew	4
1.2	2312747	Pin, Bottom	2	11.6	Y19C-M30110	Capscrew	4
1.3	2312748	Plate, Retainer	4	11.7	292661W	Nut	4
1.4	232387	Capscrew	4	11.8	296438W	Washer	12
1.5	Y09D-M16	Nut, Jam	4	11.9	293645W	Capscrew	11
11.1	2312733	Bracket, Mounting	1	11.10	293646W	Capscrew	3
11.2	2312749	Guard, Top	1	11.11	296422W	Washer	11
11.3	2312752	Guard, Bottom	1	11.12	2305715W	Washer	3
11.4	2312753	Cover, LH	1	11.13	2312917	Plate, Cover	1

# Mounting Parts

Komatsu D85X-15 (K50)

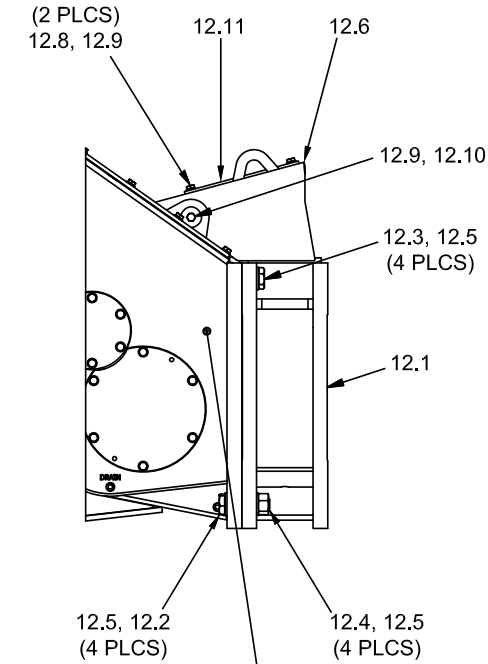
Page 1 of 2



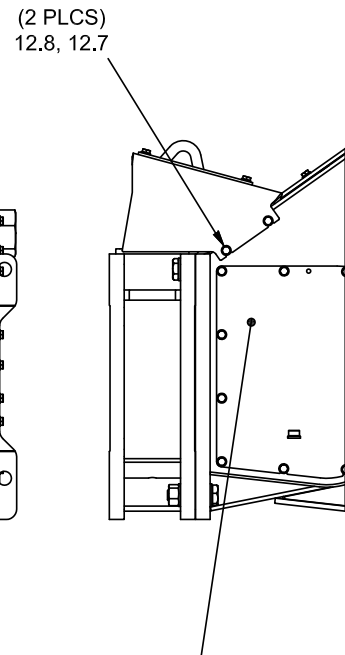
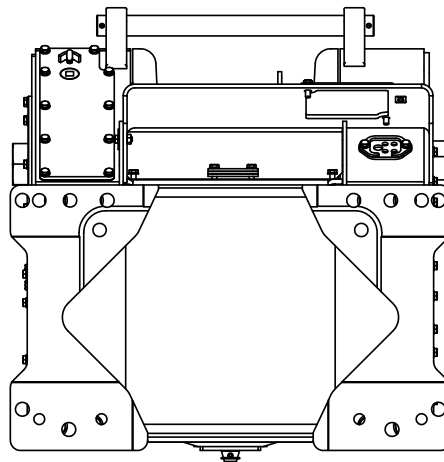
# Mounting Parts

Komatsu D85X-15 (K50)

Page 2 of 2



RIGHT-HAND SIDE OF WINCH

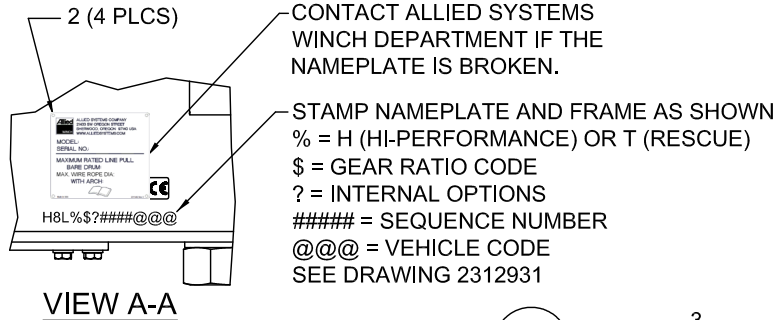


LEFT-HAND SIDE OF WINCH

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	R834103	Fitting	1	12.1	2312676	Bracket, Mounting	1
1.2	R834100	Fitting	3	12.2	Y19C-M30110	Capscrow	4
1.3	221724W	Nut, Hex	8	12.3	Y19C-M3080	Capscrow	4
1.4	*a 2301638W	Stud	8	12.4	292661W	Nut	4
1.5	15128W	Washer	8	12.5	296438W	Washer	12
1.16	2310958	Wrench, Torque Extension	1	12.6	2314052	Guard, Top	1
1.17	2314065	Wrench, Torque Extension	1	12.7	293645W	Capscrow	2
1.20	242601	Tie, Cable	12	12.8	296422W	Washer	4
1.23	2314066	Plate, Formed	1	12.9	293646W	Capscrow	3
1.24	Y09C-M2030	Capscrow	2	12.10	2305715W	Washer, Fender	1
1.25	296430W	Washer	2	12.11	2312917	Plate, Cover	1
1.26	2313459	Plate, Bulkhead	1				
1.27	2314061	Plate, Cover	2				

\*a Use 230064W Loctite Kit

# Nameplate & Decals



Hydraulic Winch Maintenance						
Recommended Winch Service Intervals						
Hours or	Months	Filter	Winch	Brake &	Major	
**	**	***	Gear Oil	Clutch	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 weekly.

\* Evaluate = Service based on average winch use:  
 - if used more than once a day, perform overhaul.  
 - if used less than once a day, remove covers and check to determine need.

\* Inspect = disassemble and inspect for wear.

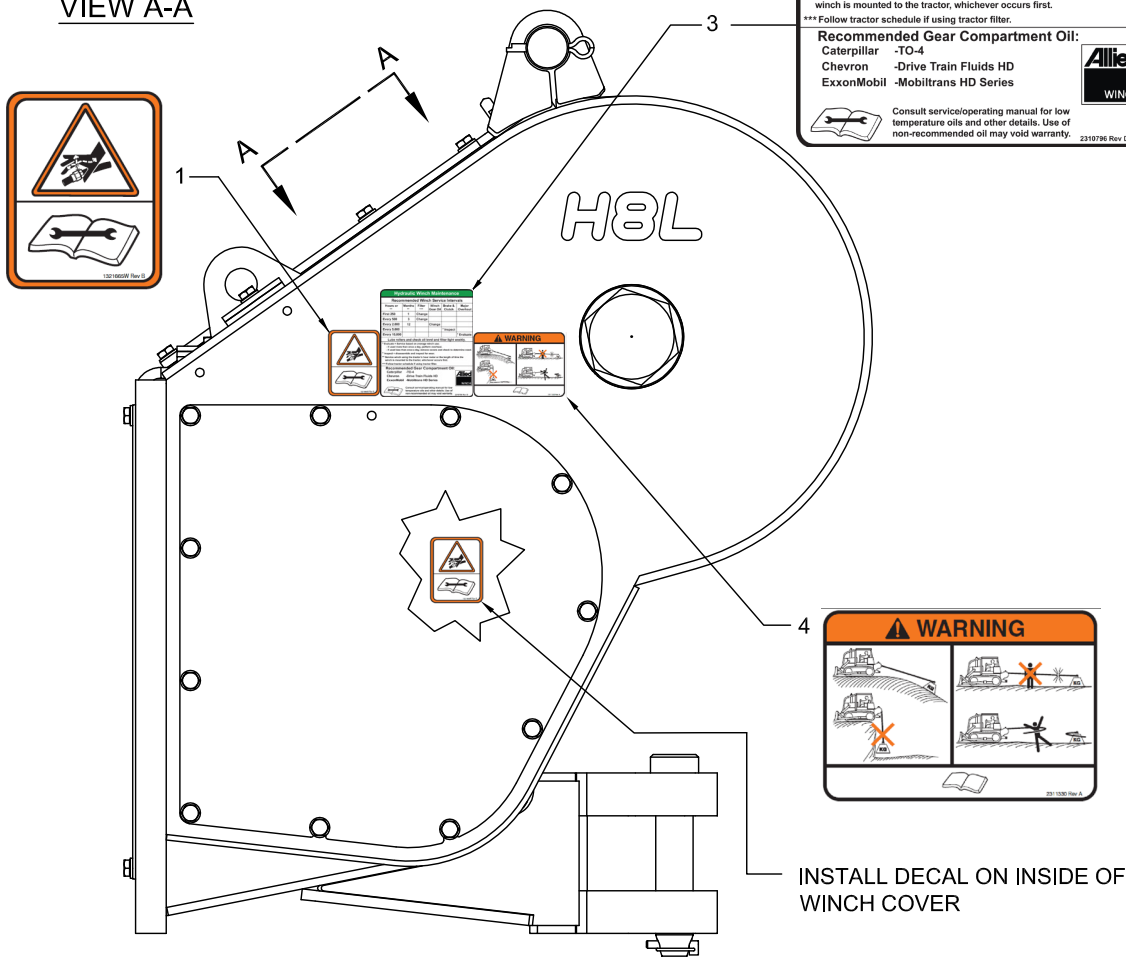
\*\* Service winch using the tractor's hour meter or the length of time the winch is mounted to the tractor, whichever occurs first.

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

**Recommended Gear Compartment Oil:**  
 Caterpillar -TO-4  
 Chevron -Drive Train Fluids HD  
 ExxonMobil -Mobiltrans HD Series

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

2310796 Rev D



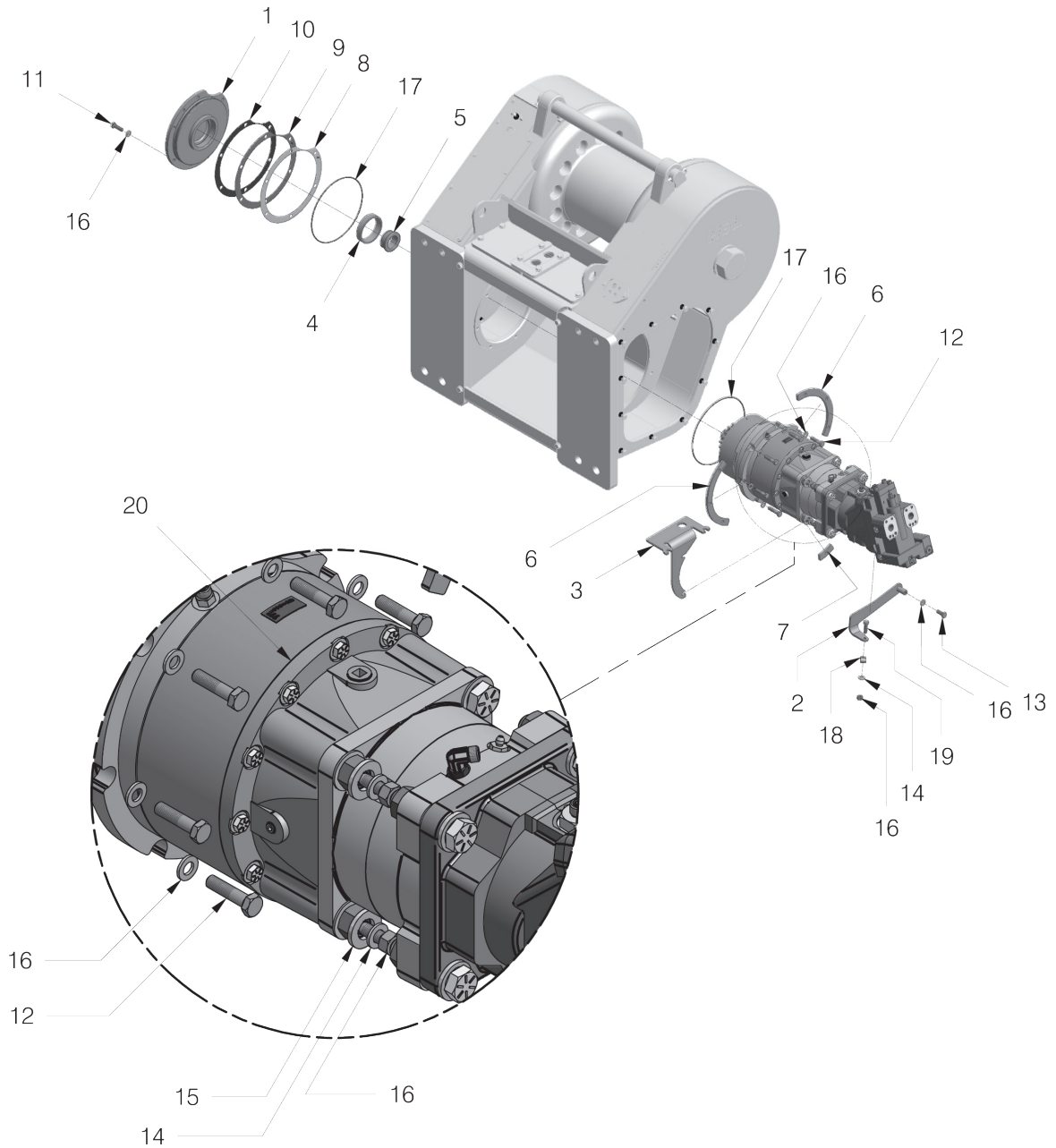
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	1321665W	Decal, Warning	2	3	2310796	Decal, Maintenance	1
2	16602W	Screw	4	4	2311330	Decal, Load & Wire Rope Safety	1

## Gear/Shaft Train

Assembly, Clutch .....	2-12
Assembly, Motor Shaft .....	2-4 thru 2-7
Brake, Dry Disc .....	2-8 & 2-9
Group, Motor Shaft .....	2-2 & 2-3
Shaft, Drum .....	2-11
Shaft, Intermediate Gear .....	2-10

# Motor Shaft Group

Page 1 of 2





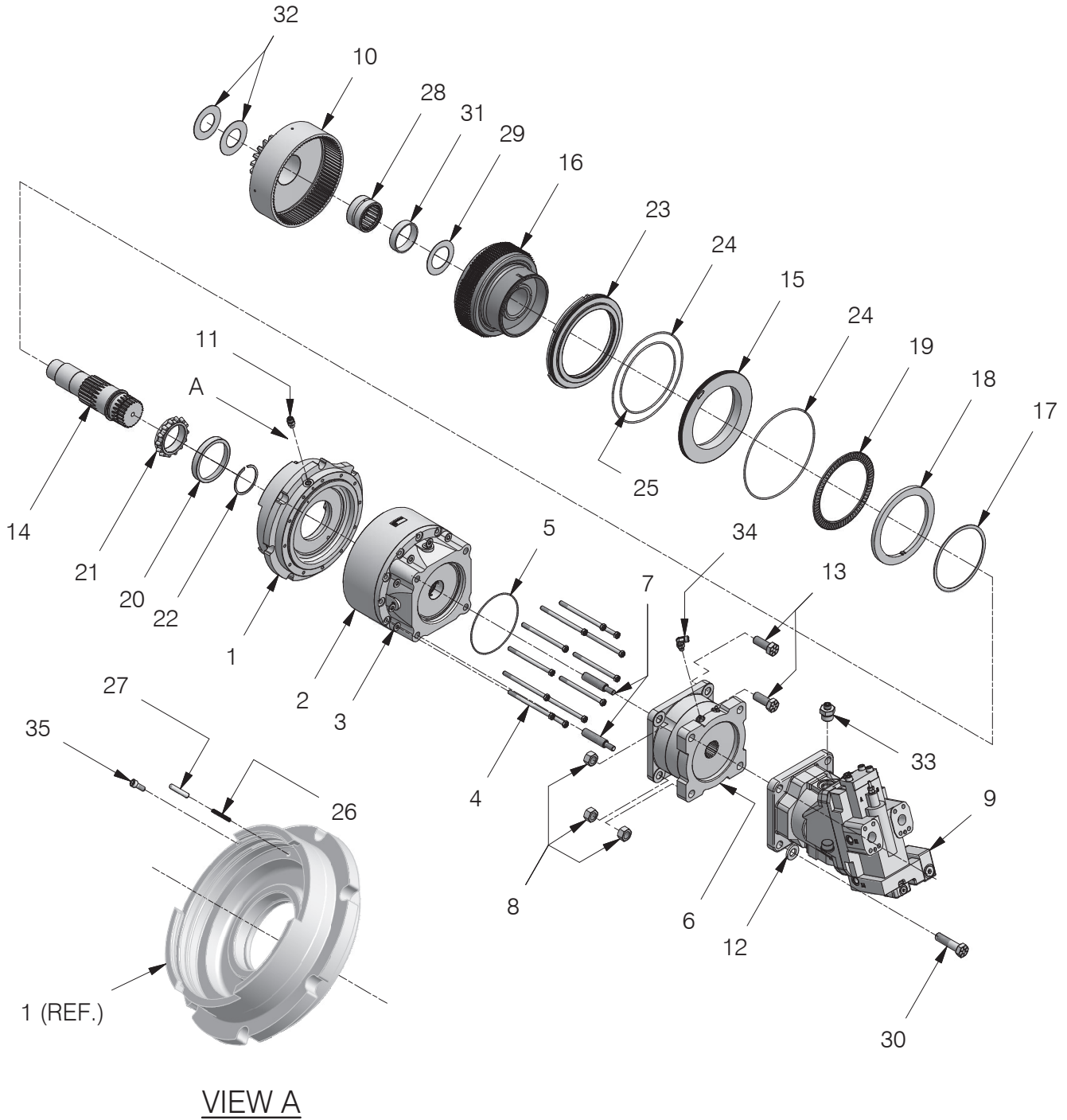
**Motor Shaft Group**

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2311857	Cover, Bearing	1	15	221777W	Washer	2
2	2312036	Bracket, Motor Support	1	16	296422W	Washer	17
3	2314101	Plate, Manifold Bracket	1	17	*c 203564	O-Ring	2
4	*d 2300668W	Cup, Bearing	1	18	R13807642	Clip, Insulated	1
5	*d 2300669W	Cone, Bearing	1	19	293647W	Capscrew	1
6	2311917	Plate, Clamp	2	20	*a 2312452	Assembly, Motor Shaft (See 2-4)	1
7	2311918	Plate, Clamp	1		*b 2313949	Assembly, Motor Shaft (See 2-6)	1
8	2312059	Shim .005	AR				
9	2312060	Shim .007	AR	*a	Used in H8L Winch Mounted on Caterpillar D7E (C511)		
10	2312061	Shim .020	AR	*b	Used in H8L Winch Mounted on Komatsu D85X-15 (K50)		
11	2312487	Capscrew	6	*c	Included in Rebuild Kit 2314615		
12	2312488	Capscrew	7	*d	Included in Rebuild Kit 2314616		
13	293645W	Capscrew	1				
14	292656W	Nut	3				

# Motor Shaft Assembly

Caterpillar D7E (C511)

Page 1 of 2



**Motor Shaft Assembly**

Caterpillar D7E (C511)

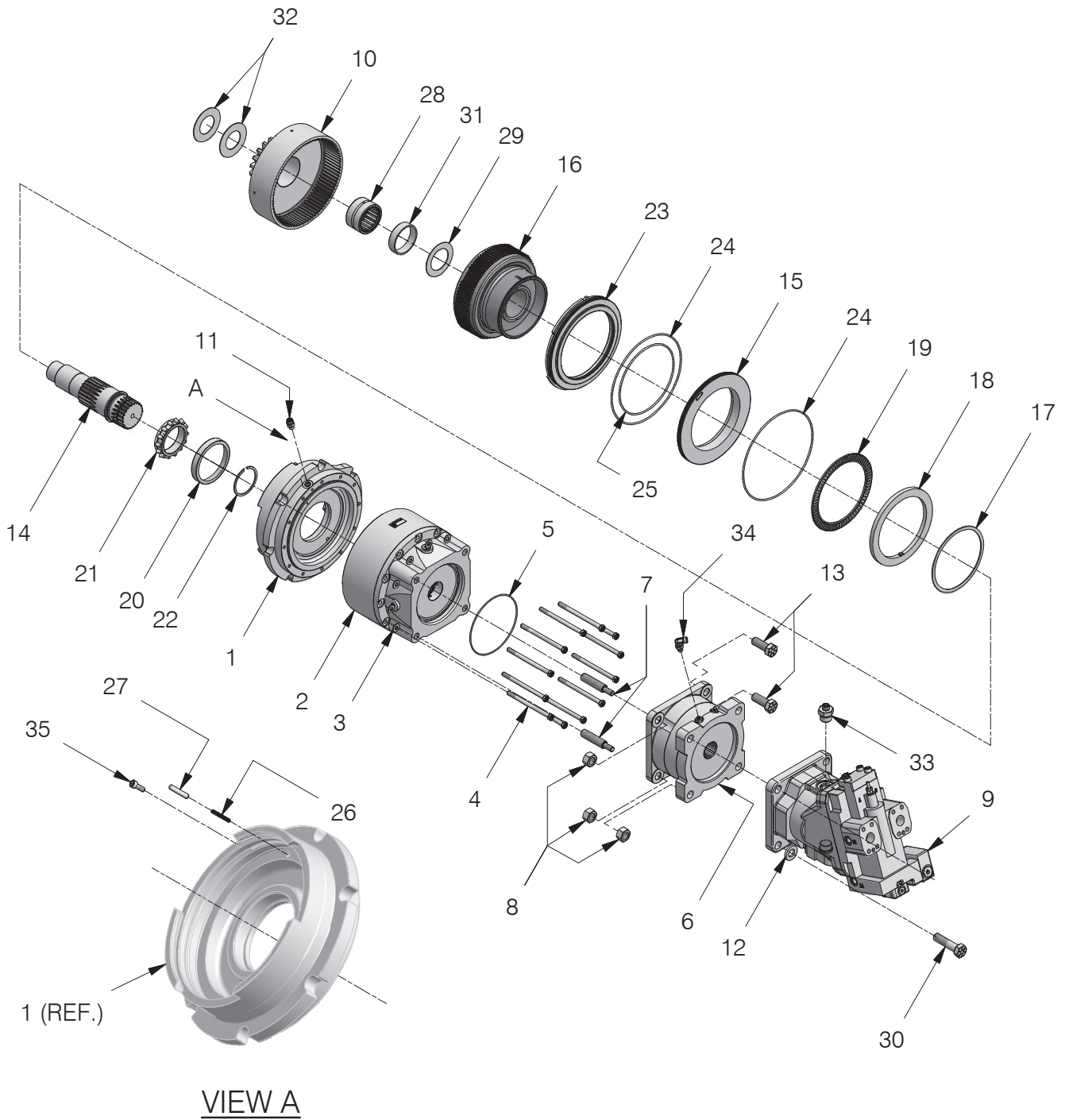
Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312452</b>	<b>Assembly, Motor Shaft</b>	<b>1</b>				
1	2311855	. Housing, Clutch	1	20	*b 137153W	. Cup, Bearing	1
2	2312554	. Kit, Planetary Reducer	1	21	*b 137155W	. Cone, Bearing	1
3	221767W	. Washer	12	22	2311684	. Ring, Snap	1
4	R13801826	. Capscrew	12	23	*a 2311880	. Ring, Seal	1
5	*a 237349	. O-Ring	1	24	*a 86585W	. O-Ring	2
6	2312155	. Brake, Dry Disk - D Mount (See 2-8)	1	25	*a 87287W	. O-Ring	1
7	2312041	. Stud	2	26	2303992W	. Spring	1
8	221716W	. Nut	6	27	239147W	. Pin	1
9	2311814	. Motor, Hydraulic	1	28	*b 230407W	. Bearing	1
10	287939W	. Gear, Reverse Spider	1	29	2311687	. Shim .062	1
11	231439	. Fitting	1	30	177192W	. Capscrew	4
12	221777W	. Washer	4	31	2312498	. Spacer, Bearing	1
13	Y17C-1232	. Capscrew	2	32	2311869	. Shim .062	1
14	2312448	. Shaft, Clutch	1	33	R833139	. Fitting	1
15	2312039	. Piston, Clutch	1	34	R833251	. Fitting	1
16	2312446	. Assembly, Clutch (See 2-12)	1	35	R13811617	. Capscrew	1
17	2311683	. Ring, Snap	1				
18	2312442	. Ring, Thrust	1		*a	Included in Rebuild Kit 2314615	
19	*b 2311655	. Bearing, Thrust Needle Roller	1		*b	Included in Rebuild Kit 2314616	

# Motor Shaft Assembly

Komatsu D85X-15 (K50)

Page 1 of 2



**Motor Shaft Assembly**

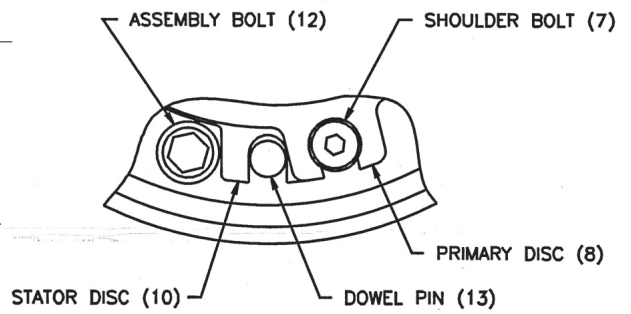
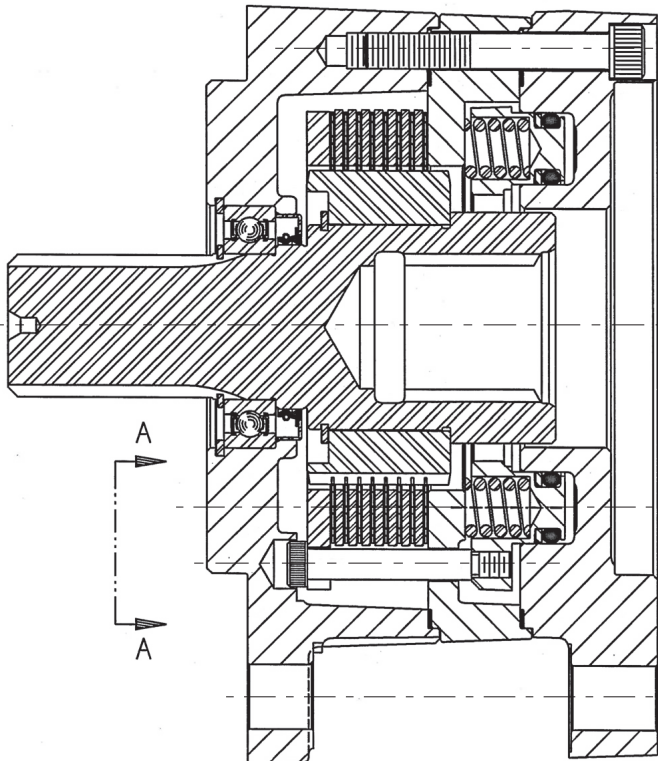
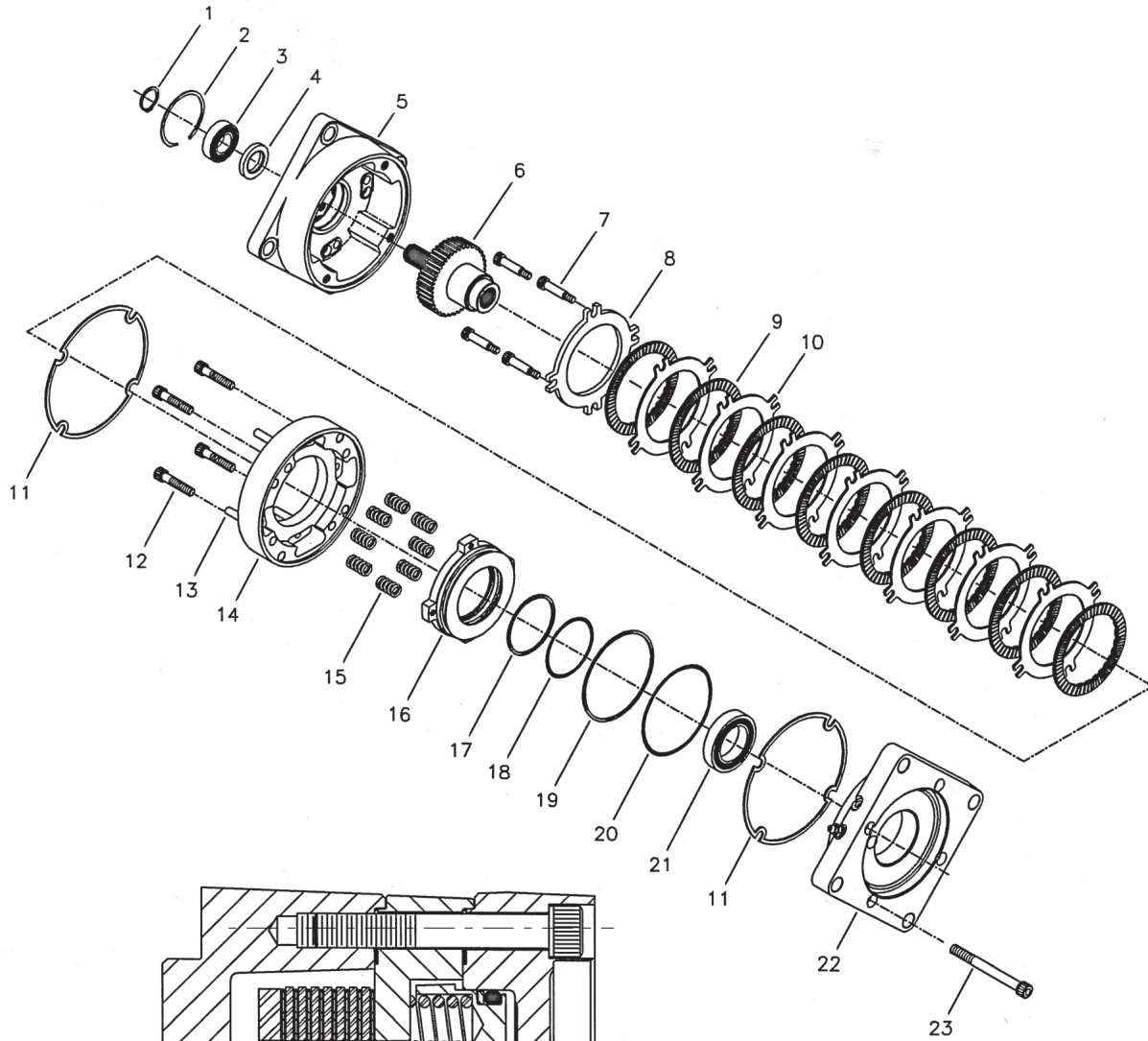
Komatsu D85X-15 (K50)

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2313949</b>	<b>Assembly, Motor Shaft</b>	<b>1</b>				
1	2311855	. Housing, Clutch	1	20	*b 137153W	. Cup, Bearing	1
2	2312554	. Kit, Planetary Reducer	1	21	*b 137155W	. Cone, Bearing	1
3	221767W	. Washer	12	22	2311684	. Ring, Snap	1
4	R13801826	. Capscrew	12	23	*a 2311880	. Ring, Seal	1
5	*a 237349	. O-Ring	1	24	*a 86585W	. O-Ring	2
6	2312155	. Brake, Dry Disk - D Mount (See 2-8)	1	25	*a 87287W	. O-Ring	1
7	2312041	. Stud	2	26	2303992W	. Spring	1
8	221716W	. Nut	6	27	239147W	. Pin	1
9	2313780	. Motor, Hydraulic	1	28	*b 230407W	. Bearing	1
10	287939W	. Gear, Reverse Spider	1	29	2311687	. Shim .062	1
11	231439	. Fitting	1	30	177192W	. Capscrew	4
12	221777W	. Washer	4	31	2312498	. Spacer, Bearing	1
13	Y17C-1232	. Capscrew	2	32	2311869	. Shim .062	1
14	2312448	. Shaft, Clutch	1	33	R833139	. Fitting	1
15	2312039	. Piston, Clutch	1	34	R833251	. Fitting	1
16	2312446	. Assembly, Clutch (See 2-12)	1	35	R13811617	. Capscrew	1
17	2311683	. Ring, Snap	1				
18	2312442	. Ring, Thrust	1		*a	Included in Rebuild Kit 2314615	
19	*b 2311655	. Bearing, Thrust Needle Roller	1		*b	Included in Rebuild Kit 2314616	

# Dry Disc Brake

Page 1 of 2



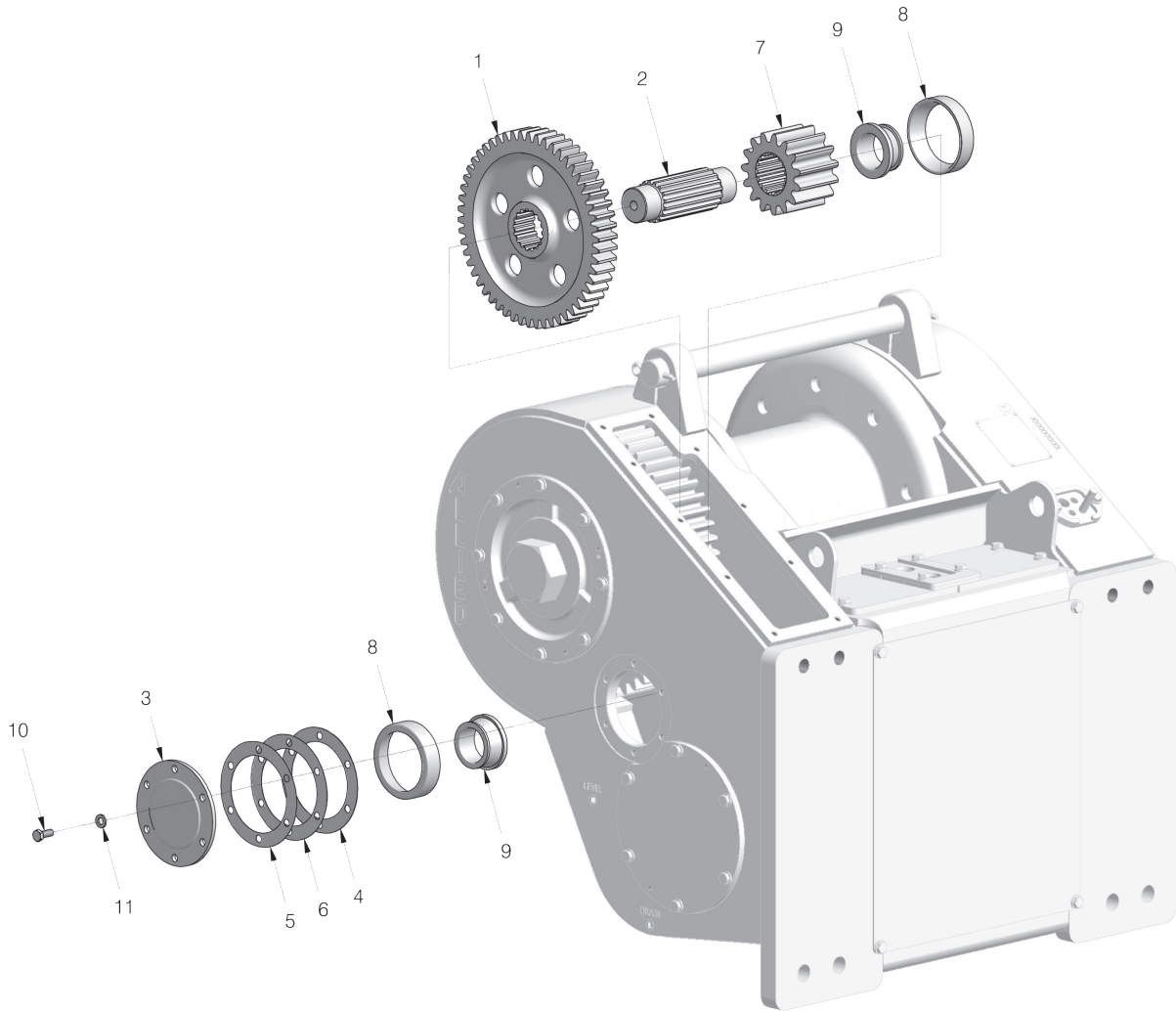
**VIEW A-A**  
**STACK ASSEMBLY**  
**DETAIL**

# Dry Disc Brake

Page 2 of 2

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312155</b>	<b>Brake, Dry Disc - D Mount</b>	<b>1</b>				
1	NSS	. Ring, Retaining	1	16	NSS	. Piston	1
2	NSS	. Ring, Retaining	1	17	*a	NSS . Ring, Backup	1
3	*b	NSS . Bearing	1	18	NSS	. O-Ring	1
4	*a,*b	NSS . Seal, Oil	1	19	*a	NSS . Ring, Backup	1
5	NSS	. Plate, Cover	1	20	NSS	. O-Ring	1
6	NSS	. Assembly, Spline Shaft	1	21	*b	NSS . Bearing	1
7	NSS	. Bolt	4	22	NSS	. Plate, Pressure	1
8	*d	NSS . Disc, Primary	1	23	NSS	. Capscrew	4
9	*d	NSS . Disc, Rotor	8				
10	*d	NSS . Disc, Stator	7		*a	Included in O-Ring Repair Kit 2312302	
11	*a,*b,*c,*d	NSS . Gasket, Case	2		*b	Included in Bearing Repair Kit 2312303	
12	NSS	. Capscrew	4		*c	Included in Spring Repair Kit 250850	
13	NSS	. Pins, Dowel	4		*d	Included in Lining Repair Kit 250847	
14	NSS	. Plate, Spring	1		*e	*b, *c & *d Included in Rebuild Kit 2314616	
15	*c	NSS . Spring, Red	10				

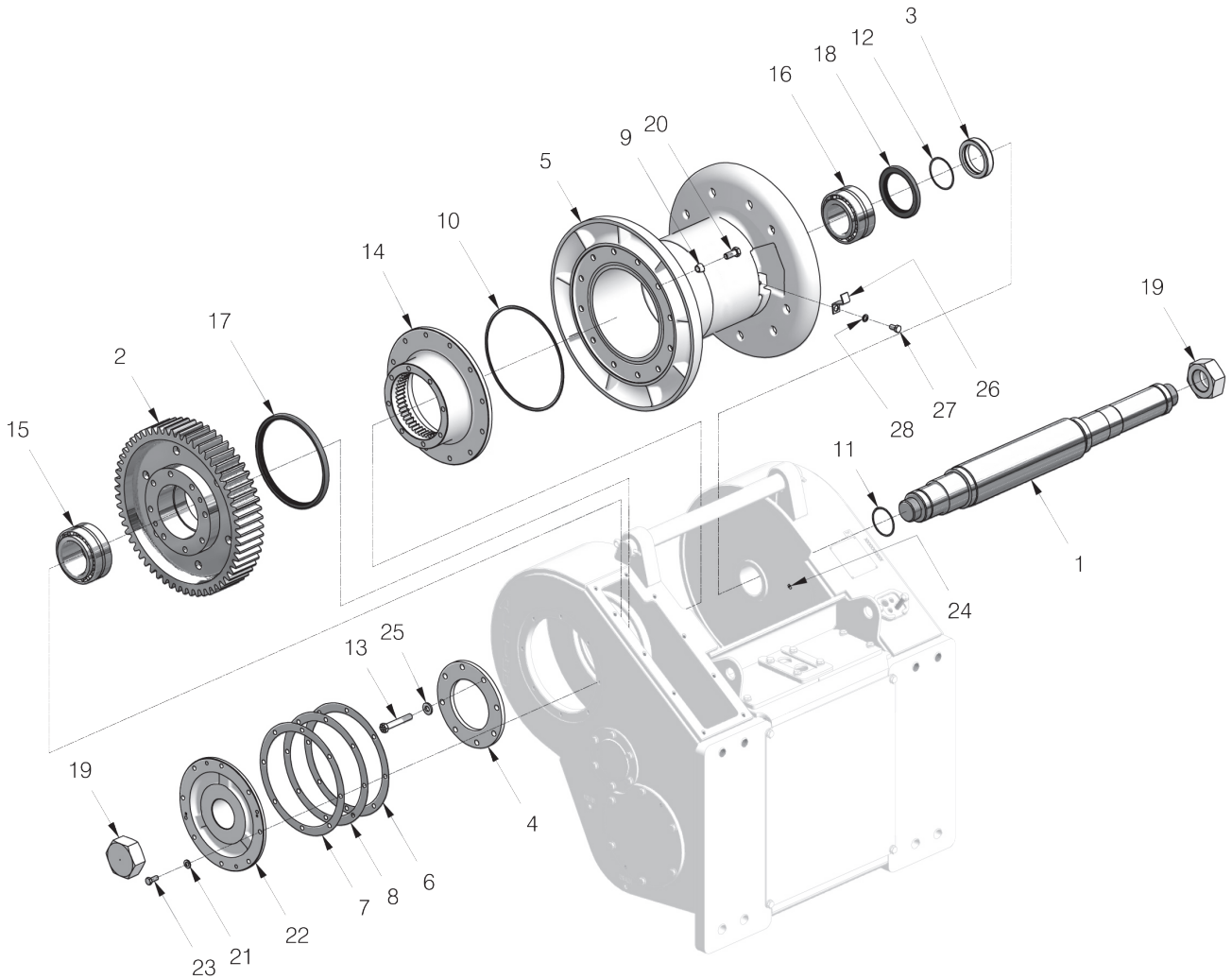
Intermediate Gear Shaft



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	96418W	Gear, Intermediate - 54T	1	8	*a 30091W	Cup, Roller Bearing	2
2	92620W	Shaft, Intermediate	1	9	*a 230309W	Cone, Roller Bearing	2
3	92623W	Cover, Inter Shaft	1	10	2312468	Capscrew	6
4	134076W	Shim, .020	AR	11	296422W	Washer	6
5	134074W	Shim, .005	AR				
6	134075W	Shim, .007	AR				
7	92621W	Gear, Drum Pinion - 15T	1		*a	Included in Rebuild Kit 2314616.	



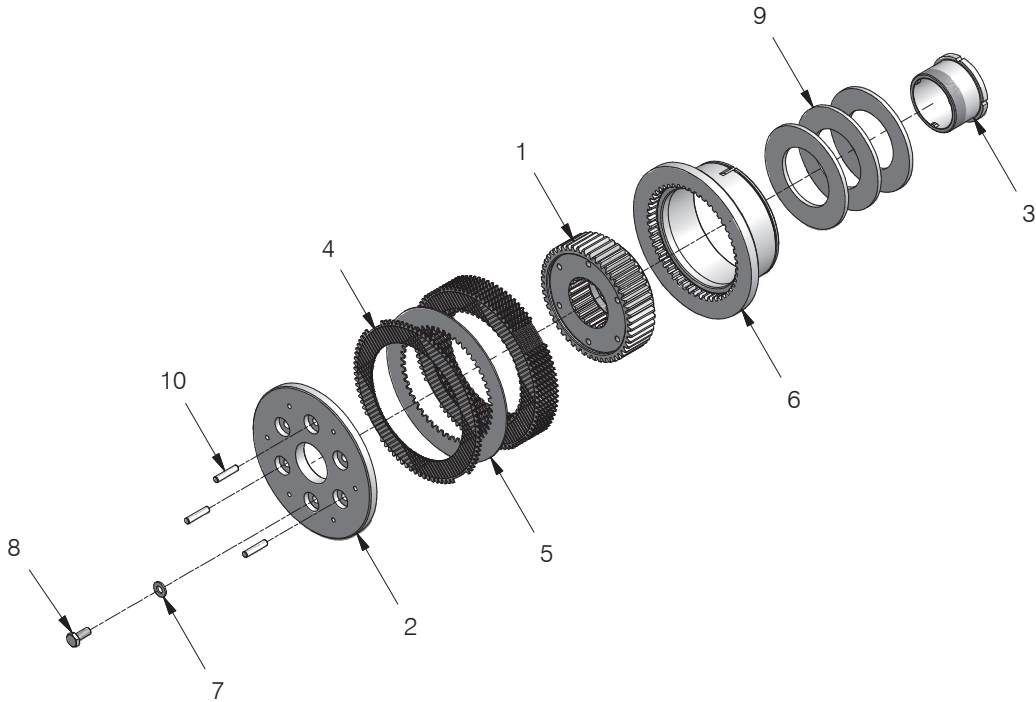
Drum Shaft



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2312468	Shaft, Drum	1	18	*c 44484W	Seal, Oil	1
2	96436W	Gear, Drum	1	19	2312099	Nut	2
3	173604W	Spacer	1	20	2310891	Capscrew	12
4	96438W	Plate, Retainer	1	21	296422W	Washer	8
5	*a 2312466	Drum	1	22	2312449	Retainer, Bearing	1
6	134072W	Shim .020	AR	23	2312487	Capscrew	8
7	134070W	Shim .005	AR	24	*b Y433070.45	Fitting	1
8	134071W	Shim .007	AR	25	221775W	Washer	8
9	53559W	Thimble, Tapered	12	26	274464W	Keeper, Ferrule	1
10	*c 131982W	Ring	1	27	Y09C-M1225	Capscrew	1
11	*c 15881W	O-Ring	1	28	292683W	Washer	1
12	*c 46629W	O-Ring	1				
13	221641W	Capscrew	8				
14	141325W	Adapter	1				
15	*c 96437W	Bearing, Roller	1				
16	*c 78022W	Bearing, Roller	1				
17	*c 141149W	Seal, Oil	1				

\*a Add Two Quarts of 255578 Hydraulic Oil, CAT 8T9572, TO-4, SAE30W, Prior to Installation of Drum Retainer.  
 \*b Assembles to Drum Shaft Support Tube in Frame.  
 \*c Included in Rebuild Kit 2314616

Clutch Assembly



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312446</b>	<b>Assembly, Clutch</b>	<b>1</b>				
1	2312447	. Hub, Clutch	1	6	2311906	. Plate, Pressure	1
2	2311907	. Plate, Clutch	1	7	296420W	. Washer	6
3	2312029	. Retainer, Spring	1	8	293628W	. Capscrew	6
4	328715W	. Disc, Friction	8	9	2311251	. Spring, Belleville	3
5	261542W	. Plate, Separator	7	10	222714W	. Pin	3

## Hydraulics/Controls

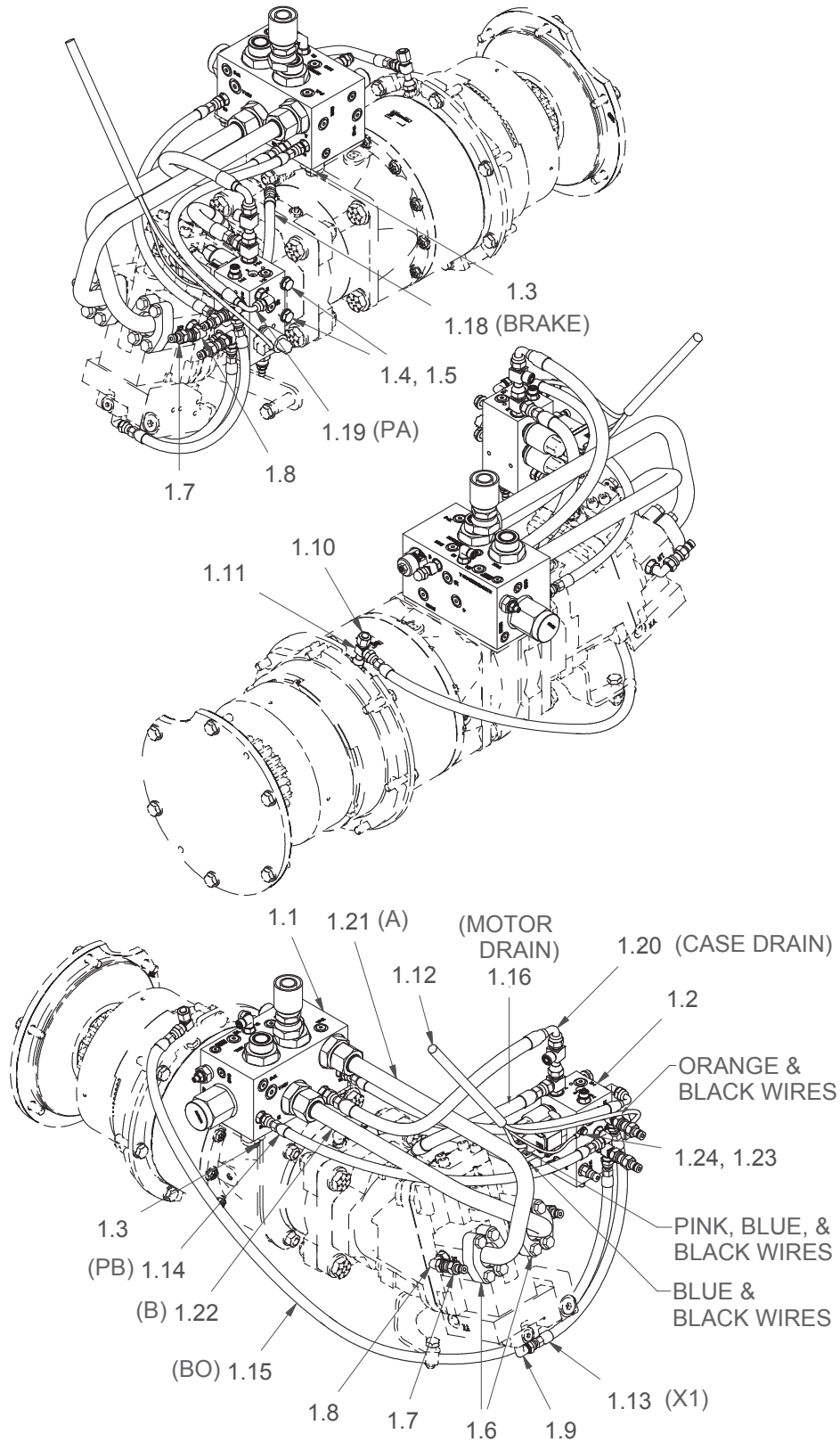
Control Lever Assembly . . . . .	3-22
Electrical & Control Lever Installation . . . . .	3-12
Hydraulic Group, External . . . . .	3-8 thru 3-11
Hydraulic Group, Internal . . . . .	3-2 thru 3-7
Manifold Assembly, Control . . . . .	3-15 thru 3-17
Manifold Assembly, Counterbalance Relief . . . . .	3-13 & 3-14
Manifold Assembly, Directional . . . . .	3-18 thru 3-21

# Internal Hydraulic Group

Caterpillar D7E (C511)

Last Used on S/N H8L-1042

Page 1 of 2

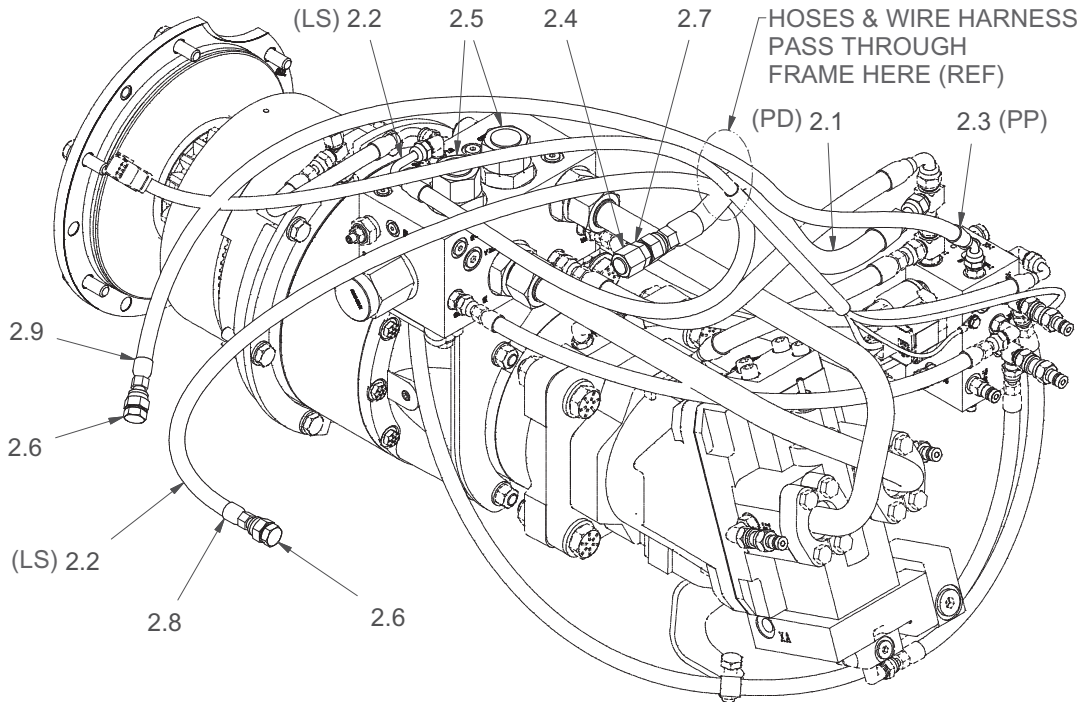


### Internal Hydraulic Group

Caterpillar D7E (C511)

Last Used on S/N H8L-1042

Page 2 of 2



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2312623	Assembly, Directional Manifold (See 3-20)	1	1.19	242260	Assembly, Hose	1
1.2	2312622	Assembly, Control Manifold (See 3-16)	1	1.20	242144	Assembly, Hose	1
1.3	398567W	Screw, Flanged	2	1.21	2312650	Assembly, Tube - Motor A	1
1.4	Y09C-M1030	Capscrew	2	1.22	2312651	Assembly, Tube - Motor B	1
1.5	296420W	Washer	2	1.23	15923W	Washer	1
1.6	229448	Kit, Split Flange	2	1.24	292501W	Capscrew	1
1.7	2307625W	Coupler, Quick Male	2	2.1	2312798	Assembly, Hose	1
1.8	R833253	Fitting	2	2.2	2312644	Assembly, Hose	1
1.9	R833251	Fitting	1	2.3	2312731	Assembly, Hose	1
1.10	232984	Fitting	1	2.4	R834253	Fitting	1
1.11	236855	Fitting	1	2.5	231820	Fitting	2
1.12	*a 2312626	Harness, Winch Wire	1	2.6	R834201	Fitting	2
1.13	2310543	Assembly, Hose	1	2.7	237086	Fitting	1
1.14	257331	Assembly, Hose	1	2.8	2307240W	Label, LS	1
1.15	2313710	Assembly, Hose	1	2.9	2306152W	Label, PS	1
1.16	2312695	Assembly, Hose	1				
1.18	249525	Assembly, Hose	1				

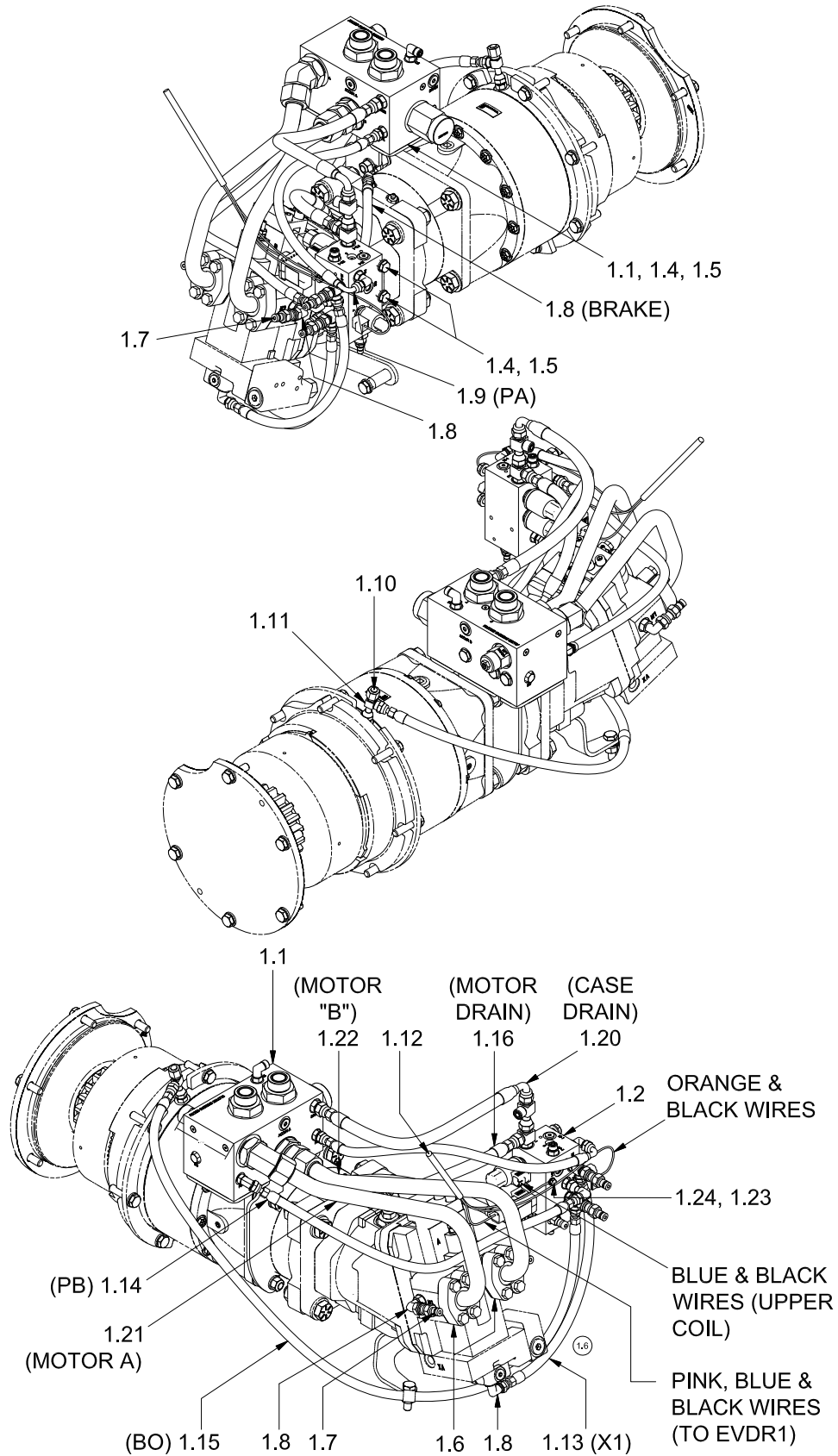
\*a First Used on S/N H8L-1003

# Internal Hydraulic Group

Caterpillar D7E (C511)

First Used on S/N H8L-1043

Page 1 of 2

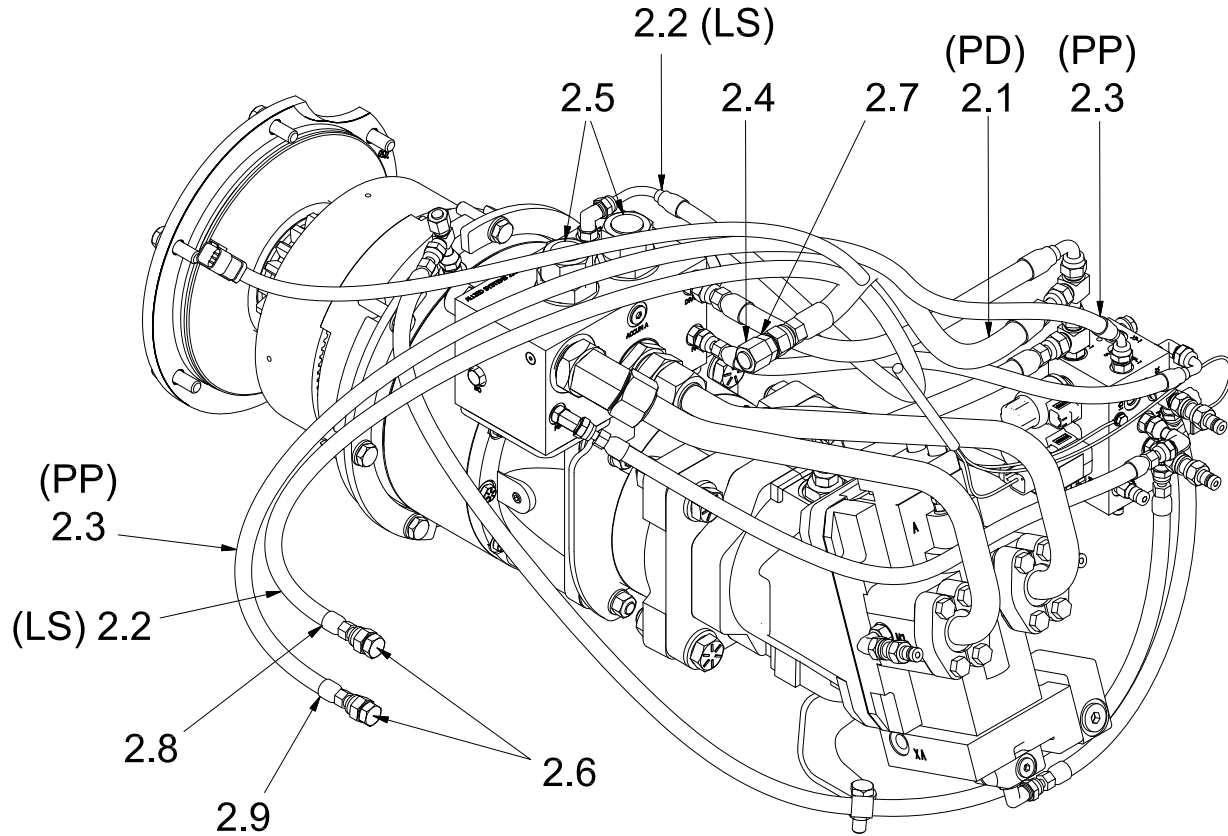


**Internal Hydraulic Group**

Caterpillar D7E (C511)

First Used on S/N H8L-1043

Page 2 of 2



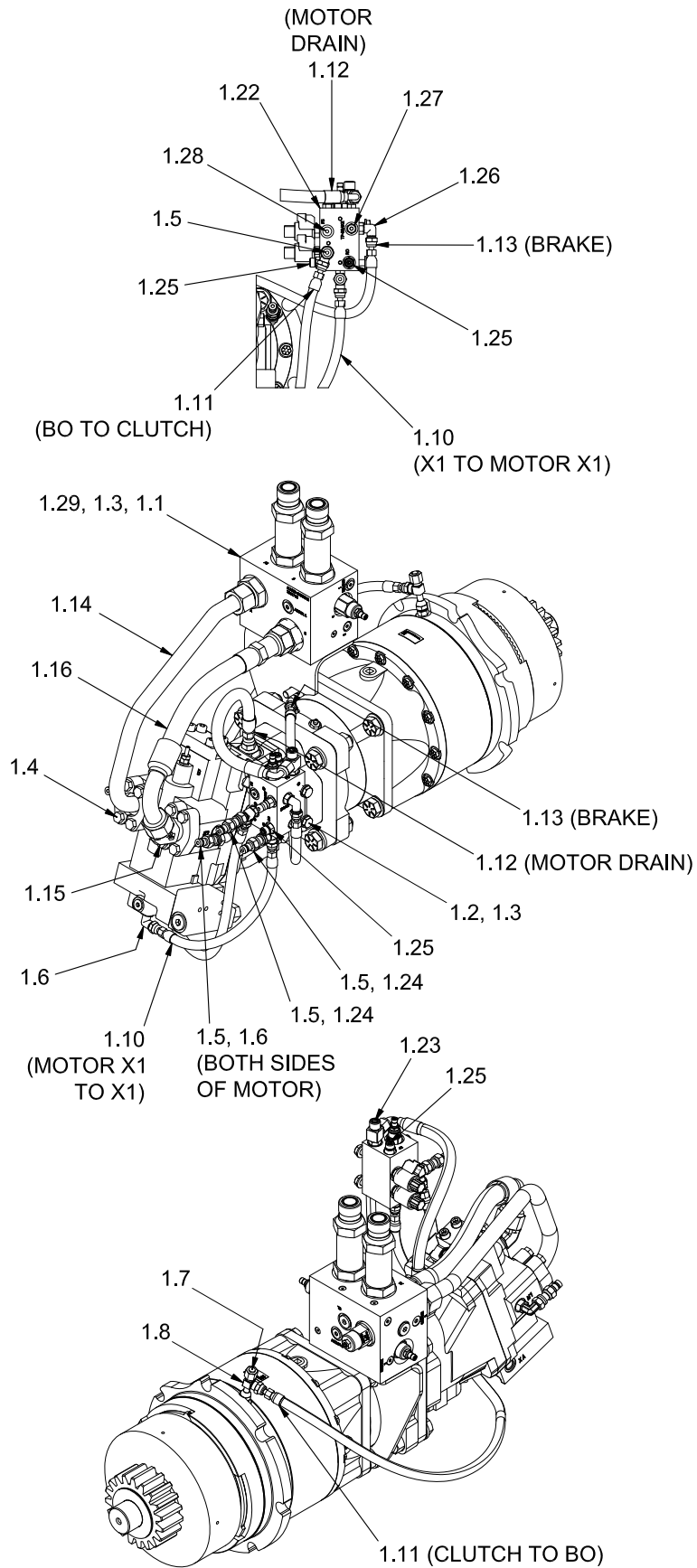
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2314100	Assembly, Directional Manifold (See 3-21)	1	1.20	*a 242144	Assembly, Hose	1
1.2	2312622	Assembly, Control Manifold (See 3-16)	1	1.21	2314102	Assembly, Tube - Motor A	1
1.4	Y09C-M1025	Capscrew	4	1.22	2314103	Assembly, Tube - Motor B	1
1.5	296420W	Washer	4	1.23	15923W	Washer	1
1.6	229448	Kit, Split Flange	2	1.24	292501W	Capscrew	1
1.7	2307625W	Coupler, Quick Male	2	2.1	*a 2312798	Assembly, Hose	1
1.8	R833253	Fitting	3	2.2	*a 2312644	Assembly, Hose	1
1.10	232984	Fitting	1	2.3	*a 2312731	Assembly, Hose	1
1.11	236855	Fitting	1	2.4	R834253	Fitting	1
1.12	*b 2312626	Harness, Winch Wire	1	2.5	231820	Fitting	2
	*c 2315353	Harness, Winch Wire	1	2.6	R834201	Fitting	2
1.13	*a 2310543	Assembly, Hose	1	2.7	237086	Fitting	1
1.14	*a 257331	Assembly, Hose	1	2.8	2307240W	Label, LS	1
1.15	*a 2313710	Assembly, Hose	1	2.9	2306152W	Label, PS	1
1.16	*a 2312695	Assembly, Hose	1				
1.18	*a 249525	Assembly, Hose	1				
1.19	*a 242260	Assembly, Hose	1				

\*a Included in Internal Hydraulic Hose Kit, 2314926  
 \*b Last Used S/N 1102  
 \*c First Used S/N 1103

# Internal Hydraulic Group

Komatsu D85X-15 (K50)

Page 1 of 2

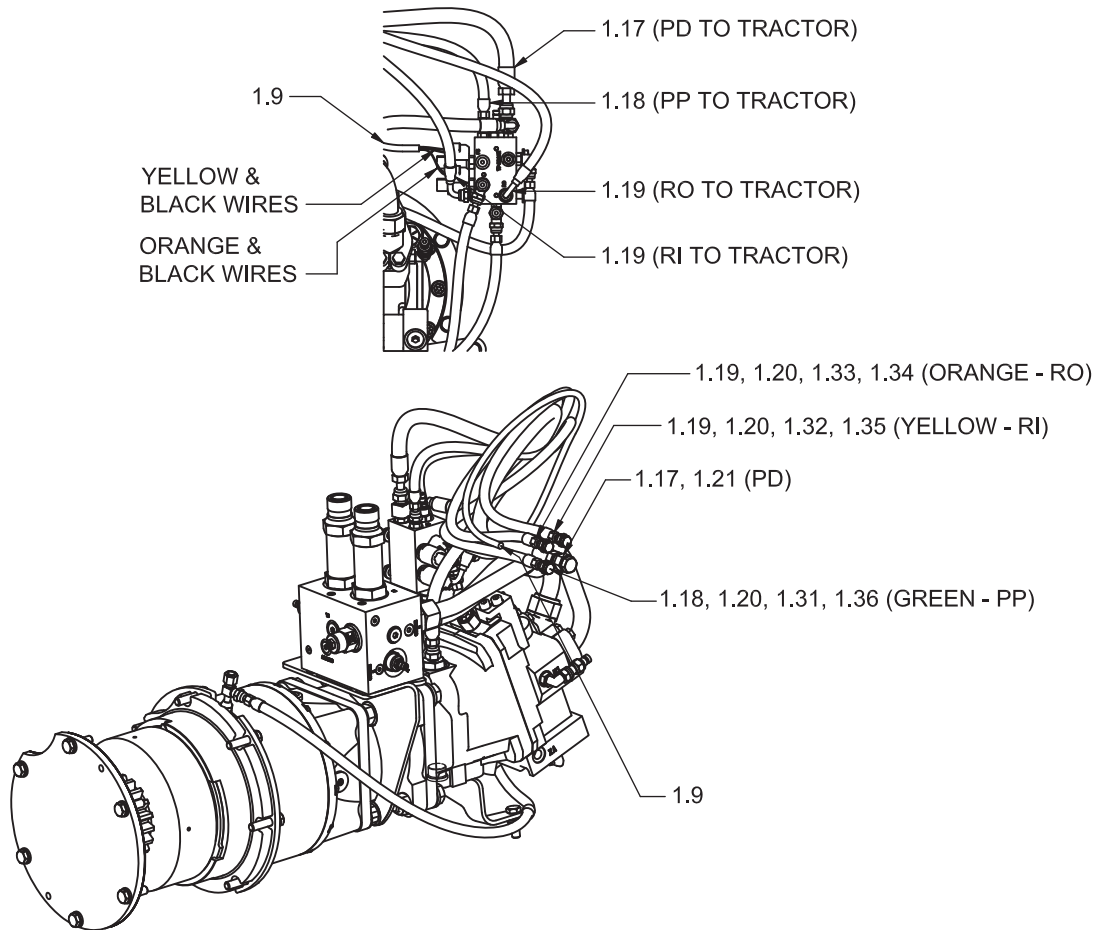




# Internal Hydraulic Group

Komatsu D85X-15 (K50)

Page 2 of 2

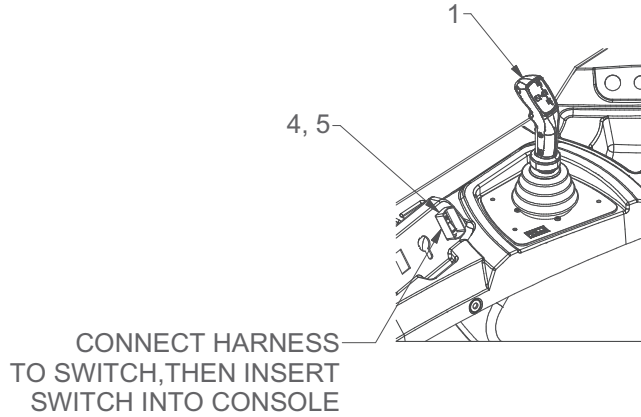


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.1	2313999	Assembly, Counterbalance Relief (CBR) Manifold (See 3-13)	1	1.19	*a 249334	Assembly, Hose	2
1.2	Y09C-M1030	Capscrew	2	1.20	R834200	Fitting	3
1.3	296420W	Washer	4	1.21	232960	Fitting	1
1.4	229448	Kit, Split Flange	2	1.22	2311770	Assembly, Logic Manifold (See 3-15)	1
1.5	2307625W	Coupler, Quick Male	4	1.23	231465	Fitting	1
1.6	R833253	Fitting	3	1.24	R833400	Fitting	2
1.7	232984	Fitting	1	1.25	231439	Fitting	3
1.8	236855	Fitting	1	1.26	R833251	Fitting	1
1.9	2312339	Harness, Winch Wire	1	1.27	R14040	Coupler, Male	1
1.10	*a 2310543	Assembly, Hose	1	1.28	235387	Fitting	1
1.11	*a 242264	Assembly, Hose	1	1.29	Y09C-M1025	Capscrew	2
1.12	*a 2312695	Assembly, Hose	1	1.31	2306152W	Label - PS	1
1.13	*a R11611	Assembly, Hose	1	1.32	2307239W	Label - RI	1
1.14	2313369	Assembly, Tube - Motor B	1	1.33	2307238W	Label - RO	1
1.15	2314013	Assembly, Fitting W/O-Rings	1	1.34	242596	Tie, Cable - Orange	1
1.16	*a 2314017	Assembly, Hose	1	1.35	242597	Tie, Cable - Yellow	1
1.17	*a 2313807	Assembly, Hose	1	1.36	242598	Tie, Cable - Green	1
1.18	*a 249327	Assembly, Hose	1		*a	Included in Internal Hydraulic Hose Kit, 2314927	

# External Hydraulic Group

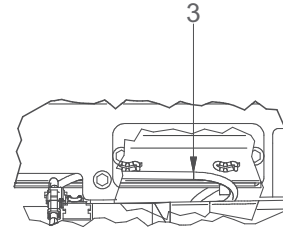
Caterpillar D7E (C511)

Page 1 of 2

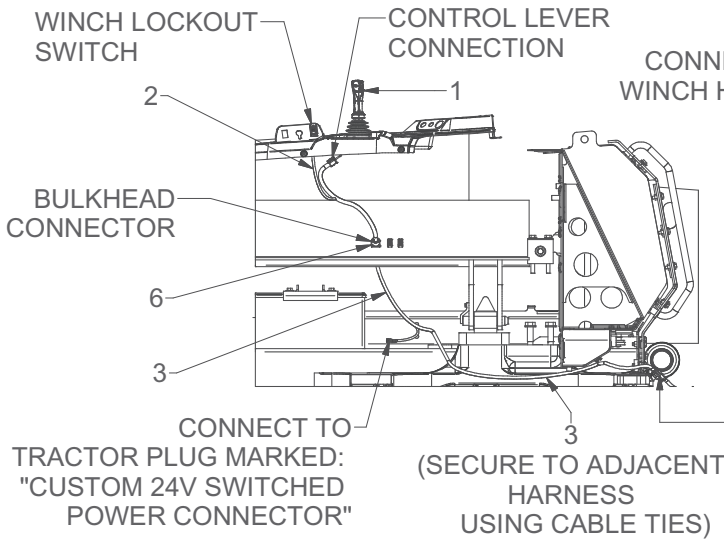


CONTROL LEVER INSTALL DETAIL

(SECURE TO ADJACENT HARNESS USING CABLE TIES)

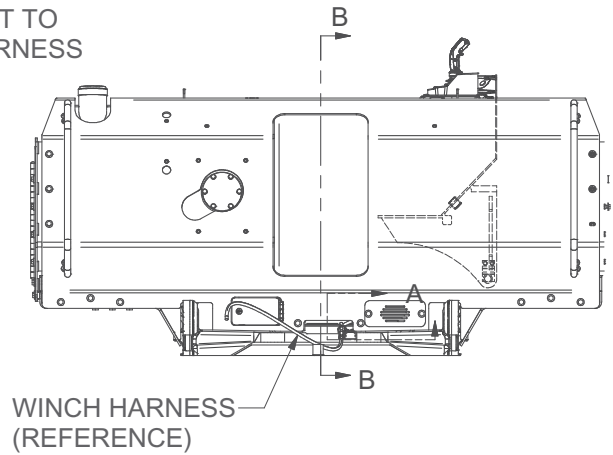


DETAIL A



SECTION B-B

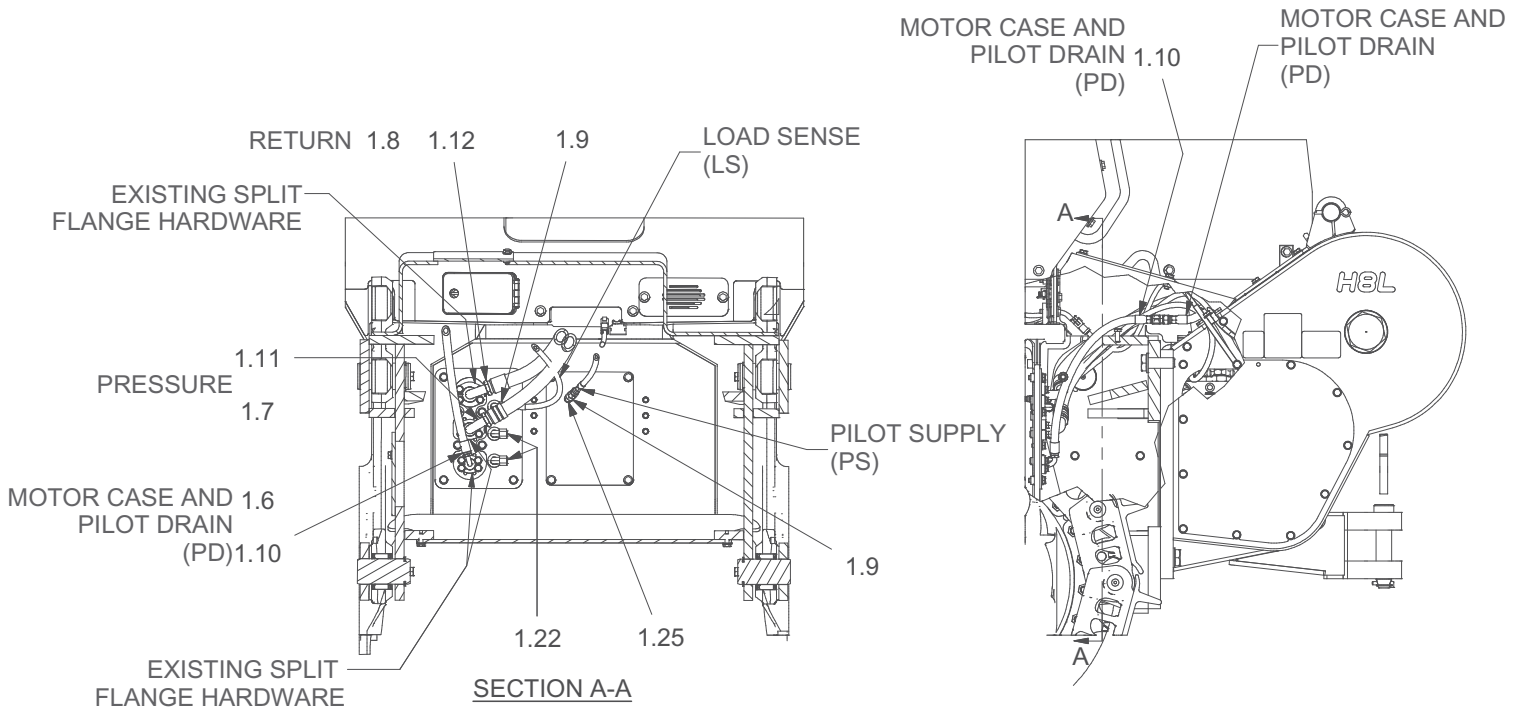
CONNECT TO WINCH HARNESS



**External Hydraulic Group**

Caterpillar D7E (C511)

Page 2 of 2

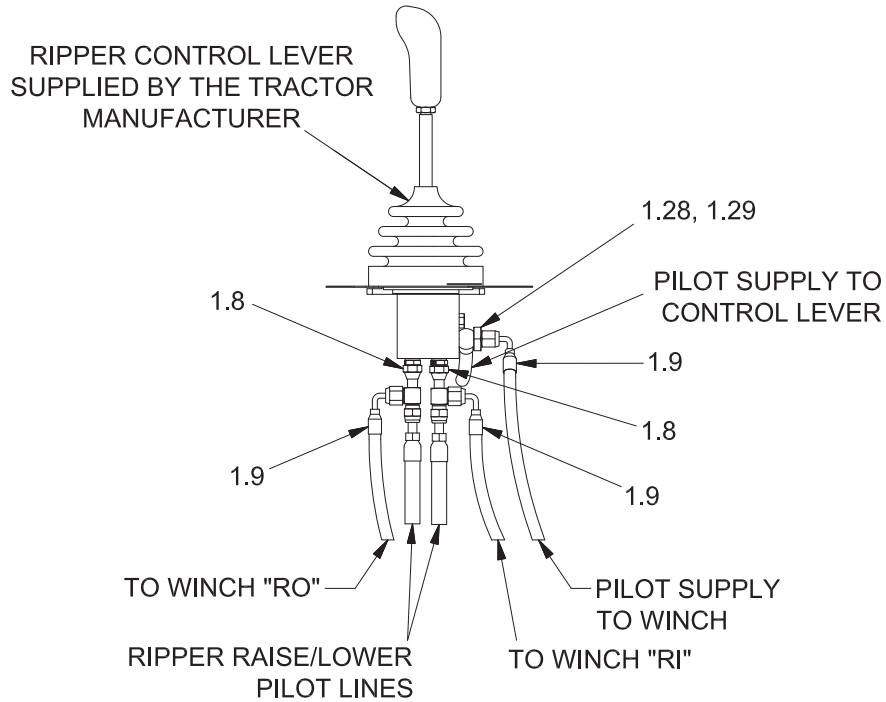


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	Y098629-214	O-Ring	1	11	R834253	Fitting	2
2	203443	O-Ring	1	12	R833400	Fitting	1
3	203446	O-Ring	1	13	2307625W	Coupler, Quick Male	1
4	R13521	Fitting	2	14	232356	Fitting	1
5	*a 2312643	Assembly, Hose	1	15	26837	Fitting	1
6	*a 2312646	Assembly, Hose	1	16	*a 2312936	Assembly, Hose	1
7	*a 2312647	Assembly, Hose	1	17	242597	Tie, Cable	25
8	241982	Clamp	2				
9	292514W	Capscrew	2				
10	232960	Fitting	2				
					*a	Included in Internal Hydraulic Hose Kit, 2314928	

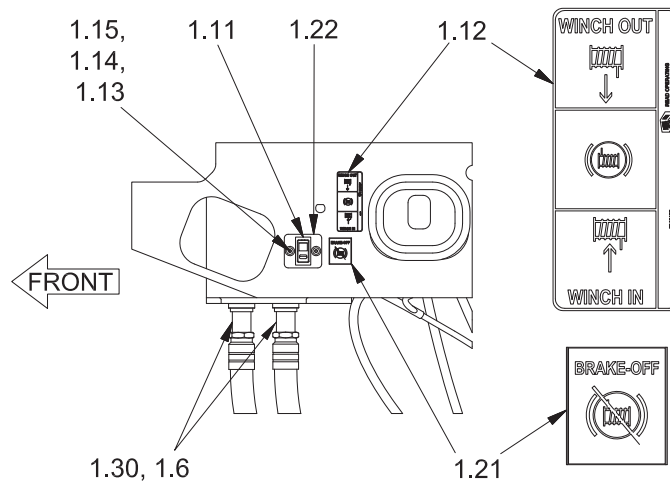
**External Hydraulic Group & Decals**

Komatsu D85X-15 (K50)

Page 1 of 2



CONNECTING TO  
RIPPER CONTROL LEVER

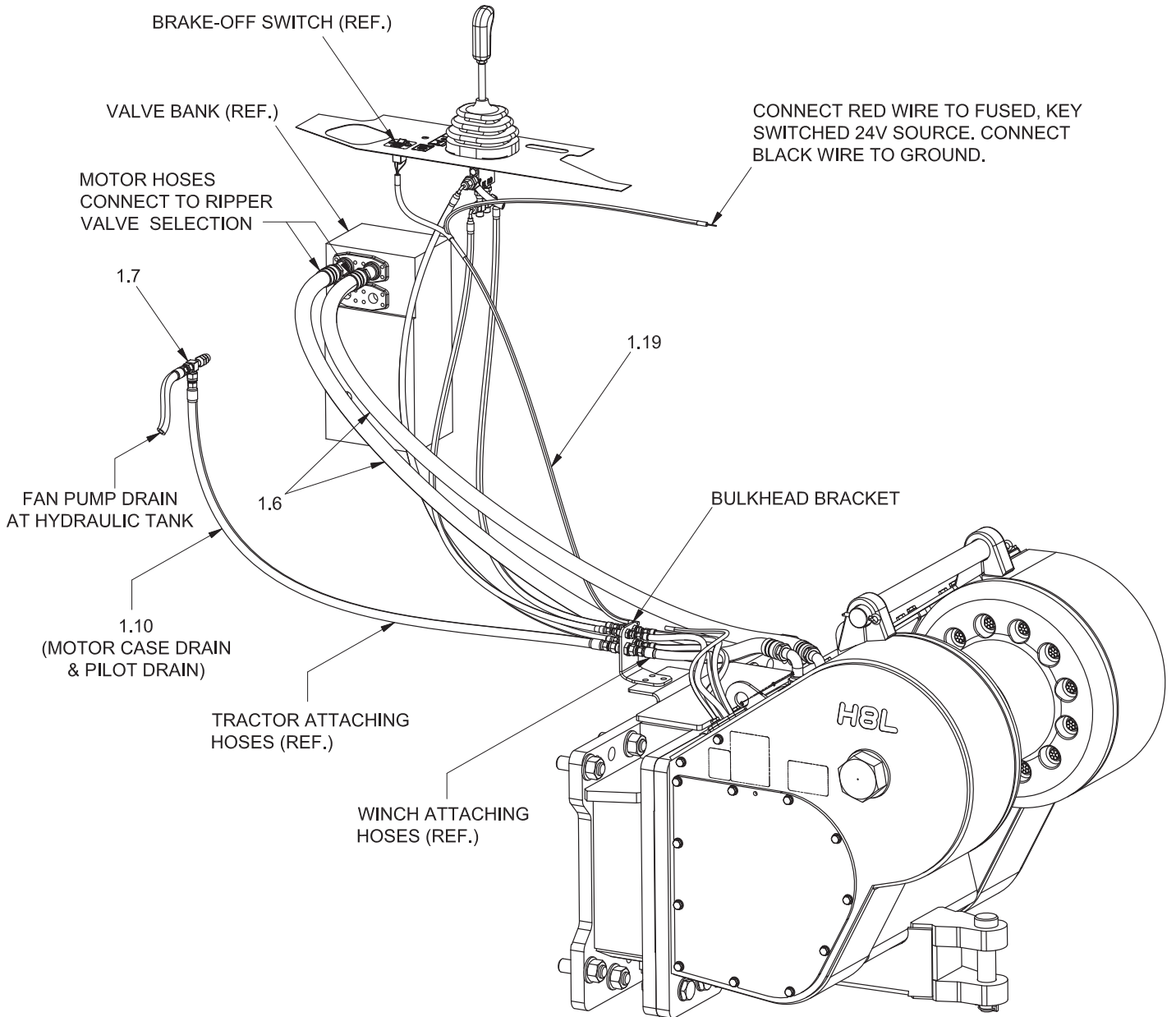


RIGHT-HAND CONSOLE VIEW

**External Hydraulic Group & Decals**

Komatsu D85X-15 (K50)

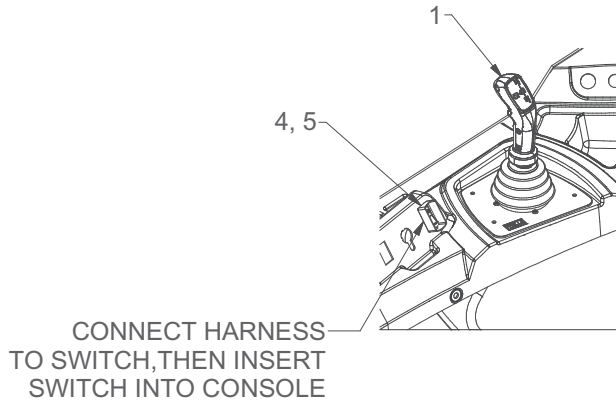
Page 2 of 2



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1.6	2314033	Assembly, Hose	2	1.14	15127W	Washer	2
1.7	R834052	Fitting	1	1.15	15113W	Nut	2
1.8	231955	Fitting	3	1.19	2313829	Harness, Wire	1
1.9	2313817	Assembly, Hose	3	1.21	2313979	Decal, Switch Panel	1
1.10	2313818	Assembly, Hose	1	1.22	2307643W	Plate, Switch Mounting	1
1.11	2310504	Assembly, Switch; 24V, Red LED	1	1.28	2311047	Fitting	1
1.12	2312177	Decal, Winch In, Winch Out	1	1.29	Y098629-012	O-Ring	1
1.13	18720W	Capscrew	2	1.30	15866W	O-Ring	2

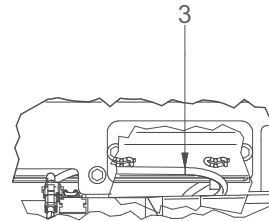
# Electrical & Control Lever Installation

Caterpillar D7E (C511)

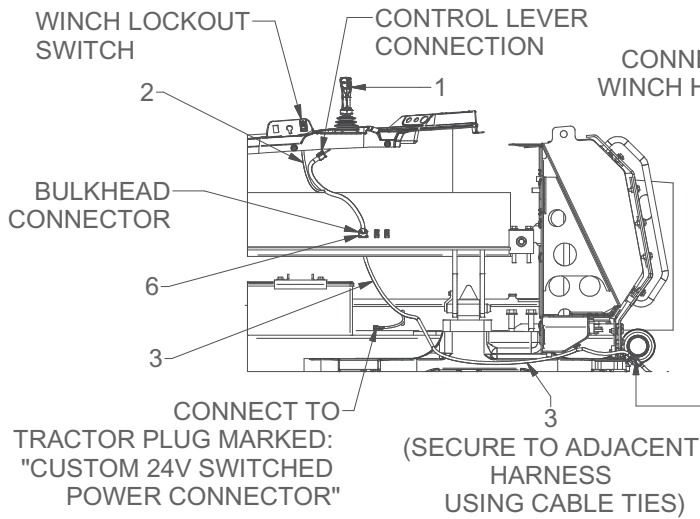


CONTROL LEVER INSTALL DETAIL

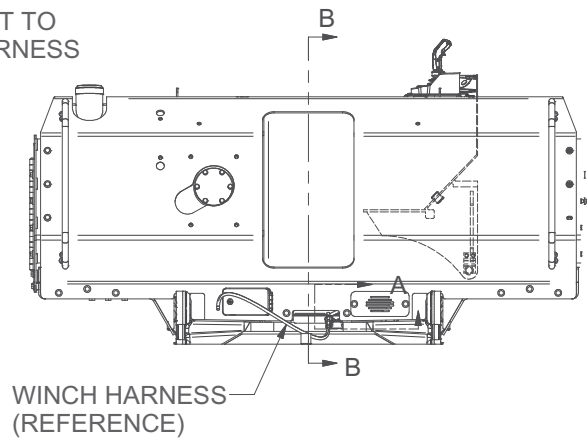
(SECURE TO ADJACENT HARNESS USING CABLE TIES)



DETAIL A



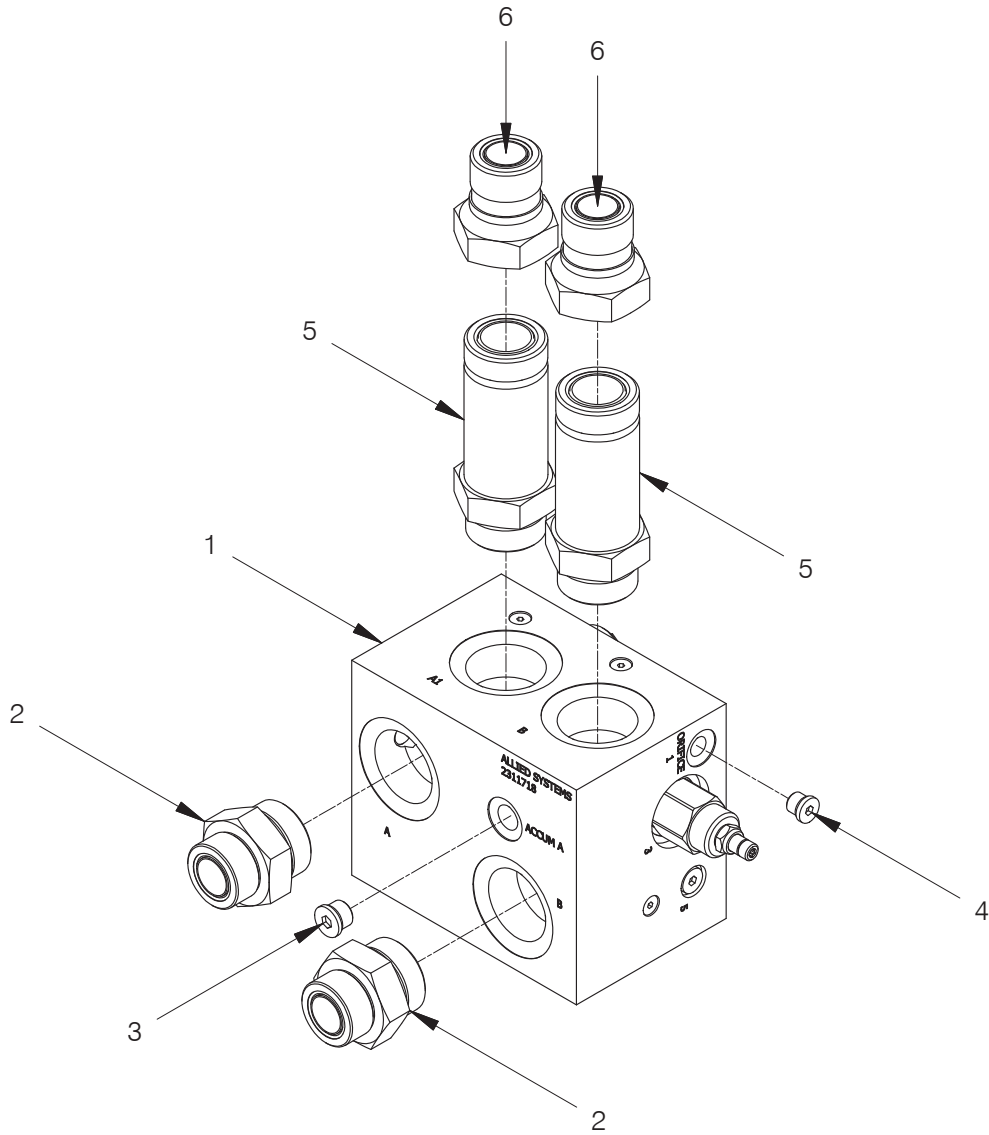
SECTION B-B



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2312901	Assembly, Control Lever (See 3-22)	1	4	2312796	Switch, Rocker	1
2	2312624	Harness, Wire	1	5	2312881	Guard, Switch	1
3	2312625	Harness, Wire	1	6	2312902	Capscrew	4

# Counterbalance Relief Manifold Assembly

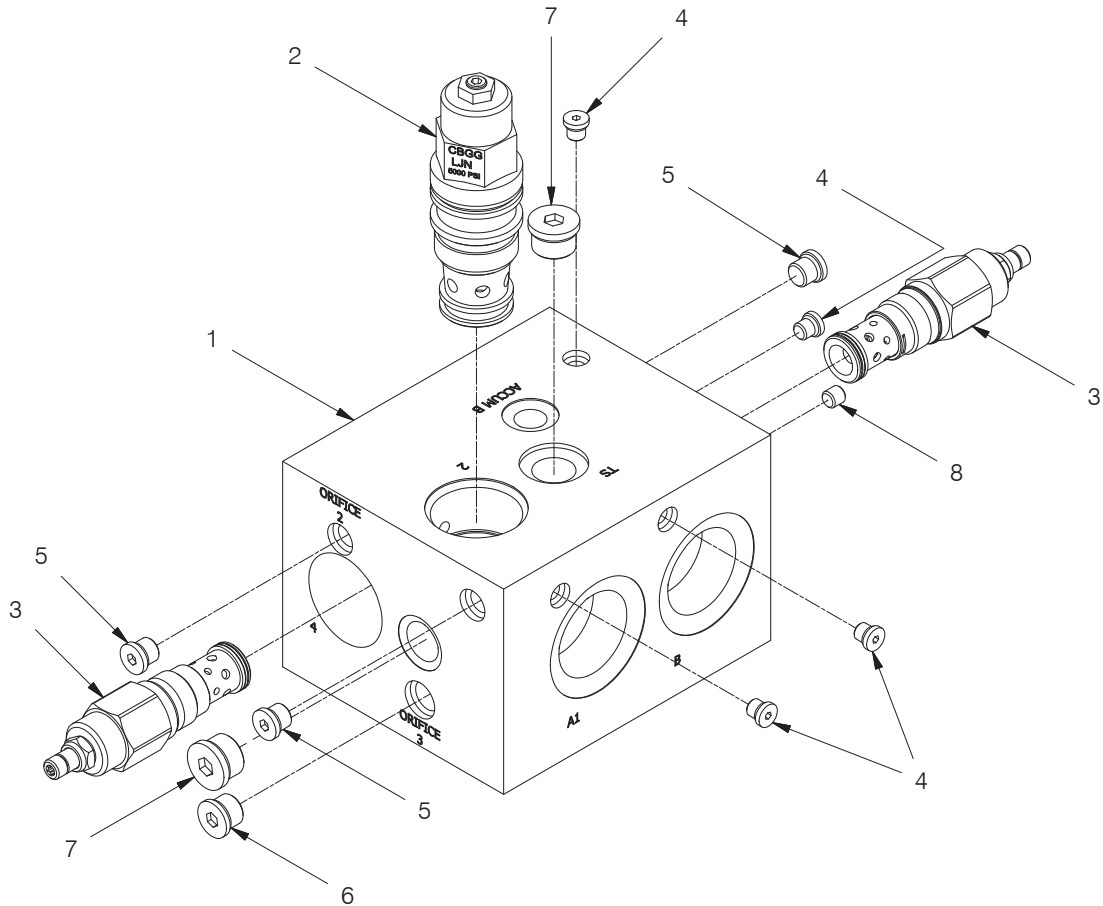
Komatsu D85X-15 (K50)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2313999</b>	<b>Assembly, Counterbalance Relief (CBR) Manifold</b>	<b>1</b>				
1	2311718	. Assembly, Standard Manifold (3-21)	1	4	235387	. Fitting	1
2	R833133	. Fitting	2	5	2313452	. Fitting	2
3	229383	. Fitting	2	6	244959	. Fitting	2

# Counterbalance Relief Manifold Assembly

Komatsu D85X-15 (K50)

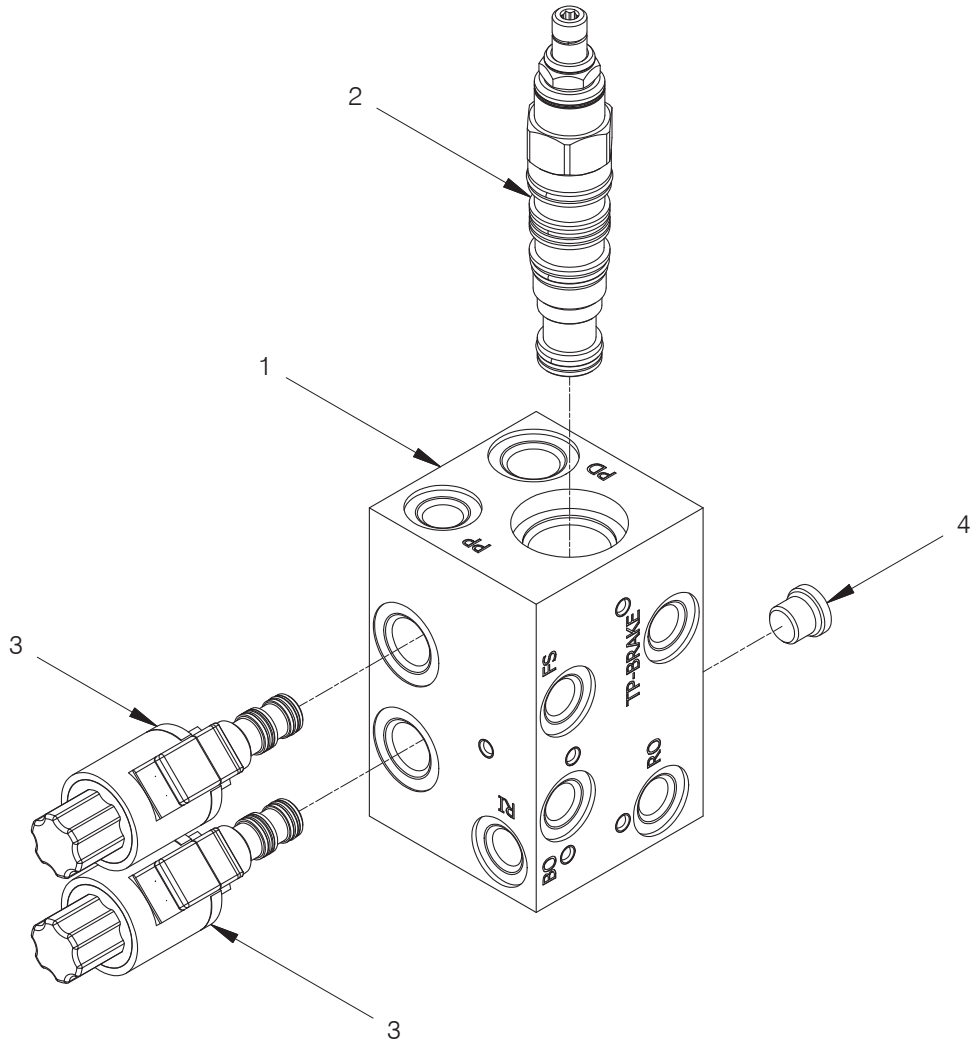


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311718</b>	<b>Assembly, Counterbalance Relief Manifold</b>	<b>1</b>		259258	. . Kit, Seal	1
1	2311719	. Body, Manifold	1	4	242230	. Fitting	4
2	2312068	. Valve, Counterbalance	1	5	235387	. Fitting	3
	243815	. . Kit, Seal	1	6	229383	. Fitting	1
3	2307438W	. Valve, Relief	2	7	229345	. Fitting	2
	255601	. . Kit, Seal	1	8	2310181	. Plug, Orifice	1



# Control Manifold Assembly

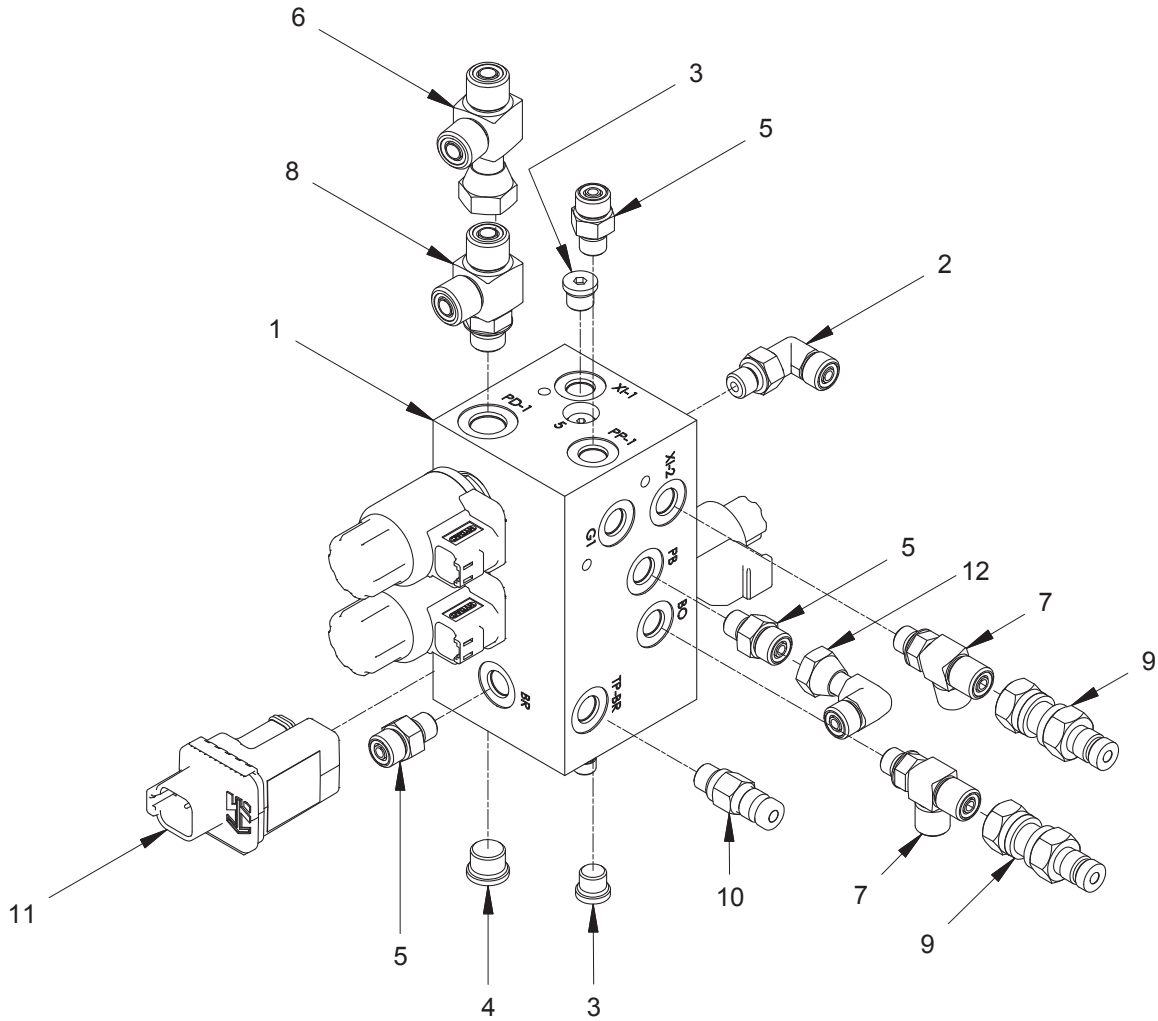
Komatsu D85X-15 (K50)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311770</b>	<b>Assembly, Control Manifold</b>	<b>1</b>				
1	2311771	. Body, Logic Manifold	1	4	2312074	. Valve, Shuttle	1
2	2311592	. Valve, Directional	1		2312112	. . Kit, Seal	1
	252566	. . Kit, Seal	1				
3	2312073	. Valve, Cartridge	2				
	2312111	. . Kit, Seal	1				

# Control Manifold Assembly

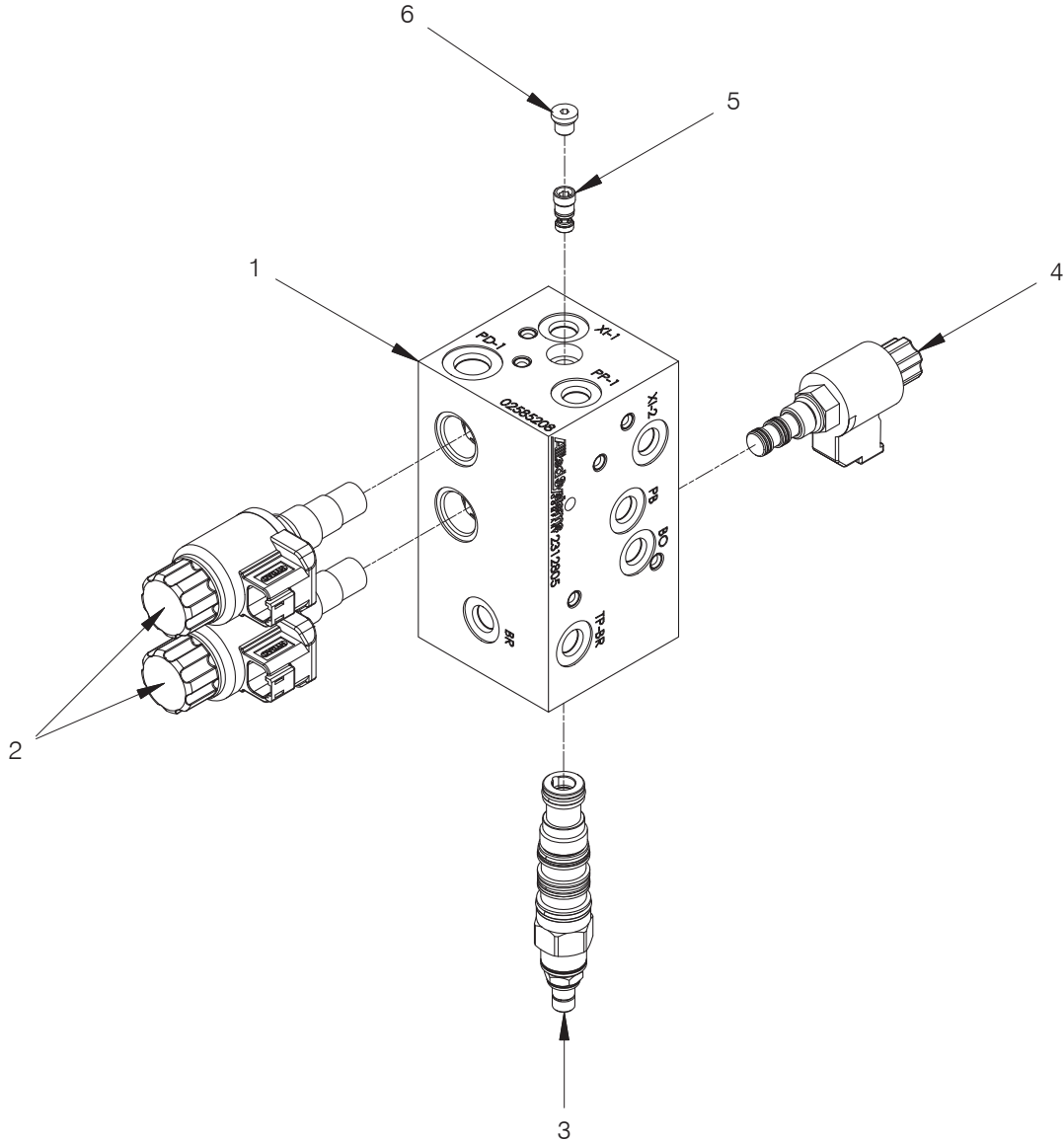
Caterpillar D7E (C511)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312622</b>	<b>Assembly, Control Manifold</b>	<b>1</b>				
1	2312805	. Assembly, Control Manifold (3-15)	1	9	2307625W	. Coupler, Quick Male	2
2	R833251	. Fitting	1	10	R14040	. Coupler, Male	1
3	235387	. Fitting	2	11	*a 2316564	. Module, Programmed EVDR1	1
4	229383	. Fitting	1		*a*b 2315360	. Cable Conversion	1
5	231439	. Fitting	3	12	R833800	. Fitting	1
6	231955	. Fitting	1				
7	R833400	. Fitting	2				
8	231465	. Fitting	1				
						*a Units S/N 1102 and before require Cable Conversion 2315360.	
						*b Not Shown.	

# Control Manifold Assembly

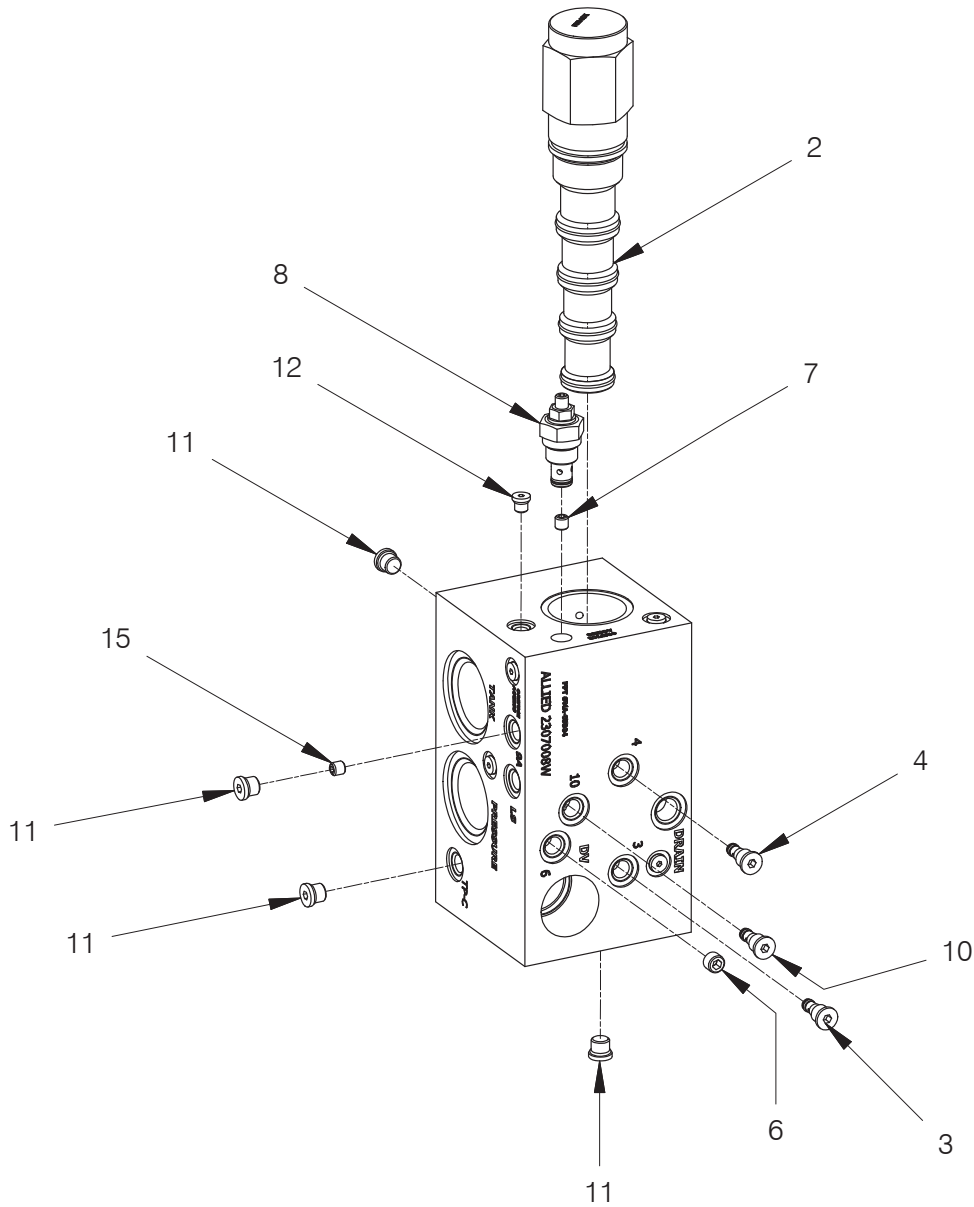
Caterpillar D7E (C511)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312805</b>	<b>. Assembly, Control Manifold</b>	<b>1</b>				
1	2312804	. Block, Manifold	1	4	2312073	. Valve, Cartridge	1
2	2312803	. Valve, Pressure Reducing	2		2314106	. . Cartridge, Base Valve	1
	2314107	. . Cartridge, Base Valve	1		2313984	. . Coil	1
	2314104	. . Coil	1		2312111	. . Kit, Seal	1
	2504253	. . Kit, Seal	1	5	2312074	. Valve, Shuttle	1
3	2311592	. Valve, Directional	1		2312112	. . Kit, Seal	1
	252566	. . Kit, Seal	1	6	242230	. Fitting	1

# Directional Manifold Assembly

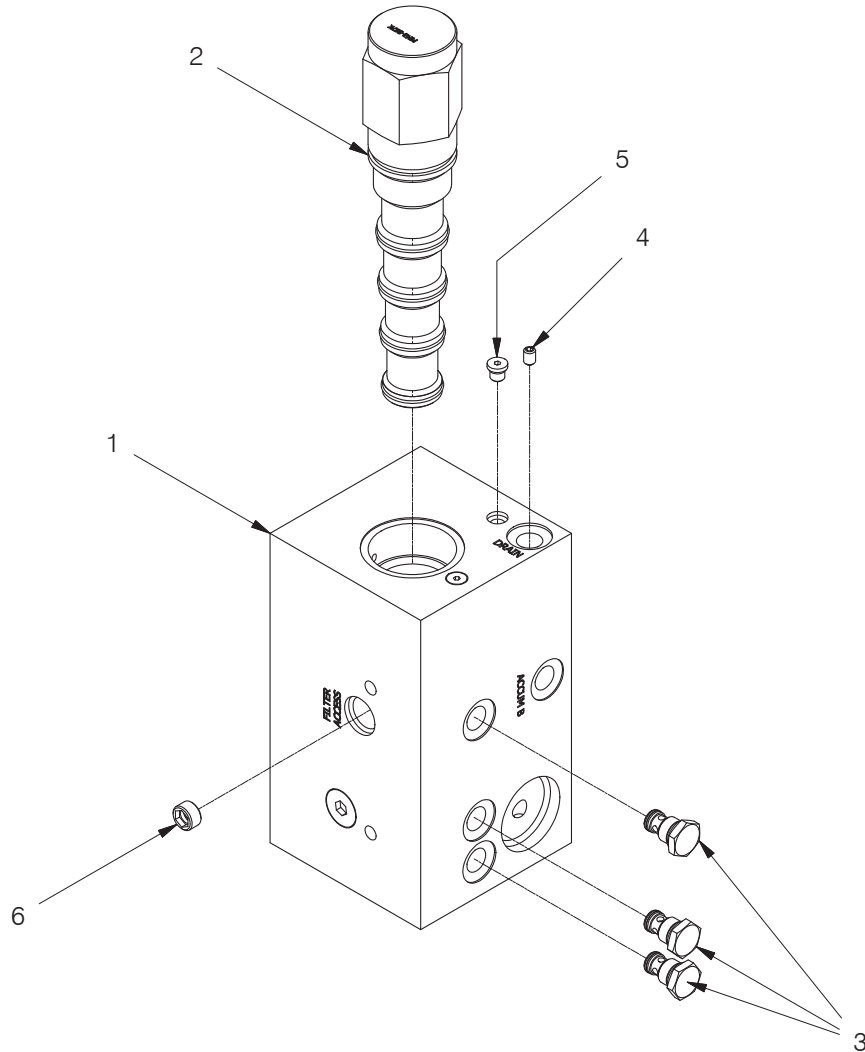
Caterpillar D7E (C511)  
Last Used on S/N H8L-1042



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2307008W</b>	<b>Assembly, Directional Manifold</b>	<b>1</b>				
1	2307232W	. Body, Directional Manifold	1	8	2307236W	. Valve, Cartridge Relief	1
2	2307024W	. Valve, Proportional Spool Cartridge	1		2307246W	. . Kit, Seal	1
	2307235W	. . Kit, Seal	1	10	2307234W	. Valve, Cartridge Check	1
3	2307234W	. Valve, Cartridge Check	1		2307245W	. . Kit, Seal	1
	2307245W	. . Kit, Seal	1	11	222442W	. Fitting, O-Ring	6
4	2307234W	. Valve, Cartridge Check	1	12	2310978	. . Orifice	1
	2307245W	. . Kit, Seal	1	15	2307736W	. . Orifice	1
6	*a 220998W	. Screw	1				
7	2307233W	. Plug, Orifice	1		*a	Use 251099W Sealant Adhesive	

# Directional Manifold Assembly

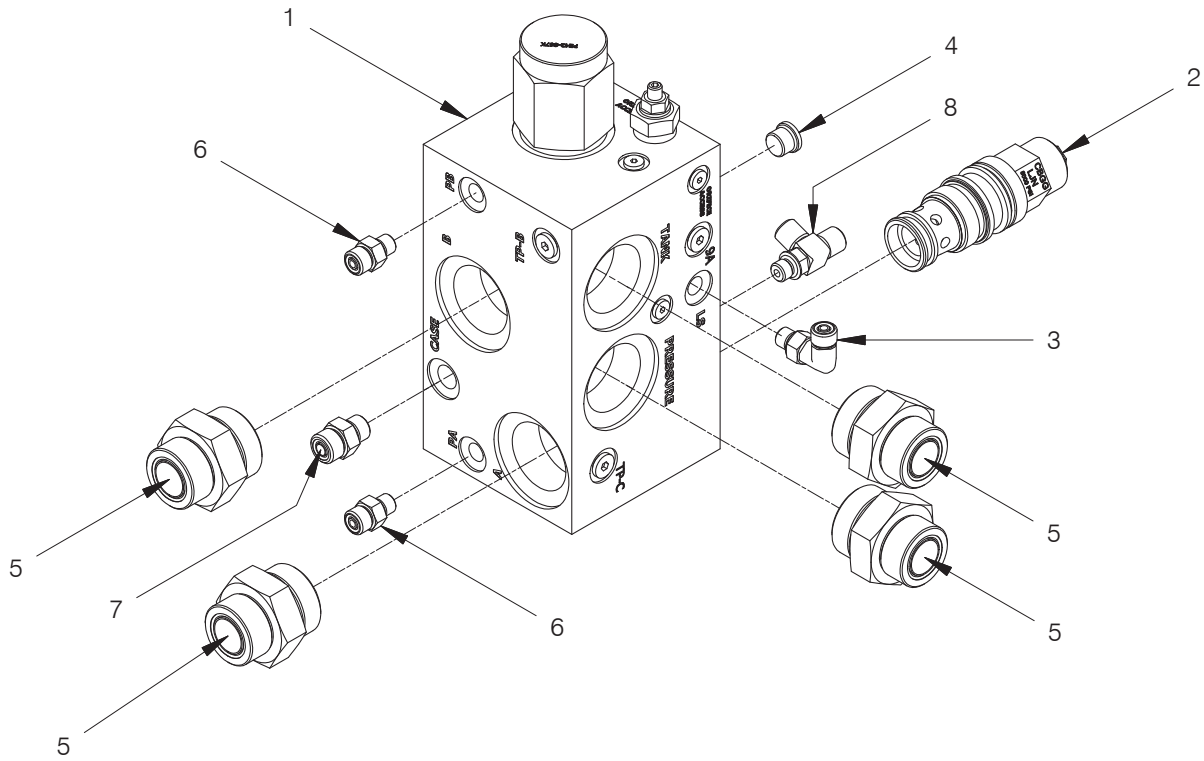
Caterpillar D7E (C511)  
Last Used on S/N H8L-1042



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2311716</b>	<b>Assembly, Directional Manifold</b>					
1	2311717	. Body, Directional Manifold	1	4	2312959	. Orifice	1
2	2307024W	. Valve, Proportional Spool Cartridge 1	1		257557	. . Screw, Set	1
	2307235W	. . Kit, Seal	1	5	257557	. Screw, Set	1
3	2312103	. Valve, Check	3	6	2313072	. Screen	1
	2312114	. . Kit, Seal	3				

## Directional Manifold Assembly

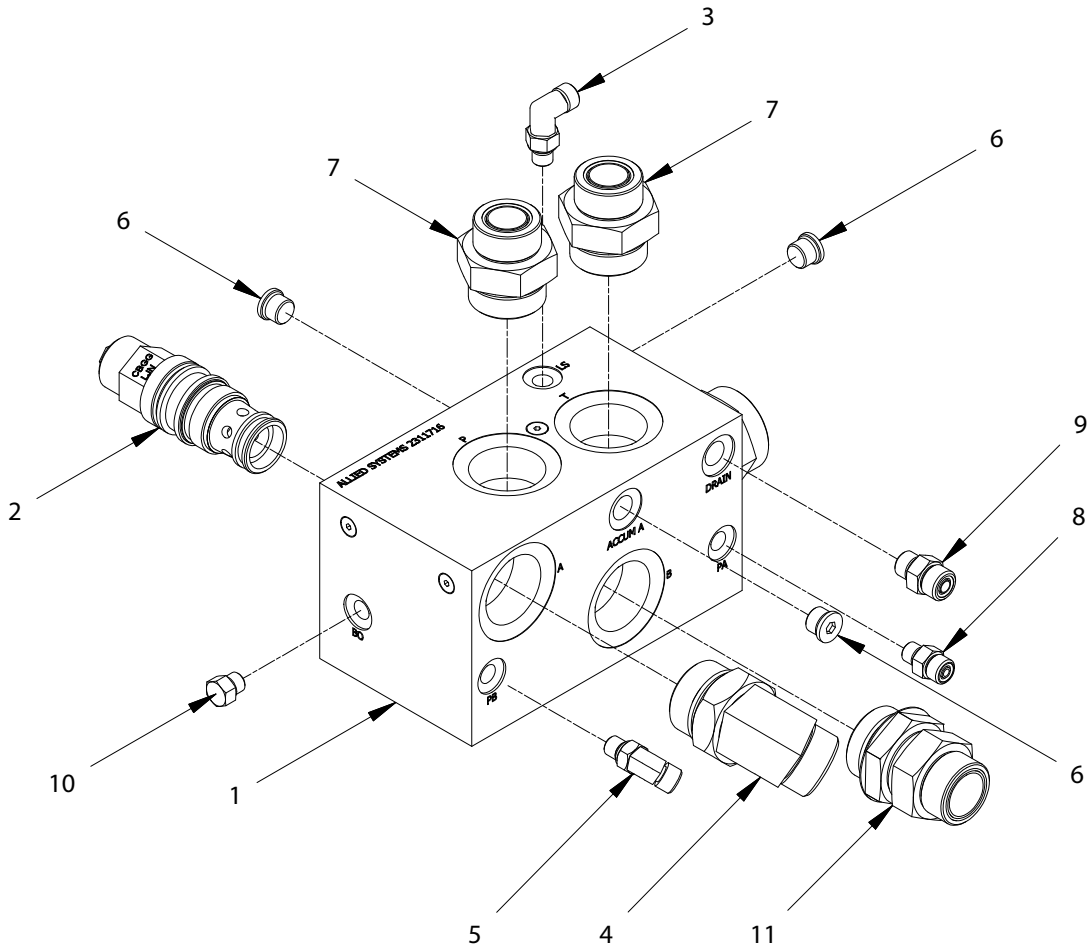
Caterpillar D7E (C511)  
Last Used on S/N H8L-1042



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312623</b>	<b>Assembly, Directional Manifold</b>	<b>1</b>				
1	2307008W	. Assembly, Directional Manifold (See 3-16)	1	4	229383	. Fitting	1
2	2312068	. Valve, Counterbalance	1	5	R833133	. Fitting	4
	243815	. . Kit, Seal	1	6	231439	. Fitting	2
3	R833251	. Fitting	1	7	231440	. Fitting	1
				8	R833400	. Fitting	1

# Directional Manifold Assembly

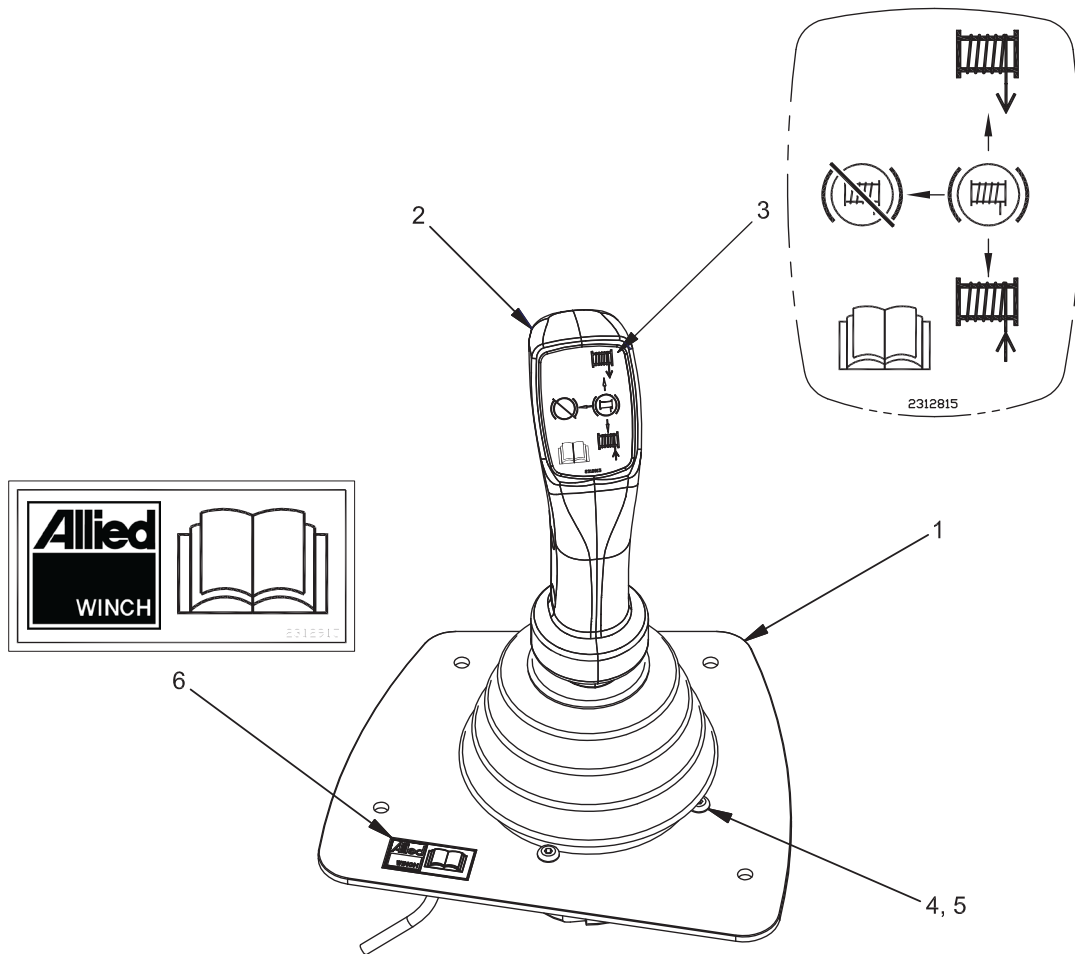
Caterpillar D7E (C511)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314100</b>	<b>Assembly, Directional Manifold</b>	<b>1</b>				
1	2311716	. Assembly, Directional Manifold (See 3-17)	1	6	229383	. Fitting	3
2	2307265W	. Valve, Counterbalance	1	7	R833133	. Fitting	2
	243815	. . Kit, Seal	1	8	231439	. Fitting	1
3	R833251	. Fitting	1	9	231440	. Fitting	1
4	R833218	. Fitting	1	10	209423	. Fitting	1
5	R833200	. Fitting	1	11	2313948	. Fitting	1

# Control Lever Assembly & Mounting Plate

Caterpillar D7E (C511)



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2312901</b>	<b>Control Lever Assembly &amp; Mounting Plate</b>	<b>1</b>				
1	2312918	. Plate, Control Lever Mounting	1	4	296153W	Capscrew	4
2	2312718	. Assembly, Control Lever	1	5	302398W	Nut, Lock	4
3	2312815	. Decal, Control Lever	1	6	2312915	Decal, Read Manual	1

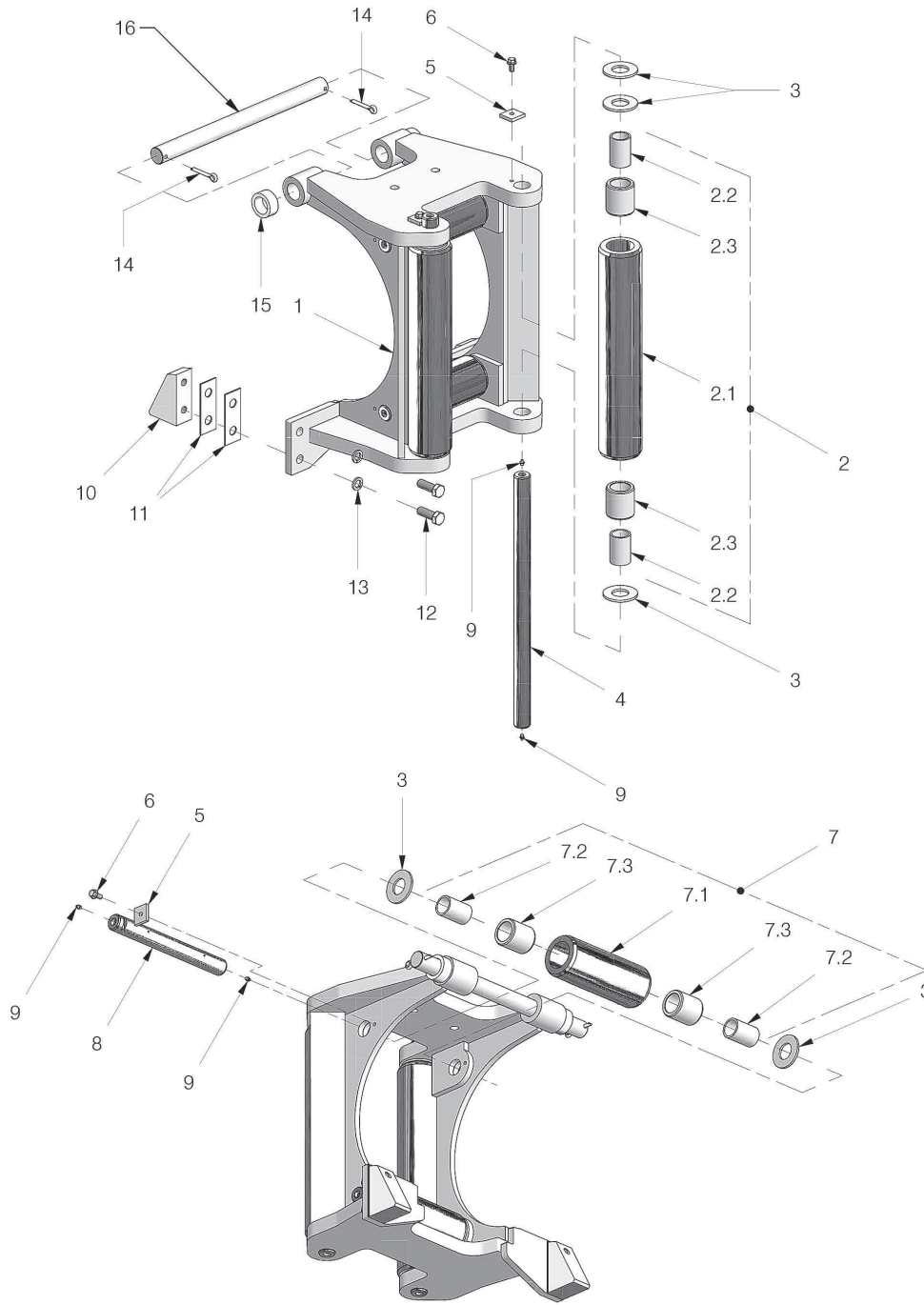


## Optional Equipment

Fairlead .....	4-2
Wire Rope Assemblies.....	4-3

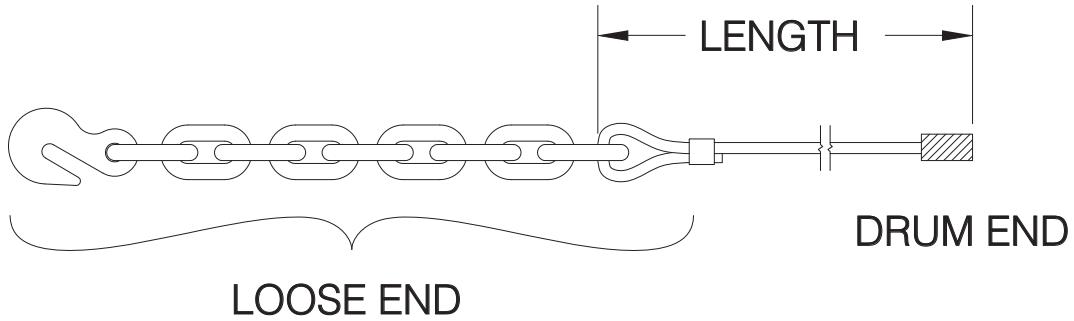


### Fairlead 4-Roller

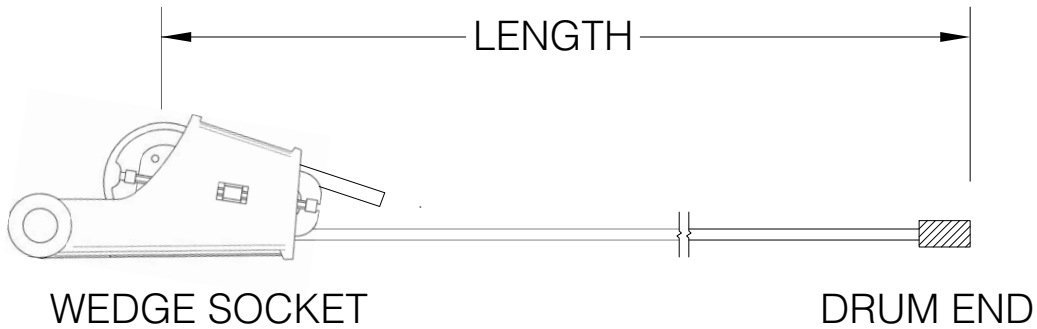


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2301945W</b>	<b>Assembly, 4-Roller</b>	<b>1</b>				
1	2301934W	. Fairlead	1	7.2	2570W	.. Bushing	2
2	2301726W	. Roller	2	7.3	2301961W	.. Spacer	2
2.1	2301724W	.. Tube	1	8	2301942W	. Shaft	2
2.2	2570W	.. Bushing	2	9	16001W	. Fitting, Lube	8
2.3	2301961W	.. Spacer	2	10	2312602	. Bracket, Mounting	2
3	33394W	. Washer	10	11	93985W	. Shim .134	AR
4	2301943W	. Shaft	2	12	Y09C-M2470	. Capscrew	4
5	2301706W	. Keeper	4	13	292689W	. Washer	4
6	398817W	. Screw, Flange	4	14	15272W	. Pin	2
7	2301727W	. Roller	2	15	2312603	. Spacer	2
7.1	2301725W	.. Tube	1	16	2312494	Rod, Tie	1

**Wire Rope Assemblies**



**WR SERIES WIRE ROPE**



**YS SERIES WIRE ROPE**

	<b>Wire Rope</b>	<b>Tail Chain &amp; Hook</b>
<b>Wire Rope Diameter Dia (in)</b>	<b>Breaking Strength New (lbs)</b>	<b>Working Load Limit (lbs) 3.5:1 Design Factor</b>
7/8	79,600	34,200
1	103,400	47,700
1 1/8	130,000	47,700

Part No.	Wire Diameter	Length Ft (M)	Part No.	Wire Diameter	Length Ft (M)
WR7-287J	7/8"	287 (87) *	WR9-267J	1 1/8"	267 (81) **
WR7-430J	7/8"	430 (131) **	YS9-267JWS	1 1/8"	267 (81) **
WR8-222J	1"	222 (68) *			
WR8-334J	1"	334 (102) **			
WR9-178J	1 1/8"	178 (54) *			

\* Length to fill drum to 2/3 capacity (recommended)  
 \*\* Length to fill drum to full capacity

Intentionally Blank

## Recommended Service Kits

Recommended Winch Service Intervals ..... 5-2

Recommended Service Kits ..... 5-3

- Motor, Reducer & Brake Assembly Rebuild Kit  
P/N 2314615 ..... 5-4
- Intermediate/Drum Shaft & Brake Assembly Rebuild Kit  
P/N 2314616 ..... 5-6



## Recommended Winch Service Intervals

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

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

**Hydraulic Winch Maintenance**

**Recommended Winch Service Intervals**

Hours or **	Months **	Filter ***	Winch Gear Oil	Brake & Clutch	Major Overhaul
First 250	1	Change			
Every 500	3	Change			
Every 2,000	12		Change		
Every 5,000				* Inspect	
Every 10,000					* Evaluate

**Lube rollers and check oil level and filter light weekly.**

\* Evaluate = Service based on average winch use;  
 - if used more than once a day, perform overhaul.  
 - if used less than once a day, remove covers and check to determine need.

\* Inspect = disassemble and inspect for wear.

\*\* Service winch using the tractor's hour meter or the length of time the winch is mounted to the tractor, whichever occurs first.

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

**Recommended Gear Compartment Oil:**

Caterpillar    -TO-4

Chevron        -Drive Train Fluids HD

ExxonMobil    -Mobiltrans HD Series





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

2310796 Rev D

Table 1 Recommended Winch Service Intervals

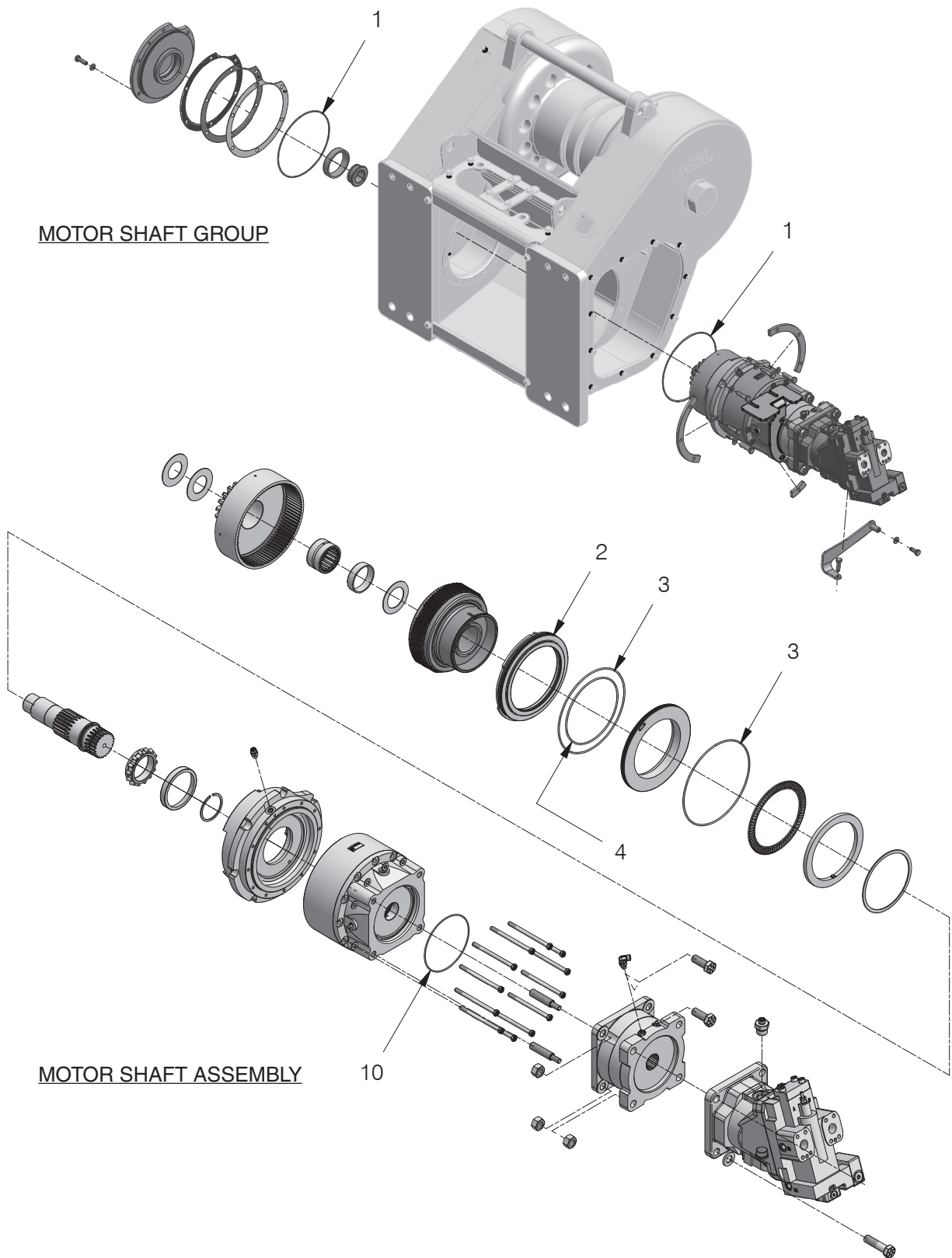
**Recommended Service Kits**

SERVICE KITS FOR H8L WINCHES				
Service Description	Kit Description	Winch Serial Number	Kit Part No. for Hi-Performance (H) Winches	Kit Part No. for Standard (T) Winches
Filter Change	Filter Kit	ALL	Refer to Dozer Operator & 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	2314615	
Major Overhaul (Every 10,000 hours)	Intermediate/Drum Shaft, & Brake Assembly Rebuild Kit	ALL	2314616	

Table 2 Routine Maintenance Kits

# Motor, Reducer & Brake Assembly Rebuild Kit: 2314615

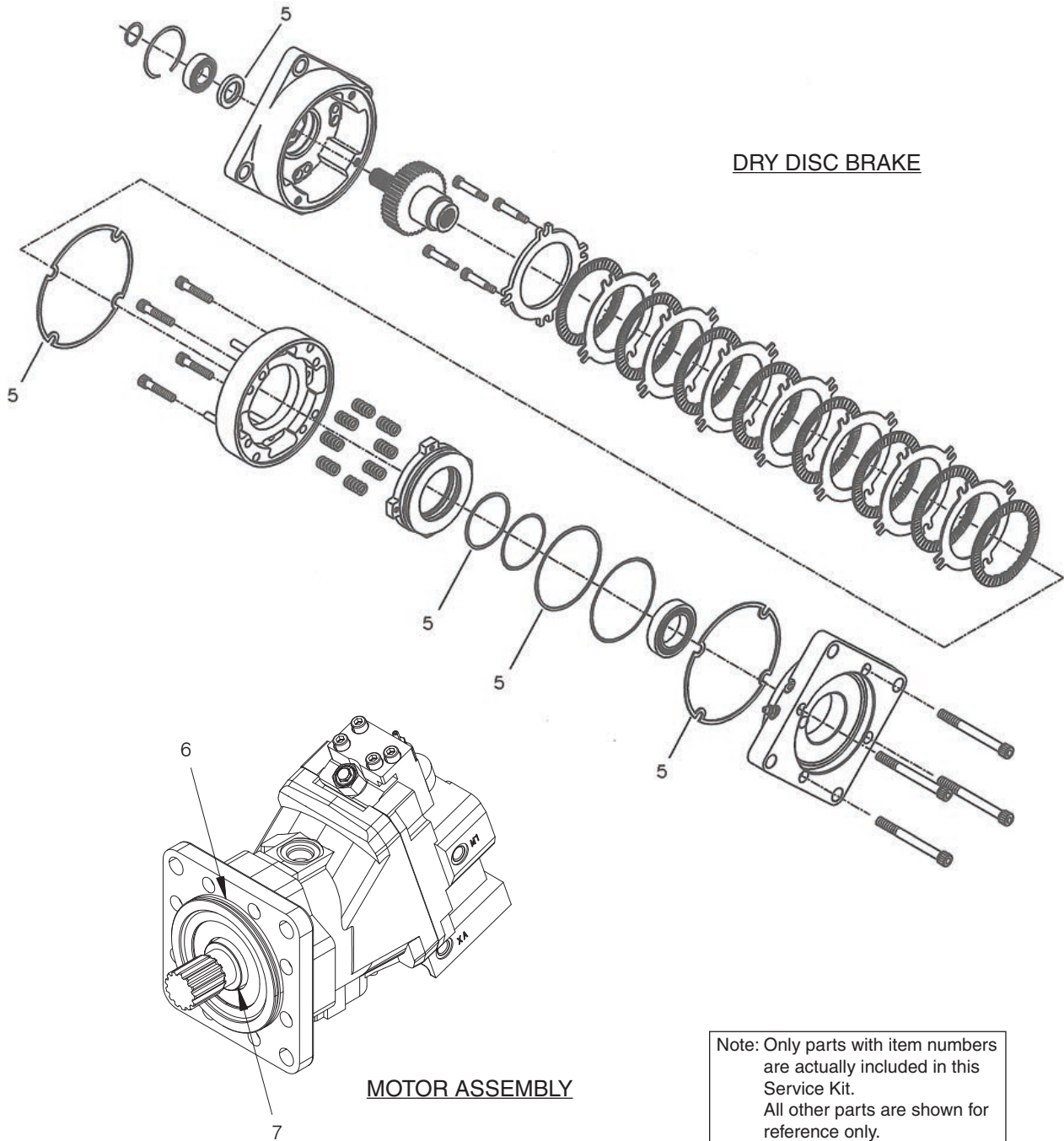
Page 1 of 2





**Motor, Reducer & Brake Assembly Rebuild Kit: 2314615**

Page 2 of 2



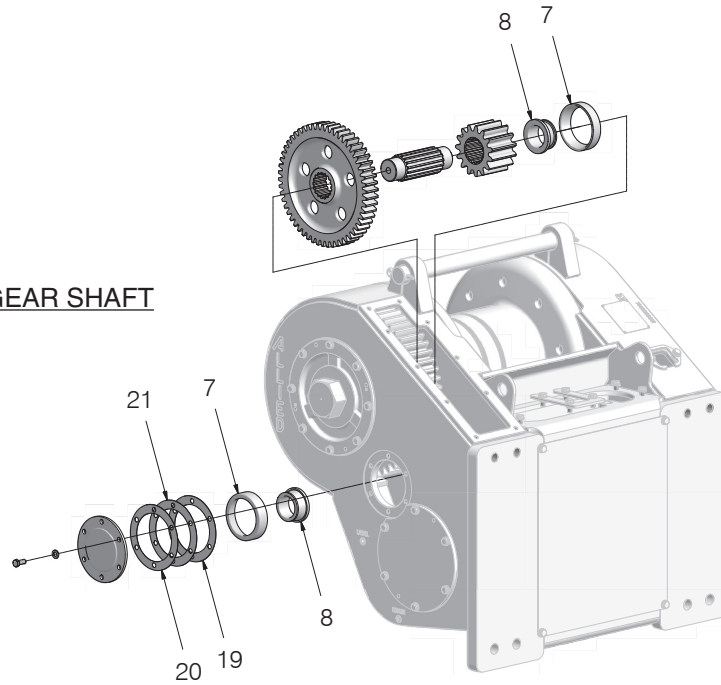
Note: Only parts with item numbers are actually included in this Service Kit.  
All other parts are shown for reference only.

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314615</b>	<b>Rebuild Kit, Motor, Reducer &amp; Brake Assembly</b>	<b>1</b>				
1	203564	. O-Ring	2	6	2313890	. O-Ring	1
2	2311880	. Ring, Seal	1	7	2313891	. Kit, Shaft Seal	1
3	86585W	. O-Ring	2	8	313022W	. Adhesive (Not Shown)	1
4	87287W	. O-Ring	1	9	230064W	. Kit, Loctite (Not Shown)	1
5	2312302	. Kit, O-Ring	1	10	23749	. O-Ring	1

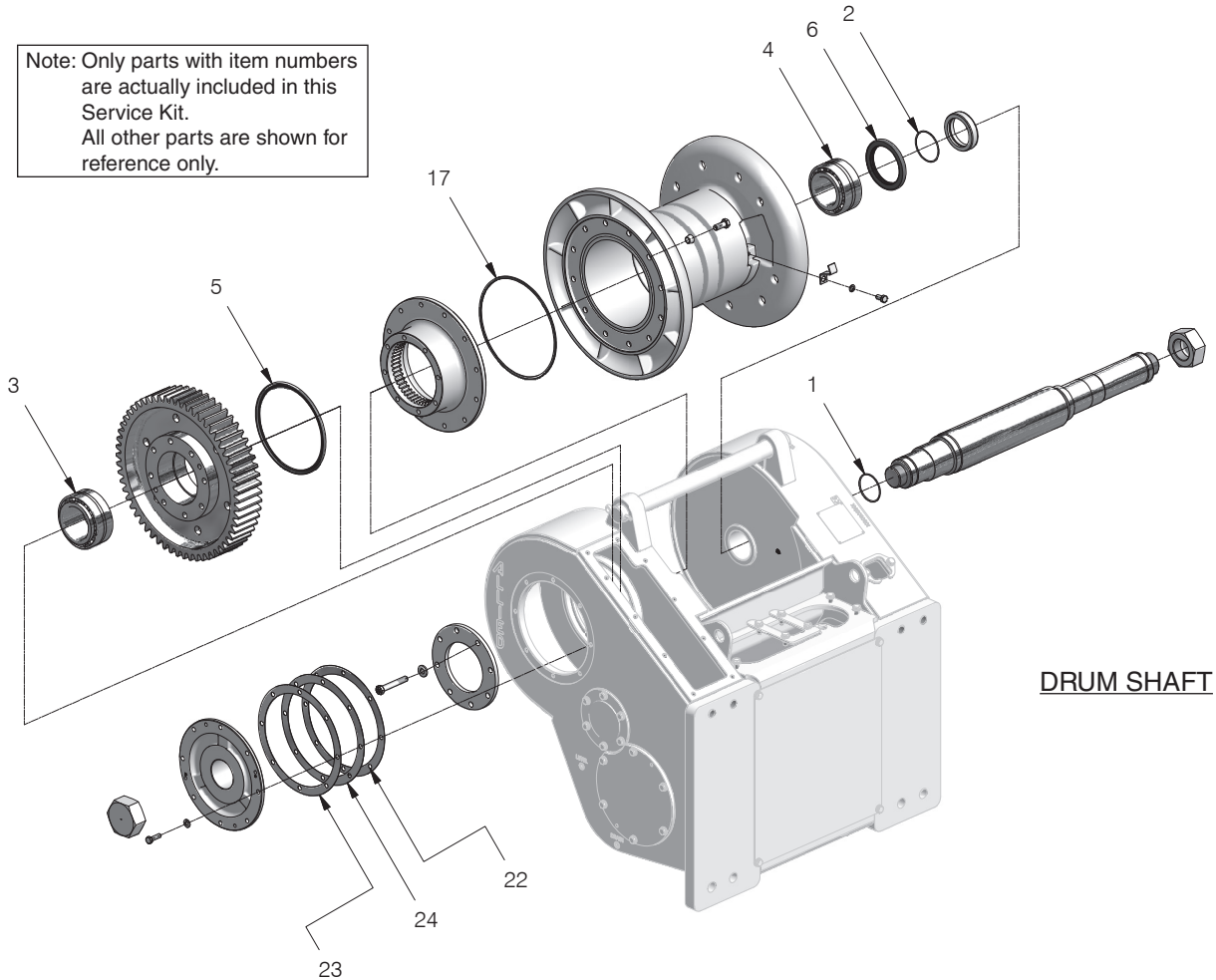
Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314616

Page 1 of 3

INTERMEDIATE GEAR SHAFT



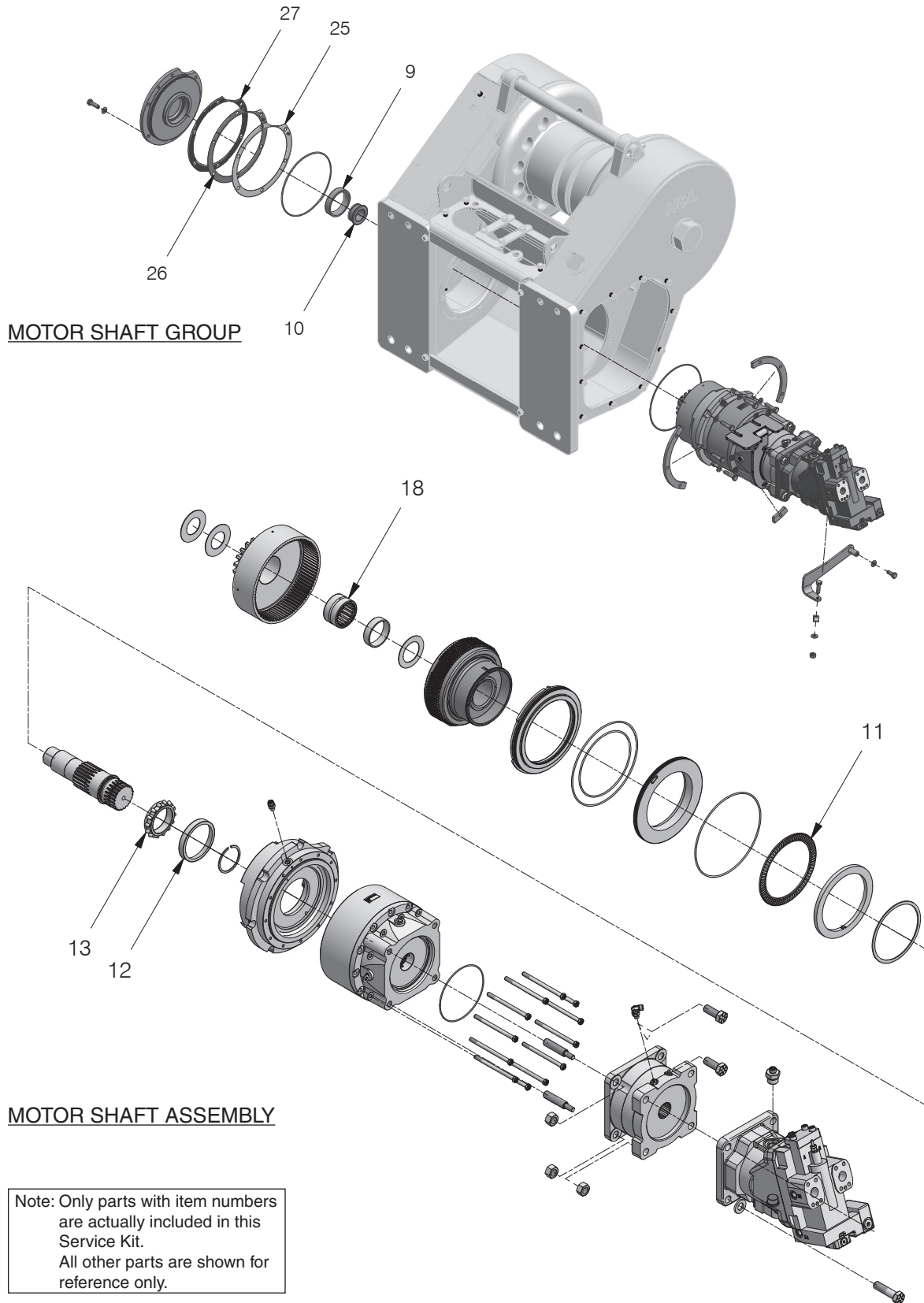
Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.



DRUM SHAFT

Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314616

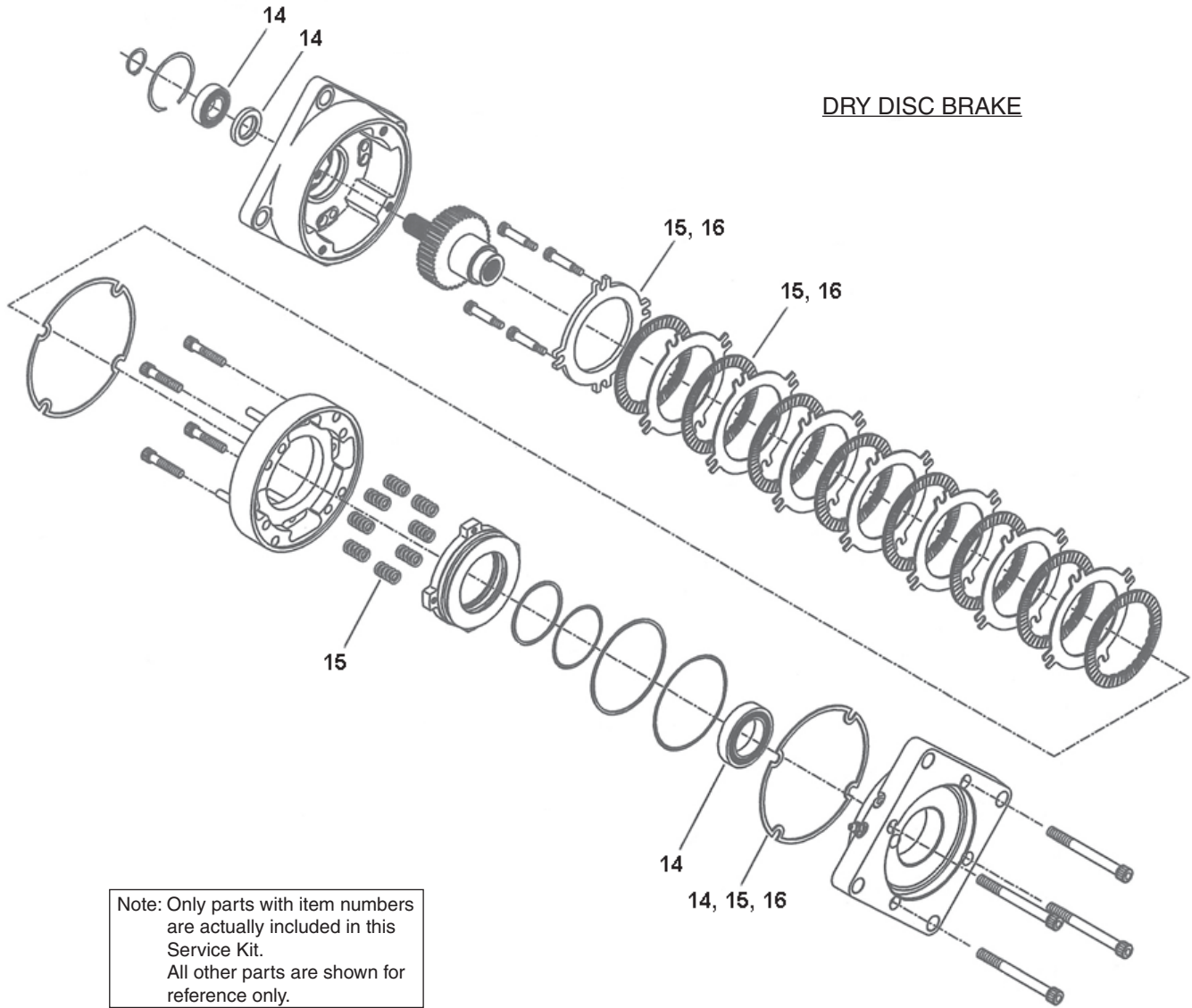
Page 2 of 3



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

**Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314616**

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.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314616</b>	<b>Rebuild Kit, Intermediate/Drum Shaft &amp; Brake Assembly</b>	<b>1</b>				
1	15881W	. O-Ring	1	16	250847	. Repair Kit, Lining	1
2	46629W	. O-Ring	1	17	131982W	. Ring	1
3	96437W	. Bearing, Roller	1	18	230407W	. Bearing	1
4	78022W	. Bearing, Roller	1	19	*a 134076W	Shim .020	AR
5	141149W	. Seal, Oil	1	20	*a 134074W	Shim .005	AR
6	44484W	. Seal, Oil	1	21	*a 134075W	Shim .007	AR
7	30091W	. Cup, Bearing	2	22	*a 134072W	Shim .020	AR
8	230309W	. Cone, Bearing	2	23	*a 134070W	Shim .005	AR
9	2300668W	. Cup, Bearing	1	24	*a 134071W	Shim .007	AR
10	2300669W	. Cone, Bearing	1	25	*a 2312059	Shim .005	AR
11	2311655	. Bearing, Needle	1	26	*a 2312060	Shim .007	AR
12	137153W	. Cup, Bearing	1	27	*a 2312061	Shim .020	AR
13	137155W	. Cone, Bearing	1				
14	2312303	. Repair Kit, Bearing	1		*a	Shims are not included in Rebuild Kit, 2314616.	
15	250850	. Repair Kit, Spring	1				

## Suggested Spares Guide

Recommended Service Parts .....	6-2
• Gaskets & Seals	
H8L Winch Mounted on Caterpillar D7E (C511) .....	6-2
• Gaskets & Seals	
H8L Winch Mounted on Komatsu D85X-15 (K50) .....	6-3
• Motor, Reducer & Brake Assembly Rebuild Kit, 2314615.....	6-3
• Intermediate/Drum Shaft & Brake Assembly Rebuild Kit, 2314616.....	6-4
• Spare Parts.....	6-5
• Wire Rope Assemblies.....	6-5
• Operator Controls Components.....	6-5
• Hose Kits .....	6-6
• Hose Kits .....	6-7
• Tool Kits .....	6-8
• Diagnostic Tools .....	6-8





## Suggested Spares Guide

# H8L Hydraulic Winch

### Recommended Service Parts

The following pages list some of the service parts and kits that are available for your Allied H8L Winch.

Page 6-2 and page 6-3 include gaskets and seals. Keep these parts in stock at all times for regular maintenance. Order parts from the table based on your winch.

Page 6-3 and Page 6-4 contain kits for 5,000 hour and 10,000 hour scheduled maintenance. Each kit includes all parts needed for each interval. Order these kits in preparation for the scheduled maintenance of your winch(es).

Page 6-5 contains lists of spare parts, wire rope, and operator controls components. Order parts as required and as relevant for your installation.

Page 6-6 and Page 6-7 contain lists of hose kits. Order parts or kits as required and as relevant for your installation.

Page 6-7 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>.**

Gaskets & Seals				Order as Required
Applies to: H8L Winch Mounted on Caterpillar D7E (C511)				
Allied P/N	Description	Quantity on Winch	See Parts Manual Page	Order Quantity
2312533	Gasket, Top Right-Hand Cover	1	Frames/Covers	
2312574	Seal, Top Left-Hand	1	Frames/Covers	
2312536	Seal, Top	1	Frames/Covers	
2504253	Seal Kit, Pressure Reduce Valve (P/N 2312803)	1	Assembly, Control Manifold (P/N 2312085)	
252566	Seal Kit, Directional Valve (P/N 2311592)	1	Assembly, Control Manifold (P/N 2312085)	
2312111	Seal Kit, Cartridge Valve (P/N 2312073)	1	Assembly, Control Manifold (P/N 2312085)	
2312112	Seal Kit, Shuttle Valve (P/N 2312074)	1	Assembly, Control Manifold (P/N 2312085)	
2307235W	Seal Kit, Proportional Spool Cartridge Valve (P/N 2307024W)	1	Assembly, Directional Manifold (P/N 2307008W)	
2307245W	Seal Kit, Cartridge Check Valve (P/N 2307234W)	3	Assembly, Directional Manifold (P/N 2307008W)	
2307246W	Seal Kit, Cartridge Relief Valve (P/N 2307236)	1	Assembly, Directional Manifold (P/N 2307008W)	
2307235W	Seal Kit, Proportional Spool Cartridge Valve (P/N 2307024W)	1	Assembly, Directional Manifold (P/N 2311716)	
2312114	Seal Kit, Check Valve (P/N 2312103)	1	Assembly, Directional Manifold (P/N 2311716)	
243815	Seal Kit, Counterbalance Valve (P/N 2312068)	1	Assembly, Directional Manifold (P/N 2312623)	
243815	Seal Kit, Counterbalance Valve (P/N 2307265)	1	Assembly, Directional Manifold (P/N 2314100)	



## Suggested Spares Guide

<b>Gaskets &amp; Seals</b>				<b>Order as Required</b>
<b>Applies to: H8L Winch Mounted on Komatsu D85X-15 (K50)</b>				
<b>Allied P/N</b>	<b>Description</b>	<b>Quantity on Winch</b>	<b>See Parts Manual Page</b>	<b>Order Quantity</b>
2312533	Gasket, Top Right-Hand Cover	1	Frames/Covers	
2312208	Gasket, Hose Seal	1	Frames/Covers	
2312536	Seal, Top	1	Frames/Covers	
252566	Seal Kit, Directional Valve (P/N 2311592)	1	Assembly, Control Manifold (P/N 2311770)	
2312111	Seal Kit, Cartridge Valve (P/N 2312073)	1	Assembly, Control Manifold (P/N 2311770)	
2312112	Seal Kit, Shuttle Valve (P/N 2312074)	1	Assembly, Control Manifold (P/N 2311770)	
243815	Seal Kit, Counterbalance Valve (P/N 2312068)	1	Assembly, Counterbalance Relief Manifold (P/N 2311718)	
255601	Seal Kit, Relief Valve (P/N 2307438W)	2	Assembly, Counterbalance Relief Manifold (P/N 2311718)	
259258	Seal Kit, Relief Valve (P/N 2307438W)	2	Assembly, Counterbalance Relief Manifold (P/N 2311718)	

<b>Motor, Reducer &amp; Brake Assembly Rebuild Kit, P/N 2314615</b>				
<b>Applies to: All</b>				
<b>Service Interval: Every 5,000 Hours</b>				
<b>Allied P/N</b>	<b>Description</b>	<b>Quantity in Kit</b>	<b>See Parts Manual Page</b>	<b>Order Quantity</b>
<b>2314615</b>	<b>Rebuild Kit, Motor, Reducer &amp; Brake Assembly</b>			
203564	. O-Ring	2	Group, Motor Shaft	
2311880	. Ring, Seal	1	Group, Motor Shaft	
86585W	. O-Ring	2	Assembly, Motor Shaft	
87287W	. O-Ring	1	Assembly, Motor Shaft	
2312302	. Kit, O-Ring	1	Brake, Dry Disc	
2313890	. O-Ring	1	Assembly, Motor	
2313891	. Kit, Shaft Seal	1	Assembly, Motor	
313022W	. Adhesive	1	Assembly, Motor Shaft	
230064W	. Adhesive	1	Assembly, Motor Shaft	



## Suggested Spares Guide

### Intermediate/Drum Shaft, and Brake Assembly Rebuild Kit, P/N 2314616

Applies to: All

Service Interval: Every 10,000 Hours

Allied P/N	Description	Quantity in Kit	See Parts Manual Page	Order Quantity
<b>2314616</b>	<b>Rebuild Kit, Intermed./Drum Shaft, &amp; Brake Assy.</b>			
15881W	. O-Ring	1	Shaft, Drum	
46629W	. O-Ring	1	Shaft, Drum	
96437W	. Bearing, Roller	1	Shaft, Drum	
78022W	. Bearing, Roller	1	Shaft, Drum	
141149W	. Seal, Oil	1	Shaft, Drum	
44484W	. Seal, Oil	1	Shaft, Drum	
131982W	. Ring	1	Shaft, Drum	
30091W	. Cup, Bearing	2	Shaft, Intermediate Gear	
230309W	. Cone, Bearing	2	Shaft, Intermediate Gear	
2300668W	. Cup, Bearing	1	Group, Motor Shaft	
2300669W	. Cone, Bearing	1	Group, Motor Shaft	
2311655	. Bearing, Needle	1	Assembly, Motor Shaft	
137153W	. Cup, Bearing	1	Assembly, Motor Shaft	
137155W	. Cone, Bearing	1	Assembly, Motor Shaft	
230407W	. Bearing	1	Assembly, Motor Shaft	
2312303	. Repair Kit, Bearing	1	Brake, Dry Disc	
250850	. Repair Kit, Spring	1	Brake, Dry Disc	
250847	. Repair Kit, Lining	1	Brake, Dry Disc	
134076W	Shim .020 *	AR	Shaft, Intermediate Gear	
134074W	Shim .005 *	AR	Shaft, Intermediate Gear	
134075W	Shim .007 *	AR	Shaft, Intermediate Gear	
134072W	Shim .020 *	AR	Shaft, Drum	
134070W	Shim .005 *	AR	Shaft, Drum	
134071W	Shim .007 *	AR	Shaft, Drum	
2312059	Shim .005 *	AR	Shaft Group, Motor	
2312060	Shim .007 *	AR	Shaft Group, Motor	
2312061	Shim .020 *	AR	Shaft Group, Motor	

\* Note: Shims are not included in Rebuild Kit, 2314616. Order shims as required for your winch installation.





## Suggested Spares Guide

Spare Parts				Order as Required	
Applies to: See "Relevant for Installation" Column					
Allied P/N	Description	Quantity on Winch	Relevant for Installation	See Parts Manual Page	Order Quantity
2311814	Motor, Hydraulic	1	Caterpillar D7E (C511)	Assembly, Motor Shaft	
2313780	Motor, Hydraulic	1	Komatsu D85X-15 (K50)	Assembly, Motor Shaft	
2312554	Kit, Planetary Reducer	1	All	Assembly, Motor Shaft	
2312155	Brake, Dry Disk	1	All	Assembly, Motor Shaft	
21420W	Plug, Breather	1	All	Frame/Covers	
2300962W	Cap, Breather	1	All	Frame/Covers	
95959W	Pin, Drawbar	1	All	Frame/Covers	
2303221W	Pin, Retaining	1	All	Frame/Covers	
2312099	Nut, Blind	2	All	Shaft, Drum	
274464W	Keeper, Ferrule	1	All	Shaft, Drum	
328715W	Disc, Friction	8	All	Assembly, Clutch	
96418W	Gear, 54T	1	All	Shaft, Intermediate Gear	
2570W	Bushing	8	All	Fairlead, 4-Roller	

Wire Rope Assemblies				Order as Required	
Applies to: All					
Allied P/N	Description	Length	Will Fill Drum To:	Order Quantity	
WR7-287J	Wire Rope Assembly, 7/8"	287 FT (81 M)	2/3 Capacity (recommended)		
WR7-430J	Wire Rope Assembly, 7/8"	430 FT (131 M)	Full Capacity		
WR8-222J	Wire Rope Assembly, 1"	222 FT (68 M)	2/3 Capacity (recommended)		
WR8-334J	Wire Rope Assembly, 1"	334 FT (102 M)	Full Capacity		
WR9-178J	Wire Rope Assembly, 1 1/8"	178 FT (54 M)	2/3 Capacity (recommended)		
WR9-267J	Wire Rope Assembly, 1 1/8"	267 FT (81 M)	Full Capacity		
YS9-267JWS	Wire Rope Assembly, 1 1/8"	267 FT (81 M)	Full Capacity		

Operator Controls Components			Order as Required	
Applies to: H8L Winch Mounted on Komatsu D85X-15 (K50)				
Allied P/N	Description	Quantity on Winch	Order Quantity	
2310504	Assembly, Switch (Red LED)	1		



## Suggested Spares Guide

Hose Kit			Order as Required
Applies to: H8L Winch Mounted on Caterpillar D7E (C511)			
Allied P/N	Description	Quantity on Winch	Order Quantity
<b>2314926</b>	<b>Hose Kit, Internal Hydraulics</b>	<b>1</b>	
2310543	. Assembly, Hose	1	
257331	. Assembly, Hose	1	
2313710	. Assembly, Hose	1	
2312695	. Assembly, Hose	1	
249525	. Assembly, Hose	1	
242260	. Assembly, Hose	1	
242144	. Assembly, Hose	1	
2312798	. Assembly, Hose	1	
2312644	. Assembly, Hose	1	
2312731	. Assembly, Hose	1	

Hose Kit			Order as Required
Applies to: H8L Winch Mounted on Caterpillar D7E (C511)			
Allied P/N	Description	Quantity on Winch	Order Quantity
<b>2314928</b>	<b>Hose Kit, External Hydraulics</b>	<b>1</b>	
2312643	. Assembly, Hose	1	
2312646	. Assembly, Hose	1	
2312647	. Assembly, Hose	1	
2312936	. Assembly, Hose	1	



## Suggested Spares Guide

Hose Kit			Order as Required
Applies to: H8L Winch Mounted on Komatsu D85X-15 (K50)			
Allied P/N	Description	Quantity on Winch	Order Quantity
2314927	Hose Kit, Internal Hydraulics	1	
2310543	. Assembly, Hose	1	
242264	. Assembly, Hose	1	
2312695	. Assembly, Hose	1	
R11611	. Assembly, Hose	1	
2314017	. Assembly, Hose	1	
2313807	. Assembly, Hose	1	
249327	. Assembly, Hose	1	
249334	. Assembly, Hose	2	

Hose Kit			Order as Required
Applies to: H8L Winch Mounted on Komatsu D85X-15 (K50)			
Allied P/N	Description	Quantity on Winch	Order Quantity
2314945	Hose Kit, External Hydraulics	1	
2314033	. Assembly, Hose	2	
2313817	. Assembly, Hose	3	
2313818	. Assembly, Hose	1	



# Suggested Spares Guide

## 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

23749 - 2312622.....	7-2
2312622 - 239147W.....	7-3
239147W - YS9-267JWS.....	7-4

7-2

Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item
23749	5-5	10	242597	3-9	17	2311683	2-5	17	2312117	1-3	3.8
26837	3-9	15	242598	3-7	1.36	2311683	2-7	17	2312117	1-5	3.8
69778	6-8		242601	1-9	1.20	2311684	2-5	22	2312119	1-3	3.16
69782	6-8		243815	3-14	2	2311684	2-7	22	2312119	1-5	3.16
70381	6-8		243815	3-20	2	2311687	2-5	29	2312155	2-5	6
203443	3-9	2	243815	3-21	2	2311687	2-7	29	2312155	2-7	6
203446	3-9	3	243815	6-2		2311716	3-19		2312155	2-9	
203564	2-3	17	243815	6-2		2311716	3-21	1	2312155	6-5	
203564	5-5	1	243815	6-3		2311717	3-19	1	2312177	3-11	1.12
203564	6-3		244959	3-13	6	2311718	3-13	1	2312208	1-5	4.2
209423	3-21	10	249327	3-7	1.18	2311718	3-14		2312208	6-3	
229345	3-14	7	249327	6-7		2311719	3-14	1	2312302	5-5	5
229383	3-13	3	249334	3-7	1.19	2311770	3-7	1.22	2312302	6-3	
229383	3-14	6	249334	6-7		2311770	3-15		2312303	5-8	14
229383	3-16	4	249525	3-3	1.18	2311771	3-15	1	2312303	6-4	
229383	3-20	4	249525	3-5	1.18	2311814	2-5	9	2312339	3-7	1.9
229383	3-21	6	249525	6-6		2311814	6-5		2312442	2-5	18
229448	3-3	1.6	250847	5-8	16	2311855	2-5	1	2312442	2-7	18
229448	3-5	1.6	250847	6-4		2311855	2-7	1	2312446	2-5	16
229448	3-7	1.4	250850	5-8	15	2311857	2-3	1	2312446	2-7	16
231439	2-5	11	250850	6-4		2311869	2-5	32	2312446	2-12	
231439	2-7	11	252566	3-15	2	2311869	2-7	32	2312447	2-12	1
231439	3-7	1.25	252566	3-17	3	2311880	2-5	23	2312448	2-5	14
231439	3-16	5	252566	6-2		2311880	2-7	23	2312448	2-7	14
231439	3-20	6	252566	6-3		2311880	5-5	2	2312449	2-11	22
231439	3-21	8	255601	3-14	3	2311880	6-3		2312452	2-3	20
231440	3-20	7	255601	6-3		2311906	2-12	6	2312452	2-5	
231440	3-21	9	257331	3-3	1.14	2311907	2-12	2	2312466	2-11	5
231465	3-7	1.23	257331	3-5	1.14	2311917	2-3	6	2312468	2-10	10
231465	3-16	8	257331	6-6		2311918	2-3	7	2312468	2-11	1
231820	3-3	2.5	257557	3-19	4	2312026	1-5	4.1	2312486	1-3	3.13
231820	3-5	2.5	257557	3-19	5	2312029	2-12	3	2312486	1-5	3.13
231955	3-11	1.8	259258	3-14	3	2312036	2-3	2	2312487	2-3	11
231955	3-16	6	259258	6-3		2312039	2-5	15	2312487	2-11	23
232356	3-9	14	588466	6-8		2312039	2-7	15	2312488	2-3	12
232387	1-7	1.4	588467	6-8		2312041	2-5	7	2312494	1-3	2.3
232960	3-7	1.21	588468	6-8		2312041	2-7	7	2312494	1-5	2.3
232960	3-9	10	588469	6-8		2312059	2-3	8	2312494	4-2	16
232984	3-3	1.10	588526	6-8		2312059	5-8	25	2312498	2-5	31
232984	3-5	1.10	588527	6-8		2312059	6-4		2312498	2-7	31
232984	3-7	1.7	588528	6-8		2312060	2-3	9	2312531	1-3	3.1
235387	3-7	1.28	588529	6-8		2312060	5-8	26	2312531	1-5	3.1
235387	3-13	4	588530	6-8		2312060	6-4		2312533	1-3	3.2
235387	3-14	5	906601	6-8		2312061	2-3	10	2312533	1-5	3.2
235387	3-16	3	2310181	3-14	8	2312061	5-8	27	2312533	6-2	
236855	3-3	1.11	2310504	3-11	1.11	2312061	6-4		2312533	6-3	
236855	3-5	1.11	2310504	6-5		2312068	3-14	2	2312534	1-3	5.1
236855	3-7	1.8	2310543	3-3	1.13	2312068	3-20	2	2312535	1-3	3.4
237086	3-3	2.7	2310543	3-5	1.13	2312073	3-15	3	2312535	1-5	3.4
237086	3-5	2.7	2310543	3-7	1.10	2312073	3-17	4	2312536	1-5	4.4
237349	2-5	5	2310543	6-6		2312074	3-15	4	2312536	6-2	
237349	2-7	5	2310543	6-7		2312074	3-17	5	2312536	6-3	
241982	3-9	8	2310796	1-10	3	2312099	2-11	19	2312537	1-3	3.6
242144	3-3	1.20	2310891	2-11	20	2312099	6-5		2312537	1-5	3.6
242144	3-5	1.20	2310958	1-9	1.16	2312103	3-19	3	2312538	1-3	3.7
242144	6-6		2310978	3-18	12	2312111	3-15	3	2312538	1-5	3.7
242230	3-14	3	2311047	3-11	1.28	2312111	3-17	4	2312554	2-5	2
242230	3-17	6	2311251	2-12	9	2312111	6-2		2312554	2-7	2
242260	3-3	1.19	2311330	1-10	4	2312111	6-3		2312554	6-5	
242260	3-5	1.19	2311592	3-15	2	2312112	3-15	4	2312574	1-3	5.2
242260	6-6		2311592	3-17	3	2312112	3-17	5	2312574	6-2	
242264	3-7	1.11	2311655	2-5	19	2312112	6-2		2312602	4-2	10
242264	6-7		2311655	2-7	19	2312112	6-3		2312603	4-2	15
242596	3-7	1.34	2311655	5-8	11	2312114	3-19	3	2312622	3-3	1.2
242597	3-7	1.35	2311655	6-4		2312114	6-2		2312622	3-5	1.2

7-3

Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item
2312622	3-16		2313807	3-7	1.17	134075W	6-4		2300962W	1-5	3.11
2312623	3-3	1.1	2313807	6-7		134076W	2-10	4	2300962W	6-5	
2312623	3-20		2313817	3-11	1.9	134076W	5-8	19	2301638W	1-9	1.4
2312624	3-12	2	2313817	6-7		134076W	6-4		2301706W	4-2	5
2312625	3-12	3	2313818	3-11	1.10	137153W	2-5	20	2301724W	4-2	2.1
2312626	3-3	1.12	2313818	6-7		137153W	2-7	20	2301725W	4-2	7.1
2312626	3-5	1.12	2313829	3-11	1.19	137153W	5-8	12	2301726W	4-2	2
2312643	3-9	5	2313890	5-5	6	137153W	6-4		2301727W	4-2	7
2312643	6-6		2313890	6-3		137155W	2-5	21	2301934W	4-2	1
2312644	3-3	2.2	2313891	5-5	7	137155W	2-7	21	2301942W	4-2	8
2312644	3-5	2.2	2313891	6-3		137155W	5-8	13	2301943W	4-2	4
2312644	6-6		2313948	3-21	11	137155W	6-4		2301945W	4-2	
2312646	3-9	6	2313949	2-3	20	141149W	2-11	17	2301961W	4-2	2.3
2312646	6-6		2313949	2-7		141149W	5-8	5	2301961W	4-2	7.3
2312647	3-9	7	2313979	3-11	1.21	141149W	6-4		230309W	2-10	9
2312647	6-6		2313984	3-17	4	141325W	2-11	14	230309W	5-8	8
2312650	3-3	1.21	2313999	3-7	1.1	15113W	3-11	1.15	230309W	6-4	
2312651	3-3	1.22	2313999	3-13		15127W	3-11	1.14	2303221W	1-3	2.2
2312676	1-9	12.1	2314013	3-7	1.15	15128W	1-9	1.5	2303221W	1-5	2.2
2312695	3-3	1.16	2314017	3-7	1.16	15272W	1-3	2.4	2303221W	6-5	
2312695	3-5	1.16	2314017	6-7		15272W	1-5	2.4	2303992W	2-5	26
2312695	3-7	1.12	2314027	1-5	4.3	15272W	4-2	14	2303992W	2-7	26
2312695	6-6		2314033	3-11	1.6	15290W	1-3	2.5	230407W	2-5	28
2312695	6-7		2314033	6-7		15290W	1-5	2.5	230407W	2-7	28
2312718	3-22	2	2314052	1-9	12.6	15315W	1-3	2.6	230407W	5-8	18
2312731	3-3	2.3	2314061	1-9	1.27	15315W	1-5	2.6	230407W	6-4	
2312731	3-5	2.3	2314065	1-9	1.17	15319W	1-3	3.12	2305715W	1-7	11.12
2312731	6-6		2314066	1-9	1.23	15319W	1-5	3.12	2305715W	1-9	12.10
2312733	1-7	11.1	2314100	3-5	1.1	15866W	3-11	1.30	2306152W	3-3	2.9
2312745	1-7	1.1	2314100	3-21		15881W	2-11	11	2306152W	3-5	2.9
2312747	1-7	1.2	2314101	2-3	3	15881W	5-8	1	2306152W	3-7	1.31
2312748	1-7	1.3	2314102	3-5	1.21	15881W	6-4		2307008W	3-18	
2312749	1-7	11.2	2314103	3-5	1.22	15923W	3-3	1.23	2307008W	3-20	1
2312752	1-7	11.3	2314104	3-17	2	15923W	3-5	1.23	2307024W	3-18	2
2312753	1-7	11.4	2314105	1-3	5.3	16001W	4-2	9	2307024W	3-19	2
2312796	3-12	4	2314106	3-17	4	16602W	1-10	2	2307232W	3-18	1
2312798	3-3	2.1	2314107	3-17	2	173604W	2-11	3	2307233W	3-18	7
2312798	3-5	2.1	2314615	5-5		177192W	2-5	30	2307234W	3-18	3
2312798	6-6		2314615	6-3		177192W	2-7	30	2307234W	3-18	4
2312803	3-17	2	2314616	5-8		18720W	3-11	1.13	2307234W	3-18	10
2312804	3-17	1	2314616	6-4		21420W	1-3	3.10	2307235W	3-18	2
2312805	3-16	1	2314926	6-6		21420W	1-5	3.10	2307235W	3-19	2
2312805	3-17		2314927	6-7		21420W	6-5		2307235W	6-2	
2312815	3-22	3	2314928	6-6		220998W	3-18	6	2307235W	6-2	
2312881	3-12	5	2314945	6-7		221641W	2-11	13	2307236W	3-18	8
2312901	3-12	1	2504253	3-17	2	221716W	2-5	8	2307238W	3-7	1.33
2312901	3-22		2504253	6-2		221716W	2-7	8	2307239W	3-7	1.32
2312902	3-12	6	131982W	2-11	10	221724W	1-9	1.3	2307240W	3-3	2.8
2312903	3-16	11	131982W	5-8	17	221767W	2-5	3	2307240W	3-5	2.8
2312915	3-22	6	131982W	6-4		221767W	2-7	3	2307245W	3-18	3
2312917	1-7	11.13	1321665W	1-10	1	221775W	2-11	25	2307245W	3-18	4
2312917	1-9	12.11	134070W	2-11	7	221777W	2-3	15	2307245W	3-18	10
2312918	3-22	1	134070W	5-8	23	221777W	2-5	12	2307245W	6-2	
2312936	3-9	16	134070W	6-4		221777W	2-7	12	2307246W	3-18	8
2312936	6-6		134071W	2-11	8	222442W	3-18	11	2307246W	6-2	
2312959	3-19	4	134071W	5-8	24	222714W	2-12	10	2307265W	3-21	2
2313072	3-19	6	134071W	6-4		230064W	5-5	9	2307438W	3-14	3
2313369	3-7	1.14	134072W	2-11	6	230064W	6-3		2307625W	3-3	1.7
2313452	3-13	5	134072W	5-8	22	2300668W	2-3	4	2307625W	3-5	1.7
2313459	1-9	1.26	134072W	6-4		2300668W	5-8	9	2307625W	3-7	1.5
2313710	3-3	1.15	134074W	2-10	5	2300668W	6-4		2307625W	3-9	13
2313710	3-5	1.15	134074W	5-8	20	2300669W	2-3	5	2307625W	3-16	9
2313710	6-6		134074W	6-4		2300669W	5-8	10	2307643W	3-11	1.22
2313780	2-7	9	134075W	2-10	6	2300669W	6-4		2307736W	3-18	15
2313780	6-5		134075W	5-8	21	2300962W	1-3	3.11	239147W	2-5	27

7-4

Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item	Part No.	Page No.	Item
239147W	2-7	27	296438W	1-7	11.8	96418W	6-5		R834100	1-9	1.2
2570W	4-2	2.2	296438W	1-9	12.5	96436W	2-11	2	R834103	1-9	1.1
2570W	4-2	7.2	30091W	2-10	8	96437W	2-11	15	R834200	3-7	1.20
2570W	6-5		30091W	5-8	7	96437W	5-8	3	R834201	3-3	2.6
261542W	2-12	5	30091W	6-4		96437W	6-4		R834201	3-5	2.6
274464W	2-11	26	302398W	3-22	5	96438W	2-11	4	R834253	3-3	2.4
274464W	6-5		313022W	5-5	8	R11611	3-7	1.13	R834253	3-5	2.4
287939W	2-5	10	313022W	6-3		R11611	6-7		R834253	3-9	11
287939W	2-7	10	328715W	2-12	4	R13521	3-9	4	WR7-287J	4-3	
292501W	3-3	1.24	328715W	6-5		R13801826	2-5	4	WR7-287J	6-5	
292501W	3-5	1.24	33394W	4-2	3	R13801826	2-7	4	WR7-430J	4-3	
292514W	3-9	9	398567W	3-3	1.3	R13807642	2-3	18	WR7-430J	6-5	
292656W	2-3	14	398817W	4-2	6	R13811617	2-5	35	WR8-222J	4-3	
292661W	1-7	11.7	44484W	2-11	18	R13811617	2-7	35	WR8-222J	6-5	
292661W	1-9	12.4	44484W	5-8	6	R14040	3-7	1.27	WR8-334J	4-3	
292683W	2-11	28	44484W	6-4		R14040	3-16	10	WR8-334J	6-5	
292689W	4-2	13	46629W	2-11	12	R833133	3-13	2	WR9-178J	4-3	
293628W	2-12	8	46629W	5-8	2	R833133	3-20	5	WR9-178J	6-5	
293645W	1-3	3.14	46629W	6-4		R833133	3-21	7	WR9-267J	4-3	
293645W	1-5	3.14	53559W	2-11	9	R833139	2-5	33	WR9-267J	6-5	
293645W	1-7	11.9	78022W	2-11	16	R833139	2-7	33	Y098629-012	3-11	1.29
293645W	1-9	12.7	78022W	5-8	4	R833200	3-21	5	Y098629-214	3-9	1
293645W	2-3	13	78022W	6-4		R833218	3-21	4	Y09C-M1025	3-5	1.4
293646W	1-7	11.10	86585W	2-5	24	R833251	2-5	34	Y09C-M1025	3-7	1.29
293646W	1-9	12.9	86585W	2-7	24	R833251	2-7	34	Y09C-M1030	3-3	1.4
293647W	2-3	19	86585W	5-5	3	R833251	3-3	1.9	Y09C-M1030	3-7	1.2
296153W	3-22	4	86585W	6-3		R833251	3-7	1.26	Y09C-M1225	2-11	27
296420W	2-12	7	87287W	2-5	25	R833251	3-16	2	Y09C-M2030	1-9	1.24
296420W	3-3	1.5	87287W	2-7	25	R833251	3-20	3	Y09C-M2470	4-2	12
296420W	3-5	1.5	87287W	5-5	4	R833251	3-21	3	Y09D-M16	1-7	1.5
296420W	3-7	1.3	87287W	6-3		R833253	3-3	1.8	Y17C-1232	2-5	13
296422W	1-3	3.15	92620W	2-10	2	R833253	3-5	1.8	Y17C-1232	2-7	13
296422W	1-5	3.15	92621W	2-10	7	R833253	3-7	1.6	Y19C-M30110	1-7	11.6
296422W	1-7	11.11	92623W	2-10	3	R833400	3-7	1.24	Y19C-M30110	1-9	12.2
296422W	1-9	12.8	93985W	4-2	11	R833400	3-9	12	Y19C-M3080	1-7	11.5
296422W	2-3	16	95959W	1-3	2.1	R833400	3-16	7	Y19C-M3080	1-9	12.3
296422W	2-10	11	95959W	1-5	2.1	R833400	3-20	8	Y433070.45	2-11	24
296422W	2-11	21	95959W	6-5		R833800	3-16	12	YS9-267JWS	4-3	
296430W	1-9	1.25	96418W	2-10	1	R834052	3-11	1.7	YS9-267JWS	6-5	







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599044W 10/17/2017 Printed in USA