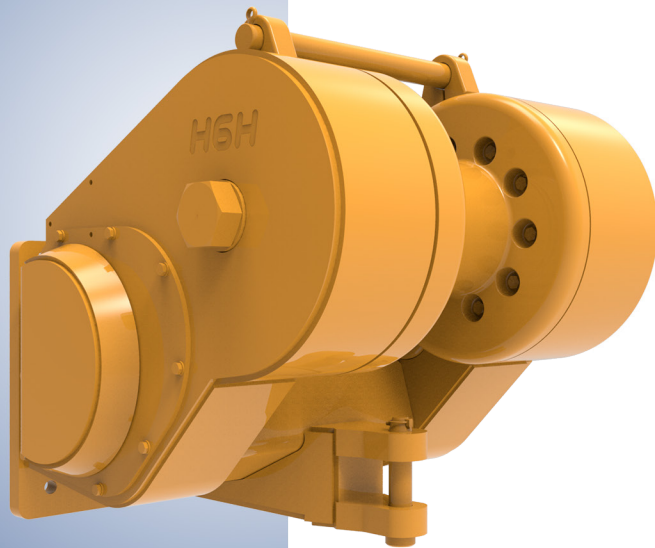




Parts Manual



Allied H6H

Hydraulic Winch for Komatsu Dozers

Please check the Allied Systems website
regularly for updates to this manual.
www.alliedsystems.com

Customer Edition

A PRODUCT OF

Allied Systems
COMPANY

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P/N 599039W-KOM

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Safety Precautions

Read, understand and observe the Safety Summary on pages 2 through 4 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 the 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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H6H Winch Parts for Komatsu

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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’ 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 your 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

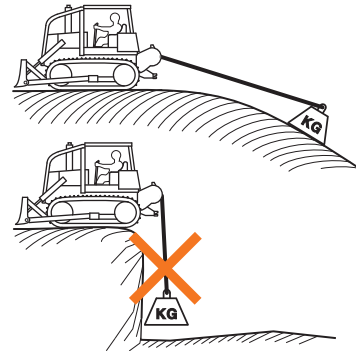
- Stay in the operator’s seat when operating the winch.
- Do not stand on the vehicle when operating the winch.

- 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 0-9.
- 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.

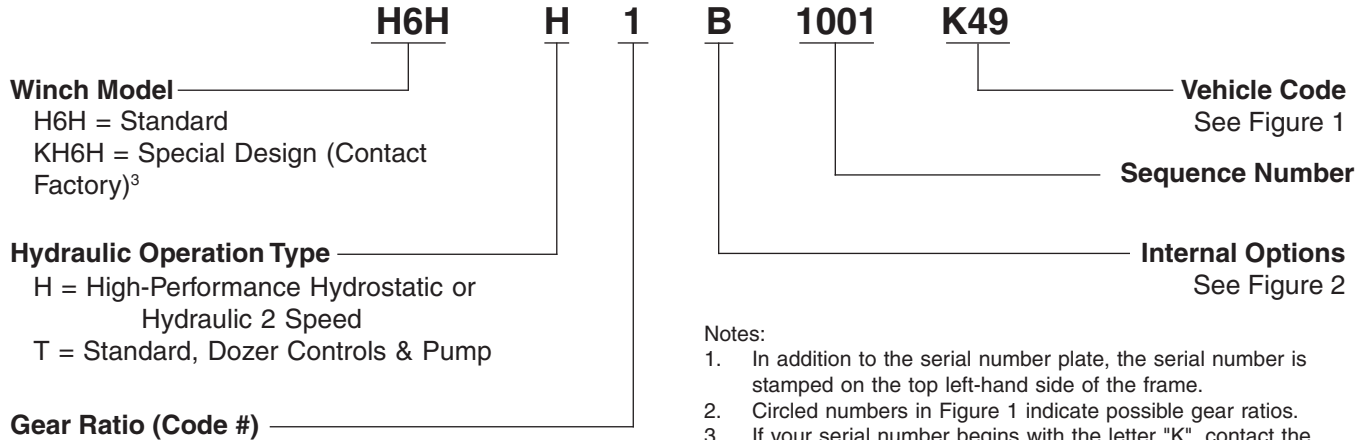
Infection and gangrene will result when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.

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 in the letter "M", contact the factory for parts and service information.

C O D E	K Komatsu
46	D65-15 ⑥
471	D61-23, D61-24 ②
49	D65-16, D65-17 & D65-18 ①

Figure 1 - Dozer or Skidder Identification Codes and Available Gear Ratios

Circled numbers in Figure 1 indicate possible gear ratios.

	B	D	E	U	BN	DN	EN	DE	DU
FREESPOOL	X	X	X	X				X	X
BRAKE-OFF	X	X		X	X	X			X
OVERWIND	X	X	X		X	X	X	X	
2-SPEED CONTROL		X				X		X	X

Figure 2 - Internal Winch Options

When the part number and the next higher assembly is unknown:

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 unknown 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 Qty column to find the required parts.

Indent dots are used to indicate assemblies and sub-parts of assemblies. Listings without a dot are major assemblies. 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 Qty of the sub-parts is indicated as three, this means three per assembly - for a total of six. AR means As Required, and NSS indicates Not Sold Separately.

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

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

To get the most suitable temperature-viscosity characteristics, choose one of the oils listed below.

Manufacturer	Winch Case (Gear Train)
Exxon-Mobil (standard)	Mobil Trans HD Series
Chevron (optional)	Drive Train Fluids HD
Caterpillar (optional)	TO-4

Figure 4 - Recommended Oil List

Factory fill is Exxon-Mobil Trans HD 30.

Note: This winch uses hydraulic fluid from the dozer. See Figure 4 for recommended gear train fluids. Contact the factory if alternate oils are required.

Use of a non-recommended oil may void the warranty.

Oil Capacity

Oil capacity for the H6H winch is 4 gallons (15 liters).

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	-20 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 5 - Viscosity Chart

Ordering Parts

When ordering replacement parts, give the unit serial number, part number, name of part and Qty 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

Also see our website, 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.

Nameplate & Decals

All Models



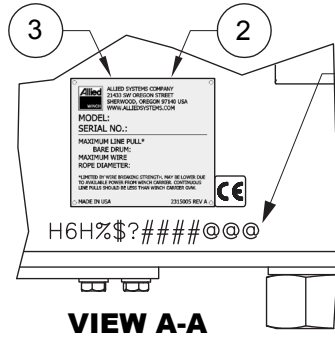
ALLIED SYSTEMS COMPANY
21433 SW OREGON STREET
SHERWOOD, OREGON 97140 USA
WWW.ALLIEDSYSTEMS.COM

MODEL: H6H 20##
SERIAL NO.: H6H%\$?#####@@@

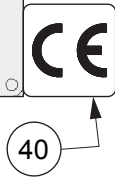
MAXIMUM LINE PULL*
BARE DRUM: 88,800 LBS
MAXIMUM WIRE
ROPE DIAMETER: 1 INCH DIA

*LIMITED BY WIRE BREAKING STRENGTH. MAY BE LOWER DUE TO AVAILABLE POWER FROM WINCH CARRIER. CONTINUOUS LINE PULLS SHOULD BE LESS THAN WINCH CARRIER GW.

MADE IN USA 2315005 REV A



STAMP NAMEPLATE AND FRAME AS SHOWN
% = H (HI-PERFORMANCE) OR T (STANDARD)
\$ = GEAR RATIO CODE
? = INTERNAL OPTIONS
= SEQUENCE NUMBER
@@@ = VEHICLE CODE
SEE DRAWING 231271




Hydraulic Winch Maintenance

Recommended Winch Service Intervals					
Hours or mi	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

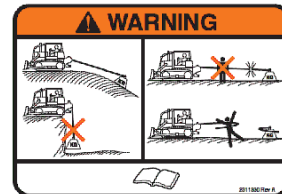
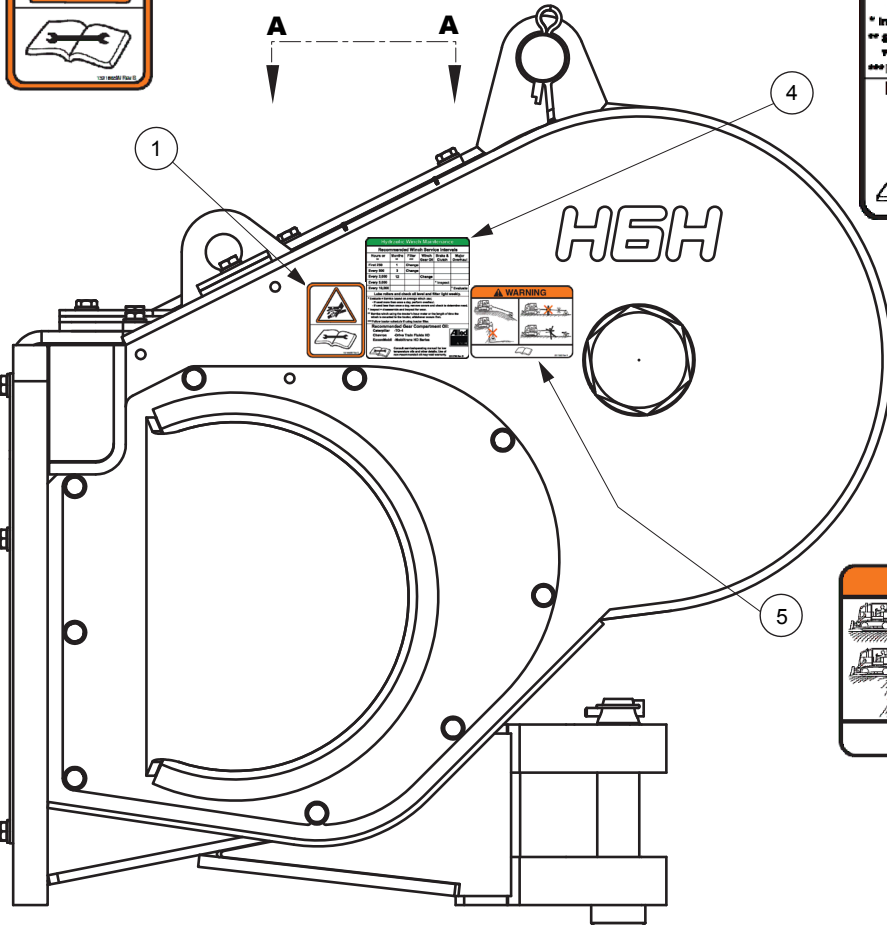
Lube rollers and check oil level and filter light weekly.

* 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. 231079d Rev D



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	1321665W	2	Decal, Warning	5	2311330	1	Decal, Load & Wire Rope
2	2315005	1	Nameplate	40	-----	AR	Label - CE Mark
3	16602W	4	Screw				
4	2310796	1	Decal, Maintenance				

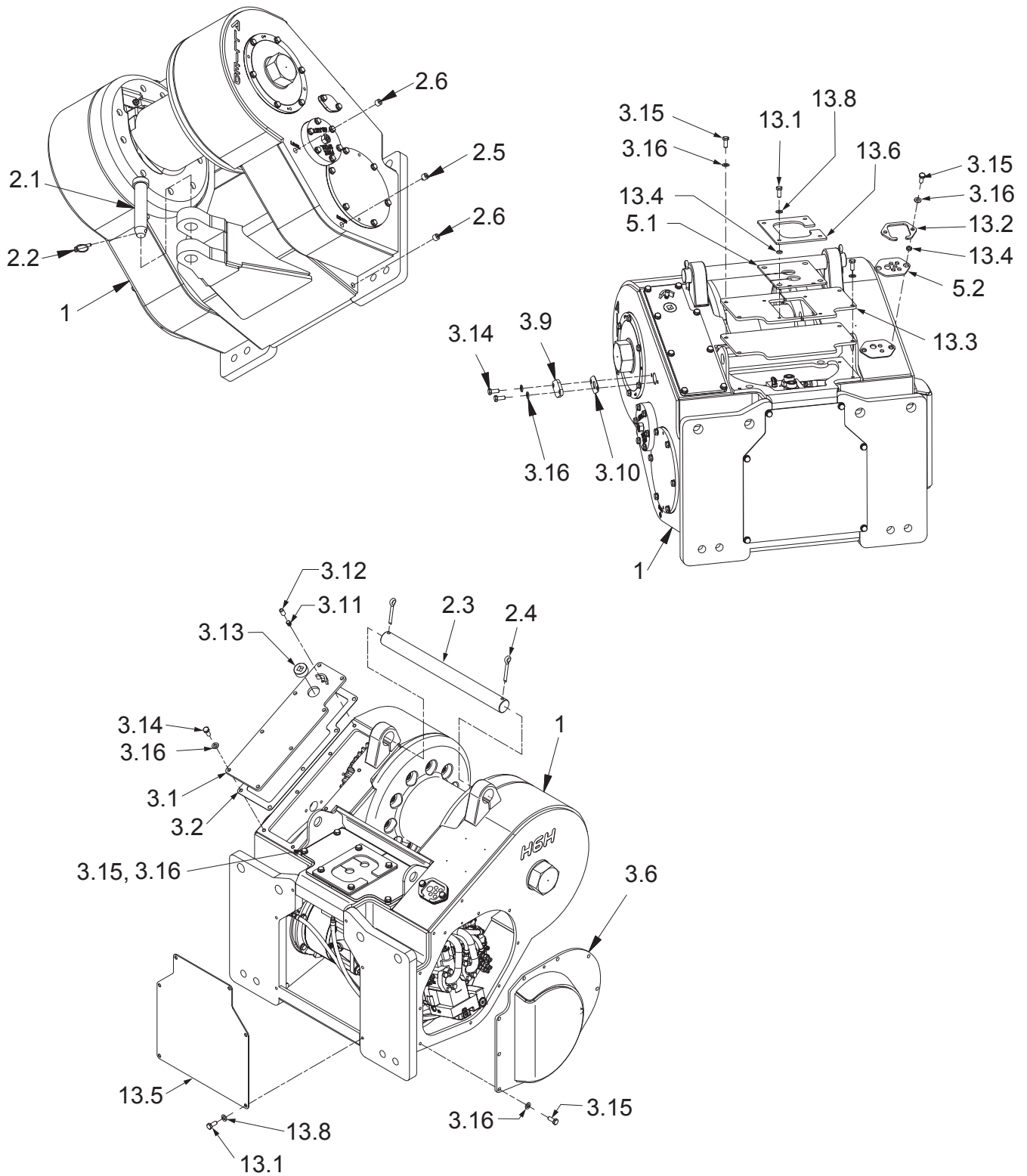
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Section 1
Frames/Covers/Mounting Parts

Frame/Covers

Komatsu D65-15 (H6HT6U**K46) and D65X-16/17/18 (H6HT1U**K49)

Page 1 of 2



Frame/Covers

Komatsu D65-15 (H6HT6U**K46) and D65X-16/17/18 (H6HT1U**K49)

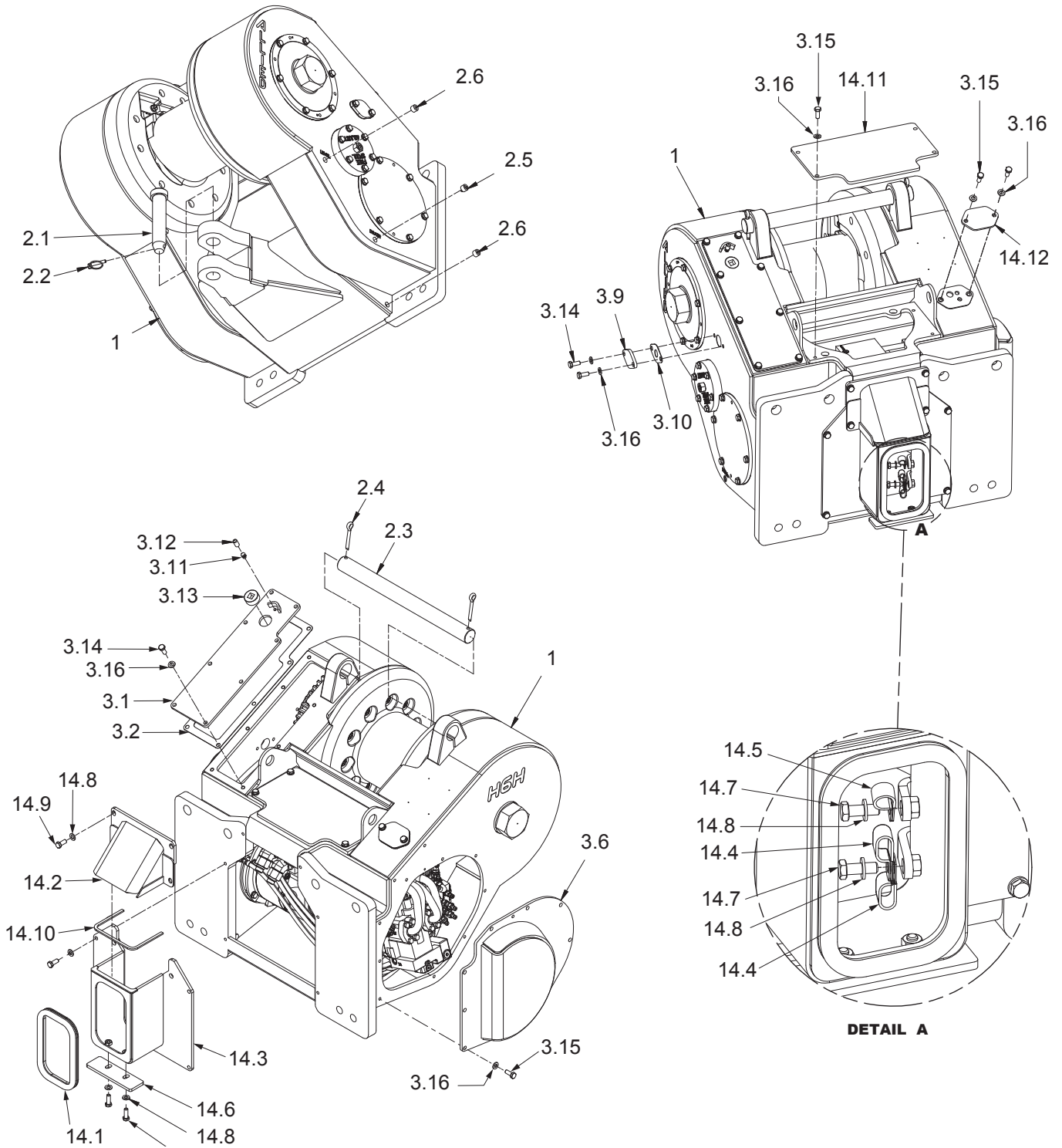
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	-----	1	Frame, H6H	3.15	293645W	15	Capscrew
2.1	95959W	1	Pin, Drawbar	3.16	296422W	25	Washer
2.2	2303221W	1	Pin, Retaining	5.1	2312009	1	Seal, Top
2.3	2312580	1	Rod, Tie	5.2	2312208	1	Gasket, Hose Seal
2.4	15272W	2	Pin	13.1	293645W	10	Capscrew
2.5	15290W	1	Fitting	13.2	2312117	1	Cover
2.6	15315W	2	Fitting	13.3	2313380	2	Cover, Top
3.1	2312048	1	Cover, Top RH	13.4	2312119	6	Spacer
3.2	2312045	1	Gasket, Top RH	13.5	2312046	1	Cover, Front
3.6	2316162	1	Cover, LH	13.6	2312006	1	Clamp, Top
3.9	151589W	1	Cover, Freespool	13.8	296422W	10	Washer
3.10	151646W	1	Gasket, Freespool				
3.11	21420W	1	Plug, Breather				
3.12	2300962W	1	Cap, Breather				
3.13	15319W	1	Fitting				
3.14	2312486	10	Capscrew				

Frame/Covers

Komatsu D61-23/24 (H6H**K471)

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Frame/Covers

Komatsu D61-23/24 (H6H**K471)

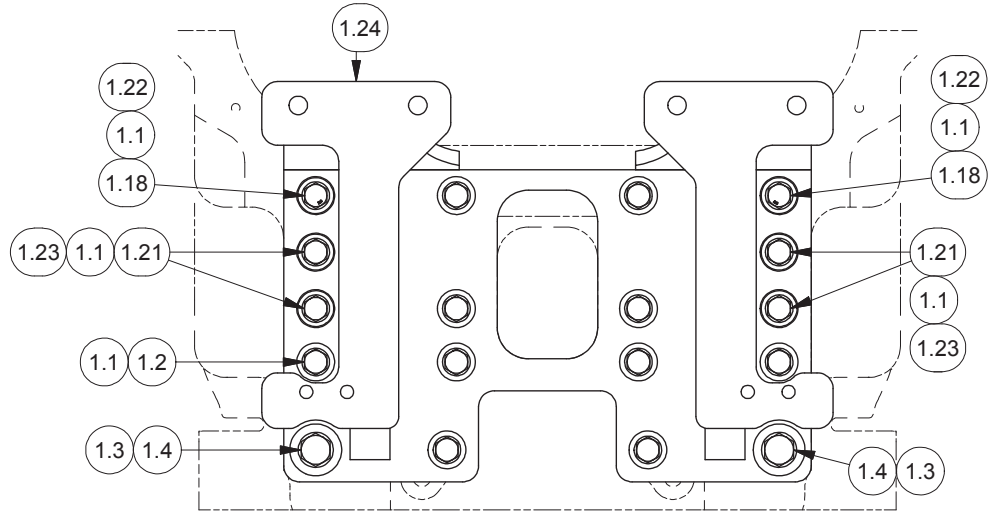
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	-----	1	Frame, H6H	3.14	2312486	10	Capscrew
2.1	95959W	1	Pin, Drawbar	3.15	293645W	15	Capscrew
2.2	2303221W	1	Pin, Retaining	3.16	296422W	25	Washer
2.3	2312580	1	Rod, Tie	14.1	237271	2.5 ft	Trim, Edge
2.4	15272W	2	Pin	14.2	2312953	1	Tunnel, Top
2.5	15290W	1	Fitting	14.3	2312954	1	Tunnel, Bottom
2.6	15315W	2	Fitting	14.4	2312628	2	Clamp, Insulation
3.1	2312048	1	Cover, Top Right-Hand	14.5	R13803049	1	Clip, Insulation
3.2	2312045	1	Gasket, Top Right-Hand	14.6	2312955	1	Guard, Bottom
3.6	2316157	1	Cover, Left-Hand	14.7	293646W	4	Capscrew
3.9	151589W	1	Cover, Freespool	14.8	296422W	13	Washer
3.10	151646W	1	Gasket, Freespool	14.9	293645W	8	Capscrew
3.11	21420W	1	Plug, Breather	14.10	2313032	2 ft	Strip, Weather
3.12	2300962W	1	Cap, Breather	14.11	2312849	1	Cover, Top
3.13	15319W	1	Fitting	14.12	2312850	1	Cover, Top Left-Hand

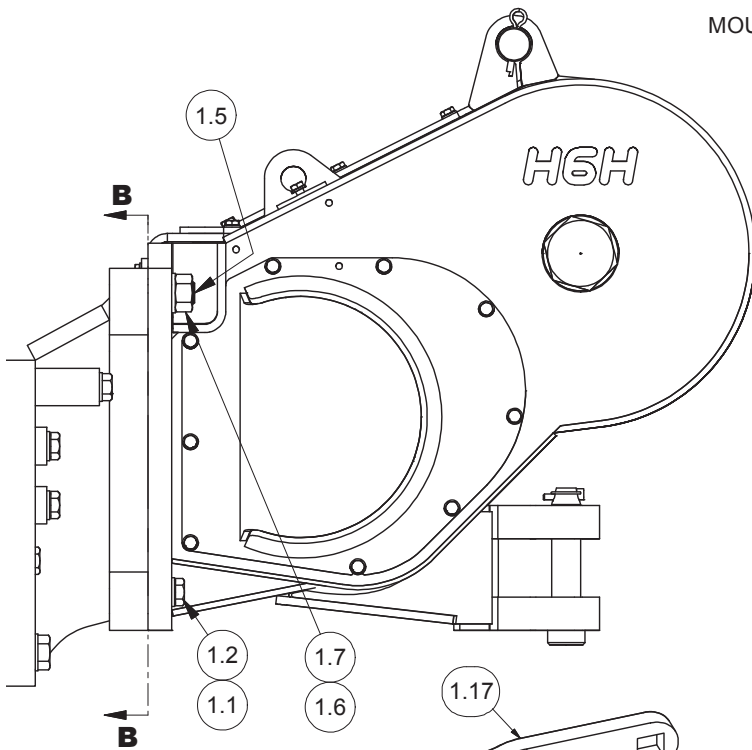
Mounting Parts

Komatsu D61-23/24 (H6H**K471)

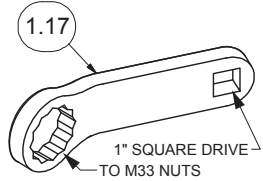
Page 1 of 1



SECTION B-B
MOUNTING BRACKET INSTALLATION



LEFT VIEW
WINCH INSTALLATION



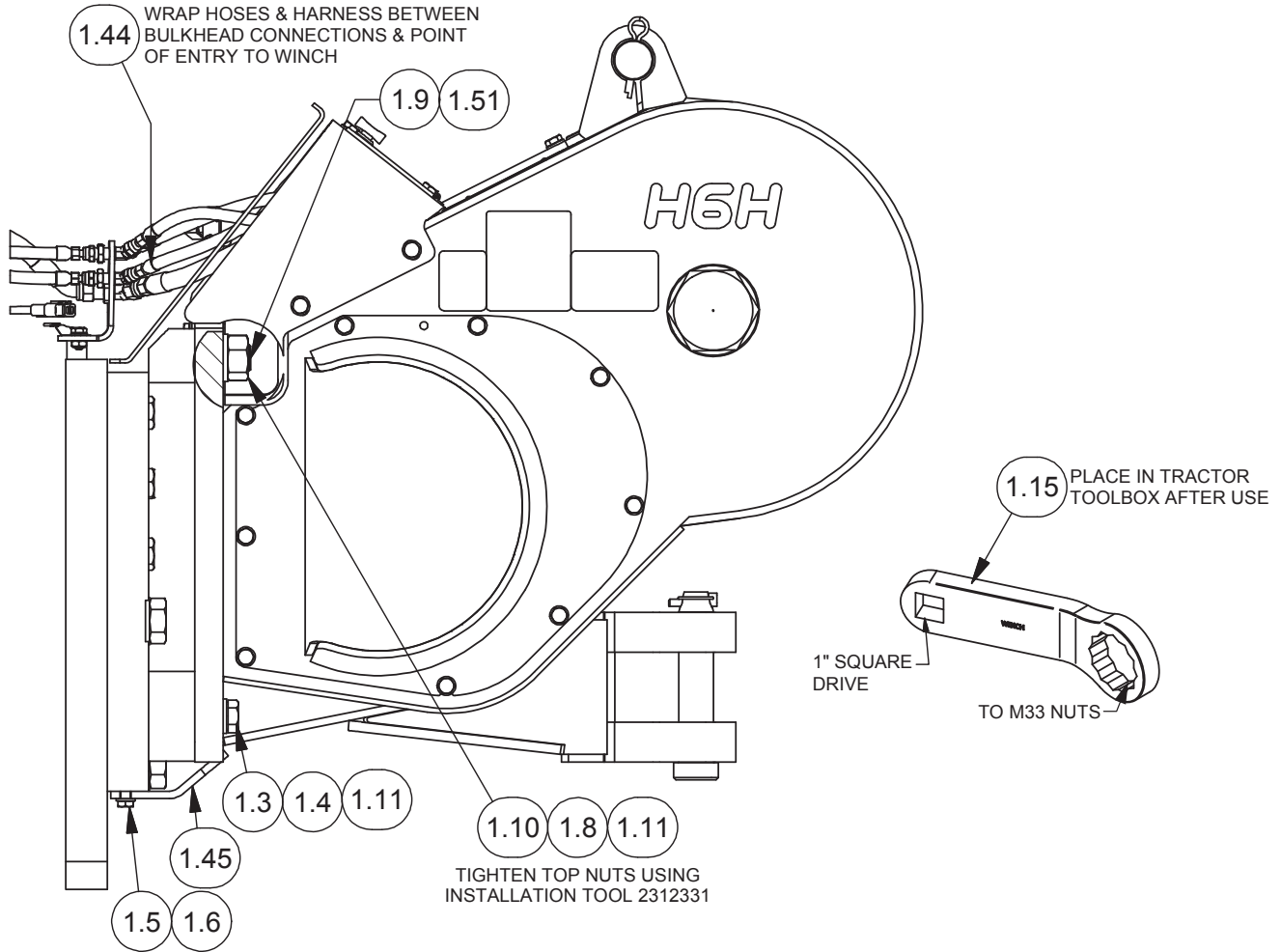
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	296434W	20	Washer	1.18	*a 2314136	2	Capscrew
1.2	*a 274044W	14	Capscrew	1.21	*a 293731W	4	Capscrew
1.3	296438W	2	Washer	1.22	2314225	2	Spacer
1.4	*a 2303694W	2	Capscrew	1.23	2314224	4	Spacer
1.5	*b 2312090	4	Stud	1.24	2314111	1	Bracket, Mounting
1.6	296440W	4	Washer				
1.7	*a 2312089	4	Nut				
1.17	2312331	1	Wrench, Extension Torque				

*a Uses 318702W Thread lock
*b Uses 230064W Loctite Kit to threads that go into mounting bracket

Mounting Parts

Komatsu D65EX/PX/WX-16/17/18 (K46/K49)

Page 1 of 1

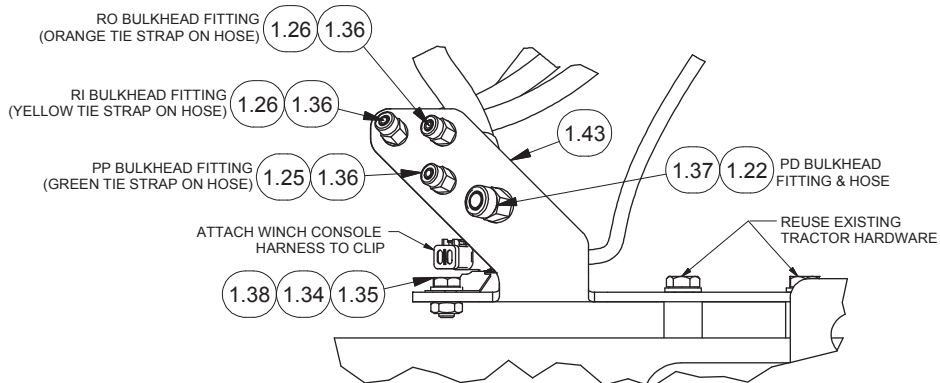


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2312081	1	Bracket - Mounting, RH	1.9	2312090	4	Stud
1.2	2312082	1	Bracket - Mounting, LH	1.10	2312089	4	Nut
1.3	274044W	13	Capscrew	1.11	318702W	10 ML	Thread Lock, Med. Strength
1.4	296434W	16	Washer	1.13	Y19C-M24130	3	Capscrew
1.5	293646W	2	Capscrew	1.14	2312088	3	Capscrew
1.6	296422W	2	Washer	1.15	2312331	1	Wrench
1.7	2312087	1	Capscrew	1.44	R14766	2'	Spirap
1.8	296440W	8	Washer	1.45	2312675	1	Guard, Bottom
				1.51	230064W	1	Loctite Kit

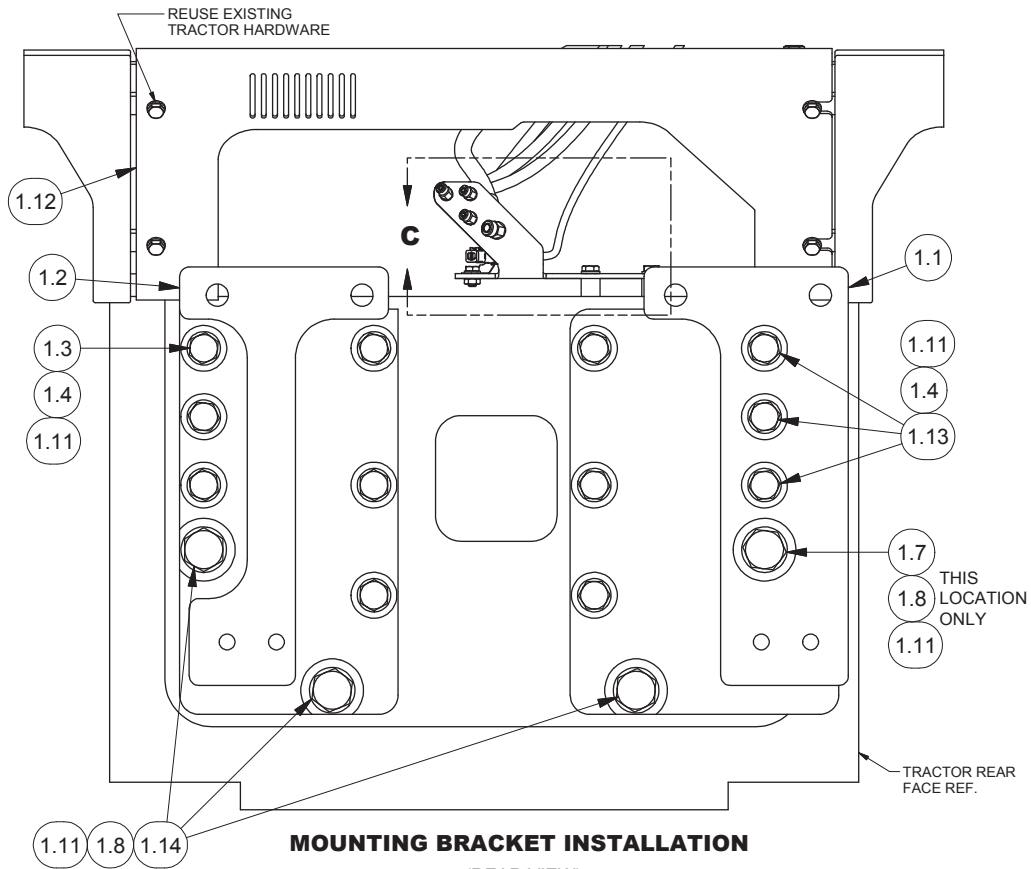
Mounting Parts

Komatsu D65EX/PX/WX-16/17/18 (H6HT6U**K46/H6HT1U**K49)

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DETAIL C



MOUNTING BRACKET INSTALLATION

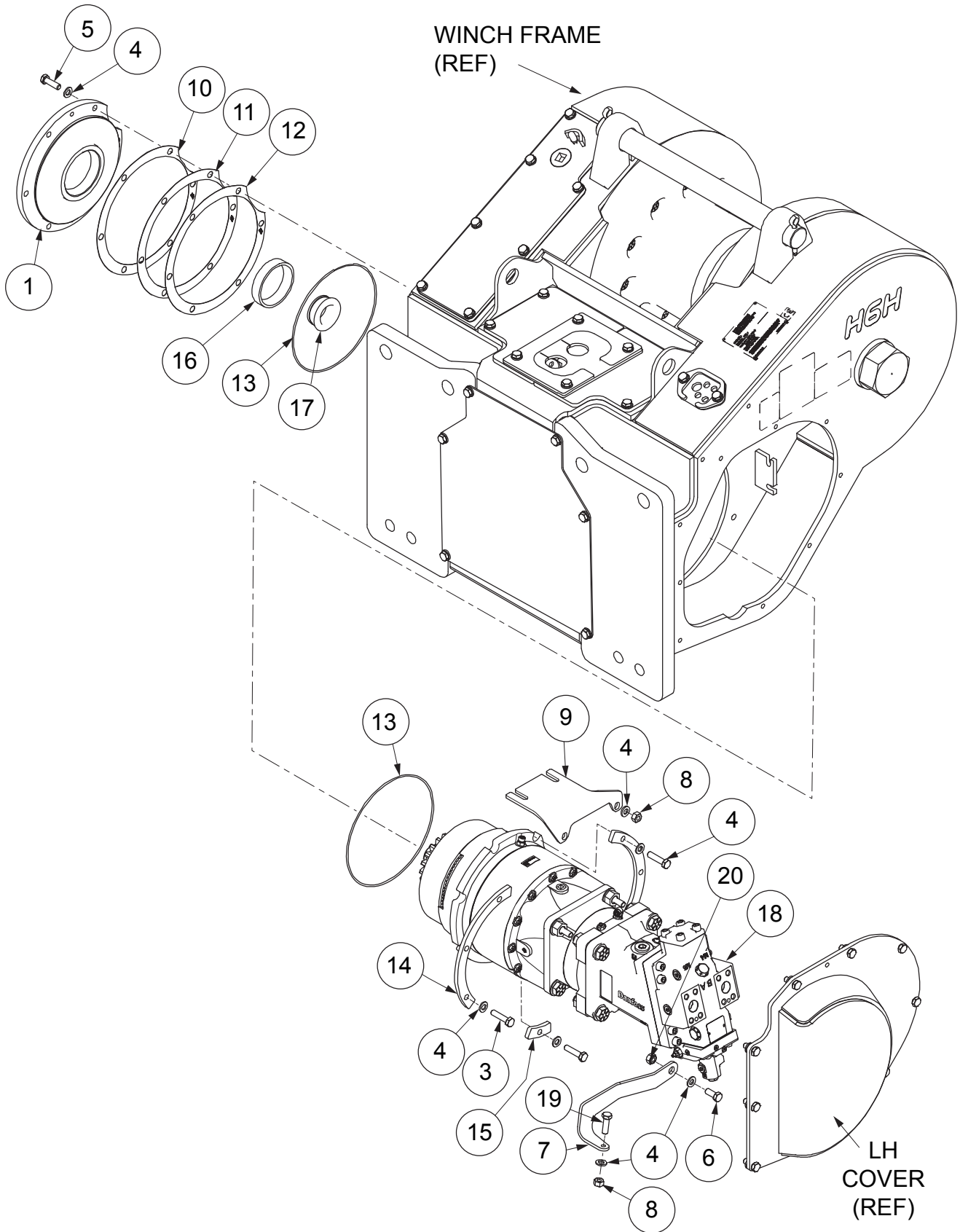
(REAR VIEW)

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2312081	1	. Bracket - Mounting, RH	1.22	2315558	1	. Hose Assembly
1.2	2312082	1	. Bracket - Mounting, LH	1.25	2312328	1	. Hose Assembly
1.3	274044W	13	. Capscrew	1.26	2311541	2	. Hose Assembly
1.4	296434W	16	. Washer	1.34	296420W	2	. Washer
1.7	2312087	1	. Capscrew	1.35	236805	2	. Capscrew
1.8	296440W	8	. Washer	1.36	272-0348	3	. Fitting
1.11	318702W	1BTL	. Threadlock	1.37	272-0350	1	. Fitting
1.12	2312124	1	. Cover	1.38	2311550	1	. Clip, Harness Mounting
1.13	Y19C-M24130	3	. Capscrew	1.43	2312354	1	. Bulkhead Bracket
1.14	2312088	3	. Capscrew				

Section 2
Gear/Shaft Train

Motor Shaft Group

Page 1 of 2



Motor Shaft Group

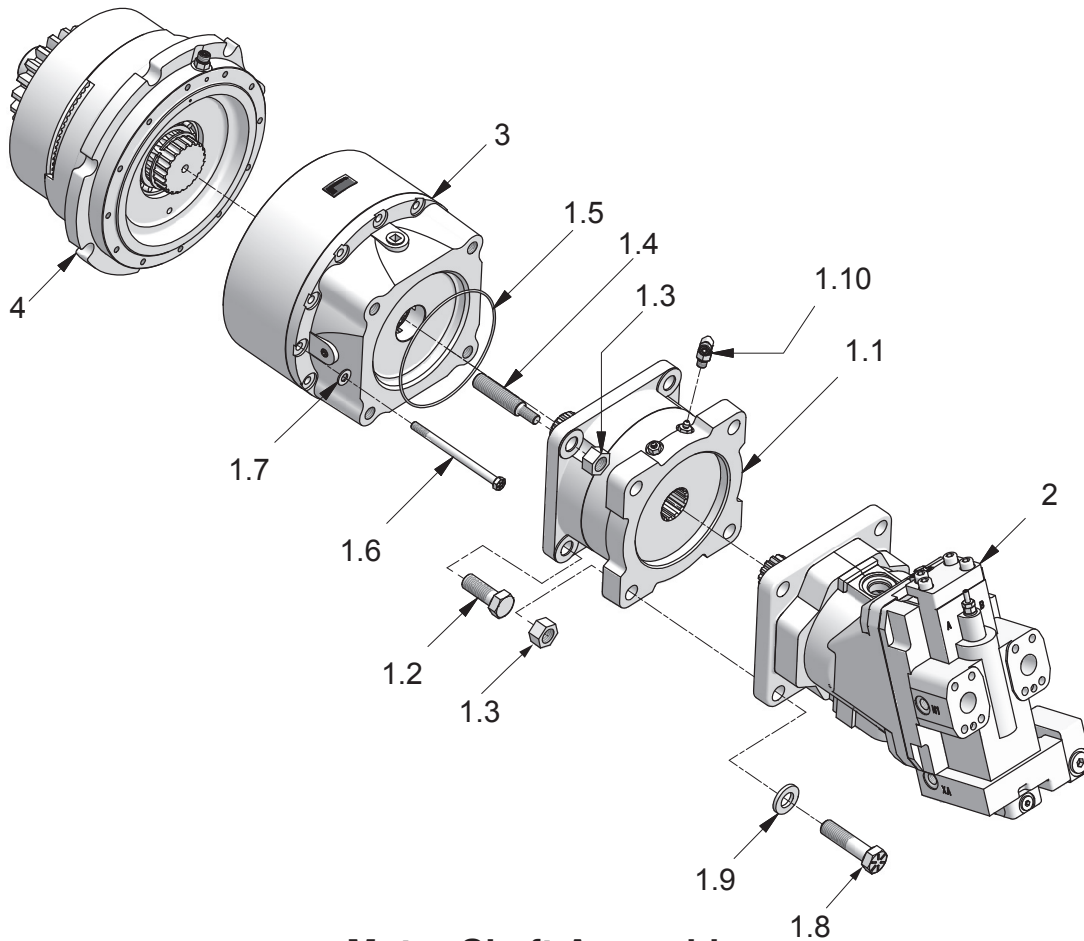
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2311819		Motor Shaft Group				
1	2311857	1	. Cover, Bearing	14	2311917	2	. Plate, Clamp
3	2312488	7	. Capscrew	15	2311918	1	. Plate, Clamp
4	296422W	19	. Washer	16	*b 2300668W	1	. Cup, Bearing
5	2312487	6	. Capscrew	17	*b 2300669W	1	. Cone, Bearing
6	293645W	1	. Capscrew	18	- - - -	1	. Assy, Motor Shaft
7	*c 2316491	1	. Bracket, Motor Support	19	2305130W	1	. Nut, Bracket Support
	*d 2312036	1	. Bracket, Motor Support	20	293647W	1	. Capscrew
8	292656W	3	. Nut				
9	2312018	1	. Plate, Manifold Bracket				
10	2312061	AR	. Shim .020"	*a	Included in Motor, Reducer & Brake Assembly Rebuild Kit 2314659		
11	2312059	AR	. Shim .005"				
12	2312060	AR	. Shim .007"	*b	Included in Intermediate/Drum Shaft & Brake Assembly Rebuild Kit 2314660		
13	*a 203564	2	. O-Ring	*c	First Used S/N 1714		
				*d	Last Used S/N 1713		

Intentionally Blank

Motor Shaft Assembly

Komatsu



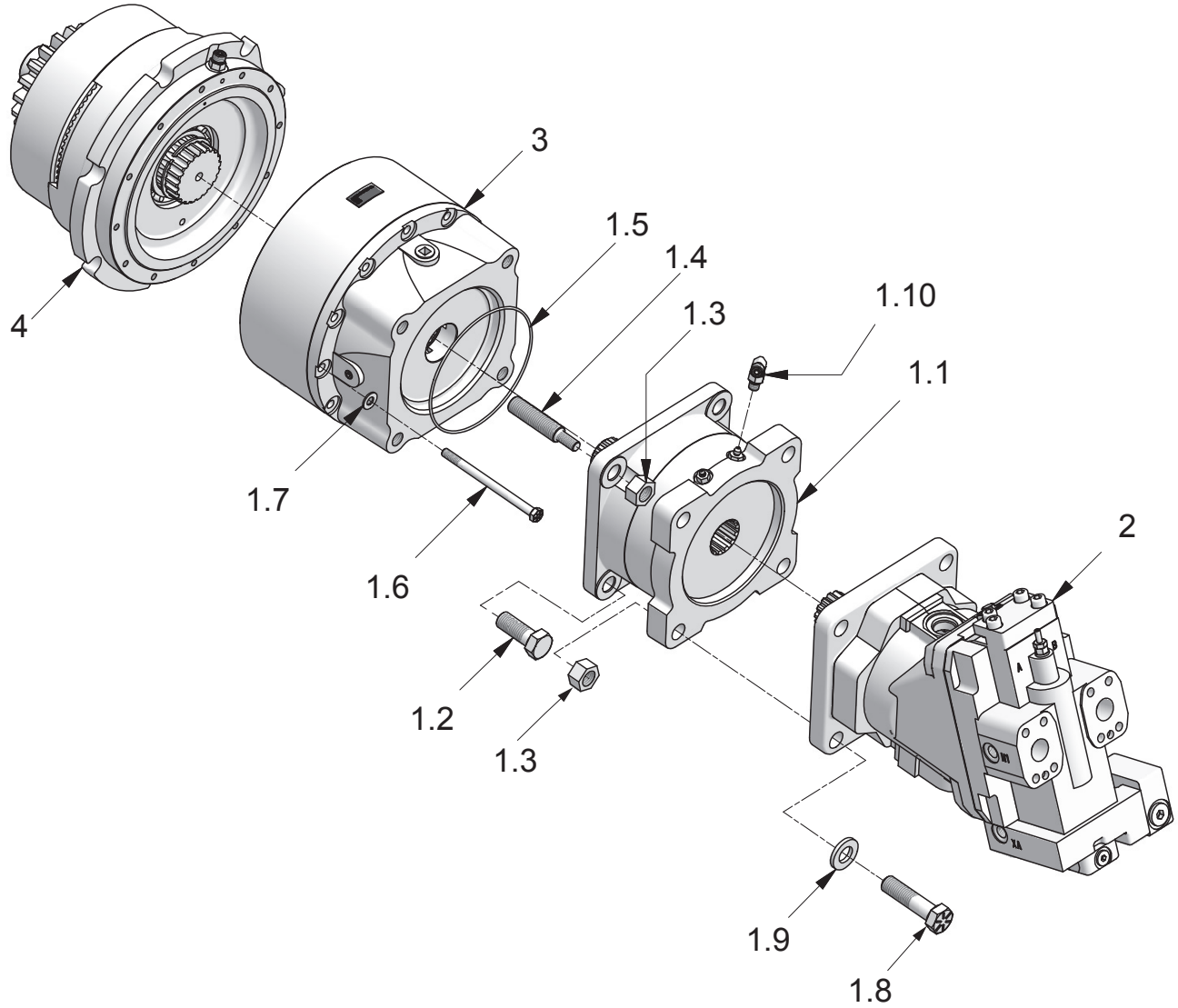
Motor Shaft Assembly

Komatsu D65-15 (H6HT6U**K46)

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313781		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	2316125	1	. Motor, Hydraulic
1.4	2312041	2	. Stud	NS	2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring	NS	2316156	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2312554	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2312928	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew				
				*a	See page 33 for details		
				*b	Included in Motor, Reducer & Brake Assembly Rebuild Kit 2314659		
				NS	Not Shown		

Motor Shaft Assembly

Komatsu



Motor Shaft Assembly

Komatsu D65-15 (H6HT1U**K49)

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2316143		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	2316119	1	. Motor, Hydraulic
1.4	2312041	2	. Stud		NS 2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring		NS 2316156	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2311883	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2312928	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew				

Motor Shaft Assembly

Komatsu D65-15 (H6HT1B**K49) Last Used S/N 1713

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2316143		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.8	177192W	4	. Capscrew
1.2	Y17C-1232	2	. Capscrew	1.9	221777W	4	. Washer
1.3	221716W	6	. Nut	1.10	R833251	1	. Fitting
1.4	2312041	2	. Stud	2	*c 2311815	1	. Motor, Hydraulic
1.5	*b 237349	1	. O-Ring		NS 2313890	1	. . O-Ring, Pilot Motor
1.6	R13801826	12	. Capscrew		NS 2316156	1	. . Kit, Shaft Seal
1.7	221767W	12	. Washer	3	2311883	1	. Reducer, Planetary
				4	2312928	1	. Assembly, Shaft

Motor Shaft Assembly

Komatsu D65-15 (H6HT1B**K49) First Used S/N 1714

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2316143		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	2316119	1	. Motor, Hydraulic
1.4	2312041	2	. Stud		NS 2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring		NS 2316156	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2311883	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2312928	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew				

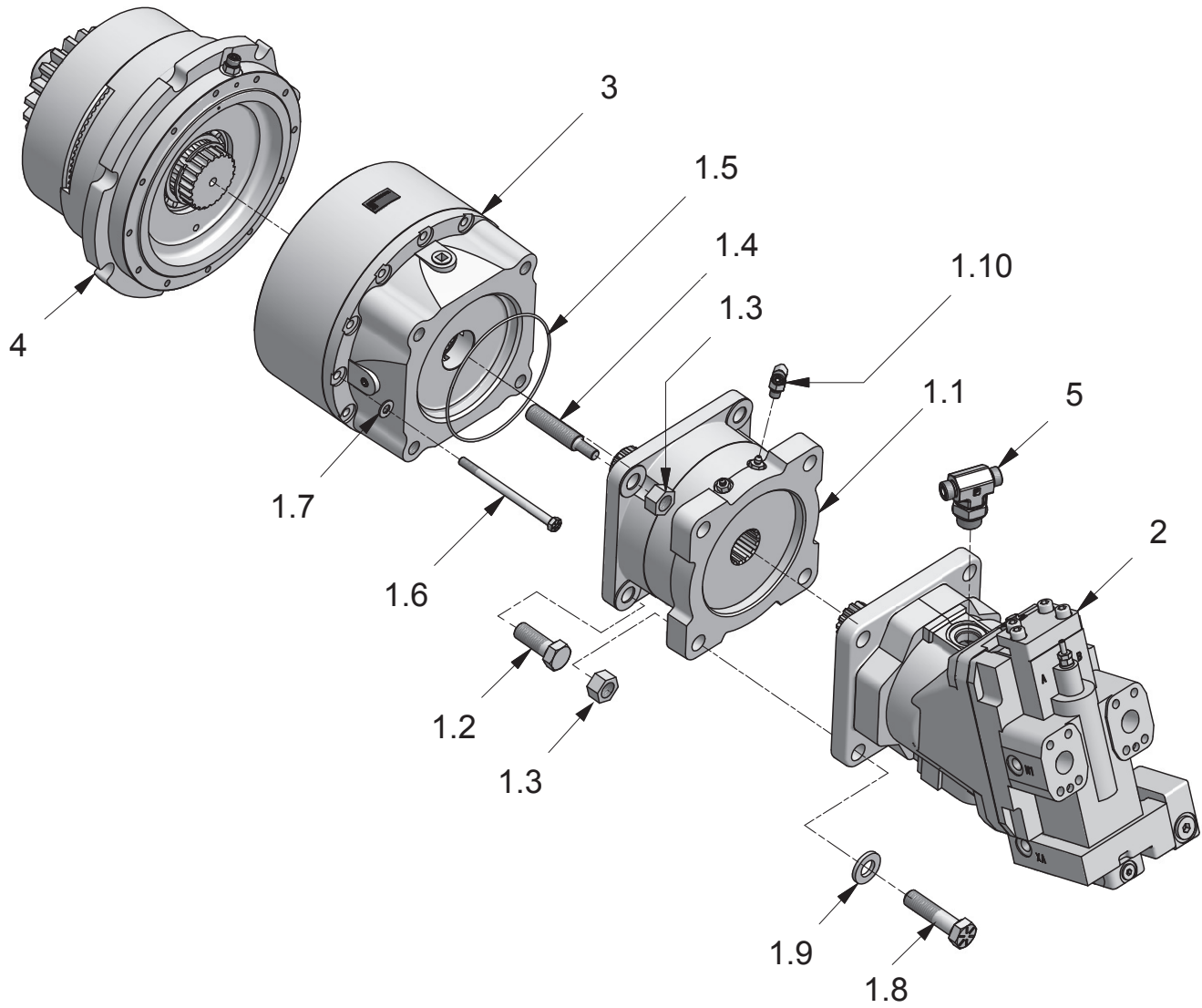
*a See page 33 for details

*b Included in Motor, Reducer & Brake Assembly
Rebuild Kit 2314659

*c See page 28 for details for Motor Replacement Kit

NS Not Shown

Motor Shaft Assembly
Komatsu



Motor Shaft Assembly

Komatsu D61-23/24 (H6HH4B**K471) Last Used S/N 1713

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313174		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	*c 2313170	1	. Motor, Hydraulic
1.4	2312041	2	. Stud		NS 2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring		NS 2313891	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2312965	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2313171	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew	5	2313039	1	. Fitting, Motor Case Drain

Motor Shaft Assembly

Komatsu D61-23/24 (H6HT2BN**K471) Last Used S/N 1713

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2316146		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	*c 2313028	1	. Motor, Hydraulic
1.4	2312041	2	. Stud		NS 2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring		NS 2313891	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2311883	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2313026	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew	5	2313039	1	. Fitting, Motor Case Drain

Motor Shaft Assembly

Komatsu D61-23/24 (H6HT2B**K471) Last Used S/N 1713

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313174		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.9	221777W	4	. Washer
1.2	Y17C-1232	2	. Capscrew	1.10	R833251	1	. Fitting
1.3	221716W	6	. Nut	2	*c 2313028	1	. Motor, Hydraulic
1.4	2312041	2	. Stud		NS 2313890	1	. . O-Ring, Pilot Motor
1.5	*b 237349	1	. O-Ring		NS 2313891	1	. . Kit, Shaft Seal
1.6	R13801826	12	. Capscrew	3	2311883	1	. Reducer, Planetary
1.7	221767W	12	. Washer	4	2313026	1	. Assembly, Shaft
1.8	177192W	4	. Capscrew	5	2313039	1	. Fitting, Motor Case Drain

Motor Shaft Assembly

Komatsu D61-23/24 (H6HT2B**K471) First Used S/N1714

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2316146		Assembly, Motor Shaft				
1.1	*a 2312155	1	. Brake, D Mount Dry Disk	1.10	R833251	1	. . Fitting
1.2	Y17C-1232	2	. Capscrew	2	2316120	1	. Motor, Hydraulic
1.3	221716W	6	. Nut		NS 2313890	1	. . O-Ring, Pilot Motor
1.4	2312041	2	. Stud		NS 2316156	1	. . Kit, Shaft Seal
1.5	*b 237349	1	. O-Ring	3	2311883	1	. Reducer, Planetary
1.6	R13801826	12	. Capscrew	4	2313026	1	. Assembly, Shaft
1.7	221767W	12	. Washer	5	*d -----	NA	. Fitting, Motor Case Drain
1.8	177192W	4	. Capscrew				
1.9	221777W	4	. Washer				

*a See page 33 for details

*b Included in Motor, Reducer & Brake Assembly Rebuild Kit 2314659

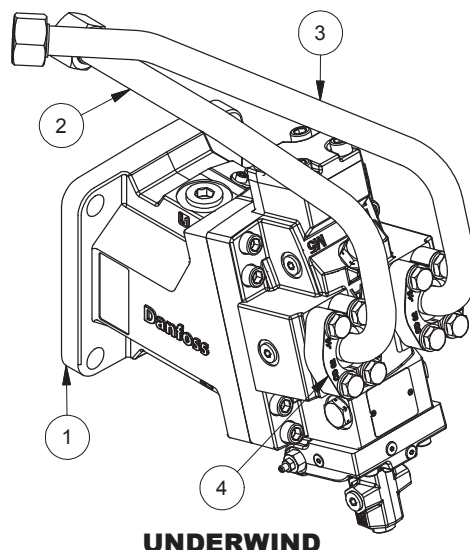
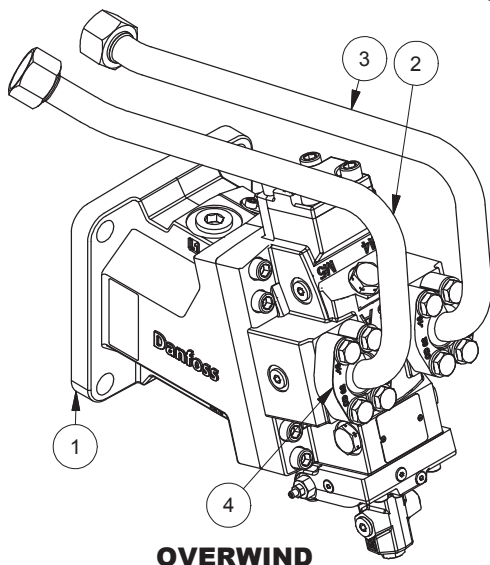
*c See page 28 for details for Motor Replacement Kit

*d See Hydraulic Section 3 for Fitting

NS Not Shown

Motor Replacement Kit

Page 1 of 2



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	*a	1	Motor - Hyd; Danfoss H1B				
2	*a	2	Tube Assy - Motor A				
3	*a	6	Tube Assy - Motor B				
4	592255	2	Kit, Split Flange				

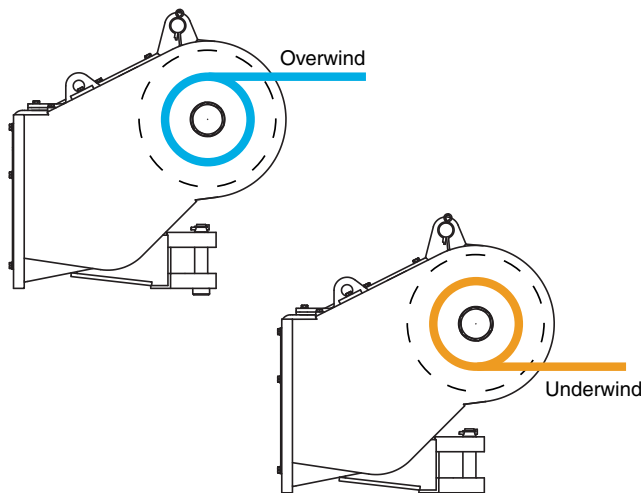
*a Refer to the chart below to determine replacement parts for cancelled motors

WINCH MODEL	KIT PART NUMBER:	OVERWIND/ UNDERWIND	CANCELLED MOTOR:	ITEM 1 (CURRENT MOTOR):	ITEM 2 (TUBE A):	ITEM 3 (TUBE B):
H6HT6U**K46	2316875	U	2313780	2316125	2316714	2316715
H6HT1B**K49	2316858	O	2311815	2316119	2316108	2316109
H6HT1U**K49	2316859	U	2311815	2316119	2316714	2316715
H6HT2B**K471 H6HH4B**K471	2316862	O	2313028 2313170	2316120	2316108	2316109
H6HT2B**K471	2316863	U	2313028	2316120	2316714	2316715

Notes:

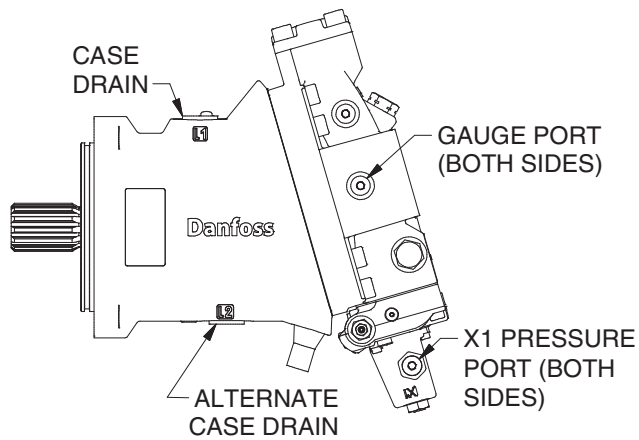
Use this chart to determine which H1B motor replaces the cancelled 51V motor.

Be sure to note whether your motor is overwind or underwind to get the appropriate kit. Each kit contains all the components needed to convert your winch to the current motor.

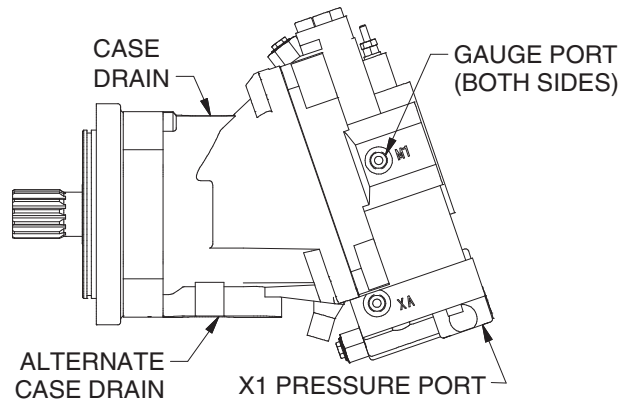


Motor Replacement Kit

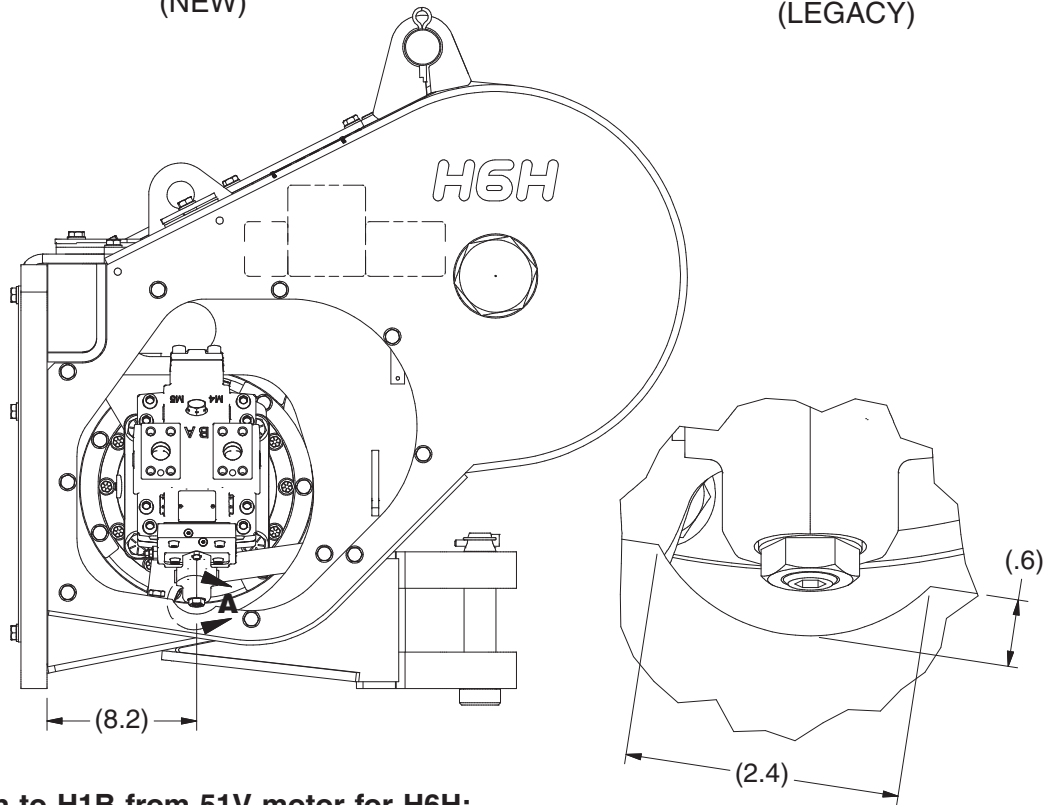
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**H1B MOTOR
(NEW)**



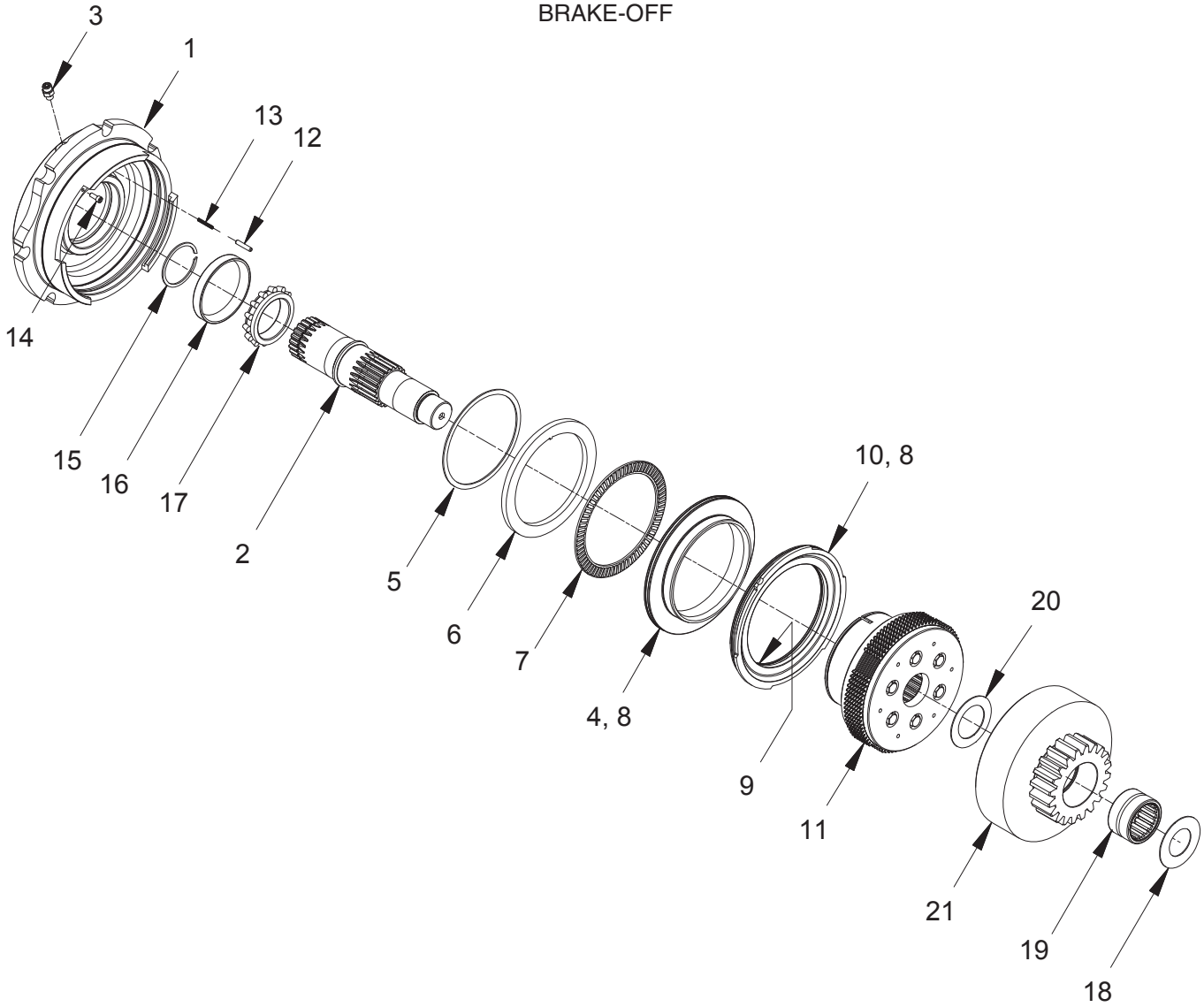
**51V MOTOR
(LEGACY)**



Conversion to H1B from 51V motor for H6H:

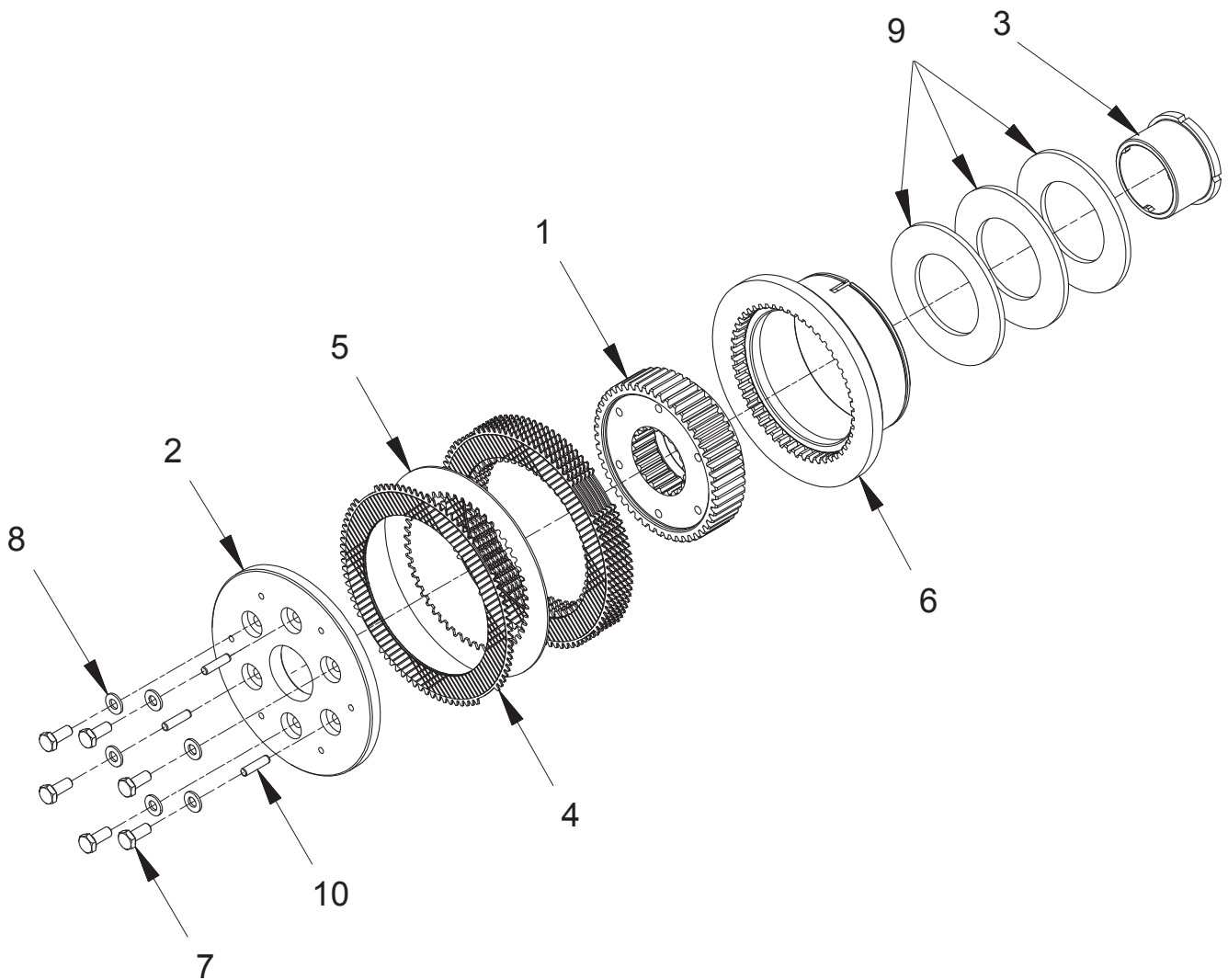
1. Remove material from the winch frame as seen in Detail A to allow the new H1B motor to fit. More material may be removed if necessary for fit.
2. Material may be removed from the cover as necessary to allow the new motor to fit.

Shaft Assembly BRAKE-OFF



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312928		Assy, BRAKE-OFF Shaft				
1	2311855	1	. Housing, Clutch	15	2311684	1	. Ring, Snap
2	2311856	1	. Shaft, Clutch	16	137153W	1	. Cup, Roller Bearing
3	231439	1	. Fitting	17	137155W	1	. Cone, Roller Bearing
4	2312039	1	. Piston, Clutch	18	2311869	1	. Shim .062"
5	2311683	1	. Ring, Snap	19	230407W	1	. Bearing
6	2312442	1	. Ring, Thrust	20	2311687	1	. Shim .062"
7	2311655	1	. Brg, Thrust Needle Roller	21	*a 2312977	1	. Gear, Spider
8	86585W	2	. O-Ring	21	*b 2311905	1	. Gear, Spider
9	87287W	1	. O-Ring				
10	2311880	1	. Ring, Seal				
11	*c 2311903	1	. Assy, Clutch	*a	Gear ratios 2 & 5		
12	239147W	1	. Pin	*b	Gear ratios 1 & 6		
13	2303992W	1	. Spring	*c	See page 31 for details		
14	R13811617	1	. Capscrew				

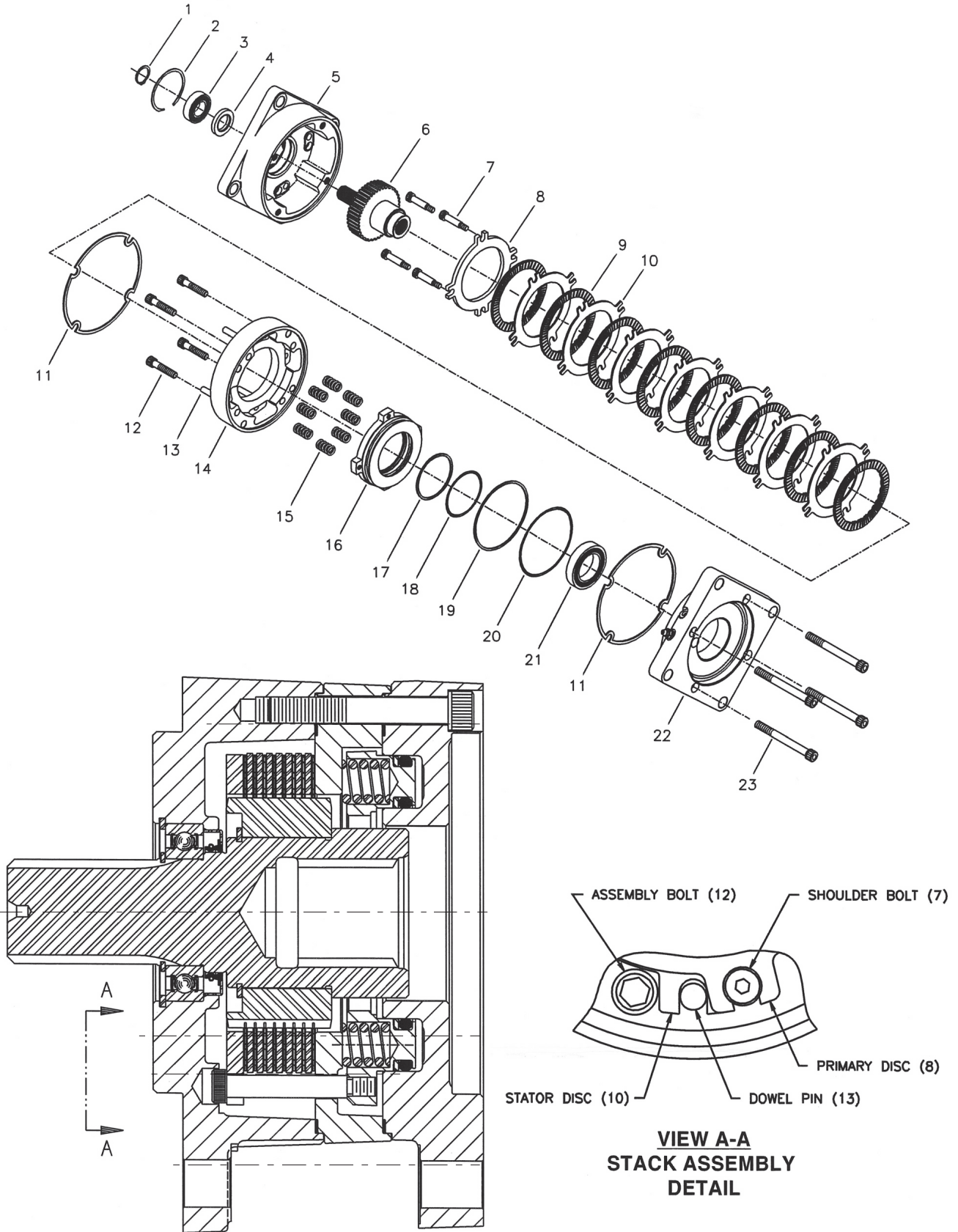
Clutch Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2311903		Assembly, Clutch	6	2311906	1	. Plate, Pressure
2	2311904	1	. Hub, Clutch	7	296420W	6	. Washer
3	2311907	1	. Plate, Clutch	8	293628W	6	. Capscrew
4	2312029	1	. Retainer, Spring	9	2311251	3	. Spring, Belleville
5	328715W	7	. Disc, Friction	10	222713W	3	. Pin
6	261542W	6	. Plate, Separator				

Dry Disc Brake

Page 1 of 2



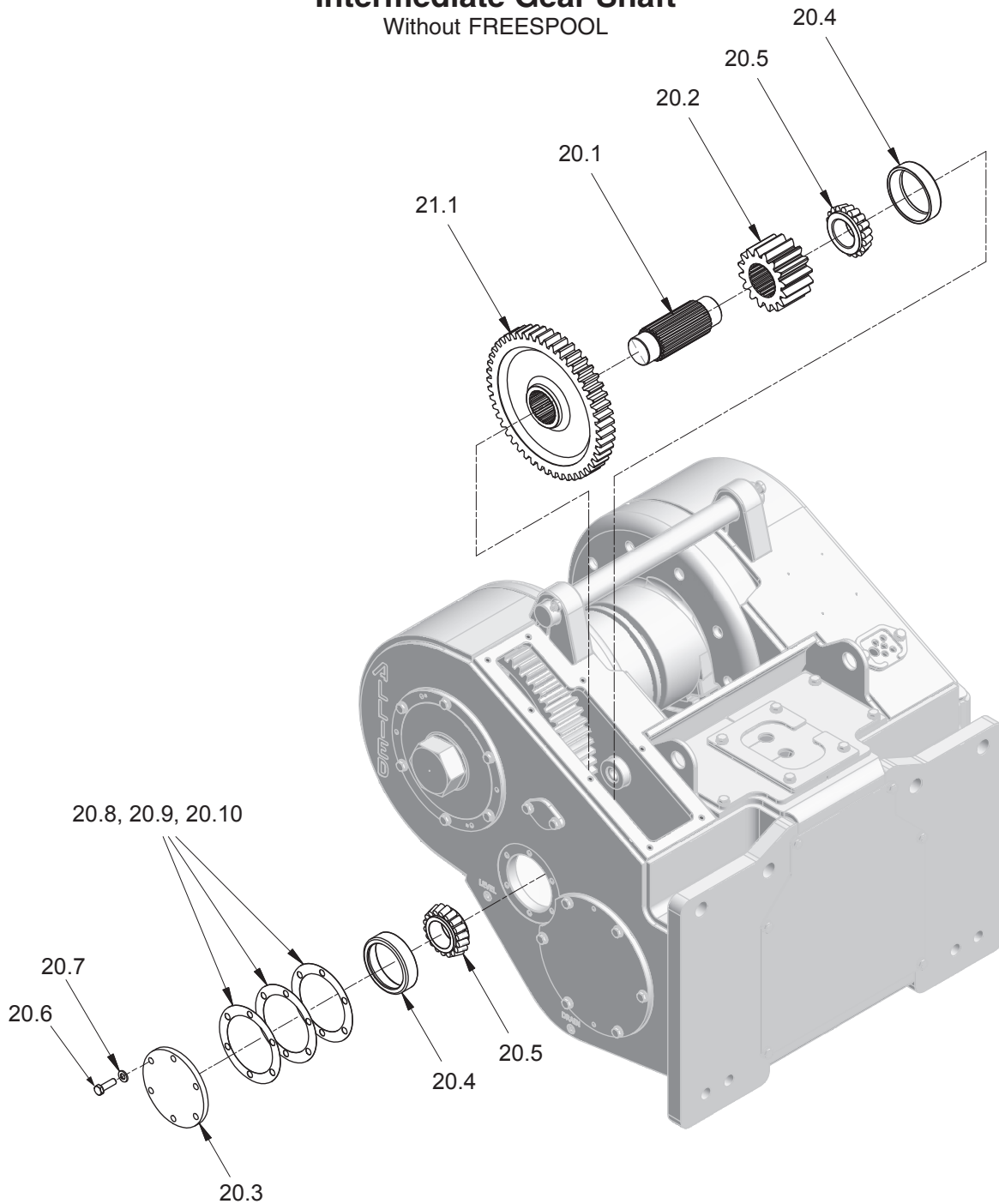
Dry Disc Brake

Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312155		Brake, D Mount Dry Disc				
1	NSS	1	. Retaining Ring	21	*b NSS	1	. Bearing
2	NSS	1	. Retaining Ring	22	NSS	1	. Pressure Plate
3	*b NSS	1	. Bearing	23	NSS	4	. Capscrew
4	*a,*b NSS	1	. Oil Seal				
5	NSS	1	. Cover Plate		*a	Included in O-Ring Repair Kit 2312302	
6	NSS	1	. Spline Shaft Assembly			O-Ring Repair Kit 2312302 is included in	
7	NSS	4	. Bolt			Motor, Reducer & Brake Assembly Rebuild	
8	*d NSS	1	. Primary Disc			Kit 2314659	
9	*d NSS	8	. Rotor Disc		*b	Included in Bearing Repair Kit 2312303	
10	*d NSS	7	. Stator Disc			Bearing Repair Kit 2312303 is included in	
11	*a,*b,*c,*d NSS	2	. Case Gasket			Intermediate/Drum Shaft & Brake	
12	NSS	4	. Capscrew			Assembly Rebuild Kit 2314660	
13	NSS	4	. Dowel Pins		*c	Included in Spring Repair Kit 250850	
14	NSS	1	. Spring Plate			Spring Repair Kit 250850 is included in	
15	*c NSS	10	. Spring, Red			Intermediate/Drum Shaft & Brake	
16	NSS	1	. Piston			Assembly Rebuild Kit 2314660	
17	*a NSS	1	. Backup Ring		*d	Included in Lining Repair Kit 250847	
18	*a NSS	1	. O-Ring			Lining Repair Kit 250847 is Included in	
19	*a NSS	1	. Backup Ring			Intermediate/Drum Shaft & Brake	
20	*a NSS	1	. O-Ring			Assembly Rebuild Kit 2314660	
					NSS	Not Sold Separately	

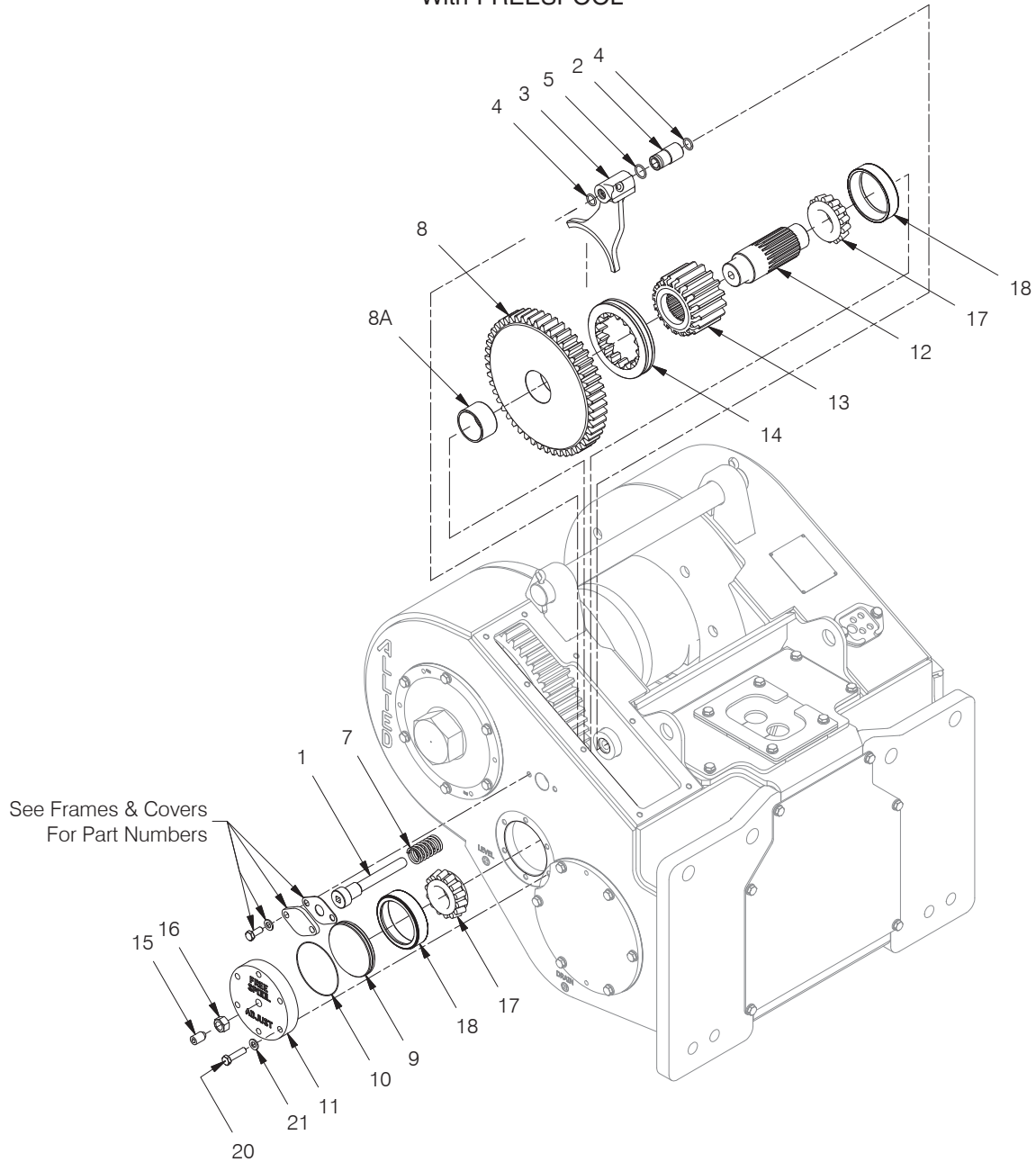
Intermediate Gear Shaft

Without FREESPOOL



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
20.1	95972W	1	Shaft	20.10	149543W	AR	Shim .020"
20.2	95973W	1	Gear	21.1	*b 96024W	1	Gear
20.3	280262W	1	Retainer, Bearing	21.1	*c 2314411	1	Gear
20.4	*a 30059W	2	Cup, Roller Bearing				
20.5	*a 30080W	2	Cone, Roller Bearing				
20.6	2312487	6	Capscrew				
20.7	296422W	6	Washer				
20.8	149541W	AR	Shim .005"				
20.9	149542W	AR	Shim .007"				
				*a	Included in Intermediate/Drum Shaft & Brake Assembly Rebuild Kit 2314660		
				*b	Gear ratios 1 & 6		
				*c	Gear ratios 2 & 5		
				AR	As Required. Refer to Service Manual 599040W for more information.		

Intermediate Gear Shaft With FREESPOOL

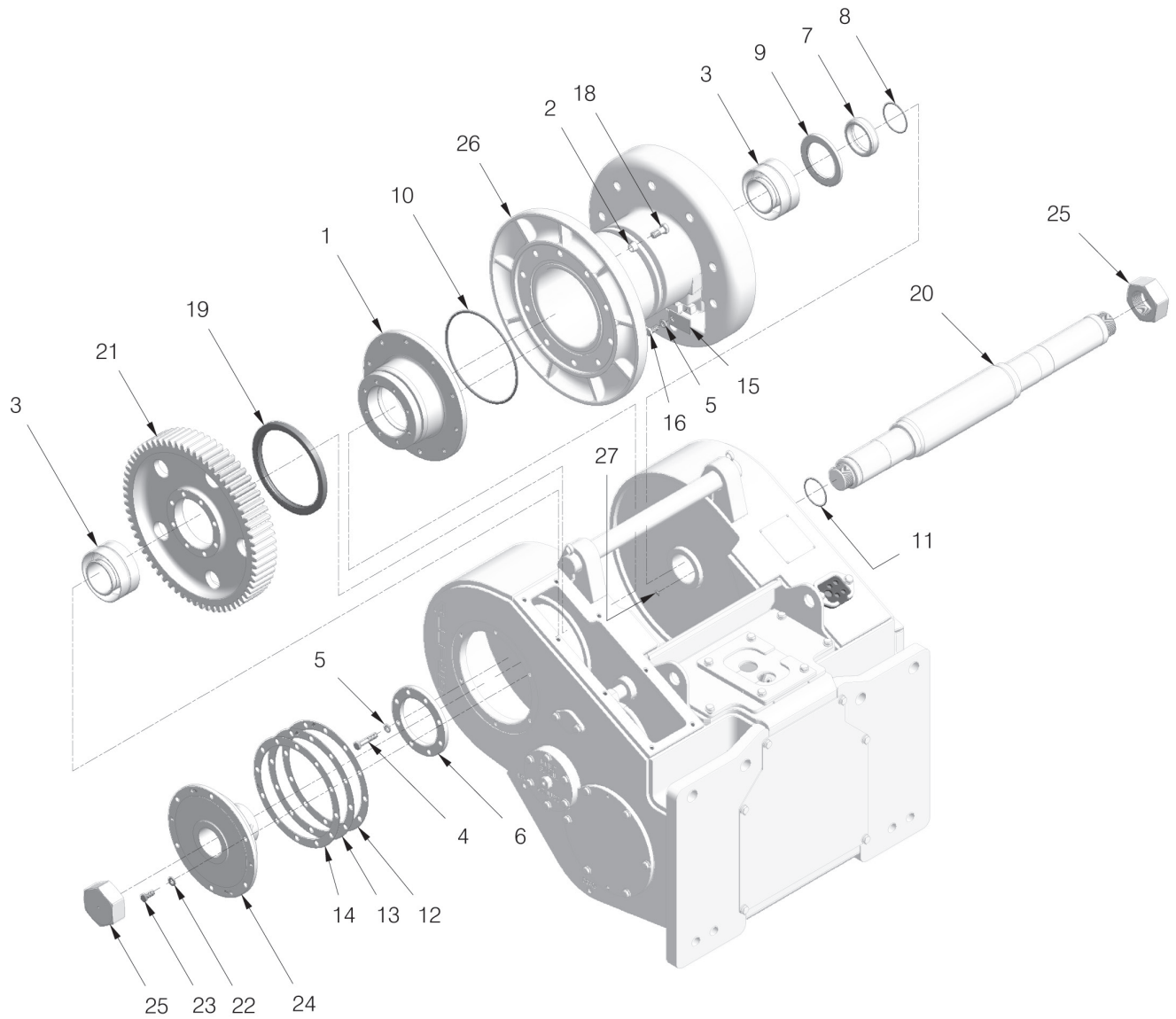


See Frames & Covers
For Part Numbers

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	*a 2311894	1	Shaft, Freespool	14	2312269	1	Clutch, Dental
2	2305097W	1	Piston, Freespool	15	2304803W	1	Screw
3	2305099W	1	Shifter Fork, Freespool	16	221717W	1	Nut, Hex
4	*b 15862W	2	O-Ring	17	*b 2302311W	2	Cone, Bearing
5	*b 212380	1	O-Ring	18	*b 30059W	2	Cup, Bearing
7	2305096W	1	Spring	20	2312488	6	Capscrew
8	*c 283434W	1	Assy, Intermediate Gear	21	296422W	6	Washer, Hard
8	*d 2303036	1	Assy, Intermediate Gear				
8A	283432W	1	. Bushing				
9	2302624W	1	Piston, Freespool Adjust				
10	*b 159940W	1	O-Ring				
11	2302625W	1	Housing, Freespool Adjust				
12	2305956W	1	Shaft, Intermediate				
13	2312280	1	Gear, Pinion				

*a Apply Threadlock 318702W to threads
 *b Included in Intermediate/Drum Shaft & Brake
 Assembly Rebuild Kit 2314660
 *c Gear ratios 1 & 6
 *d Gear ratios 2 & 5

Drum Shaft



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	141674W	1	Adapter	18	2310891	10	Capscrew
2	53559W	10	Thimble, Tapered	19	141671W	1	Seal, Oil
3	*b 230406W	2	Bearing Assembly	20	2312064	1	Shaft, Drum
4	221577W	8	Capscrew	21	95977W	1	Gear
5	*b 15158W	9	Washer	22	296422W	6	Washer
6	95978W	1	Plate, Retainer	23	2312486	6	Cpscrew
7	*a 172808W	1	Spacer	24	172810W	1	Retainer, Drum
8	15881W	1	O-Ring	25	*a 2312099	2	Nut
9	*b 44547W	1	Seal, Oil	26	2312100	1	Drum
10	*b 133927W	1	Ring	27	Y433070.45	1	Fitting, Lube
11	*b 90263W	1	O-Ring	28	255578	4GL	Oil, CT Winch (MSDS Reqd)
12	175648W	AR	Shim, .020"				
13	175647W	AR	Shim, .007"				
14	175646W	AR	Shim, .005"				
15	2301783W	1	Keeper, Ferrule				
16	16829W	1	Capscrew				
				*a	Requires Sealant 358674W		
				*b	Included in Intermediate/Drum Shaft & Brake Assembly Rebuild Kit 2314660		

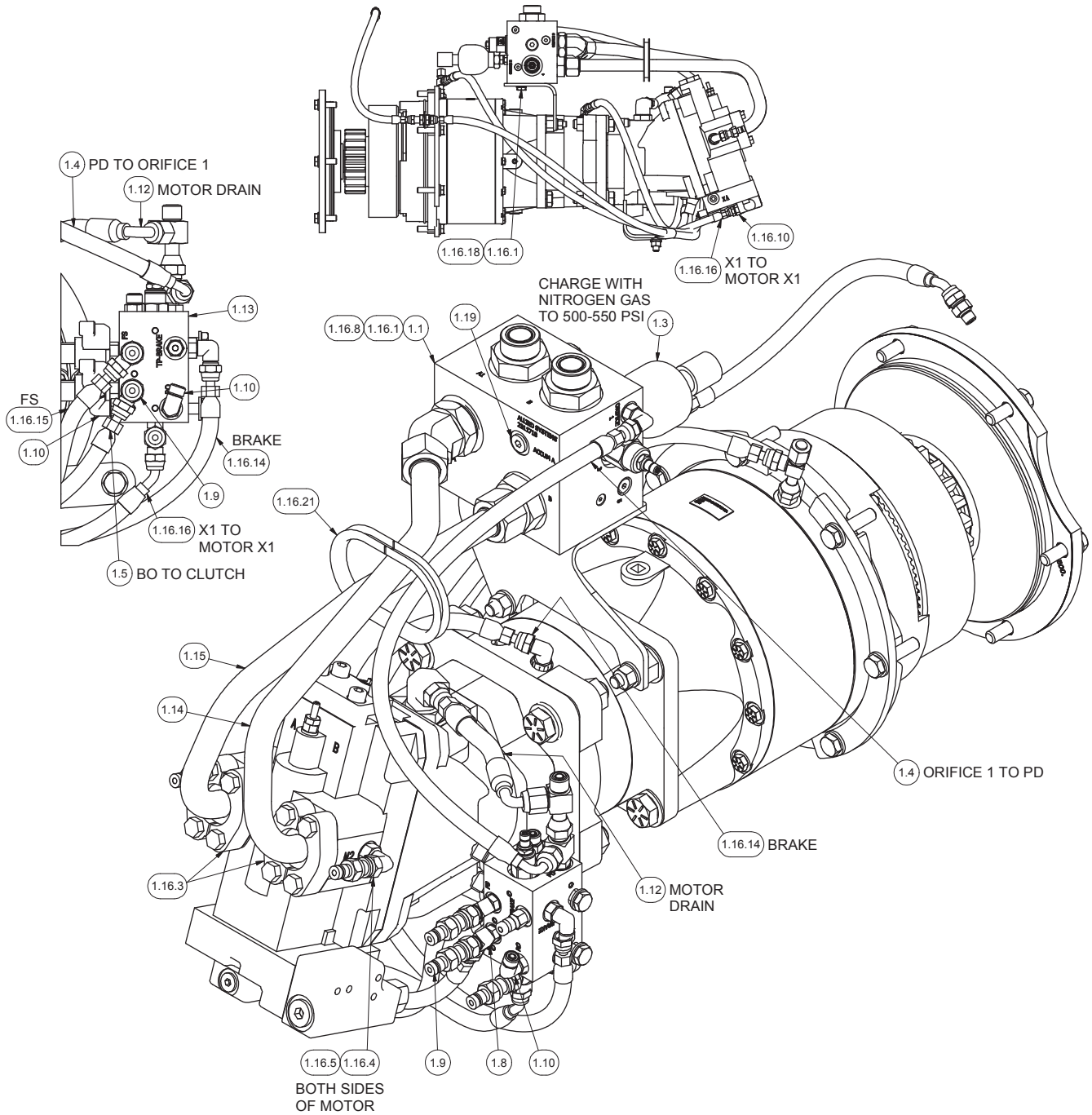
Section 3
Hydraulic/Electrical/Controls

Hydraulic Group

Komatsu D65X-15 (H6HT*UK46/K49) UNDERWIND

Last Used S/N 1713

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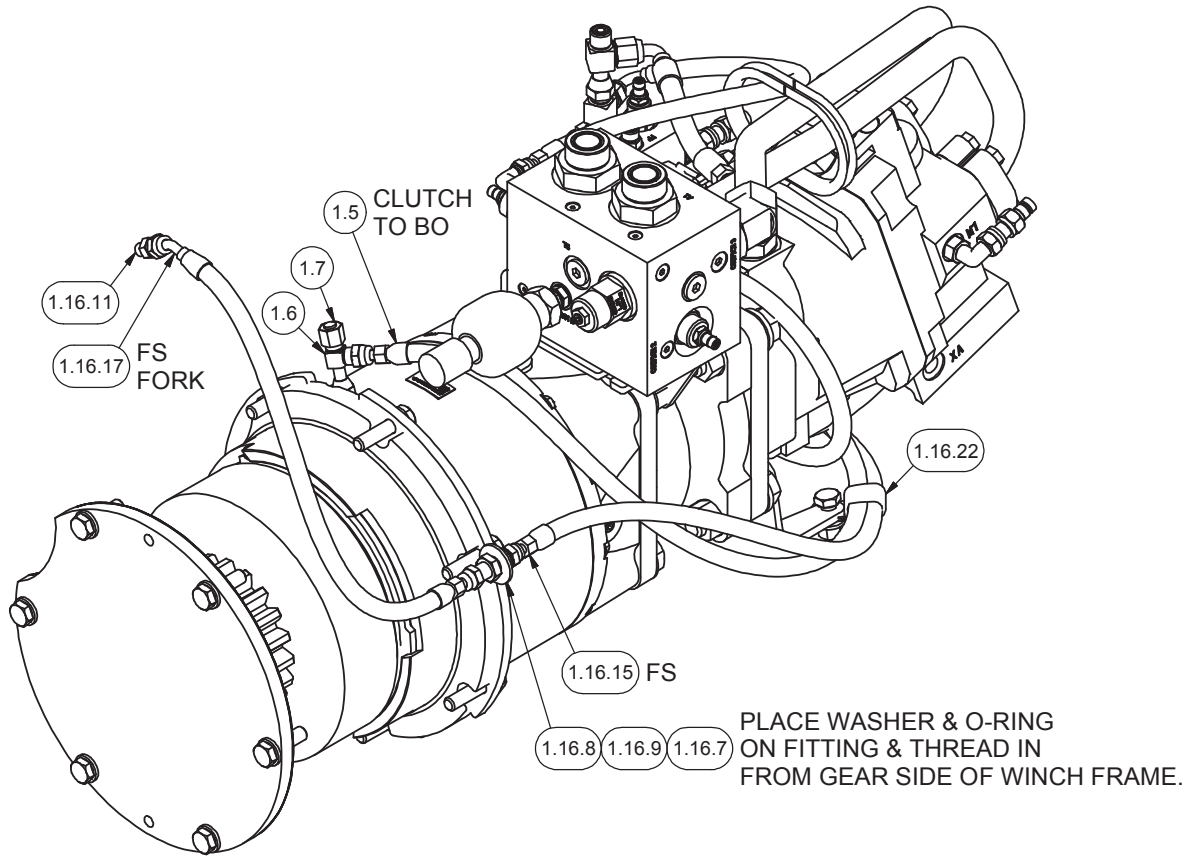


Hydraulic Group

Komatsu D65X-15 (H6HT*UK46/K49) UNDERWIND

Last Used S/N 1713

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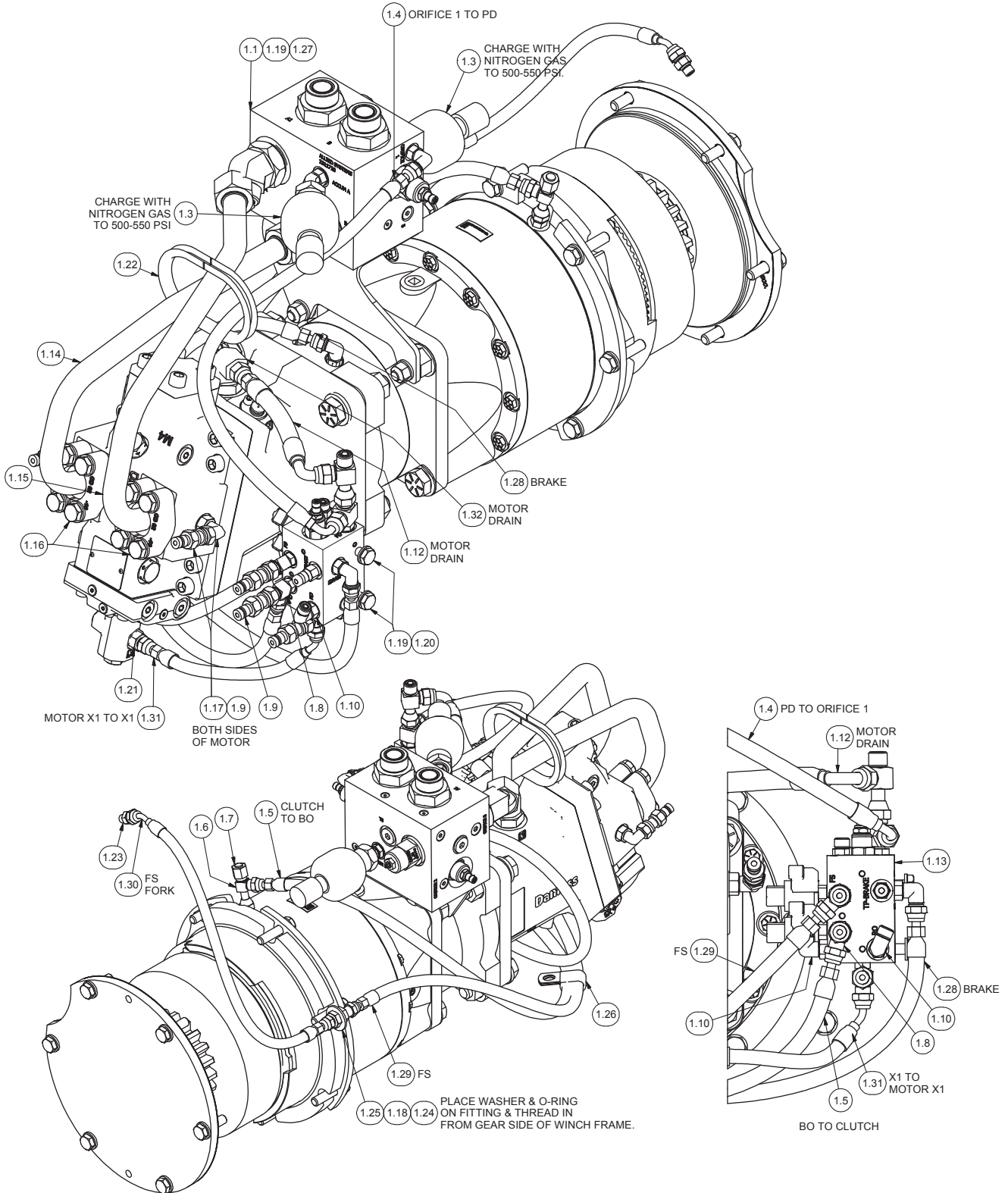
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	*a 2312816	1	Assy - Manifold, Rescue	1.16.7	R834100	1	Fitting
1.3	2312268	1	Accumulator	1.16.8	15178W	1	Washer
1.4	*c 2312357	1	Hose Assy	1.16.9	211564	1	O-Ring
1.5	*c 2312351	1	Hose Assy	1.16.10	R833103	1	Fitting
1.6	236855	1	Fitting	1.16.11	231439	1	Fitting
1.7	232984	1	Fitting	1.16.14 *c	2312353	1	Hose Assy
1.8	R833400	1	Fitting	1.16.15 *c	2312350	1	Hose Assy
1.9	2307625W	1	Fitting	1.16.16 *c	2312878	1	Hose Assy
1.10	R833251	2	Fitting	1.16.17 *c	2312212	1	Hose Assy
1.12	*c 2312358	1	Hose Assy	1.16.18	221767W	2	Washer
1.13	*b 2312908	1	Assy - Manifold, Control	1.16.21	24257	1'	Trim, Edge
1.14	2313720	1	Tube Assy	1.16.22	2312628	1	Clamp
1.15	2313719	1	Tube Assy	1.19	222443W	1	Fitting
1.16.1	Y09C-M1025	4	Capscrew				
1.16.2	296420W	2	Washer	*a	See page 81 for details		
1.16.3	229448	2	Kit, Split Flange	*b	See page 84 for details		
1.16.4	2307625W	2	Fitting	*c	Included in Hose Kit 2314774		
1.16.5	R833253	2	Fitting				

Hydraulic Group

Komatsu D65-16/17 (H6HT**K46/K49) UNDERWIND

First Used S/N 1714

Page 1 of 2



Hydraulic Group

Komatsu D65-16/17 (H6HT**K46/K49) UNDERWIND

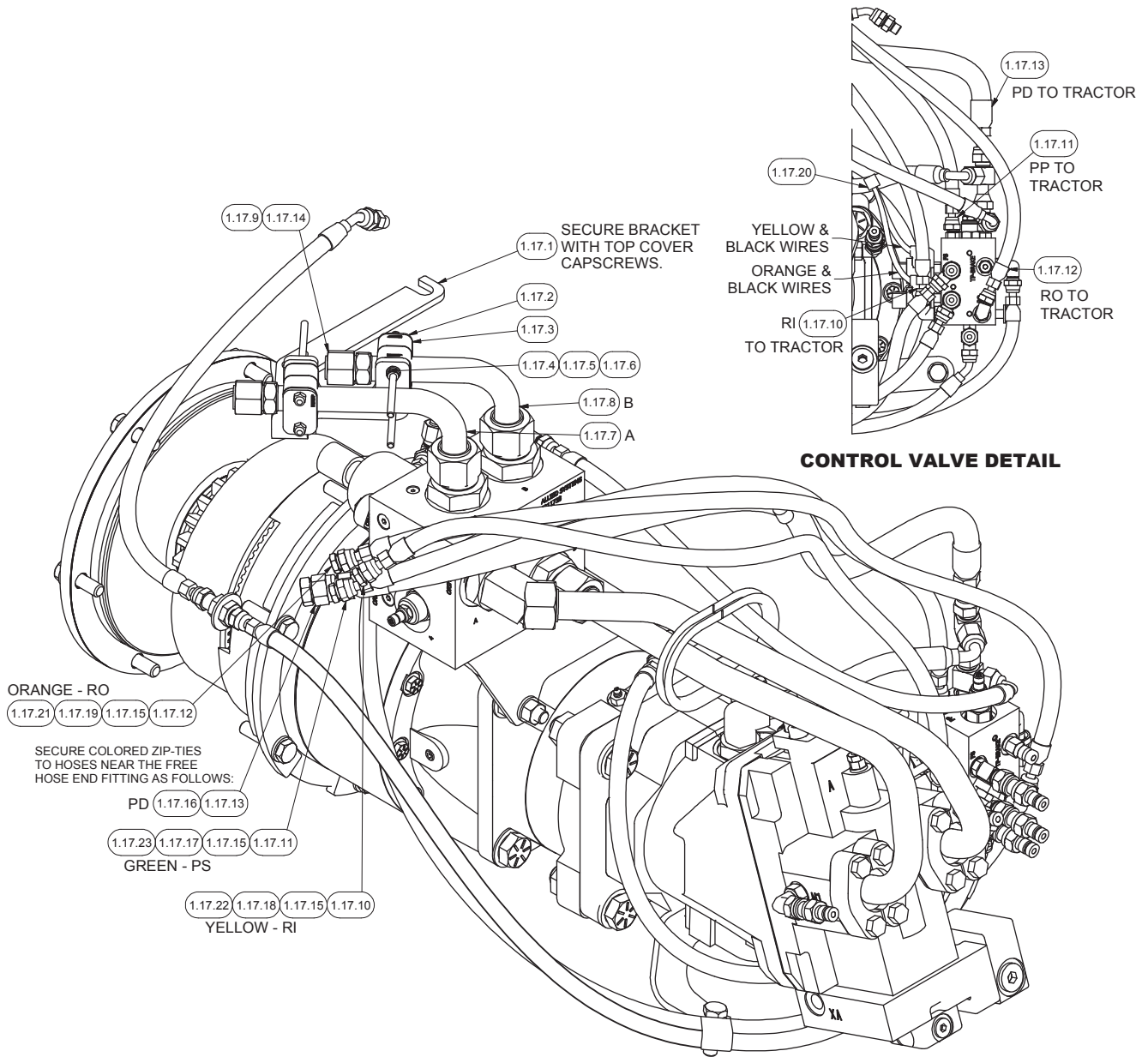
First Used S/N 1714

Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description		
1.1	*a	2314692	1	Assy - Manifold, Counterbalance Relief	1.20	296420W	2	Washer	
1.3		2312268	1	Accumulator	1.21	R833103	1	Fitting	
1.4	*c	2312357	1	Hose Assy	1.22	24257	1	Trim, Edge	
1.5	*c	2312351	1	Hose Assy	1.23	231439	1	Fitting	
1.6		236855	1	Fitting	1.24	R834100	1	Fitting	
1.7		232984	1	Fitting	1.25	15178W	1	Washer	
1.8		R833400	1	Fitting	1.26	2312628	1	Clamp	
1.9		2307625W	3	Fitting	1.27	15176W	2	Washer	
1.10		R833251	2	Fitting	1.28	*c	2312353	1	Hose Assy
1.12	*c	2312358	1	Hose Assy	1.29	*c	2312350	1	Hose Assy
1.13	*b	2312908	1	Control Manifold Assy	1.30	*c	2312212	1	Hose Assy
1.14		2316714	1	Tube Assy - Motor A	1.31		2313639	1	Hose Assy
1.15		2316715	1	Tube Assy - Motor B	1.32		R833260	1	Fitting
1.16		592255	2	Kit, Split Flange	1.33		229347	-1	Fitting
1.17		R833253	2	Fitting	1.34		229383	1	Fitting
1.18		211564	1	O-Ring	*a	See page 83 for details			
1.19		Y09C-M1025	4	Capscrew	*b	See page 84 for details			
					*c	Included in hose kit 2314774			

Attaching Hydraulics

Komatsu D65-15 (H6HT*UK46/K49) UNDERWIND
Last Used S/N 1713

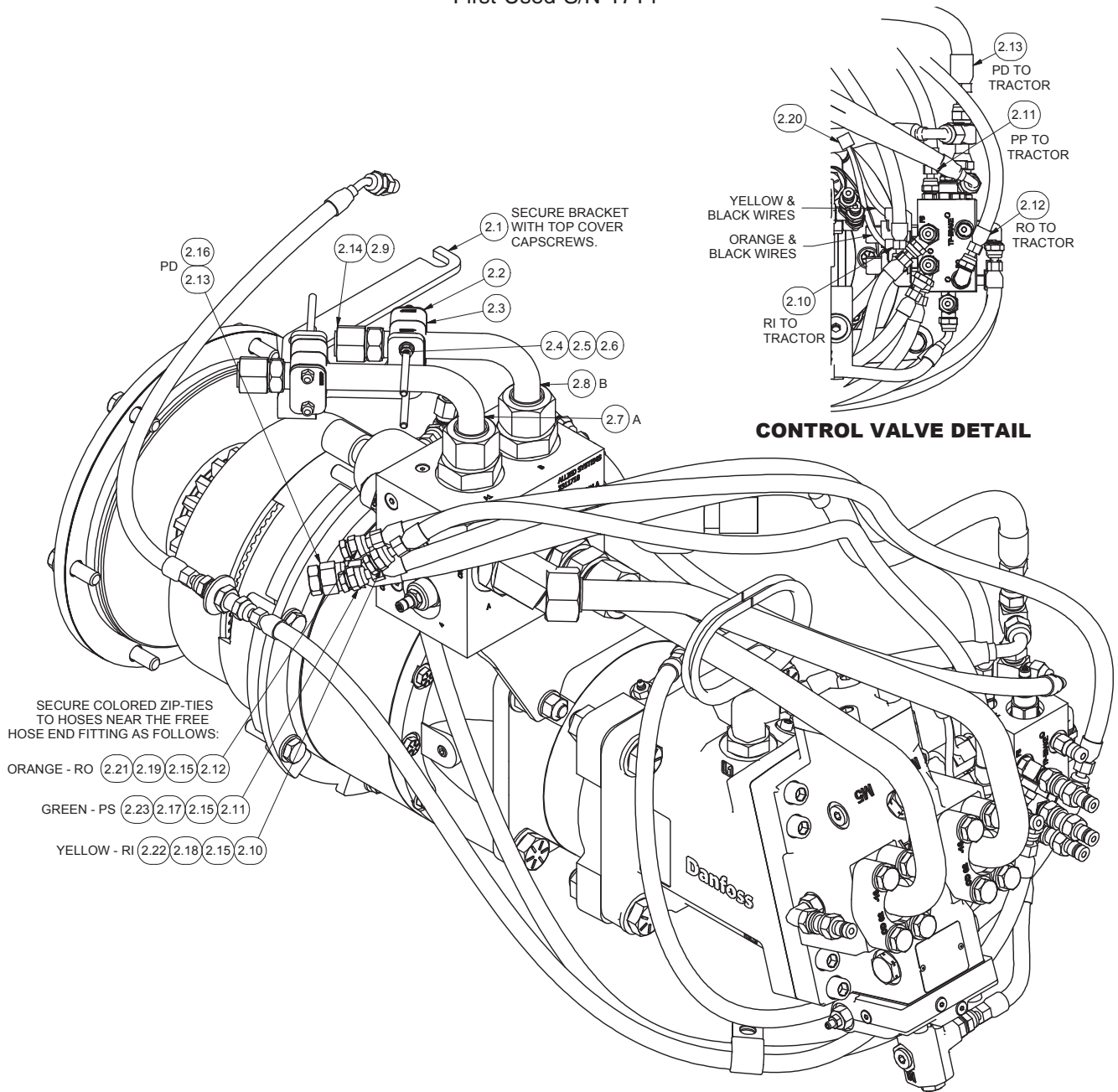


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.17.1	2312485	1	Bracket - Support, Tube	1.17.13	2312356	1	Hose Assembly
1.17.2	2312323	4	Cover Plate	1.17.14	R834254	2	Fitting
1.17.3	2312319	2	Clamp Body	1.17.15	R834200	3	Fitting
1.17.4	2312324	4	Capscrew	1.17.16	232960	1	Fitting
1.17.5	302399W	4	Locknut	1.17.17	2306152W	1	Label - PS
1.17.6	296417W	4	Washer	1.17.18	2307239W	1	Label - RI
1.17.7	2312318	1	Tube	1.17.19	2307238W	1	Label - RO
1.17.8	2312317	1	Tube	1.17.20	2312339	1	Wire Harness
1.17.9	118389W	2	O-Ring	1.17.21	242596	1	Cable Tie
1.17.10	2312353	1	Hose Assembly	1.17.22	242597	1	Cable Tie
1.17.11	2312355	1	Hose Assembly	1.17.23	242598	1	Cable Tie
1.17.12	2312350	1	Hose Assembly				

Attaching Hydraulics

Komatsu D65-16/17 (H6HT**UK46/K49) UNDERWIND

First Used S/N 1714

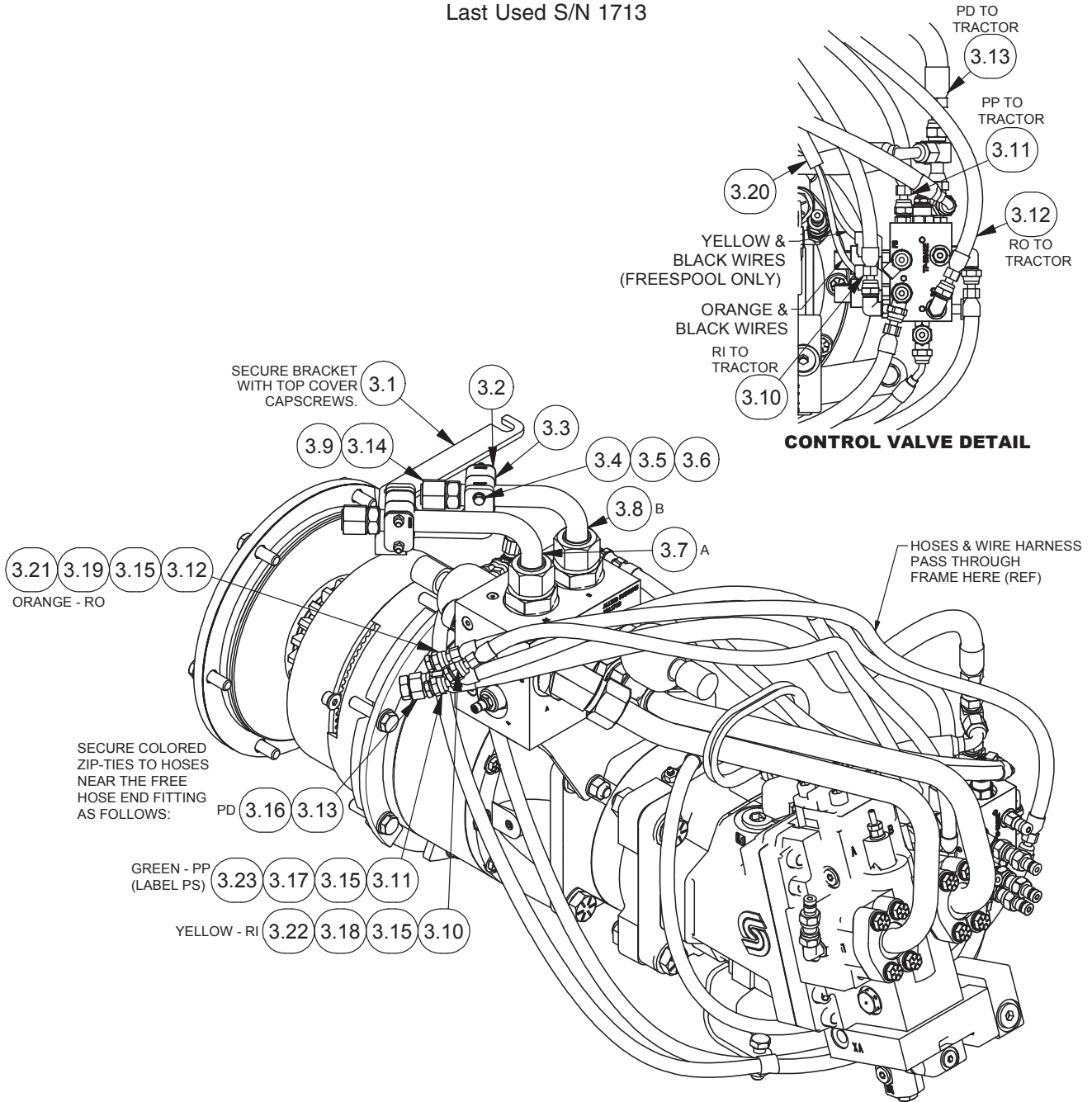


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2.1	2312485	1	Bracket - Support, Tube	2.13	*a 2312356	1	Hose Assembly
2.2	2312323	4	Cover Plate	2.14	R834254	2	Fitting
2.3	2312319	2	Clamp Body	2.15	R834200	3	Fitting
2.4	2312324	4	Capscrew	2.16	232960	1	Fitting
2.5	302399W	4	Locknut	2.17	2306152W	1	Label - PS
2.6	296417W	4	Washer	2.18	2307239W	1	Label - RI
2.7	2312318	1	Tube	2.19	2307238W	1	Label - RO
2.8	2312317	1	Tube	2.20	2312339	1	Wire Harness
2.9	118389W	2	O-Ring	2.21	242596	1	Cable Tie
2.10	*a 2312353	1	Hose Assembly	2.22	242597	1	Cable Tie
2.11	*a 2312355	1	Hose Assembly	2.23	242598	1	Cable Tie
2.12	*a 2312350	1	Hose Assembly				

*a Included in Hose Kit 2314774

Attaching Hydraulics

Komatsu D65-16/17 (H6HT**K46/K49)
Last Used S/N 1713



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3.1	2312485	1	Bracket, Tube Support				
3.2	2312323	4	Plate, Cover				
3.3	2312319	2	Clamp Body, Tube	3.14	R834254	2	Fitting
3.4	2312324	4	Capscrew	3.15	R834200	3	Fitting
3.5	302399W	4	Nut	3.16	232960	1	Fitting
3.6	296417W	4	Washer	3.17	2306152W	1	Label, PS
3.7	2312318	1	Tube, Manifold-A To Dozer	3.18	2307239W	1	Label, RI
3.8	2312317	1	Tube, Manifold-B To Dozer	3.19	2307238W	1	Label, RO
3.9	118389W	2	O-Ring	3.20	2312339	1	Harness, Winch Wire
3.10	*a 2312353	1	Assy, Hose	3.21	242596	1	Tie, Cable (Orange)
3.11	*a 2312355	1	Assy, Hose	3.22	242597	1	Tie, Cable (Yellow)
3.12	*a 2312350	1	Assy, Hose	3.23	242598	1	Tie, Cable (Green)
3.13	*a 2312356	1	Assy, Hose				

*a Included in Hose Kit 2314774

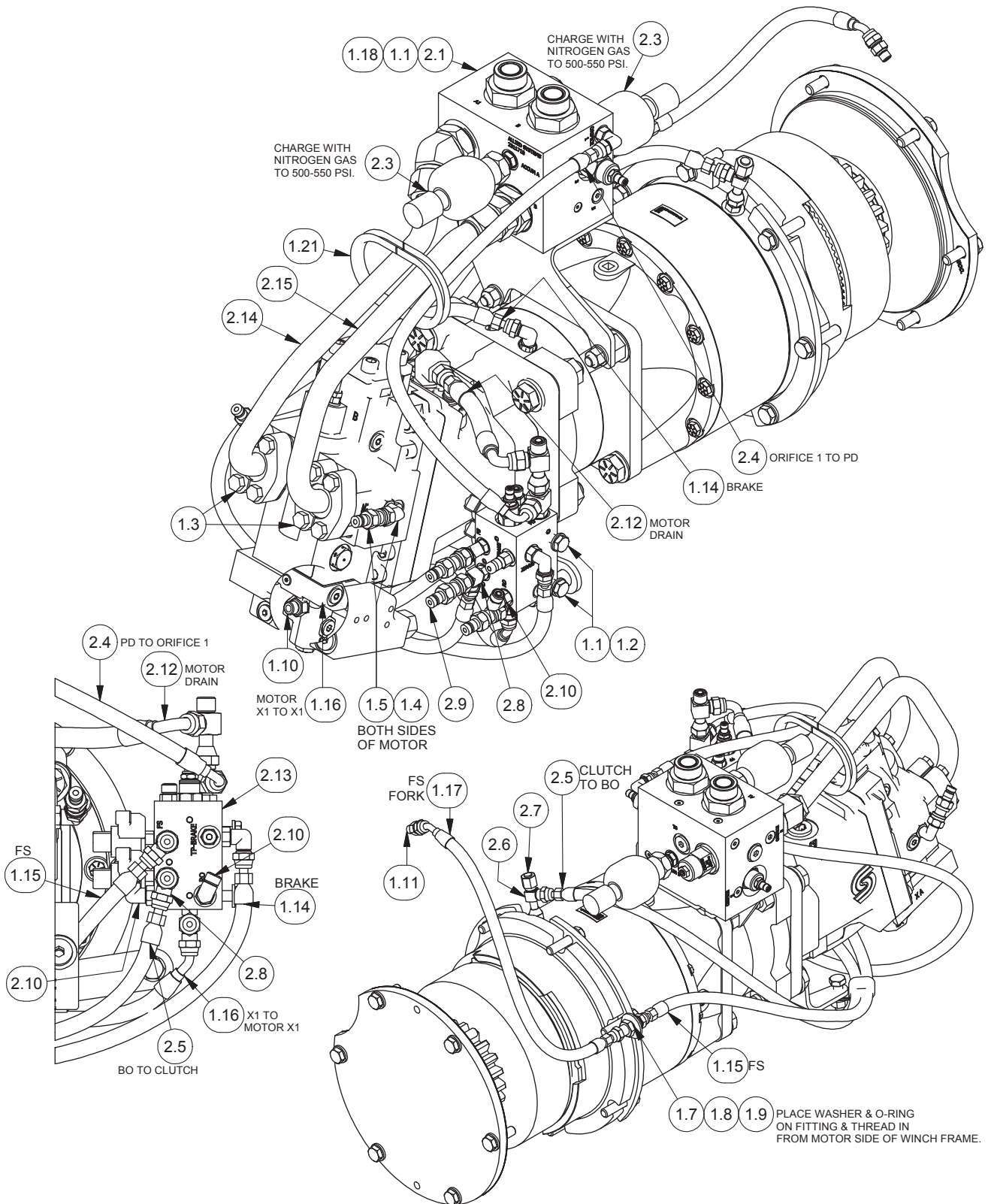
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Hydraulic Group

Komatsu D65X-16/17 (H6HT**K49) with FREESPOOL

Last Used S/N 1713

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Hydraulic Group

Komatsu D65X-16/17 (H6HT**K49) with FREESPOOL

Last Used S/N 1713

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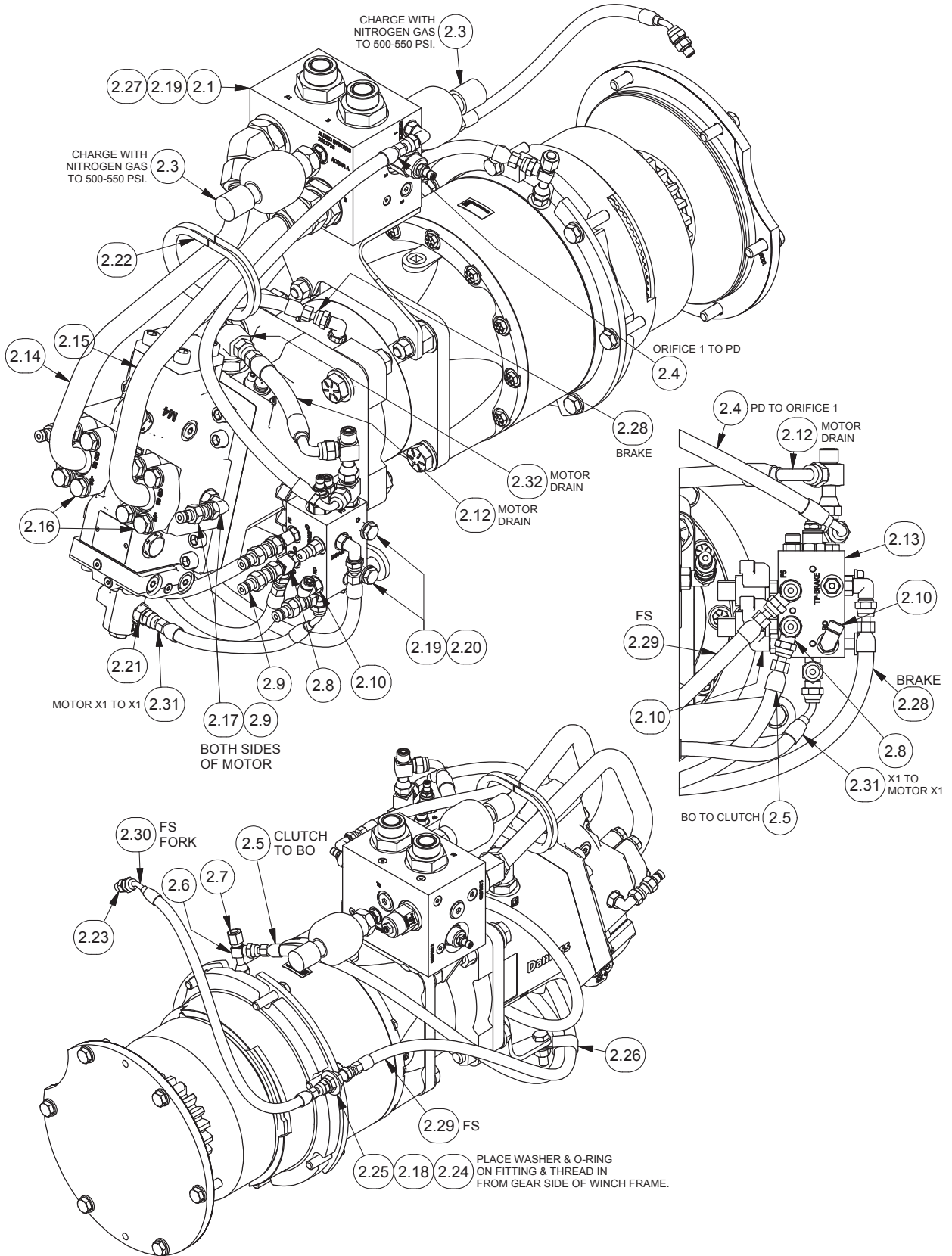
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	Y09C-M1025	4	Capscrew	2.3	2312268	2	Accumulator
1.2	296420W	2	Washer	2.4	*a 2312357	1	Assy, Hose
1.3	229448	2	Kit, Split Flange	2.5	*a 2312351	1	Assy, Hose
1.4	2307625W	2	Coupler, Quick Male	2.6	236855	1	Fitting
1.5	R833253	2	Fitting	2.7	232984	1	Fitting
1.7	R834100	1	Fitting	2.8	R833400	1	Fitting
1.8	15178W	1	Washer	2.9	2307625W	3	Coupler, Quick Male
1.9	211564	1	O-Ring	2.10	R833251	2	Fitting
1.10	R833103	1	Fitting	2.12	*a 2312358	1	Assy, Hose
1.11	231439	1	Fitting	2.13	*f 2312908	1	Assy, Control Manifold
1.14	*a 2312353	1	Assy, Hose	2.14	*b 2312069	1	Assy, Tube - Motor A
1.15	*a 2312350	1	Assy, Hose		*c 2314162	1	Assy, Tube - Motor A
1.16	*a 2312878	1	Assy, Hose	2.15	*b 2312095	1	Assy, Tube - Motor B
1.17	*a 2312212	1	Assy, Hose		*c 2314690	1	Assy, Tube - Motor B
1.18	221767W	2	Washer				
1.21	24257	13 in.	Trim, Edge				
1.22	NS 2312628	1	Clamp, Insulation	*a	Included in Hose Kit 2314774		
2.1	*b*e 2312816	1	Assy, Counterbalance Relief Manifold	*b	Last Used on S/N 1496		
				*c	First Used on S/N 1497		
	*c*d 2314692	1	Assy, Counterbalance Relief Manifold	*d	See page 83 for details		
				*e	See page 81 for details		
				*f	See page 84 for details		
				NS	Not Shown		

Hydraulic Group

Komatsu D65X-16/17/18 (H6HT**K49) with FREESPOOL

First Used S/N 1714

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Hydraulic Group

Komatsu D65X-16/17/18 (H6HT**K49) with FREESPOOL

First Used S/N 1714

Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2.1	*e 2314692	1	Assy - Manifold, Counterbalance Relief	2.17	R833253	2	Fitting
2.3	2312268	2	Accumulator	2.18	211564	1	O-Ring
2.4	*a 2312357	1	Hose Assy	2.19	Y09C-M1025	4	Capscrew
2.5	*a 2312351	1	Hose Assy	2.20	296420W	2	Hard Washer
2.6	236855	1	Fitting	2.21	R833103	1	Fitting
2.7	232984	1	Fitting	2.22	24257	1'	Trim, Edge
2.8	R833400	1	Fitting	2.23	231439	1	Fitting
2.9	2307625W	3	Fitting	2.24	R834100	1	Fitting
2.10	R833251	2	Fitting	2.25	15178W	1	Flat Washer
2.12	*a 2312358	1	Hose Assy	2.26	2312628	1	Clamp
2.13	*d 2312908	1	Manifold Assy, Control	2.27	15176W	2	Flat Washer
2.14	*b 2314162	1	Tube Assy - Motor A	2.28	*a 2312353	1	Hose Assy
	*c 2316108	1	Tube Assy - Motor A	2.29	*a 2312350	1	Hose Assy
2.15	*b 2314690	1	Tube Assy - Motor B	2.30	*a 2312212	1	Hose Assy
	*c 2316109	1	Tube Assy - Motor B	2.31	2313639	1	Hose Assy
2.16	592255	2	Kit, Split Flange	2.32	R833260	1	Fitting

*a Included in Hose Kit 2314774

*b Last Used on S/N 1713

*c First Used on S/N 1714

*d See page 84 for details

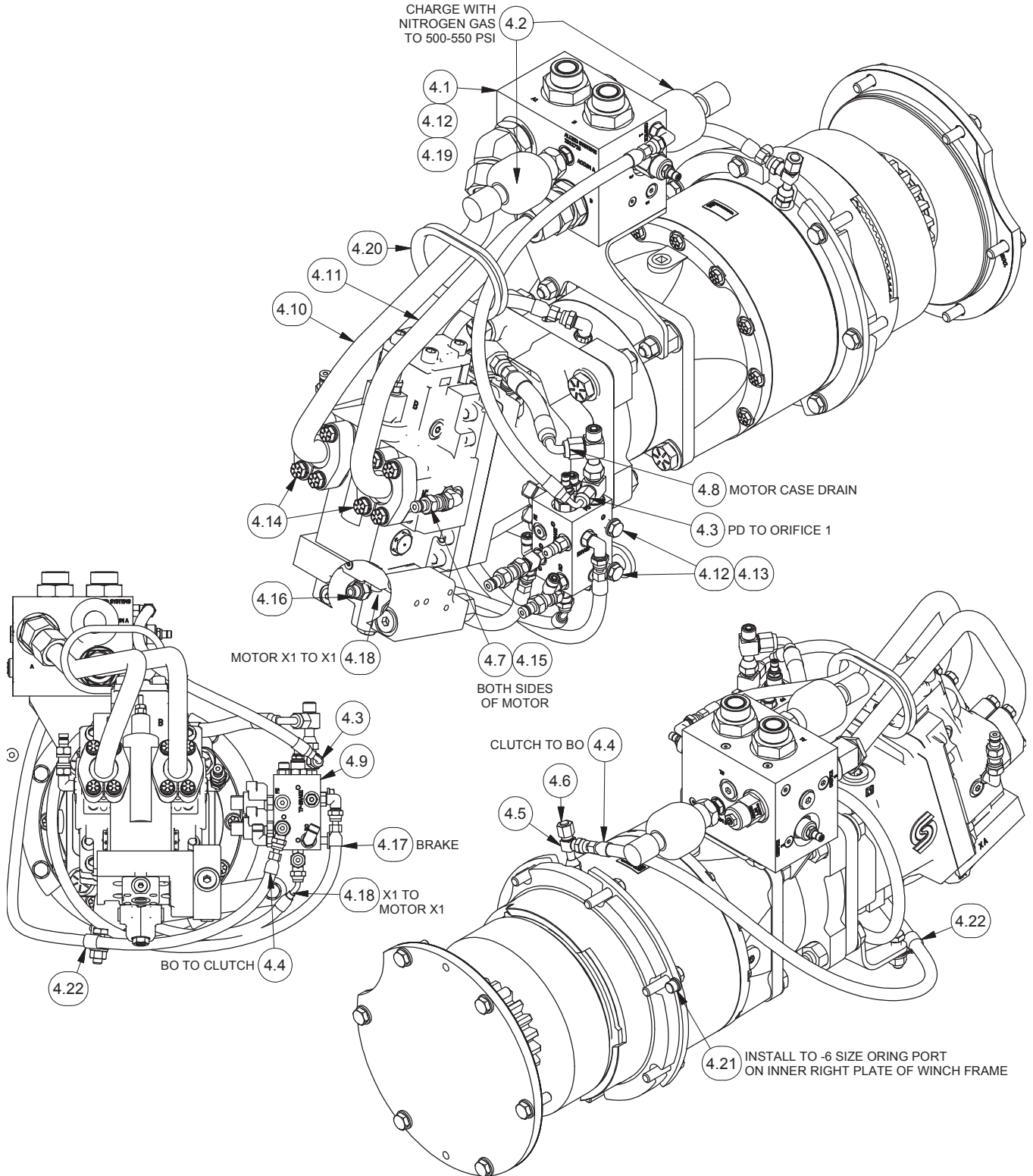
*e See page 83 for details

Hydraulic Group

Komatsu D65-16/17 (H6HT**K49) NON-FREESPOOL

Last Used S/N 1713

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Hydraulic Group

Komatsu D65-16/17 (H6HT**K49) NON-FREESPOOL

Last Used S/N 1713

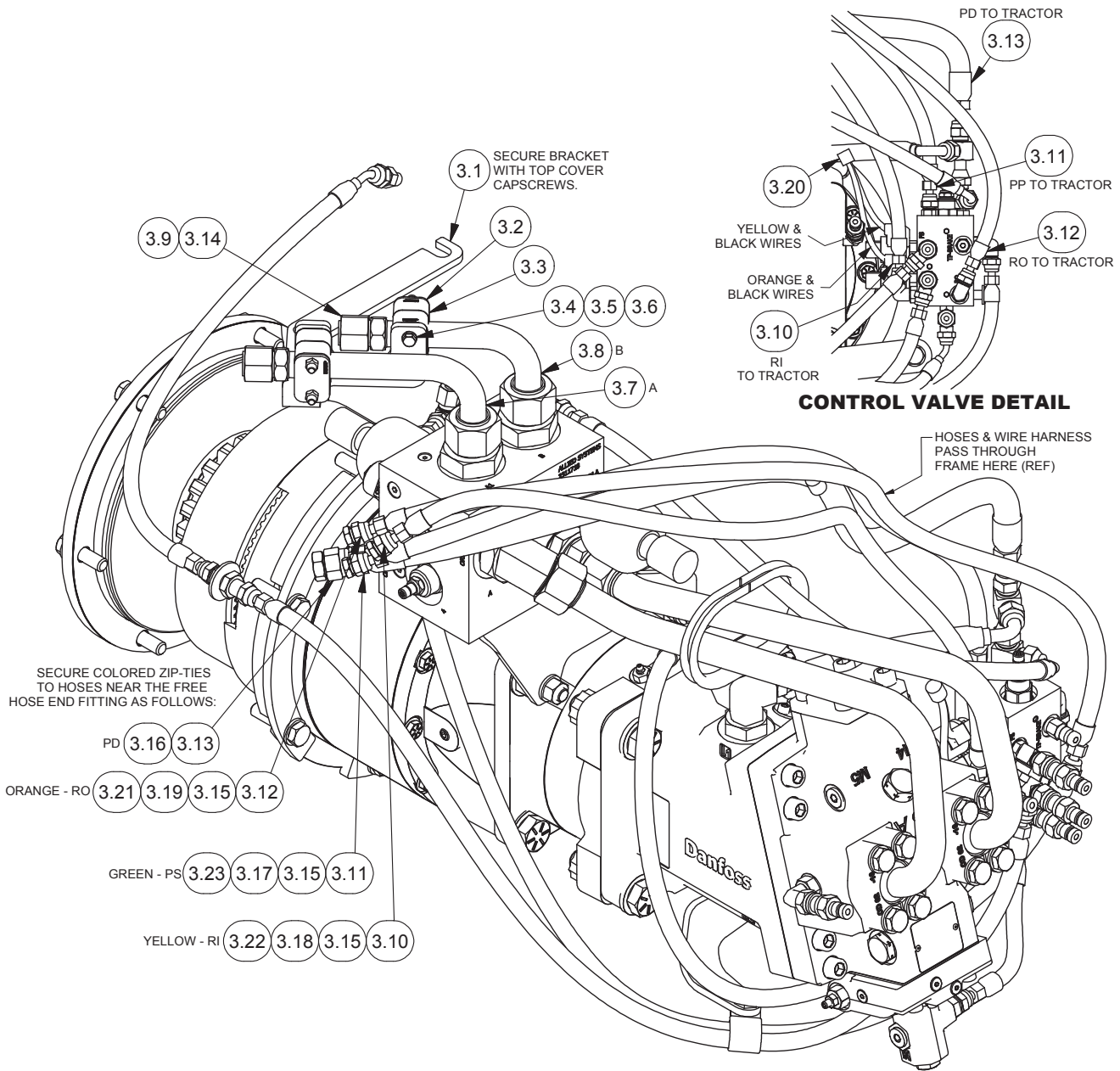
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
4.1	*b*e 2312816	1	Assy, Counterbalance Relief Manifold	4.14	229448	2	Kit, Split Flange
	*c*d 2314692	1	Assy, Counterbalance Relief Manifold	4.15	R833253	2	Fitting
				4.16	R833103	1	Fitting
				4.17	*a 2312353	1	Assy, Hose
4.2	2312268	2	Accumulator	4.18	*a 2342878	1	Assy, Hose
4.3	*a 2312357	1	Assy, Hose	4.19	221767W	2	Washer
4.4	*a 2312351	1	Assy, Hose	4.20	24257	1.08	Trim, Edge
4.5	236855	1	Fitting	4.21	229383	1	Fitting
4.6	232984	1	Fitting	4.22	R13807642	1	Clip, Insulation
4.7	2307625W	2	Coupler, Quick Male	4.23	*c 2314959	1	Fitting
4.8	*a 2312358	1	Assy, Hose				
4.9	*f 2314490	1	Assy, Control Manifold	*a	Included in Hose Kit 2314774		
4.10	*b 2312069	1	Assy, Tube - Motor A	*b	Last Used on S/N 1496		
	*c 2314162	1	Assy, Tube - Motor A	*c	First Used on S/N 1497		
4.11	*b 2312095	1	Assy, Tube - Motor B	*d	See page 83 for details		
	*c 2314690	1	Assy, Tube - Motor B	*e	See page 81 for details		
4.12	Y09C-M1025	4	Capscrew	*f	See page 85 for details		
4.13	296420W	2	Washer				

Attaching Hydraulics

Komatsu D65X-16/17/18 (H6HT**K49) with FREESPOOL

First Used S/N 1714



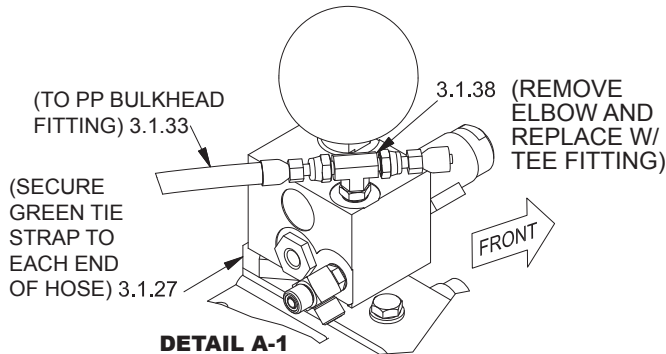
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3.1	2312485	1	Bracket - Support, Tube	3.14	R834254	2	Fitting
3.2	2312323	4	Cover Plate	3.15	R834200	3	Fitting
3.3	2312319	2	Clamp Body	3.16	232960	1	Fitting
3.4	2312324	4	Capscrew	3.17	2306152W	1	Label - PS
3.5	302399W	4	Locknut	3.18	2307239W	1	Label - RI
3.6	296417W	4	Hard Washer	3.19	2307238W	1	Label - RO
3.7	2312318	1	Tube	3.20	2312339	1	Wire Harness
3.8	2312317	1	Tube	3.21	242596	1	Cable Tie
3.9	118389W	2	O-Ring	3.22	242597	1	Cable Tie
3.10	*a 2312353	1	Hose Assy	3.23	242598	1	Cable Tie
3.11	*a 2312355	1	Hose Assy				
3.12	*a 2312350	1	Hose Assy				
3.13	*a 2312356	1	Hose Assy				

*a Included in Hose Kit 2314774

External Hydraulic Group

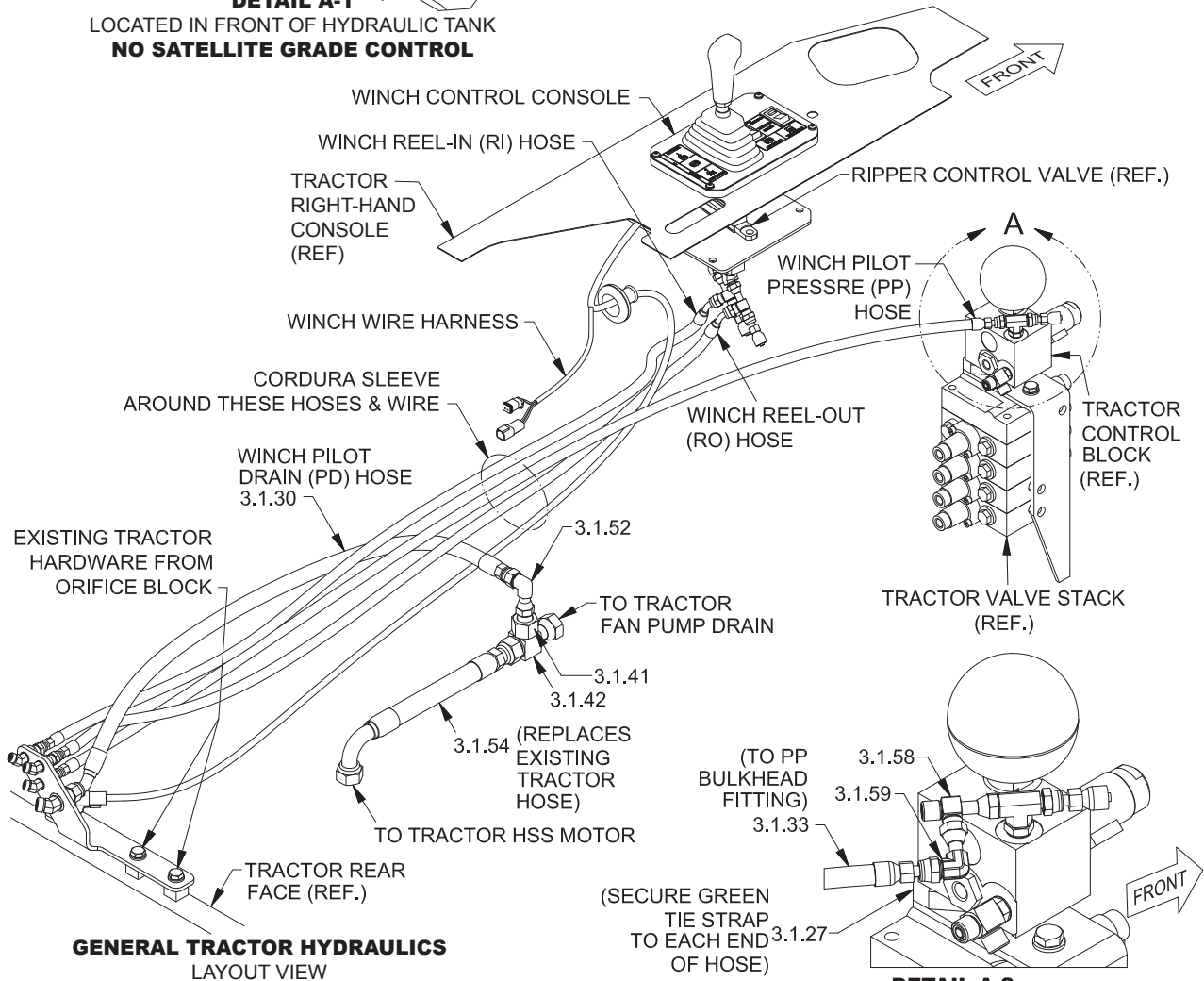
Komatsu D65-16/17 (K49)

Last Used S/N 1618



DETAIL A-1

LOCATED IN FRONT OF HYDRAULIC TANK
NO SATELLITE GRADE CONTROL



GENERAL TRACTOR HYDRAULICS
LAYOUT VIEW

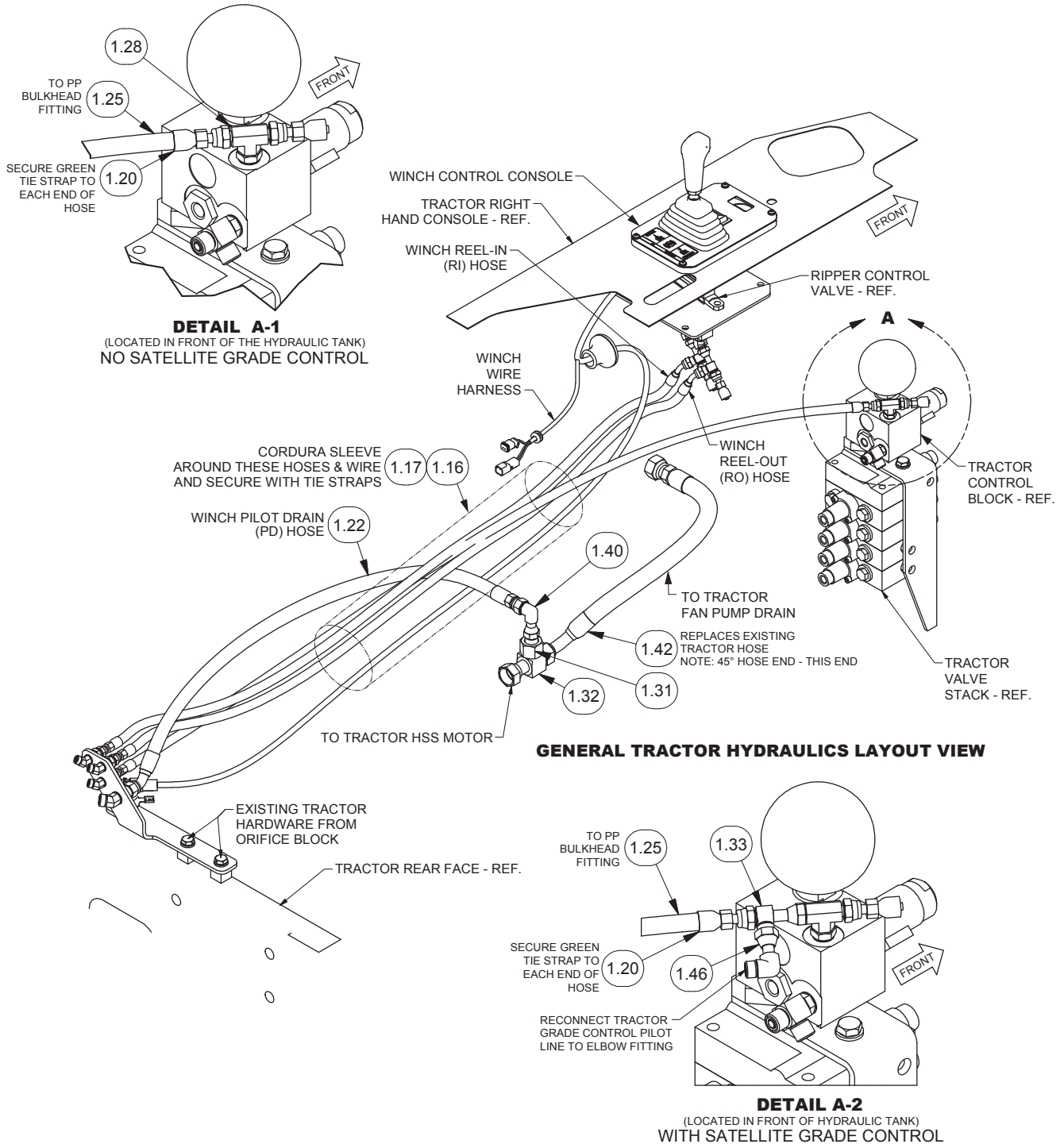
DETAIL A-2

LOCATED IN FRONT OF HYDRAULIC TANK
WITH SATELLITE GRADE CONTROL

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3.1.27	242598	2	Tie, Cable (Green)	3.1.52	R833802	1	Fitting
3.1.30	*a 2312329	1	Assy, Hose	3.1.54	*a 2312330	1	Assy, Hose
3.1.33	*a 2312328	1	Assy, Hose	3.1.58	236855	1	Fitting
3.1.38	2312144	1	Fitting	3.1.59	R833800	1	Fitting
3.1.41	2307958W	1	Fitting				
3.1.42	R834055	1	Fitting	*a	Included in Hose Kit 2314774		

External Hydraulic Group

Komatsu D65X-16/17/18 (H6HT*BK49)
First Used S/N 1619

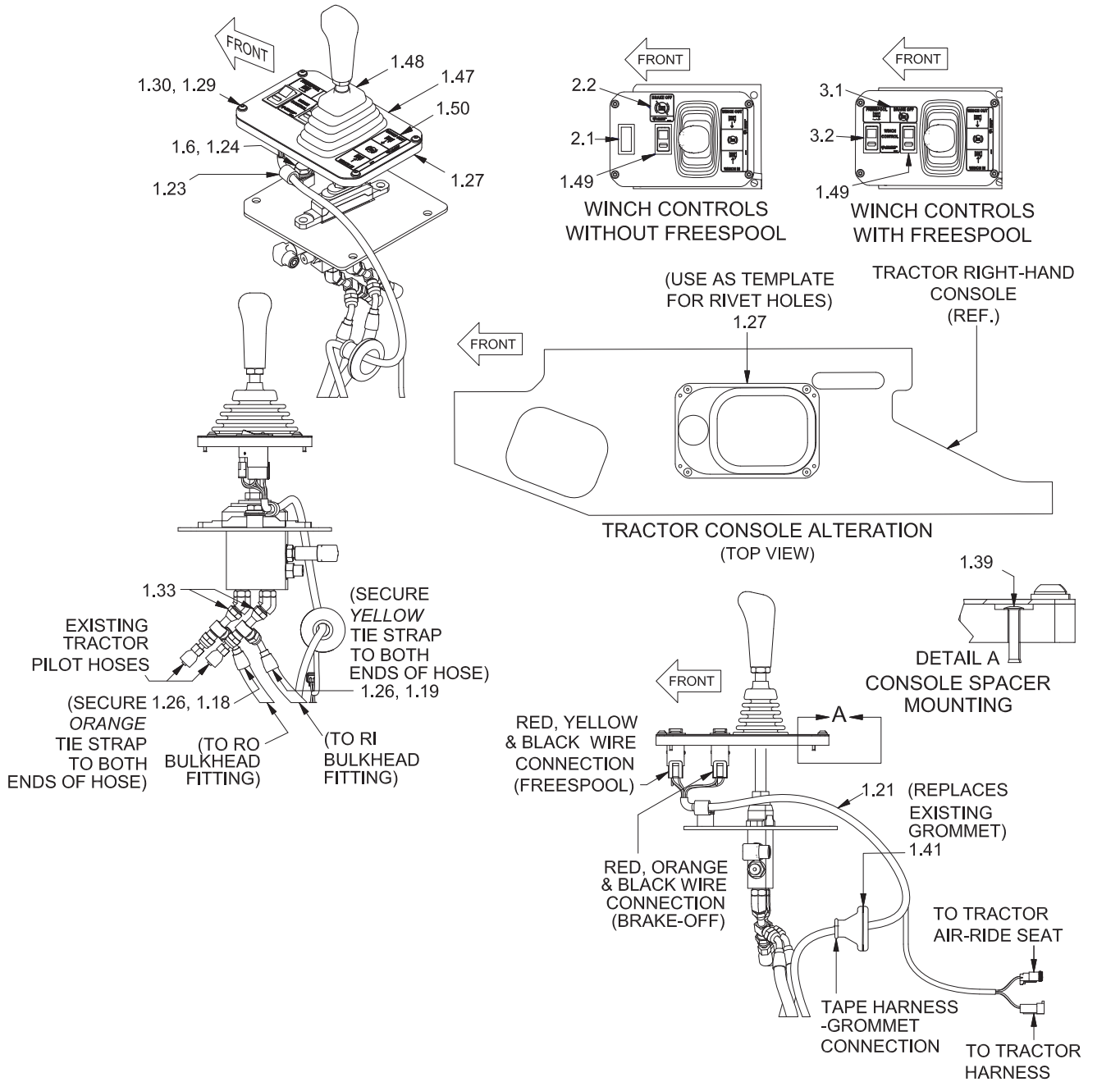


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.16	R13846	4'	Sleeve, Cordura	1.31	2307958W	1	Fitting
1.17	129563W	2	Cable Tie	1.32	R834055	1	Fitting
1.20	242598	2	Cable Tie	1.33	236855	3	Fitting
1.22	2315558	1	Hose Assy	1.40	R833802	1	Fitting
1.25	2312328	1	Hose Assy	1.42	592512	1	Hose Assy
1.28	2312144	1	Fitting	1.46	R833800	1	Fitting
1.30	296417W	4	Hard Washer				

Control Lever Installation

Komatsu D65-16/17 (K49) Last Used S/N 1618

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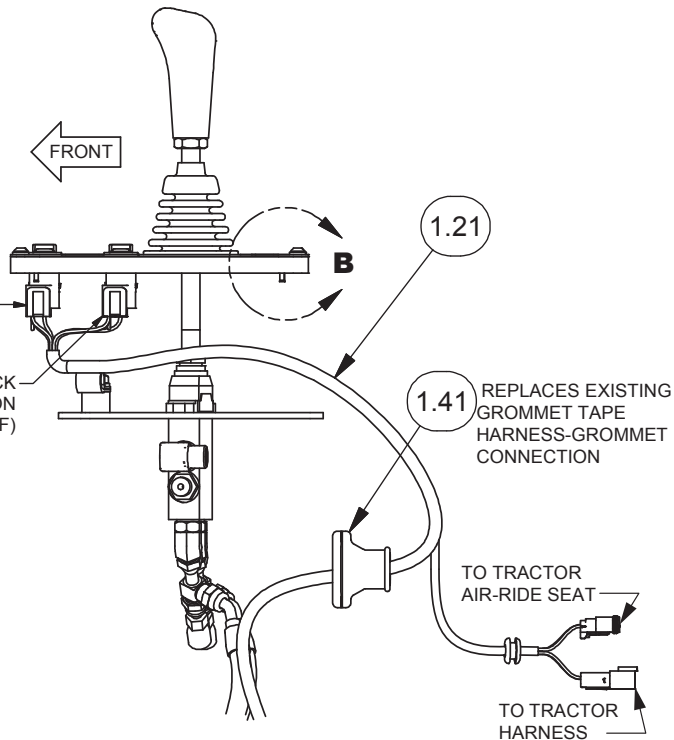
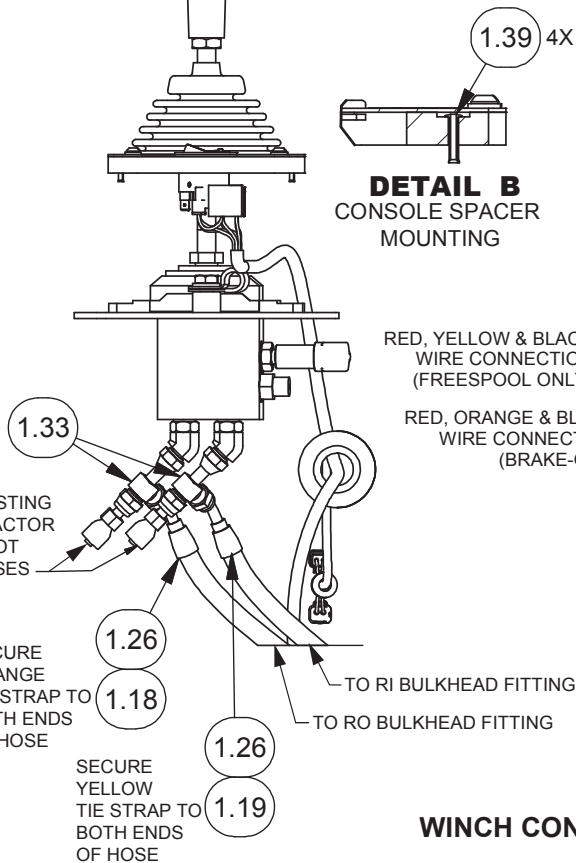
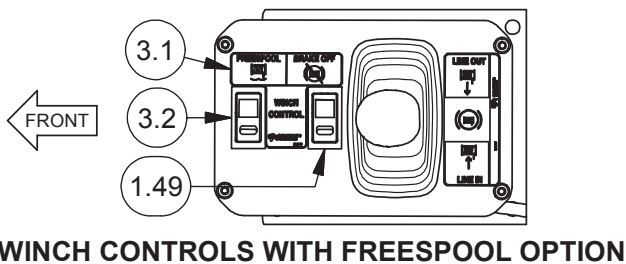
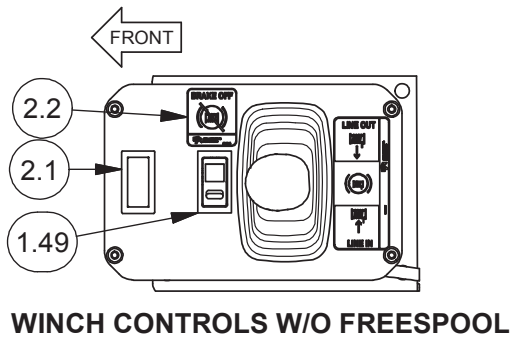
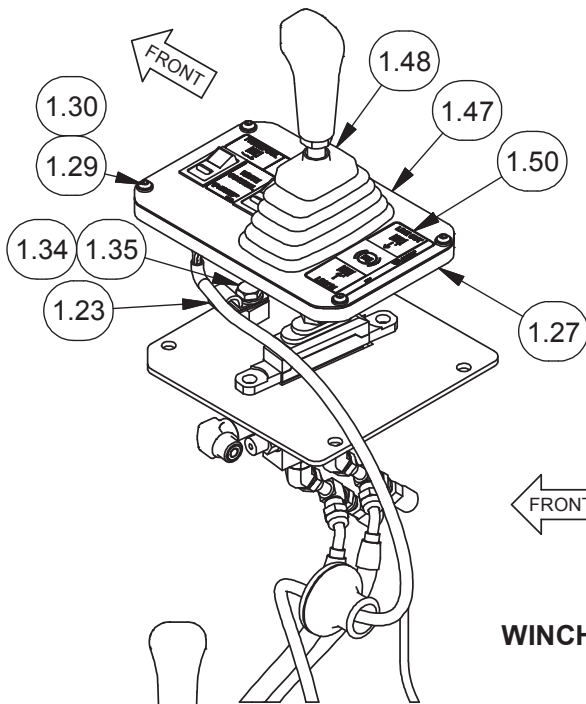


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.6	296422W	3	Washer	1.41	2312235	1	Grommet, Extended Neck
1.18	242596	2	Tie, Cable (Yellow)	1.47	2312174	1	Plate, Switch Mounting
1.19	242597	2	Tie, Cable (Orange)	1.48	2311042	1	Boot
1.21	2312338	1	Harness, Console Wire	1.49	2310504	1	Assy, Switch with Lock, Red
1.23	R13807642	1	Clip, Insulation	1.50	2312177		Decal, Winch In, Winch Out
1.24	R13811225	1	Capscrew	2.1	234509	1	Cover, Blank
1.26	2311541	2	Assy, Hose	2.2	2313991	1	Decal, Switch Panel; Brake-Off
1.27	2312175	1	Spacer, Switch Mounting	3.1	2312176	1	Decal, Winch Control; FS & Brake-Off
1.29	296158W	4	Capscrew	3.2	2310013	1	Assy, Switch; 24V Yellow
1.30	296417W	4	Washer				
1.33	236855	3	Fitting				
1.39	2312205	4	Rivet, POP				

Control Lever Installation

Komatsu D65-18 (K49) First Used S/N 1619

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Control Lever Installation

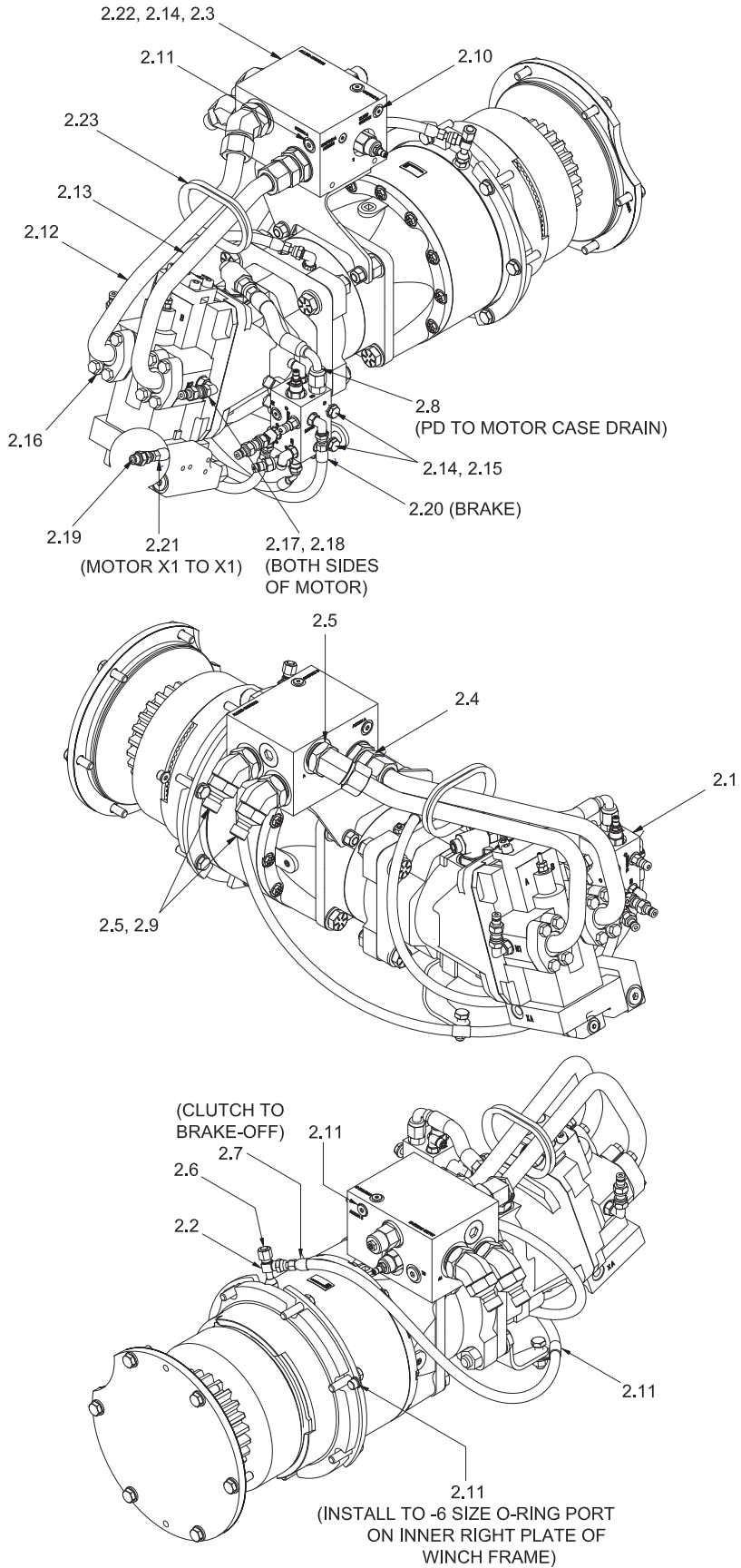
Komatsu D65-18 (K49) First Used S/N 1619
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.18	242596	2	Cable Tie	1.41	2315630	1	Grommet - Rubber
1.19	242597	2	Cable Tie	1.47	2312174	1	Mounting Plate Switch
1.21	2312338	1	Wire Harness	1.48	2311042	1	Boot, Handlever
1.23	R13807642	1	Clip, Insul	1.49	2310504	1	Switch Assy, Red
1.26	2311541	2	Hose Assy	1.50	2312177	1	Decal, Winch In, Winch Out
1.27	2312175	1	Spacer	2.1	234509	1	Cover, Blank
1.29	296158W	4	Capscrew	2.2	2313991	1	Decal, Switch Panel; Brake-Off
1.30	296417W	4	Hard Washer	3.1	2312176	1	Decal, Winch Control; FS & Brake-Off
1.33	236855	3	Fitting	3.2	2310013	1	Assy, Switch; 24V Yellow
1.34	296420W	2	Hard Washer				
1.35	236805	2	Capscrew				
1.39	2312205	6	Rivet				

Hydraulic Group

Komatsu D61X-23/24 (H6HT2BN**K471) without FREESPOOL

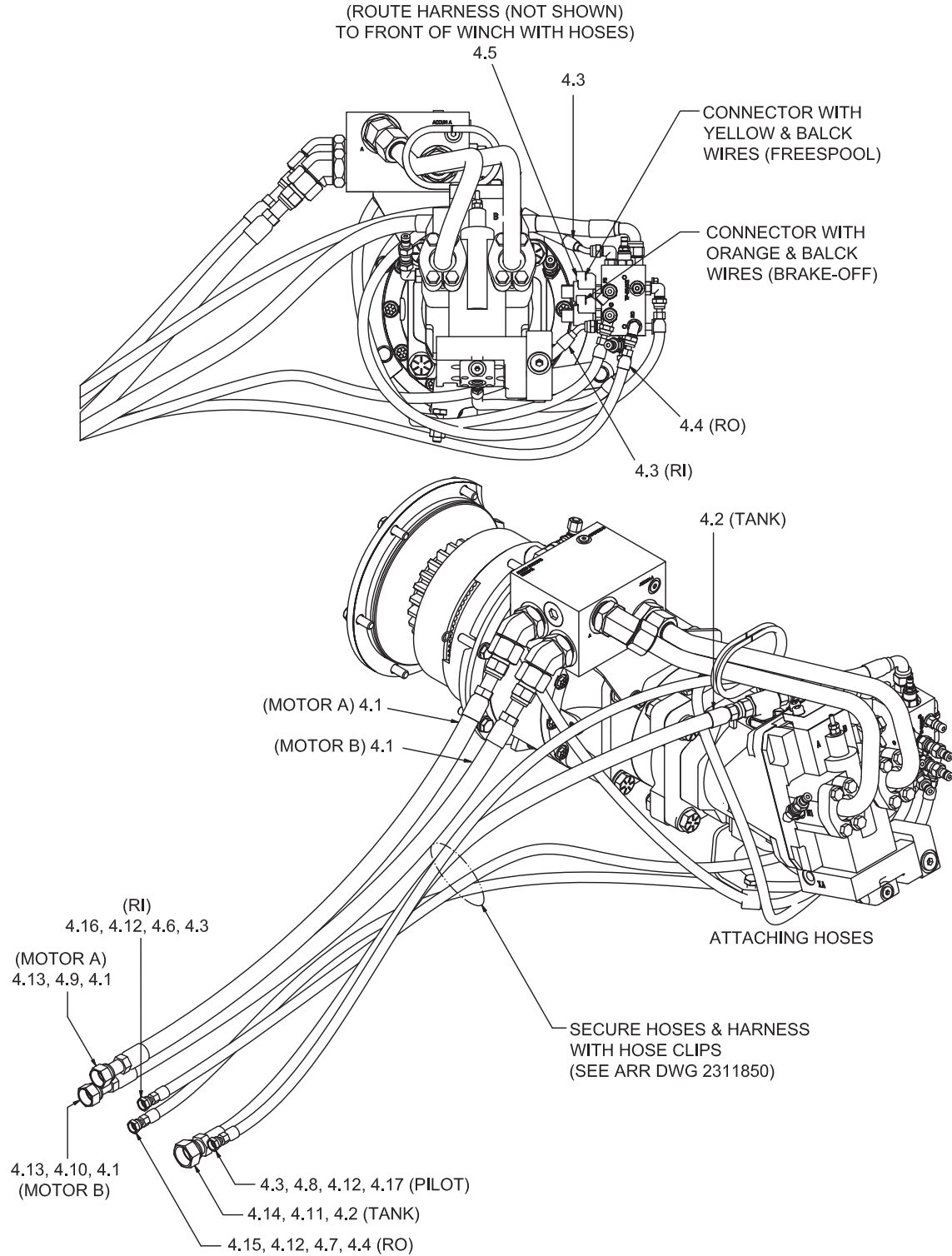
Page 1 of 3



Hydraulic Group

Komatsu D61X-23/24 (H6HT2BN**K471) without FREESPOOL

Page 2 of 3



Internal Hydraulic Group

Komatsu D61X-23/24 (H6HT2BN**K471) without FREESPOOL

Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2.1	*a 2314507	1	Assy, Control Manifold				
2.2	236855	1	Fitting	4.1	2313047	2	Assy, Hose
2.3	*b 2314242	1	Assy, Manifold	4.2	2313046	1	Assy, Hose
2.4	2313948	1	Fitting	4.3	R12024	2	Assy, Hose
2.5	R833218	3	Fitting	4.4	2311493	1	Assy, Hose
2.6	232984	1	Fitting	4.5	2313029	1	Harness, Winch Wire (Not Shown)
2.7	2312351	1	Assy, Hose				
2.8	2313045	1	Assy, Hose	4.6	2307238W	1	Label, RO
2.9	2307104W	2	Fitting	4.7	2307239W	1	Label, RI
2.10	235387	1	Fitting	4.8	2307241W	1	Label, Pilot
2.11	229383	2	Fitting	4.9	2310919	1	Label, Motor A
2.12	2314162	1	Assy, Tube - Motor A	4.10	2310920	1	Label, Motor B
2.13	2314690	1	Assy, Tube - Motor B	4.11	2307242W	1	Label, Tank
2.14	Y09C-M1025	4	Capscrew	4.12	R834200	3	Fitting
2.15	296420W	4	Washer	4.13	R834203	2	Fitting
2.16	229448	2	Kit, Split Flange	4.14	R834204	1	Fitting
2.17	2307625W	2	Coupler, Quick Male	4.15	242596	1	Tie, Cable (Orange)
2.18	R833253	2	Fitting	4.16	242597	1	Tie, Cable (Yellow)
2.19	R833103	1	Fitting	4.17	242598	1	Tie, Cable Green)
2.20	2312353	1	Assy, Hose				
2.21	2312878	1	Assy, Hose	*a	See page 88 for details		
2.22	15176W	2	Washer	*b	See page 87 for details		
2.23	24257	1.08 ft.	Trim, Edge				
2.24	R13807642	1	Clip, Insulation				

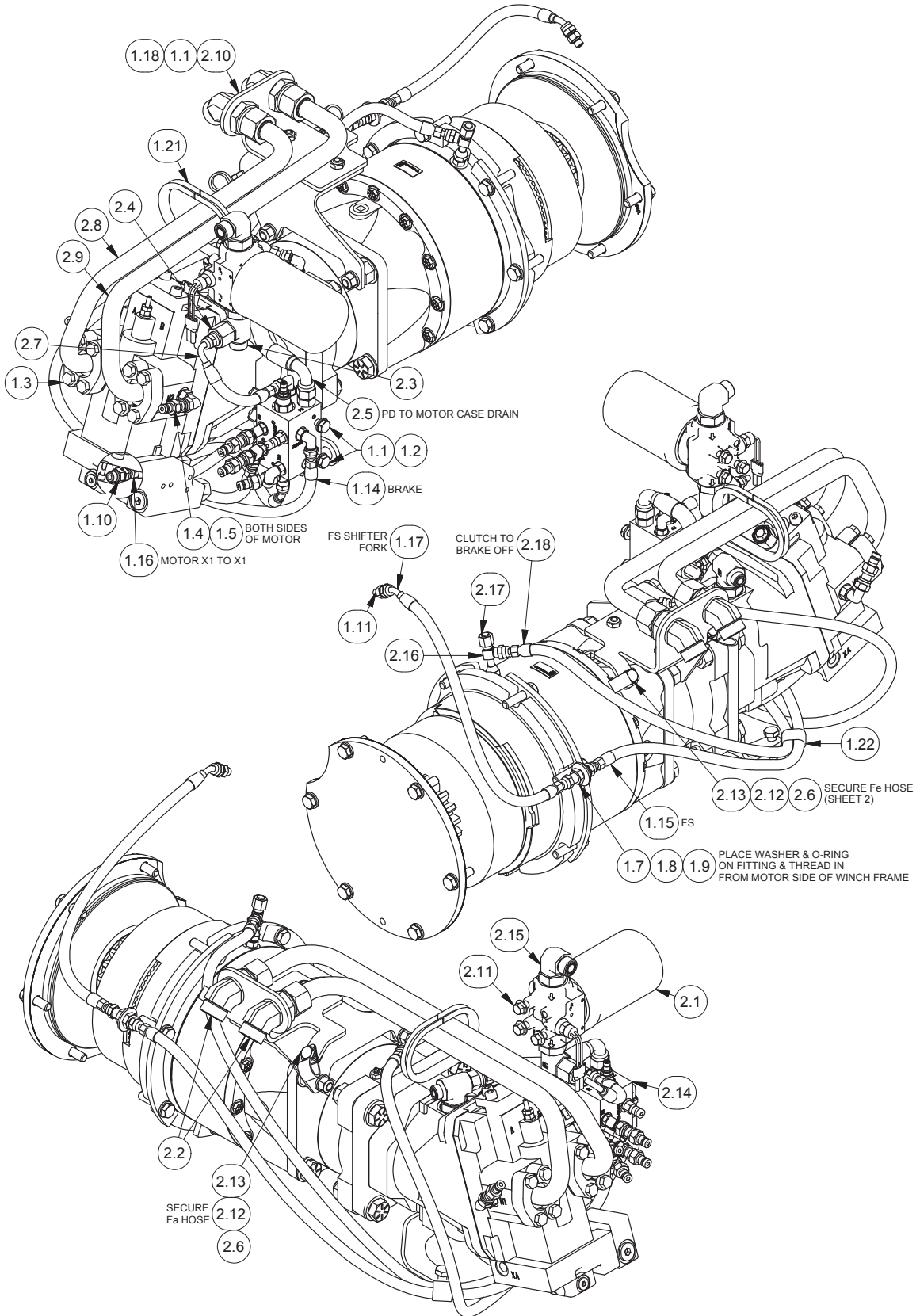
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Hydraulic Group

Komatsu D61X-24 (H6HH4B**K471) with FREESPOOL

Last Used S/N 1713

Page 1 of 3

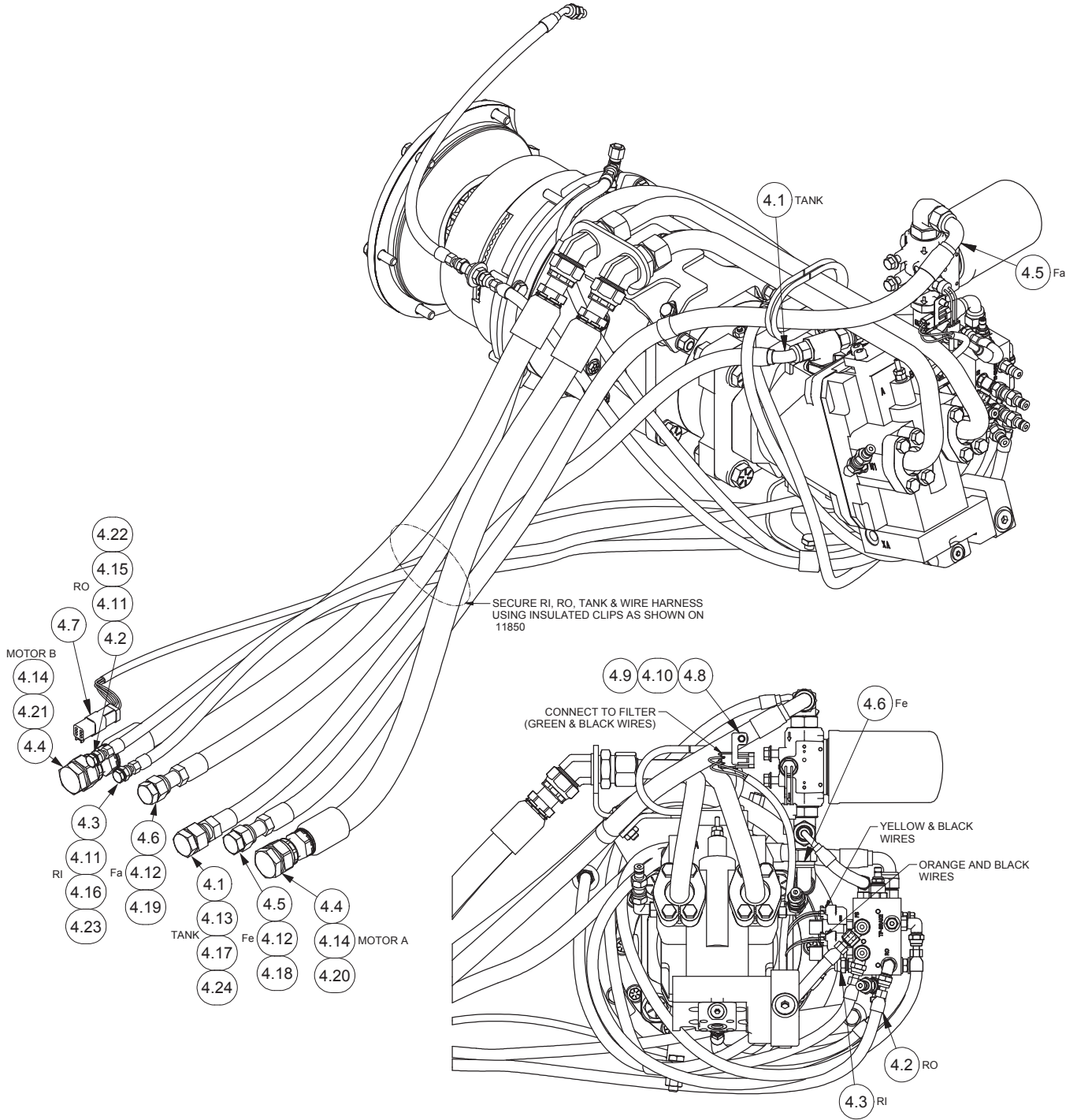


Hydraulic Group

Komatsu D61X-24 (H6HH4B**K471) with FREESPOOL

Last Used S/N 1713

Page 2 of 3



Hydraulic Group

Komatsu D61X-23/24 (H6HH4B**K471) with FREESPOOL

Last Used S/N 1713

Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	Y09C-M1025	4	Capscrew	2.17	232984	1	Fitting
1.2	296420W	4	Washer	2.18	2312351	1	Hose Assy
1.3	229448	2	Kit, Split Flange	4.1	2313157	1	Hose Assy
1.4	2307625W	2	Coupler, Quick Male	4.2	2310596	1	Hose Assy
1.5	R833253	2	Fitting	4.3	2311541	1	Hose Assy
1.7	R834100	1	Fitting	4.4	2314332	2	Hose Assy
1.8	15178W	1	Washer	4.5	2313159	1	Hose Assy
1.9	211564	1	O-Ring	4.6	2313160	1	Hose Assy
1.10	R833103	1	Fitting	4.7	2313115	1	Harness - Wire, Winch
1.11	231439	1	Fitting	4.8	2311549	1	Clip - Harness, Mounting
1.14	2311353	1	Assy, Hose	4.9	296417W	1	Washer
1.15	2312350	1	Assy, Hose	4.10	296158W	1	Capscrew
1.16	2312878	1	Assy, Hose	4.11	R834200	2	Fitting
1.17	2312212	1	Assy, Hose	4.12	R834203	2	Fitting
1.21	24257	1.08 ft.	Trim, Edge	4.13	R834204	1	Fitting
2.1	2304111W	1	Filter Assy	4.14	R834205	2	Fitting
2.2	272-0353	2	Fitting	4.15	2307238W	1	Label - RO
2.3	2313111	1	Fitting	4.16	2307239W	1	Label - RI
2.4	2313112	1	Fitting	4.17	2307242W	1	Label - Tank
2.5	2313045	1	Hose Assy	4.18	2306157W	1	Label - FE
2.6	R13808099	2	Clip, Insul	4.19	2310918	1	Label - FA
2.7	2313161	1	Hose Assy	4.20	2310919	1	Label - Motor "A"
2.8	2313140	1	Assy - Tube, Motor A	4.21	2310920	1	Label - Motor "B"
2.9	2313141	1	Assy - Tube, Motor B	4.22	242596	1	Cable Tie (Orange)
2.10	2313155	1	Bracket, Bulkhead	4.23	242597	1	Cable Tie (Yellow)
2.11	134803W	3	Screw	4.24	242599	1	Cable Tie (Blue)
2.12	296420W	2	Washer				
2.13	293628W	2	Capscrew				
2.14	*a 2313043	1	Assy - Manifold, Control	*a	See page 86 for details		
2.15	231459	1	Fitting	*b	See page 87 for details		
2.16	236855	1	Fitting				

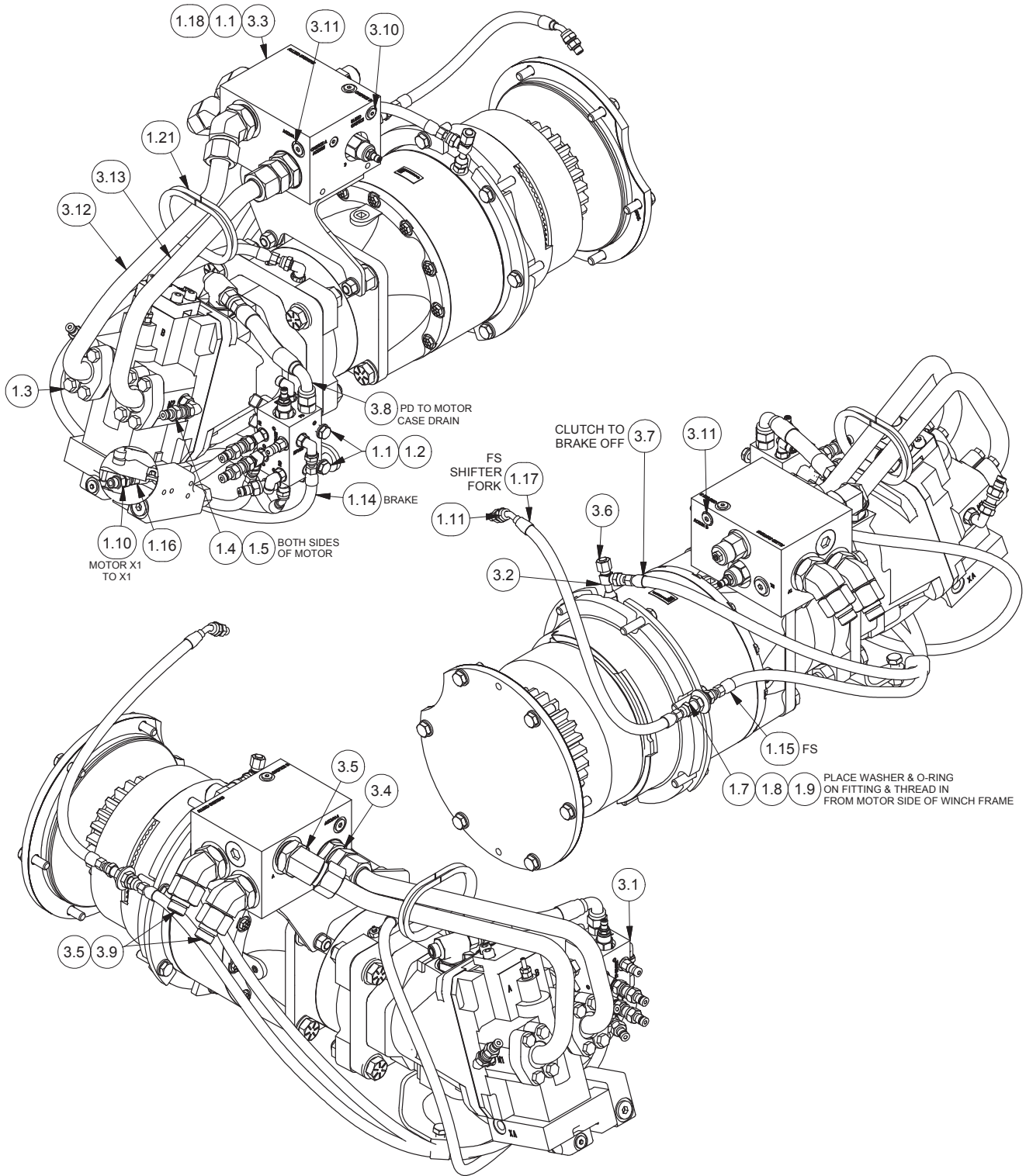
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Hydraulic Group

Komatsu D61X-24 (H6HT2B**K471) with FREESPOOL

Last Used S/N 1713

Page 1 of 3

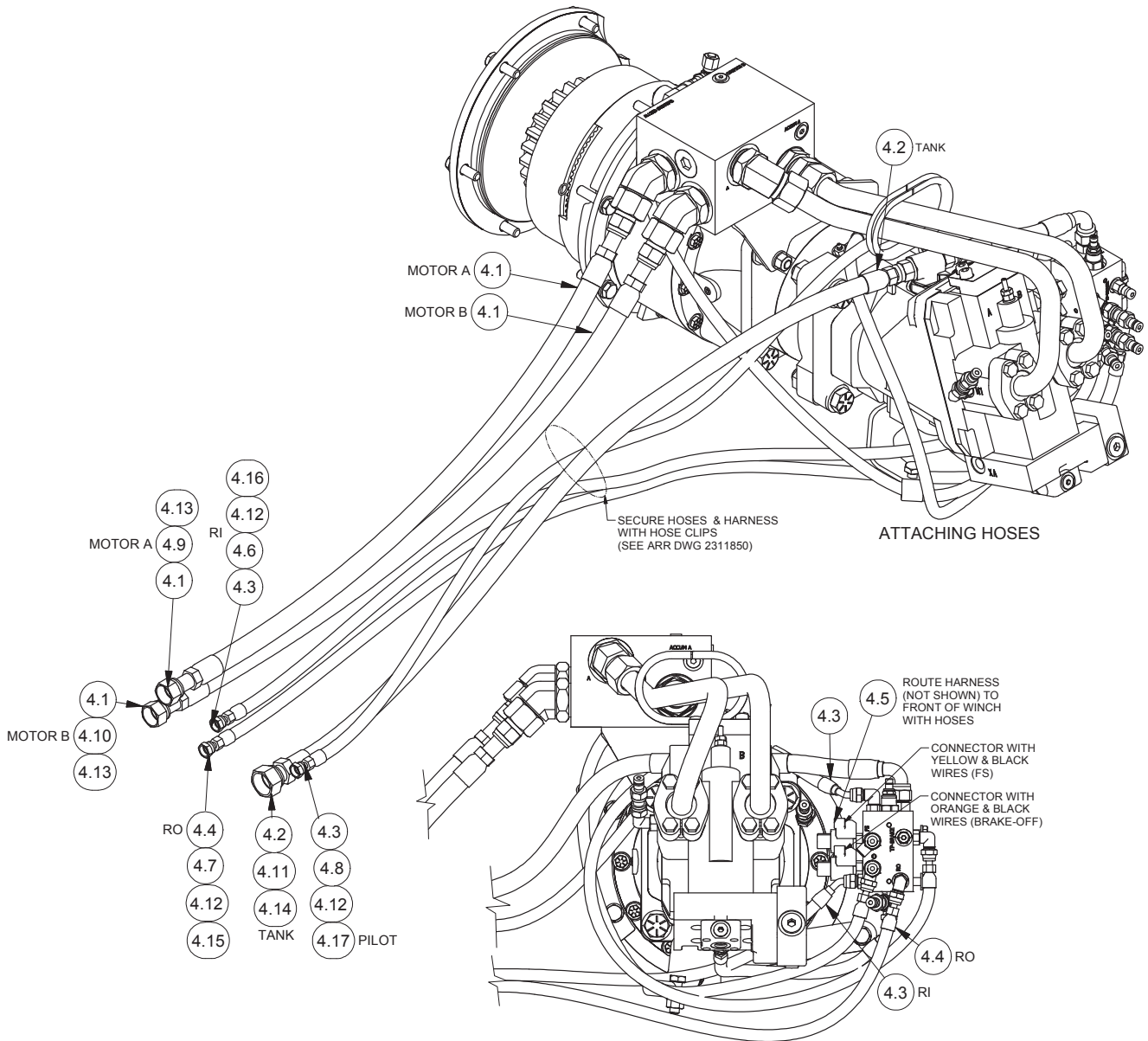


Hydraulic Group

Komatsu D61X-24 (H6HT2B**K471) with FREESPOOL

Last Used S/N 1713

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Hydraulic Group

Komatsu D61X-24 (H6HT2B**K471) with FREESPOOL

Last Used S/N 1713

Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	Y09C-M1025	4	Capscrew	3.10	235387	1	Fitting
1.2	296420W	2	Washer	3.11	229383	2	Fitting
1.3	229448	2	Kit, Split Flange	3.12	2316108	1	Tube Assy
1.4	2307625W	2	Fitting	3.13	2316109	1	Tube Assy
1.5	R833253	2	Fitting	4.1	2313047	2	Hose Assy
1.7	R834100	1	Fitting	4.2	2313046	1	Hose Assy
1.8	15178W	1	Washer	4.3	R12024	2	Hose Assy
1.9	211564	1	O-Ring	4.4	2311493	1	Hose Assy
1.10	R833103	1	Fitting	4.5	2313029	1	Harness - Wire, Winch
1.11	231439	1	Fitting	4.6	2307238W	1	Label - RO
1.14	2312353	1	Hose Assy	4.7	2307239W	1	Label - RI
1.15	2312350	1	Hose Assy	4.8	2307241W	1	Label - Pilot
1.16	2312878	1	Hose Assy	4.9	2310919	1	Label - Motor "A"
1.17	2312212	1	Hose Assy	4.10	2310920	1	Label - Motor "B"
1.18	221767W	2	Washer	4.11	2307242W	1	Label - Tank
1.21	24257	1'	Trim, Edge	4.12	R834200	3	Fitting
1.22	2312628	1	Clamp	4.13	R834203	2	Fitting
3.1	*a 2313043	1	Assy - Manifold, Control	4.14	R834204	1	Fitting
3.2	236855	1	Fitting	4.15	242596	1	Cable Tie
3.3	*b 2314242	1	Assy - Manifold, Counterbalance Relief	4.16	242597	1	Cable Tie
				4.17	242598	1	Cable Tie
3.4	2313948	1	Fitting				
3.5	R833218	3	Fitting	*a	See page 86 for details		
3.6	232984	1	Fitting	*b	See page 87 for details		
3.7	2312351	1	Hose Assy				
3.8	2316489	1	Hose Assy				
3.9	2307104W	2	Fitting				

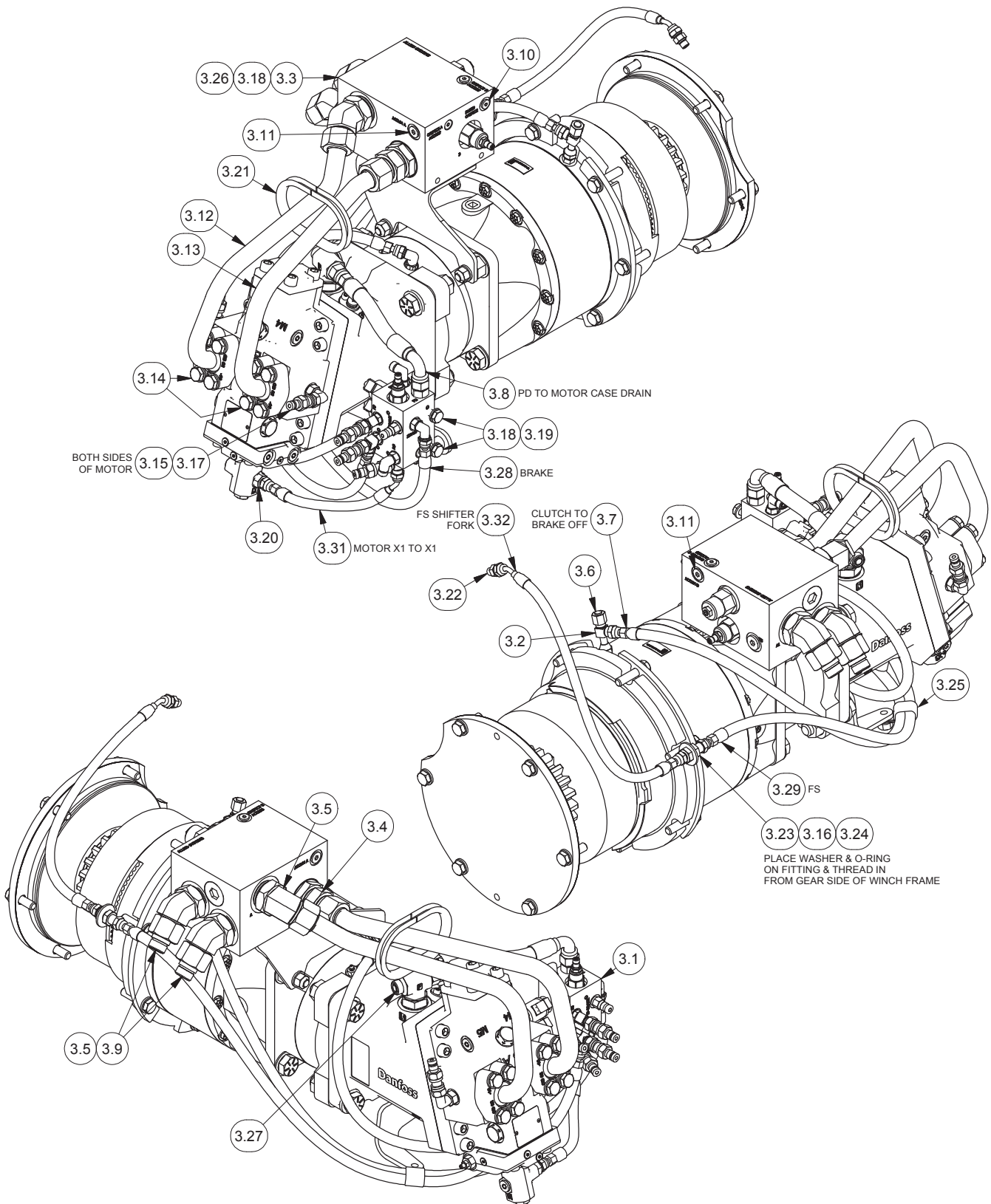
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Hydraulic Group

Komatsu D61X-23/24 (H6HT2B**K471) with FREESPOOL

First Used S/N 1714

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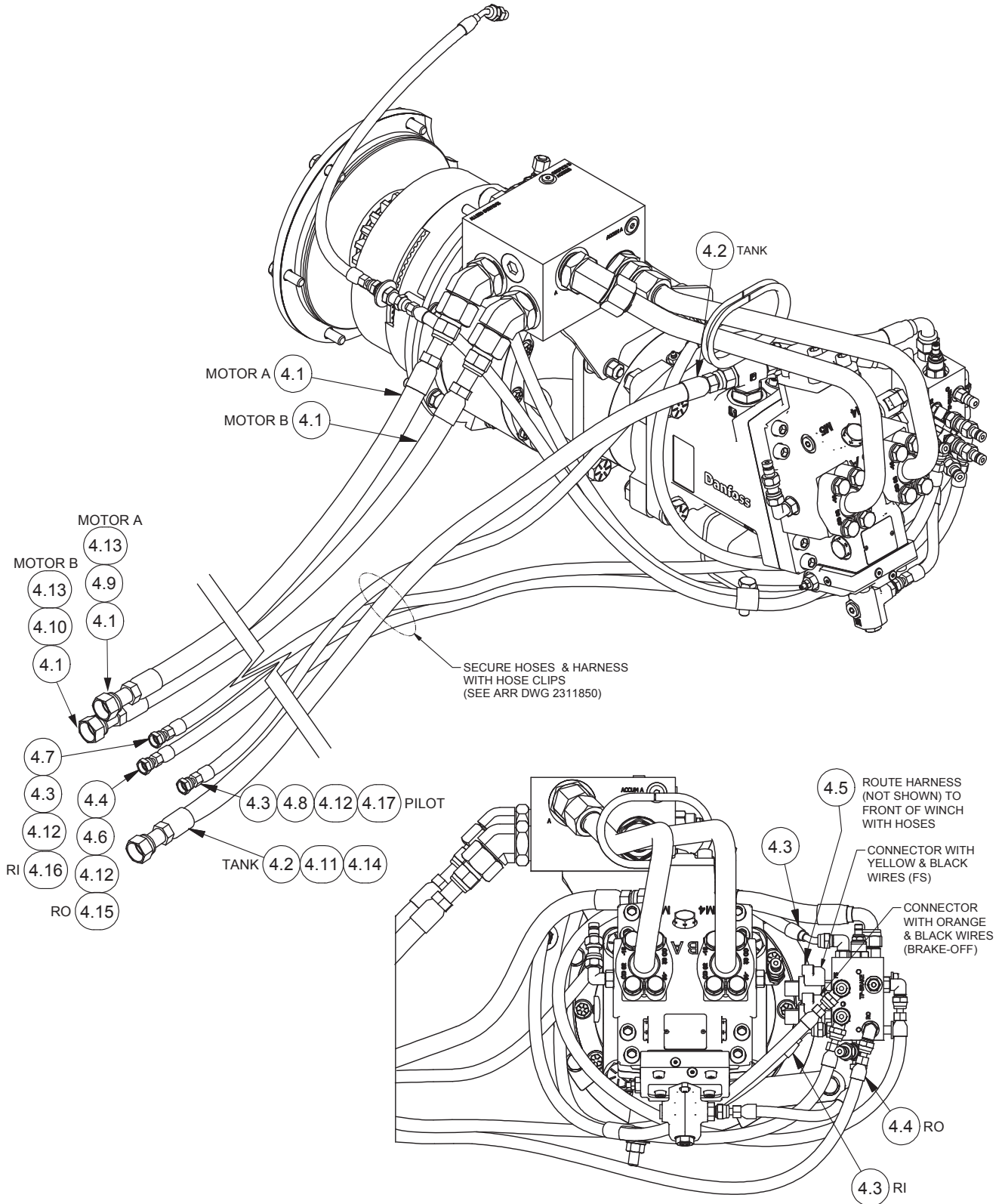


Hydraulic Group

Komatsu D61X-23/24 (H6HT2B**K471) with FREESPOOL

First Used S/N 1714

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Hydraulic Group

Komatsu D61X-23/24 (H6HT2B**K471) with FREESPOOL

First Used S/N 1714

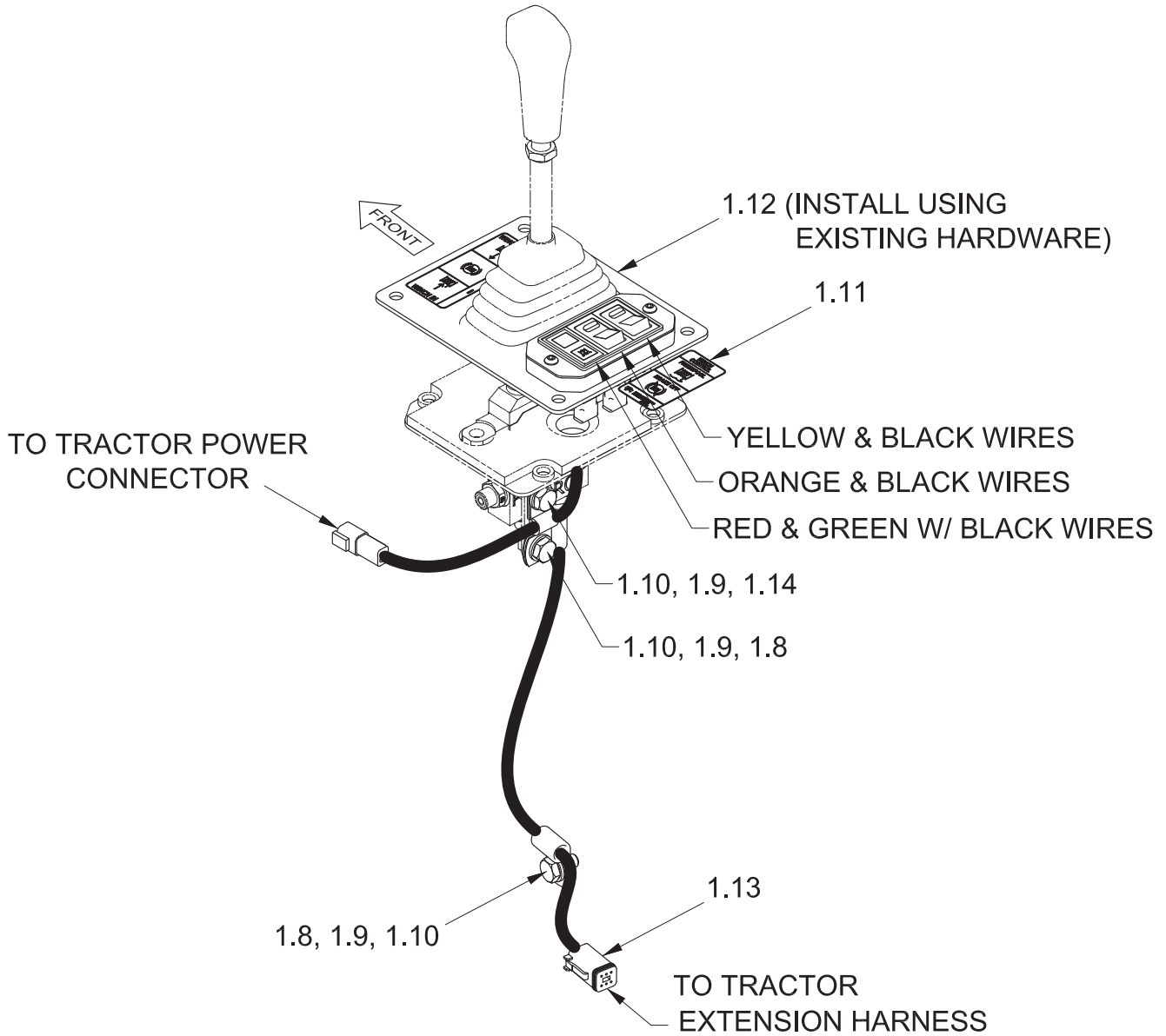
Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
3.1	*a 2313043	1	Manifold Assy, Control	3.27	2313039	1	Fitting
3.2	236855	1	Fitting	3.28	2312353	1	Hose Assy
3.3	*b 2314242	1	Manifold Assy, Counterbalance Relief	3.29	2312350	1	Hose Assy
3.4	2313948	1	Fitting	3.30	2312212	1	Hose Assy
3.5	R833218	3	Fitting	3.31	2313639	1	Hose Assy
3.6	232984	1	Fitting	4.1	2313047	2	Hose Assy
3.7	2312351	1	Hose Assy	4.2	2313046	1	Hose Assy
3.8	2316489	1	Hose Assy	4.3	R12024	2	Hose Assy
3.9	2307104W	2	Fitting	4.4	2311493	1	Hose Assy
3.10	235387	1	Fitting	4.5	2313029	1	Harness - Wire, Winch
3.11	229383	2	Fitting	4.6	2307238W	1	Label - RO
3.12	2316108	1	Tube Assy - Motor A	4.7	2307239W	1	Label - RI
3.13	2316109	1	Tube Assy - Motor B	4.8	2307241W	1	Label - Pilot
3.14	592255	2	Kit, Split Flange	4.9	2310919	1	Label - Motor A
3.15	R833253	2	Fitting	4.10	2310920	1	Label - Motor B
3.16	211564	1	O-Ring	4.11	2307242W	1	Label - Tank
3.17	2307625W	2	Fitting	4.12	R834200	3	Fitting
3.18	Y09C-M1025	4	Capscrew	4.13	R834203	2	Fitting
3.19	296420W	2	Hard Washer	4.14	R834204	1	Fitting
3.20	R833103	1	Fitting	4.15	242596	1	Cable Tie
3.21	24257	1'	Trim, Edge	4.16	242597	1	Cable Tie
3.22	231439	1	Fitting	4.17	242598	1	Cable Tie
3.23	R834100	1	Fitting				
3.24	15178W	1	Flat Washer	*a	See page 86 for details		
3.25	2312628	1	Clamp	*b	See page 87 for details		
3.26	15176W	2	Flat Washer				

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Control Lever Installation

Komatsu D61-23 (H6HH4B**K471)

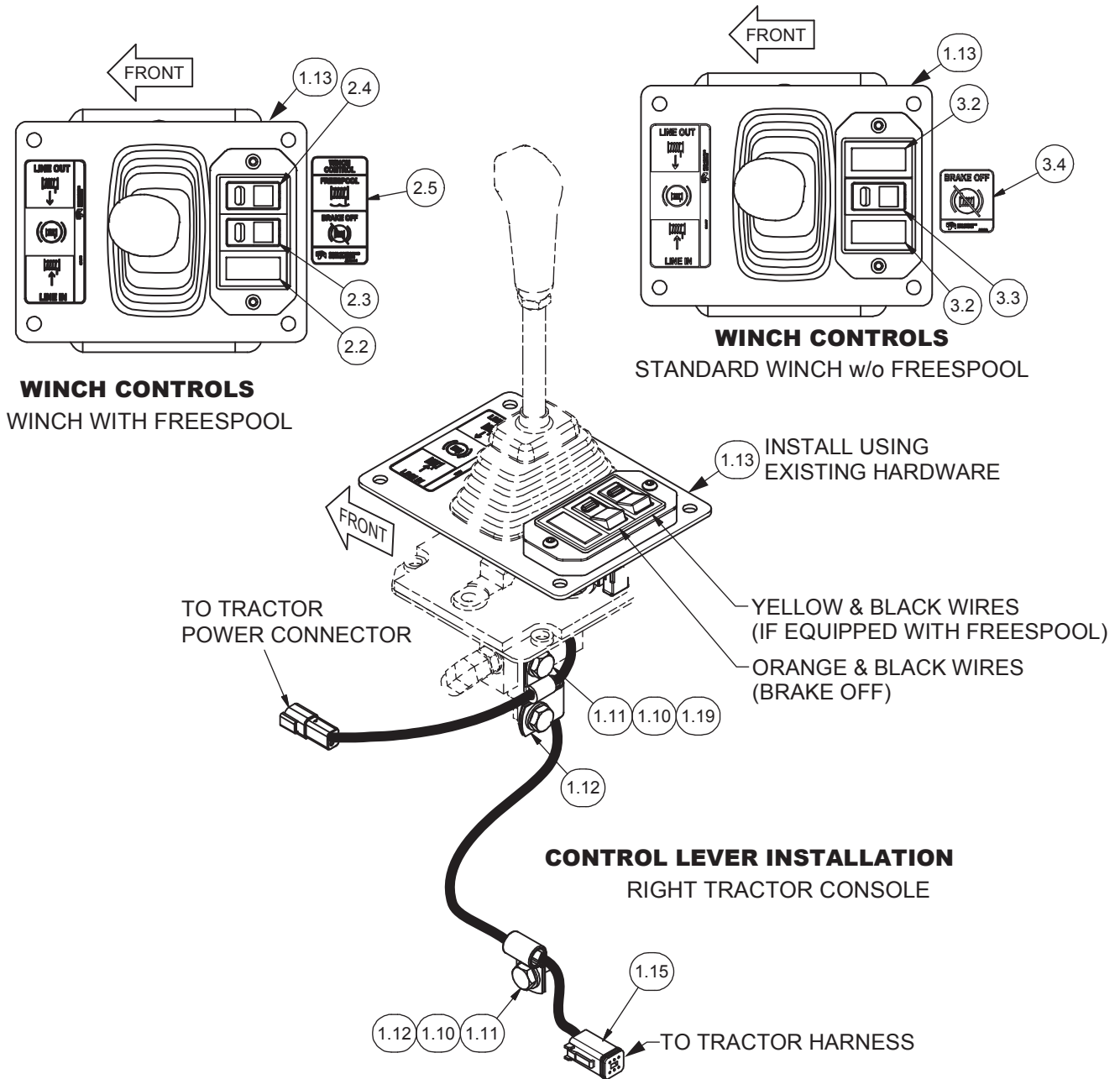


CONTROL LEVER INSTALLATION RIGHT TRACTOR CONSOLE

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.8	R13807640	2	Clip, Insulated	1.12	*a 2313116	1	Assy, Switch Panel
1.9	296420W	3	Washer	1.13	2313117	1	Harness, Winch Wire
1.10	236805	3	Capscrew	1.14	R13801359	1	Clip, Insulation
1.11	2310414	1	Decal, Switch Panel				
				*a	See page 79 for details		

Control Installation

Komatsu D61X-23 (H6HT2B**K471) w/ FREESPOOL or (H6HT2BN**K471) w/o FREESPOOL

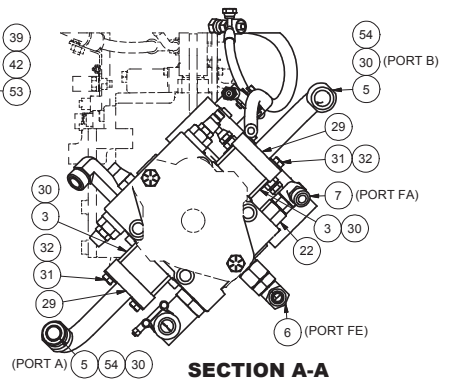
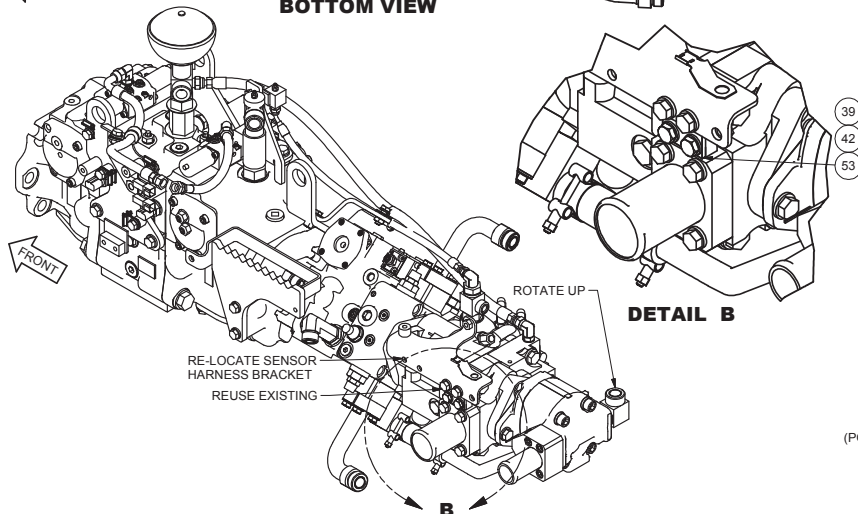
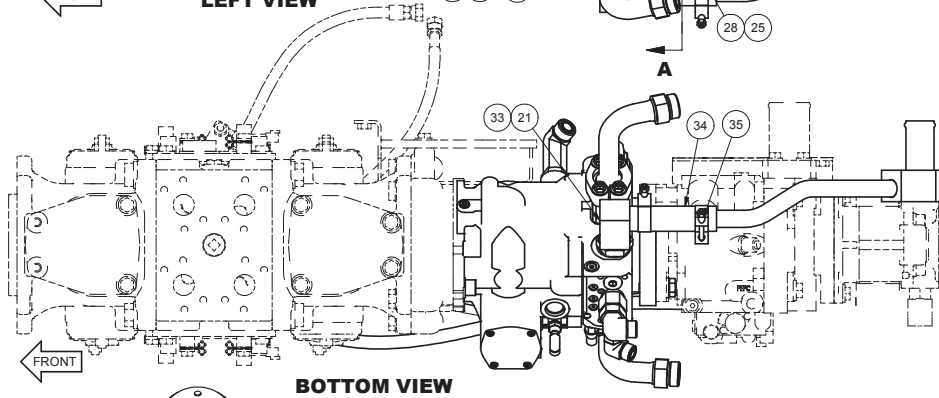
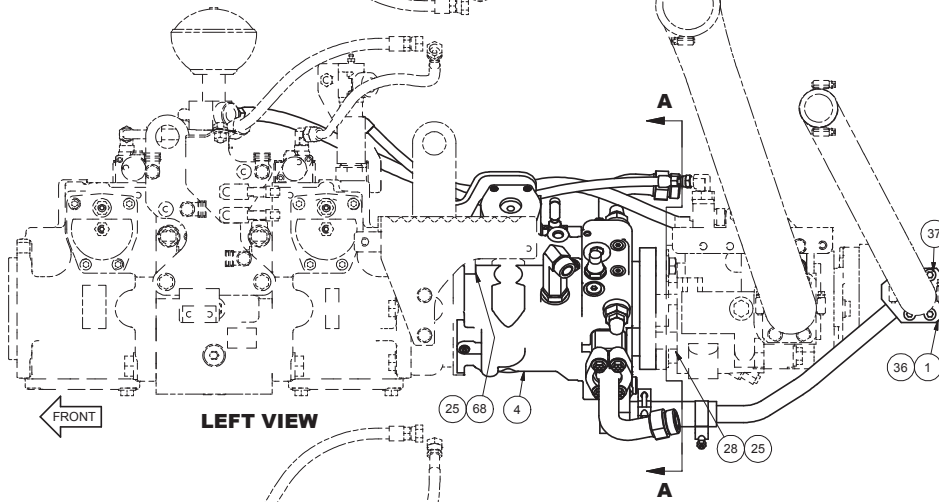
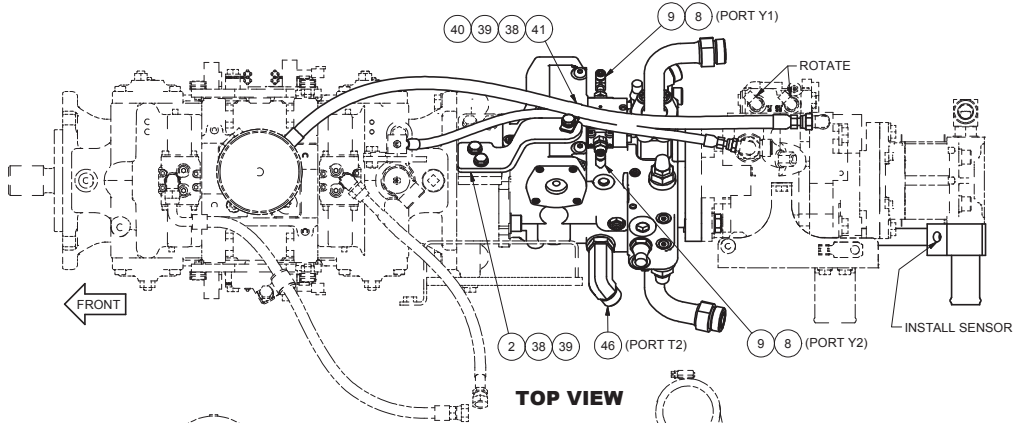


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.10	296420W	3	Hard Washer	2.4	2310013	1	Switch Assy
1.11	236805	3	Capscrew	2.5	2310414	1	Decal
1.12	R13807640	2	Clip, Insulated	3.2	234509	2	Cover
1.13	*a 2312979	1	Switch Panel	3.3	2310504	1	Switch Assy (Reducer)
1.15	2312978	1	Wire Harness				Red
1.19	R13801359	1	Clip, Insul	3.4	2313991	1	Decal
2.2	234509	1	Cover				
2.3	2310504	1	Switch Assy (Reducer)				
			Red	*a	See page 95 for details		

Conversion Kit

Komatsu D61-23/24 (K471) Level 1 to Level 2

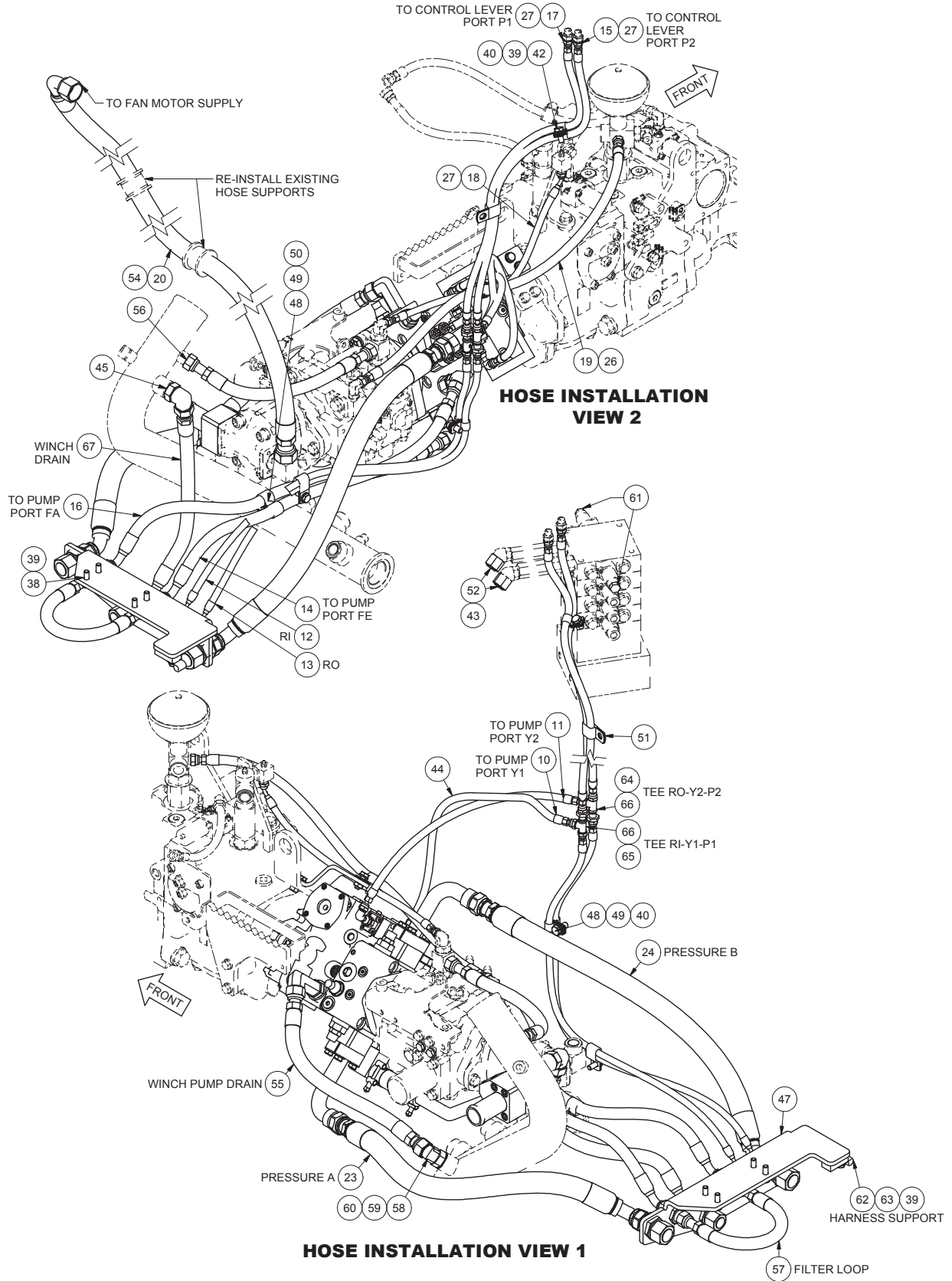
Page 1 of 3



Conversion Kit

Komatsu D61-23/24 (K471) Level 1 to Level 2

Page 2 of 3



Conversion Kit

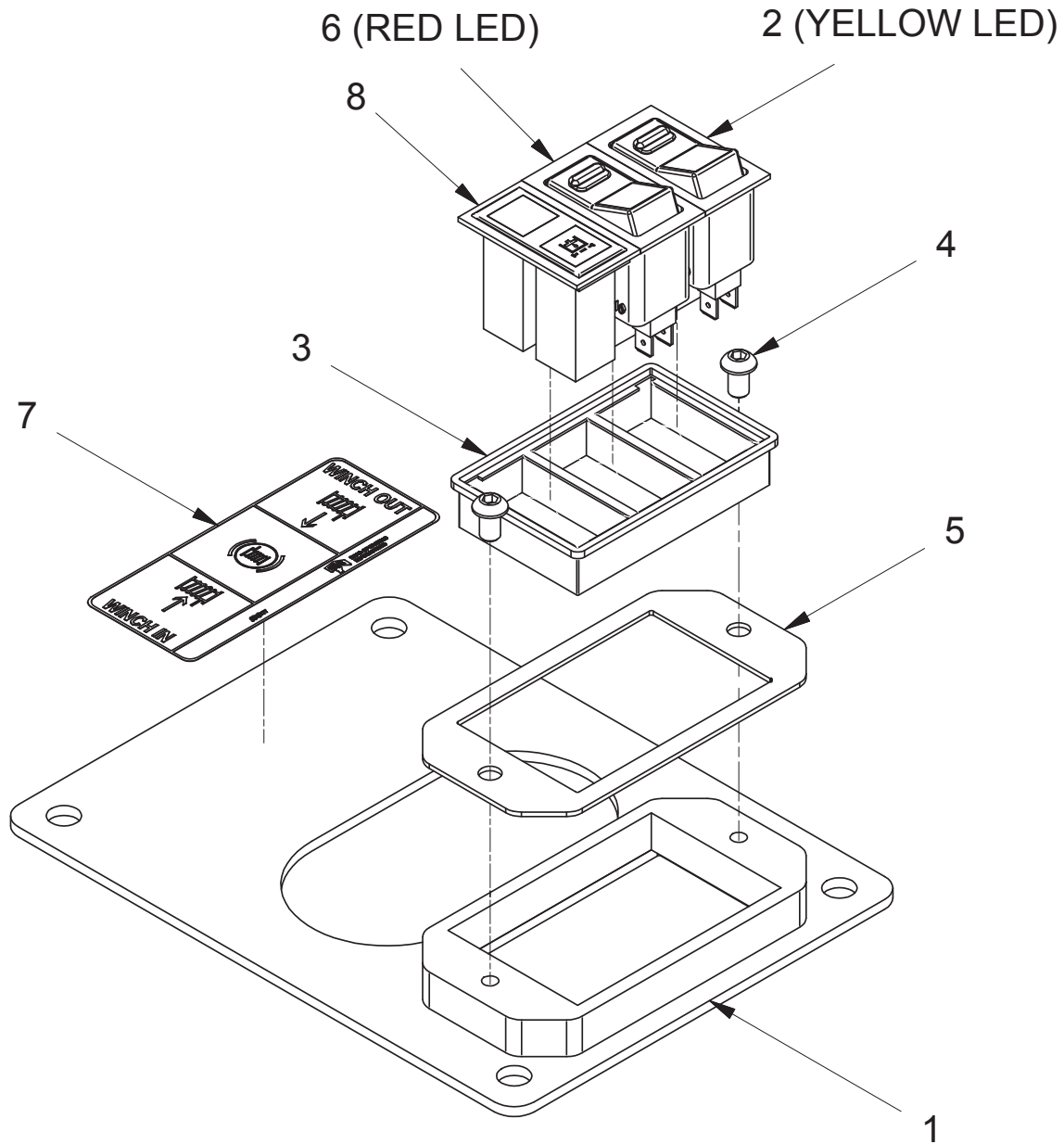
Komatsu D61-23/24 (K471) Level 1 to Level 2

Page 3 of 3

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314300	1	Kit, Conversion - Komatsu D61-23/24 Level 1 to Level 2				
1	2314255	1	. Manifold, Suction	37	296030W	4	. Capscrew
2	2314272	1	. Bracket	38	293629W	7	. Capscrew
3	2314268	2	. Manifold	39	296420W	12	. Washer
4	2313180	1	. Pump, Hydrostatic 71CC	40	R13807642	5	. Clip, Insulation
5	2314248	2	. Fitting	41	R13803044	1	. Clip, Insulation
6	231459	1	. Fitting	42	293628W	4	. Capscrew
7	R833266	1	. Fitting	43	232381	5	. O-Ring
8	R833103	2	. Fitting	44	R14766	1 ft	. Spirap
9	R833800	2	. Fitting	45	R833270	1	. Fitting
10	*a 2314282	1	. Assy, Hose	46	R833304	1	. Fitting
11	*a 2314284	1	. Assy, Hose	47	2314322	1	. Assy, Bulkhead
12	*a 2314286	1	. Assy, Hose	48	293644W	2	. Capscrew
13	*a 2314288	1	. Assy, Hose	49	296422W	2	. Washer
14	*a 2314290	1	. Assy, Hose	50	R13803052	2	. Clip, Insulation
15	*a 2314292	1	. Assy, Hose	51	2312628	2	. Clamp, Insulation
16	*a 2314294	1	. Assy, Hose	52	R834254	2	. Fitting
17	*a 2314295	1	. Assy, Hose	53	2314323	1	. Bracket, Support
18	*a 2314297	1	. Assy, Hose	54	232383	5	. O-Ring
19	*a 2314298	1	. Assy, Hose	55	*a 2314328	1	. Assy, Hose
20	*a 2314301	1	. Assy, Hose	56	*a 2314329	1	. Assy, Hose
21	2314267	1	. Fitting	57	*a 2314337	1	. Assy, Hose
22	28537	1	. Fitting	58	2314339	1	. Fitting
23	*a 2314263	1	. Assy, Hose	59	209745	1	. O-Ring
24	*a 2314269	1	. Assy, Hose	60	232382	1	. O-Ring
25	296426W	4	. Washer	61	248786	2	. Plug
26	Y098629-012	3	. O-Ring	62	2314338	1	. Clip, Insulation
27	Y098629-011	4	. O-Ring	63	Y19C-M1016	1	. Capscrew
28	Y17C-1028	2	. Capscrew	64	242597	1	. Tie, Cable (Yellow)
29	236973	4	. Clamp, Half	65	242598	1	. Tie, Cable (Green)
30	Y098629-219	4	. O-Ring	66	2314264	2	. Fitting
31	R13811063	8	. Capscrew	67	*a R14230	1	. Assy, Hose
32	R13811432	8	. Washer	68	296074W	2	. Capscrew
33	R13804061	1	. O-Ring				
34	2314230	1	. Tube, Suction	*a	Included in Hose Kit 2314773		
35	R13809931	2	. Clamp, T-Bolt				
36	Y098629-223	1	. O-Ring				

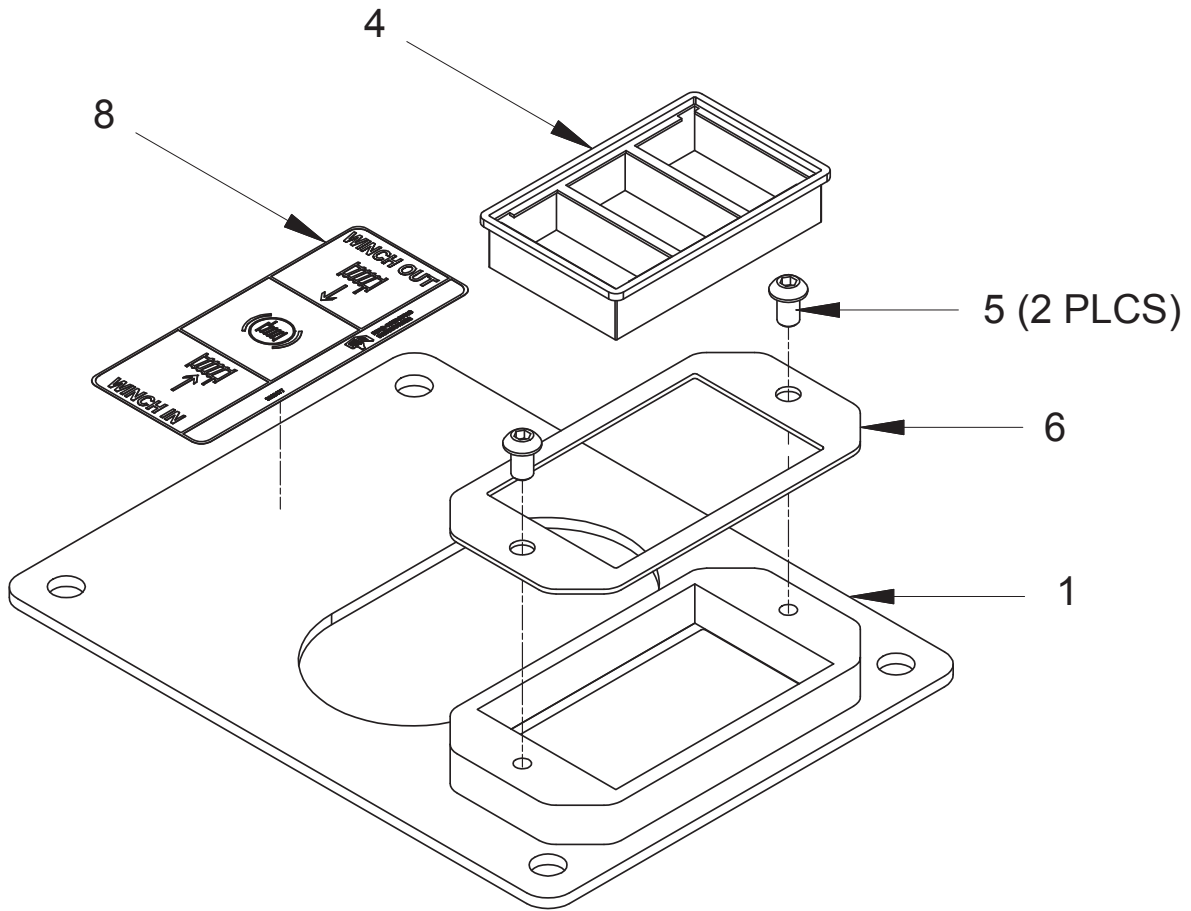
Switch Panel Assy

Komatsu D61-23/24 (H6HH4B**K471)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313116	1	Assy, Switch Panel FREESPOOL BRAKE-OFF & Filter Light	5	2311863	1	. Plate, Switch Mounting
1	2312216	1	. Bracket, Control Lever	6	2310504	1	. Assy, Switch; 24V, Red LED
2	2310013	1	. Assy, Switch; 24V, Yellow LED	7	2312177	1	. Decal, Winch In, Winch Out
3	234740	1	. Frame, Mounting	8	2311352	1	. Assy, Oil Filter Indicator
4	296157W	2	. Capscrew				

Switch Panel Assy
Komatsu D61X-23 (H6HT**K471)

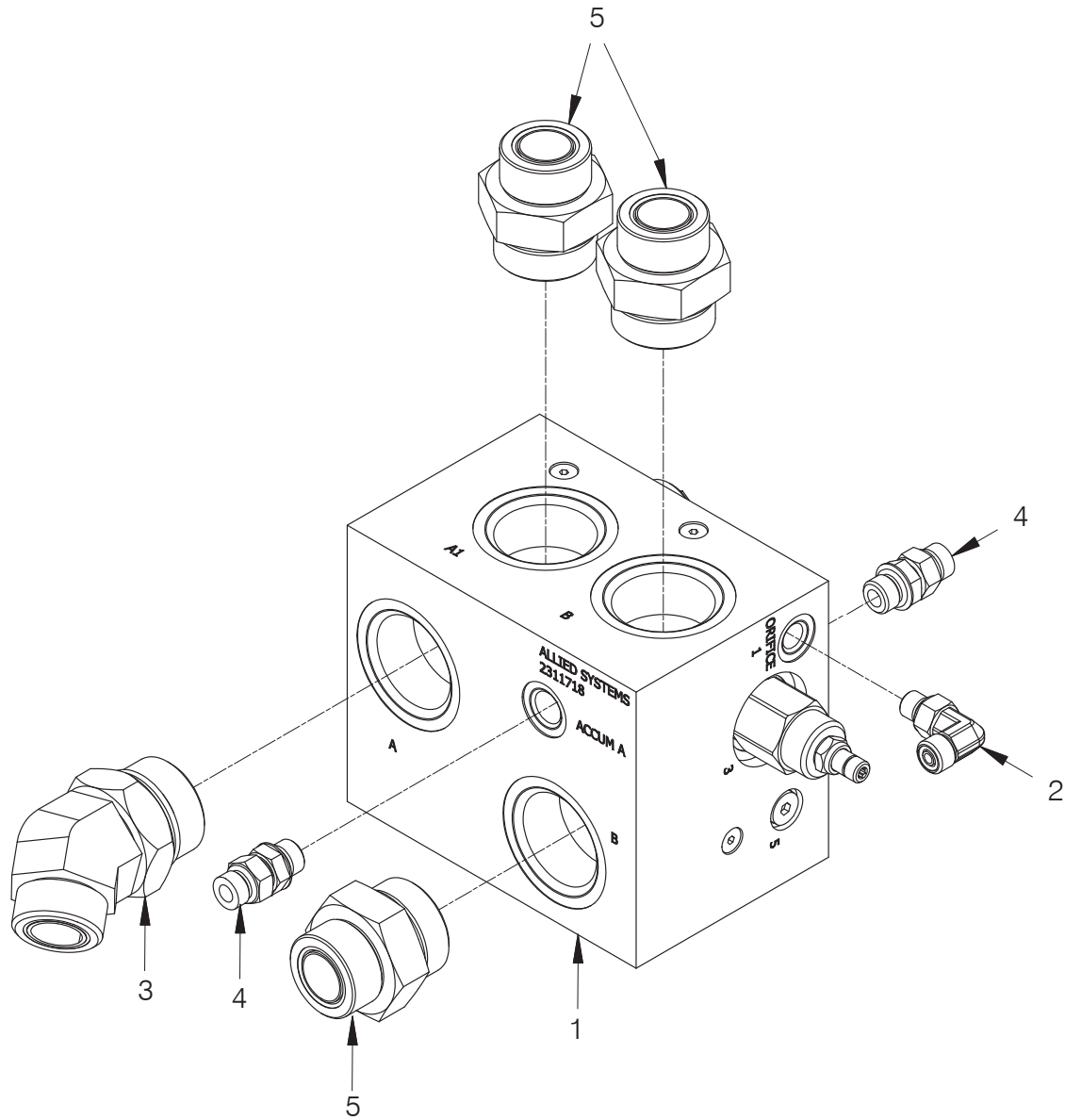


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312979	1	Assy, Switch Panel				
1	2312216	1	. Bracket, Control Lever	6	2311863	1	. Plate, Switch Mounting
4	234740	1	. Frame, Mounting	8	2312177	1	. Decal, Winch In, Winch Out
5	296157W	2	. Capscrew				

Counterbalance Relief Manifold Assy

Komatsu D65-16/17 (K49), Komatsu D61-23/24 (K471)

Last Used on S/N 1496

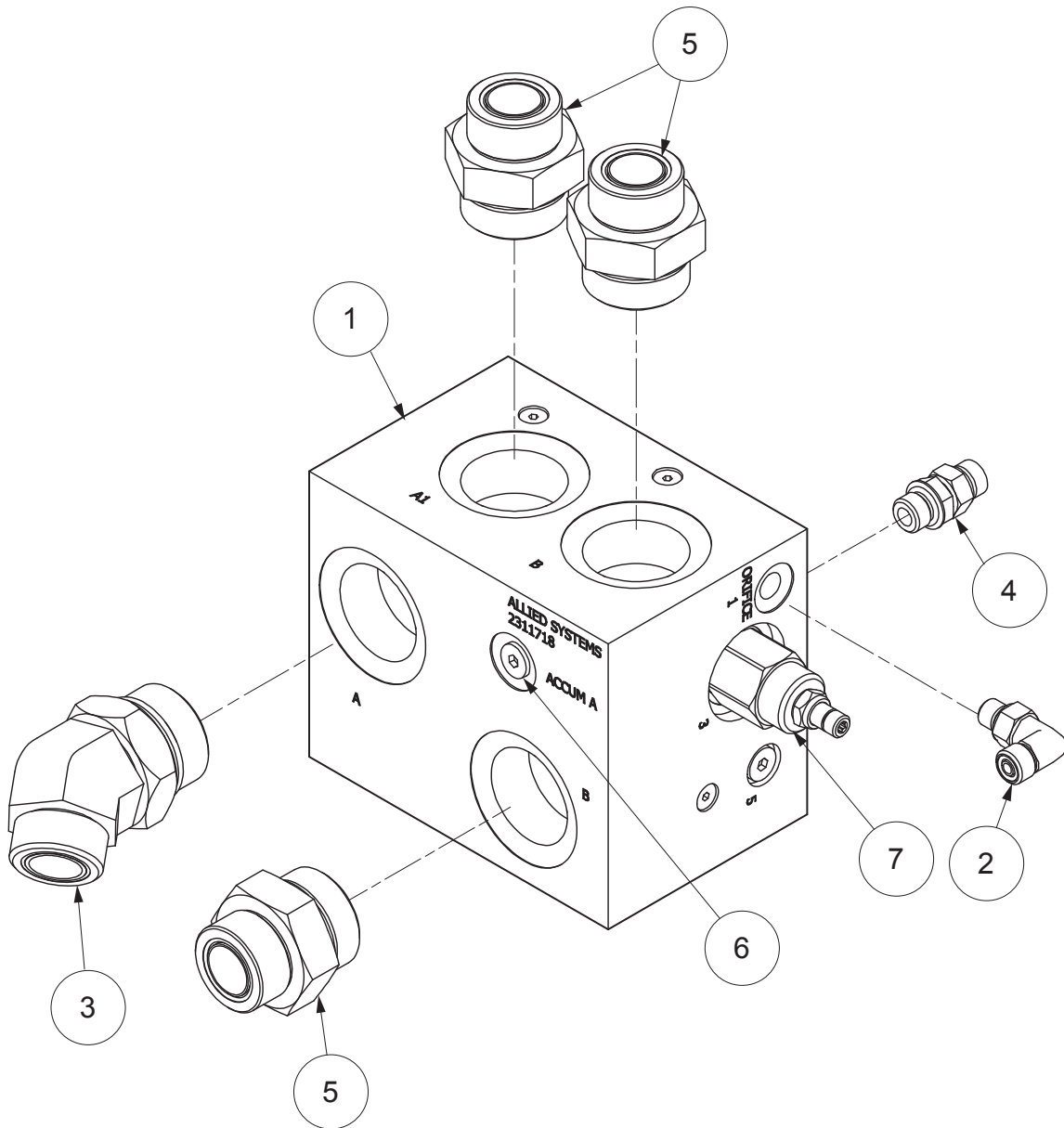


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312816	1	Assy, Counterbalance Relief Manifold				
1	*a 2311718	1	. Assy, Counterbalance Relief Manifold	4	229347	2	. Fitting
2	R833251	1	. Fitting	5	R833133	3	. Fitting
3	R833218	1	. Fitting		*a	See page 89	See page 89 for details for details

Counterbalance Relief Manifold Assy

Komatsu D65-15 (UK46), Komatsu D61-23/24 (K471)

First Used on S/N 1497

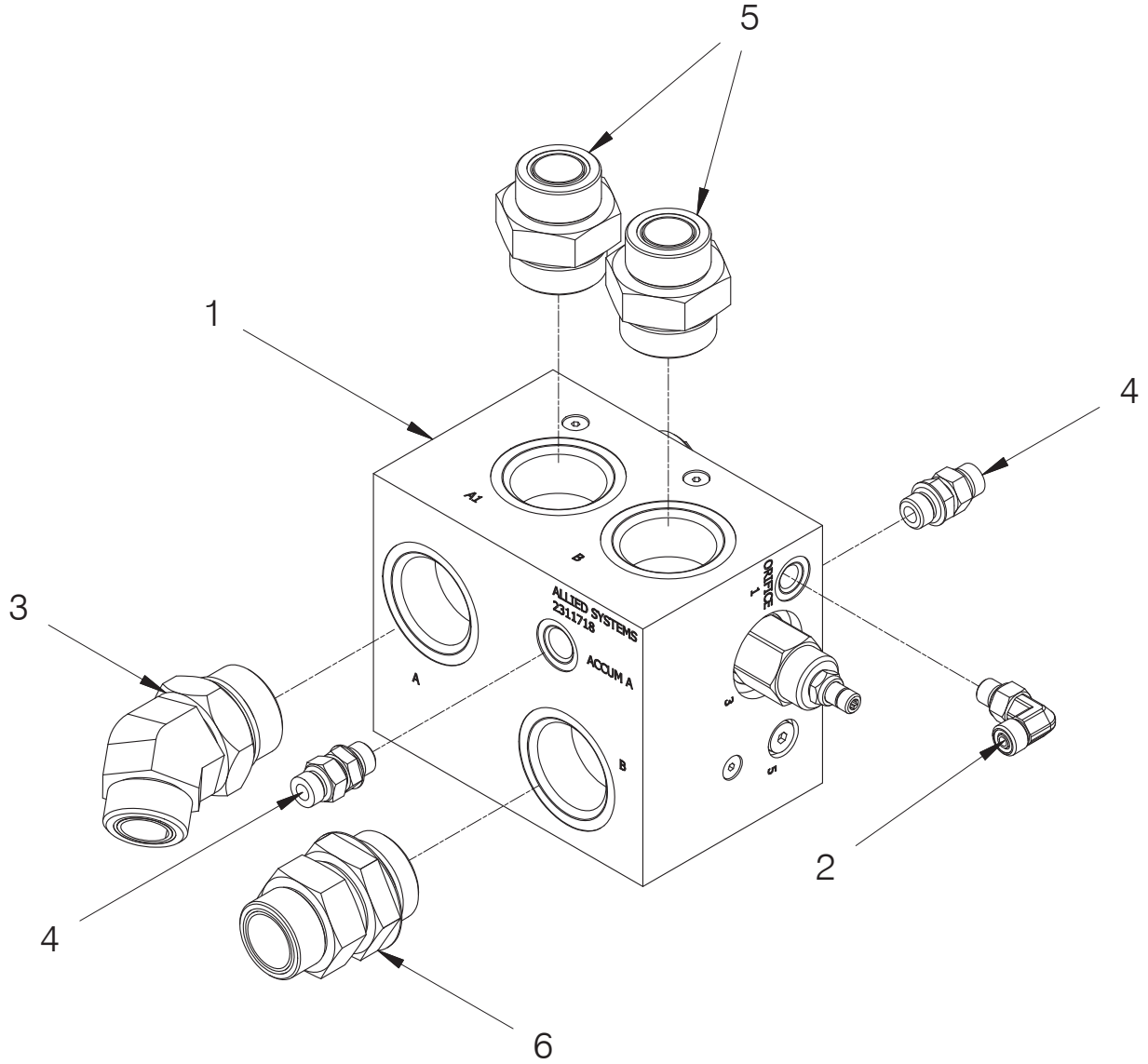


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312816	1	Assy, Counterbalance Relief Manifold				
1	*a 2311718	1	. Assy, Counterbalance Relief Manifold	6	222443W	1	. Fitting
2	R833251	1	. Fitting	7	2312068	1	. Valve, Counterbalance
3	R833218	1	. Fitting		243815	1	.. Seal Kit
4	229347	1	. Fitting				
5	R833133	3	. Fitting				
				*a	See page 89 for details		

Counterbalance Relief Manifold Assy

Komatsu D65-16/17/18 (K49/UK49)

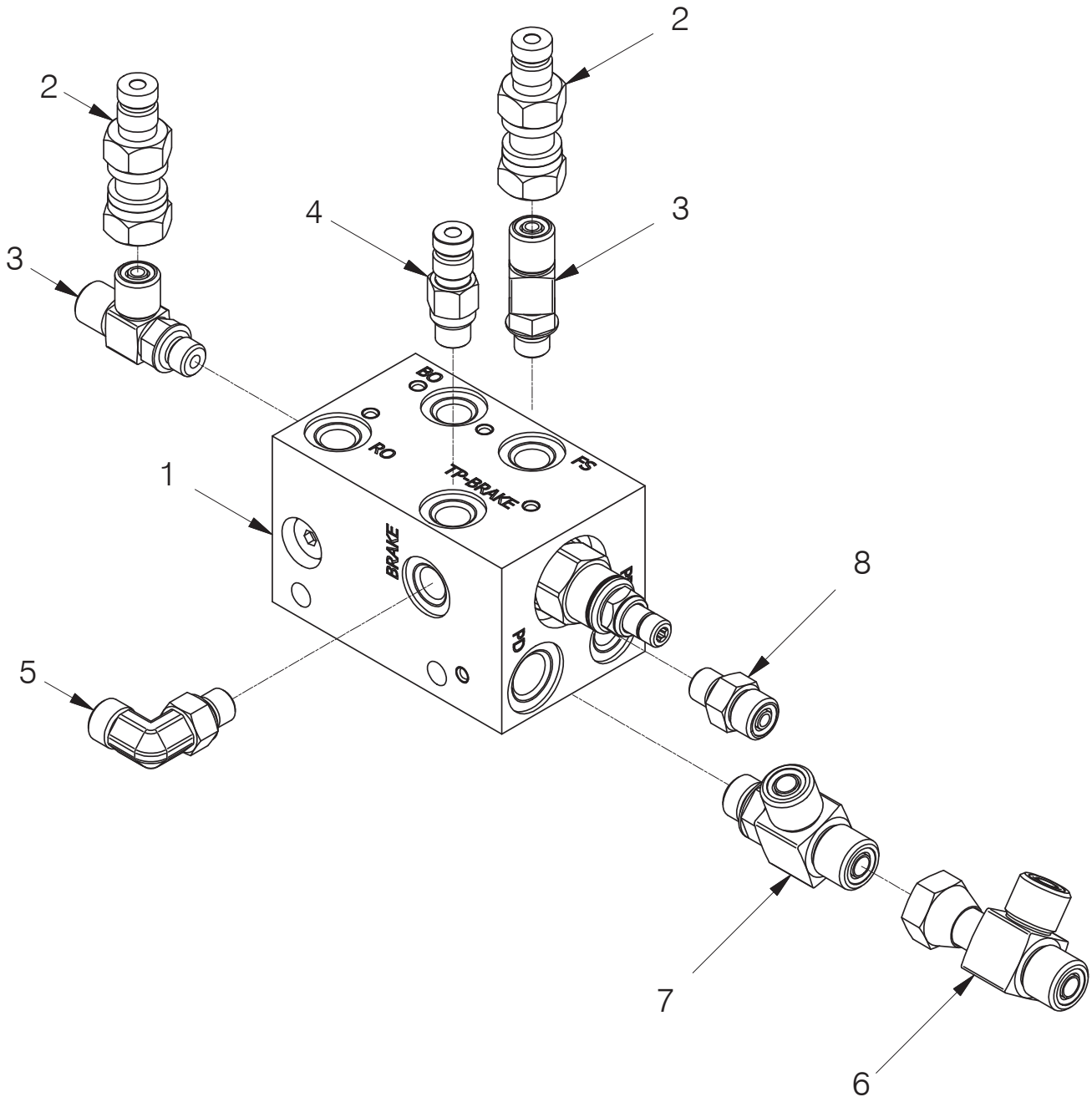
First Used on S/N 1497



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314692	1	Assy, Counterbalance Relief Manifold				
1	*a 2311718	1	. Assy, Counterbalance Relief Manifold	4	229347	2	. Fitting
2	R833251	1	. Fitting	5	R833133	2	. Fitting
3	R833218	1	. Fitting	6	2313948	1	. Fitting

*a See page 89 for details

Control Manifold Assy Komatsu D65-16/17 (K49)

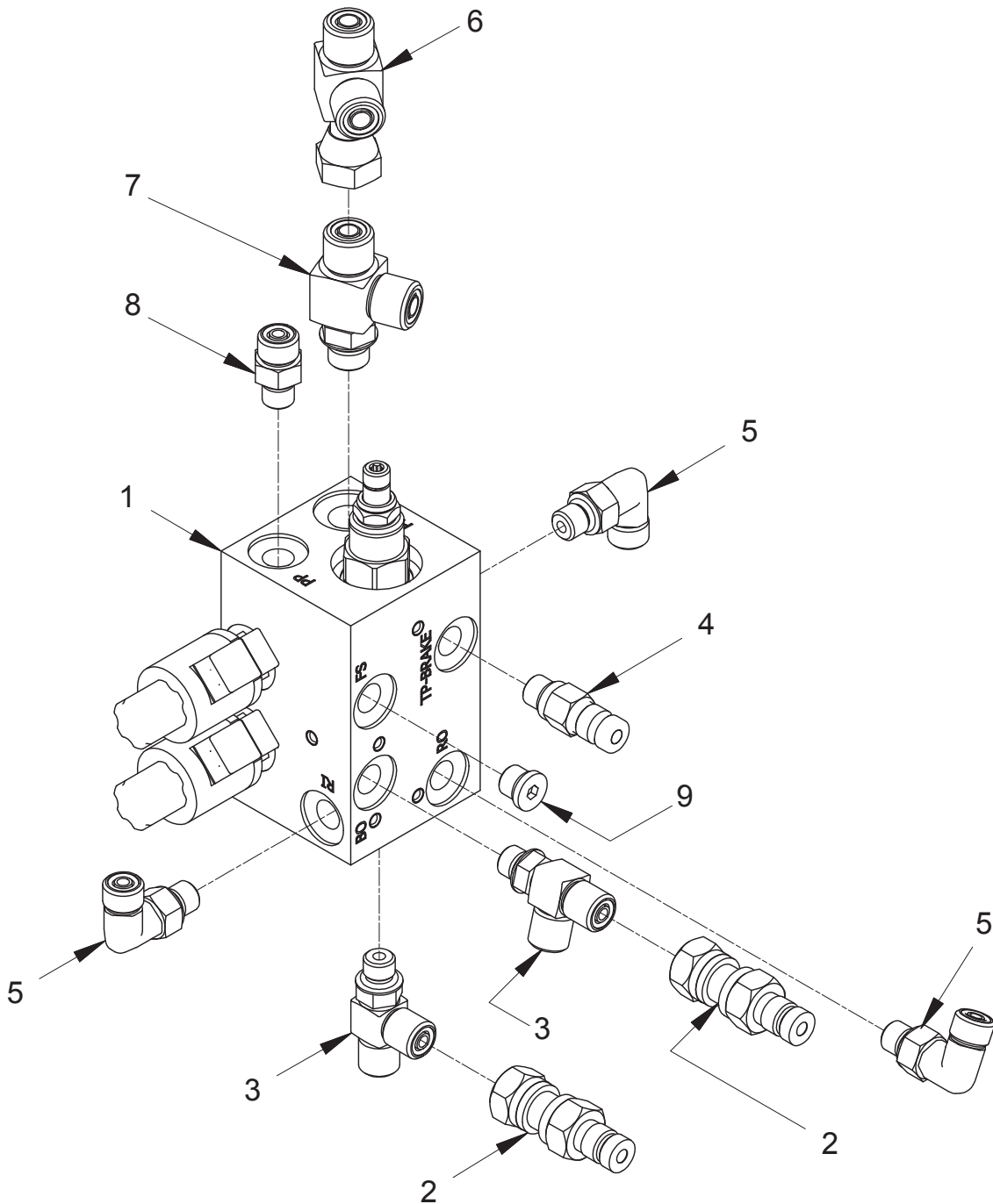


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312908	1	Assy, Control Manifold				
1	*a 2311770	1	. Assy, Control Manifold	6	231955	1	. Fitting
2	2307625W	2	. Coupler	7	231465	1	. Fitting
3	R833400	2	. Fitting	8	231439	1	. Fitting
4	R14040	1	. Coupler				
5	R833251	1	. Fitting				
				*a	See page 90 for details		

Control Manifold Assy

Komatsu D65-16/17 (K49)

Standard Hydraulics

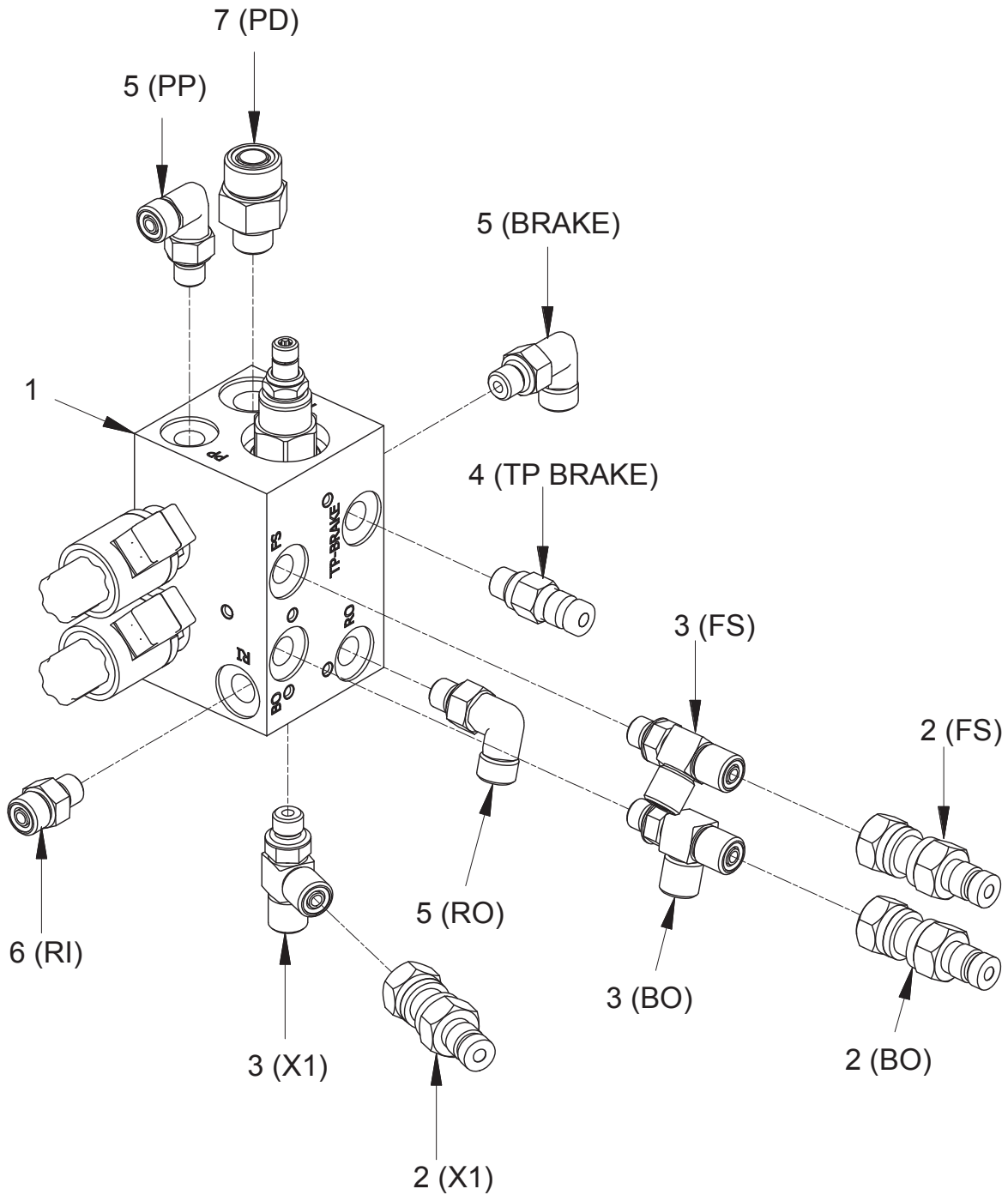


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314490	1	Assy, Control Manifold				
1	*a 2311770	1	. Assy, Control Manifold	6	231955	1	. Fitting
2	2307625W	2	. Coupler, Quick Male	7	231465	1	. Fitting
3	R833400	2	. Fitting	8	231439	1	. Fitting
4	R14040	1	. Coupler, Quick Male	9	235387	1	. Fitting
5	R833251	3	. Fitting				

*a See page 90 for details

Control Manifold Assy

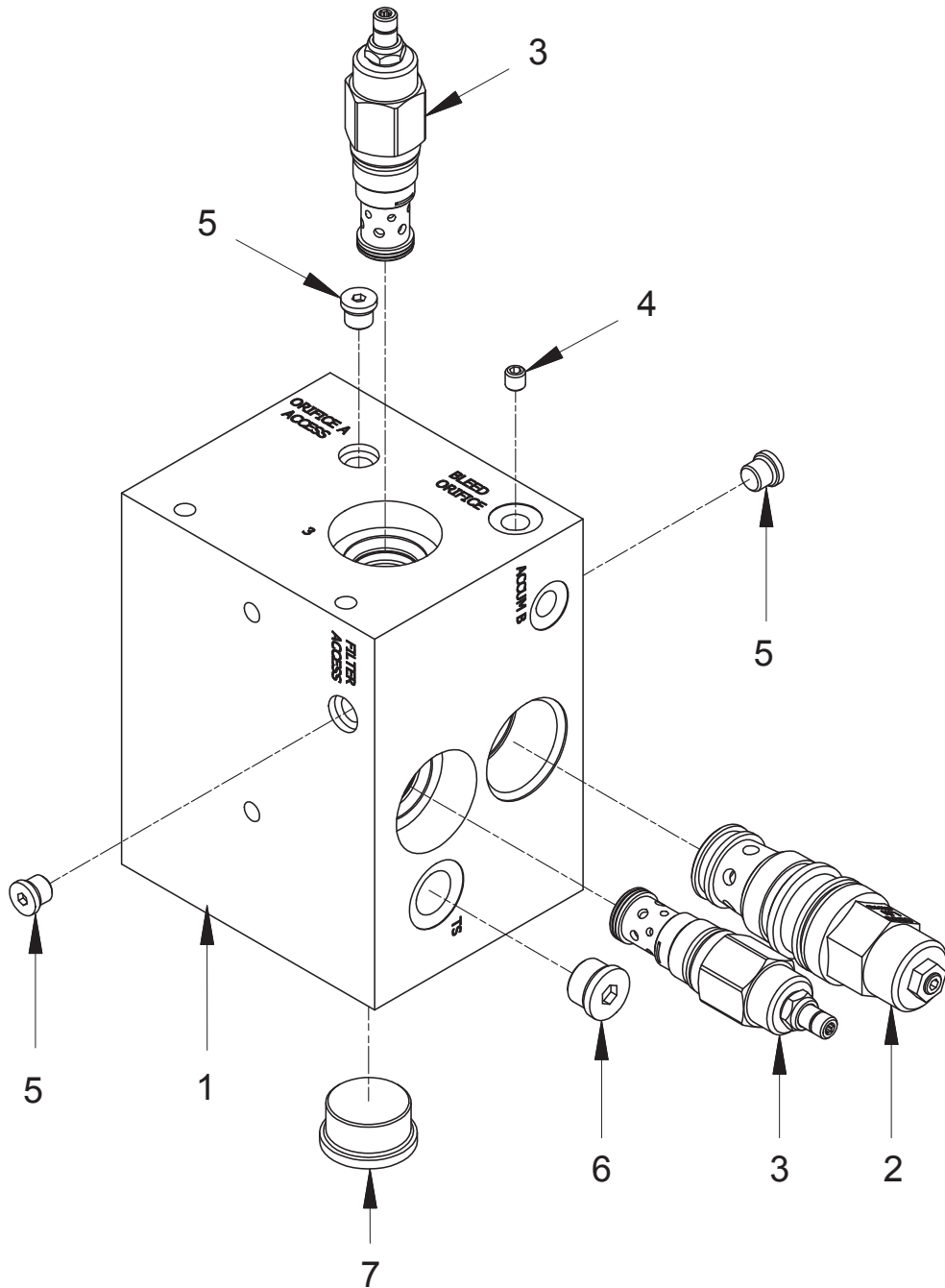
Komatsu D61-23/24 (K471)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313043	1	Assy, Control Manifold				
1	*a 2311770	1	. Assy, Control Manifold	6	231439	1	. Fitting
2	2307625W	3	. Coupler	7	R833112	1	. Fitting
3	R833400	3	. Fitting				
4	R14040	1	. Coupler				
5	R833251	3	. Fitting		*a		See page 90 for details

Counterbalance Relief Manifold Assy

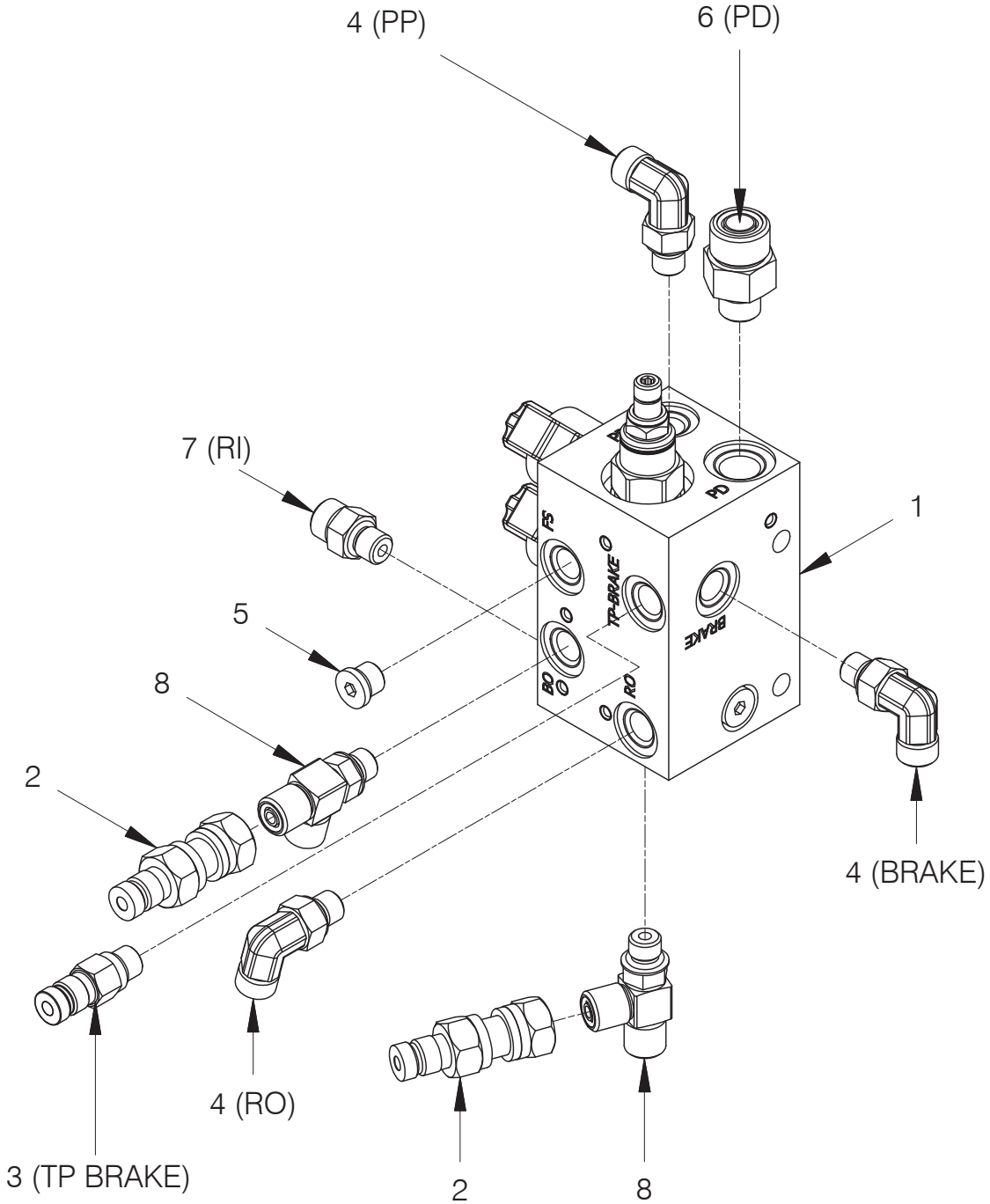
Komatsu D61-23/24 (H6HT**K471)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314242	1	Assy, Manifold				
1	2312940	1	. Body, Manifold	4	2310181	1	. Plug, Orifice
2	2312068	1	. Valve, Counter Balance	5	235387	3	. Fitting
	243815	1	.. Kit, Seal	6	229345	1	. Fitting
3	2307438W	2	. Valve, Relief	7	227949	1	. Fitting
	259258	1	.. Kit, Seal				

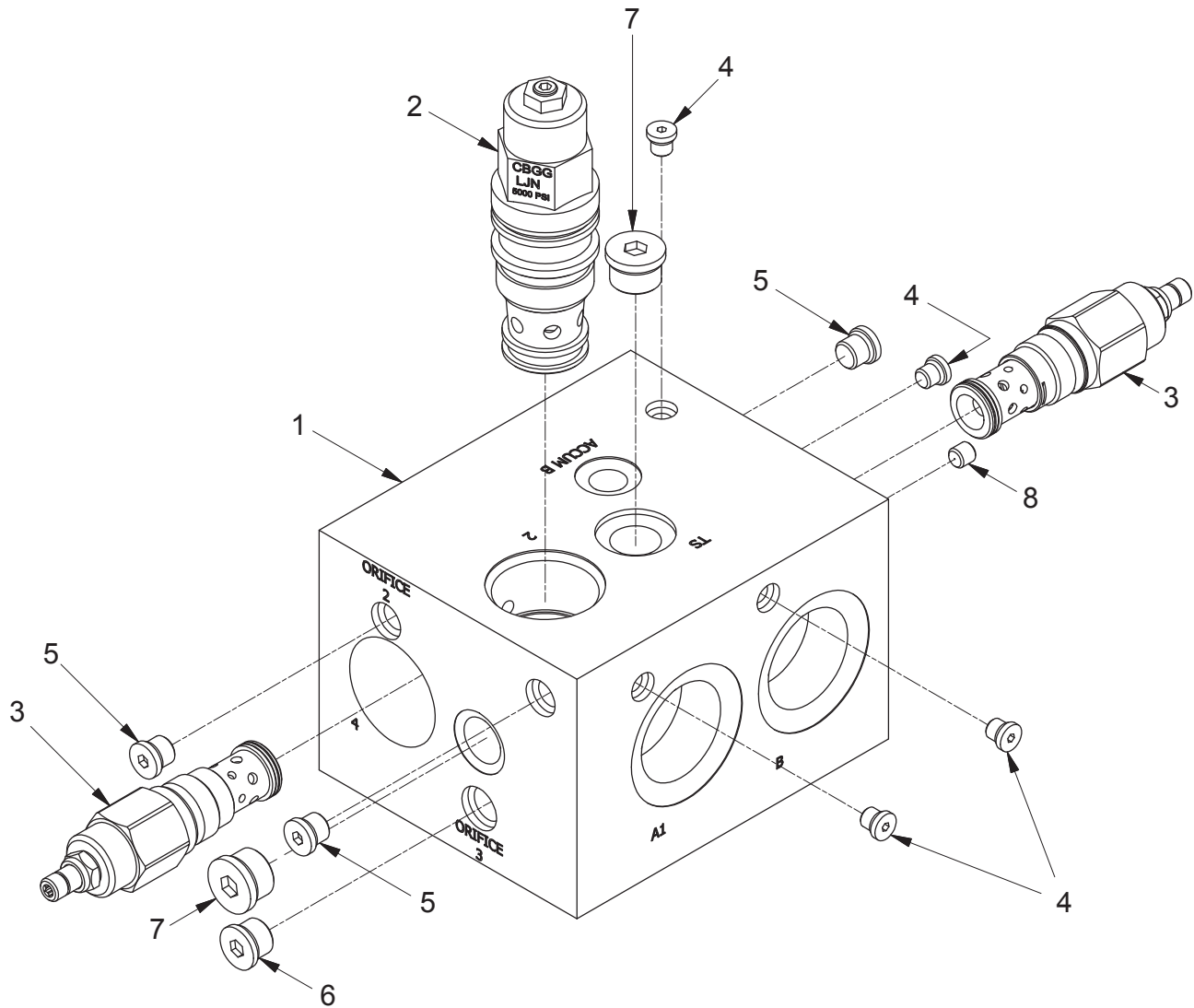
Control Manifold Assy

Komatsu D61-23/24 (K471)



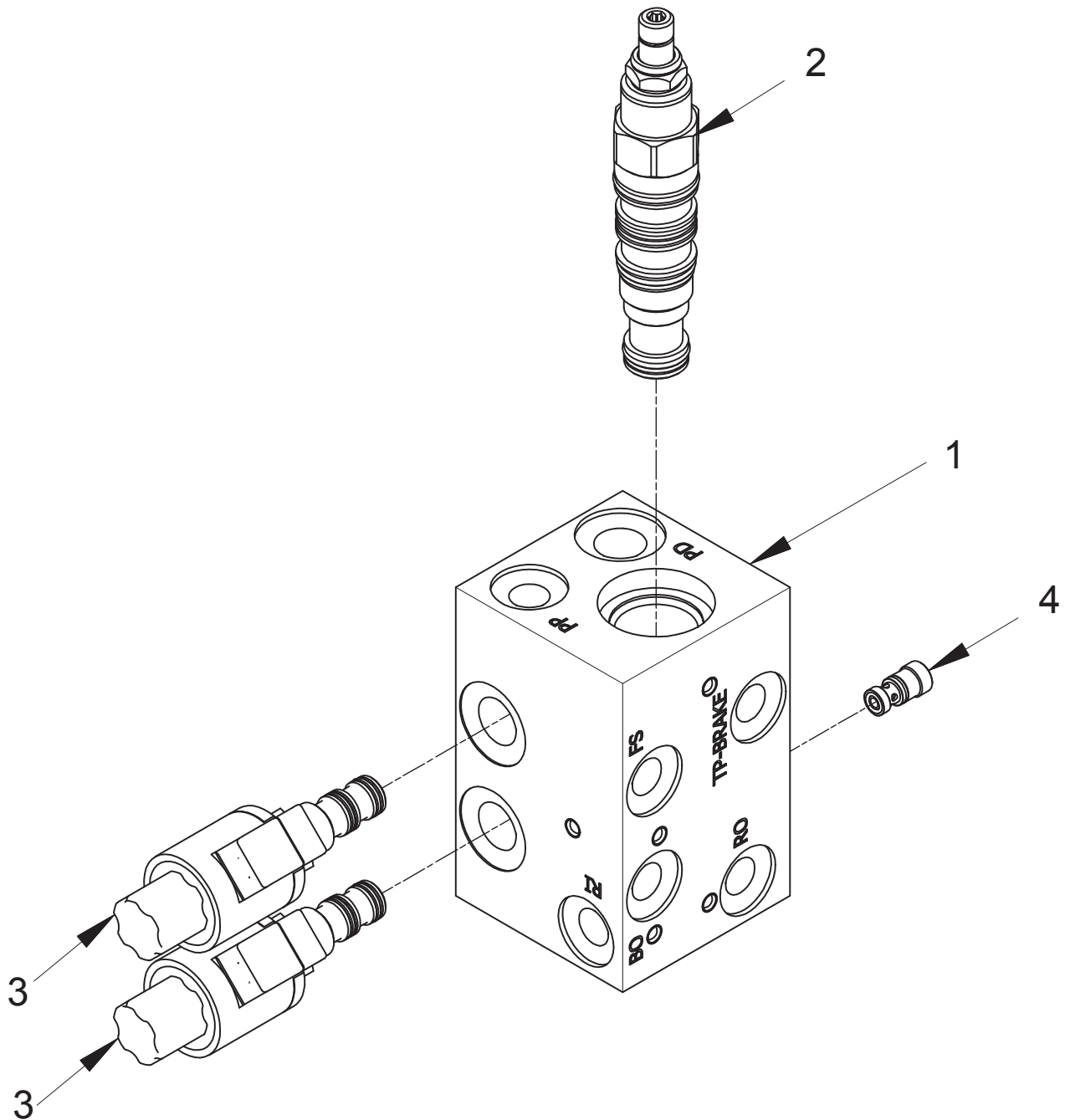
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314507	1	Assy, Control Manifold				
1	*a 2311770	1	. Assy, Control Manifold	6	R833112	1	. Fitting
2	2307625W	2	. Coupler	7	231439	1	. Fitting
3	R14040	1	. Coupler	8	R833400	2	. Fitting
4	R833251	3	. Fitting				
5	235387	1	. Fitting				
				*a	See page 90 for details		

Counterbalance Relief Manifold Assy



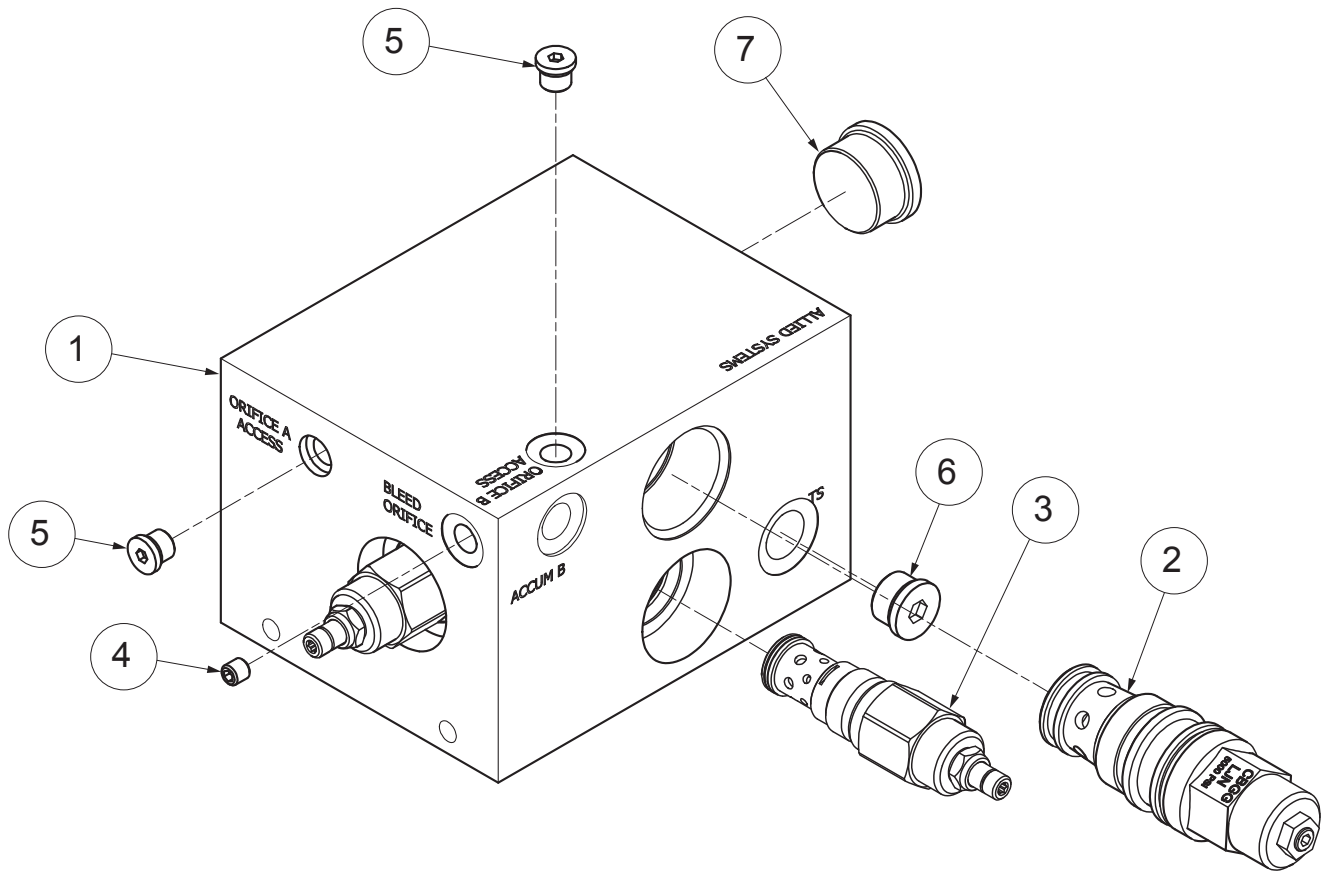
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2311718	1	Assy, Counterbalance Relief Manifold				
1	2311719	1	. Body, Manifold	5	235387	3	. Fitting
2	2312068	1	. Valve, Counter Balance	6	229383	1	. Fitting
	243815	1	. . Seal Kit (Not Shown)	7	229345	2	. Fitting
3	2307438W	2	. Valve, Relief	8	2310181	1	. Plug, Orifice
	259258	1	. . Kit, Seal				
4	242230	4	. Fitting				

Control Manifold Assy



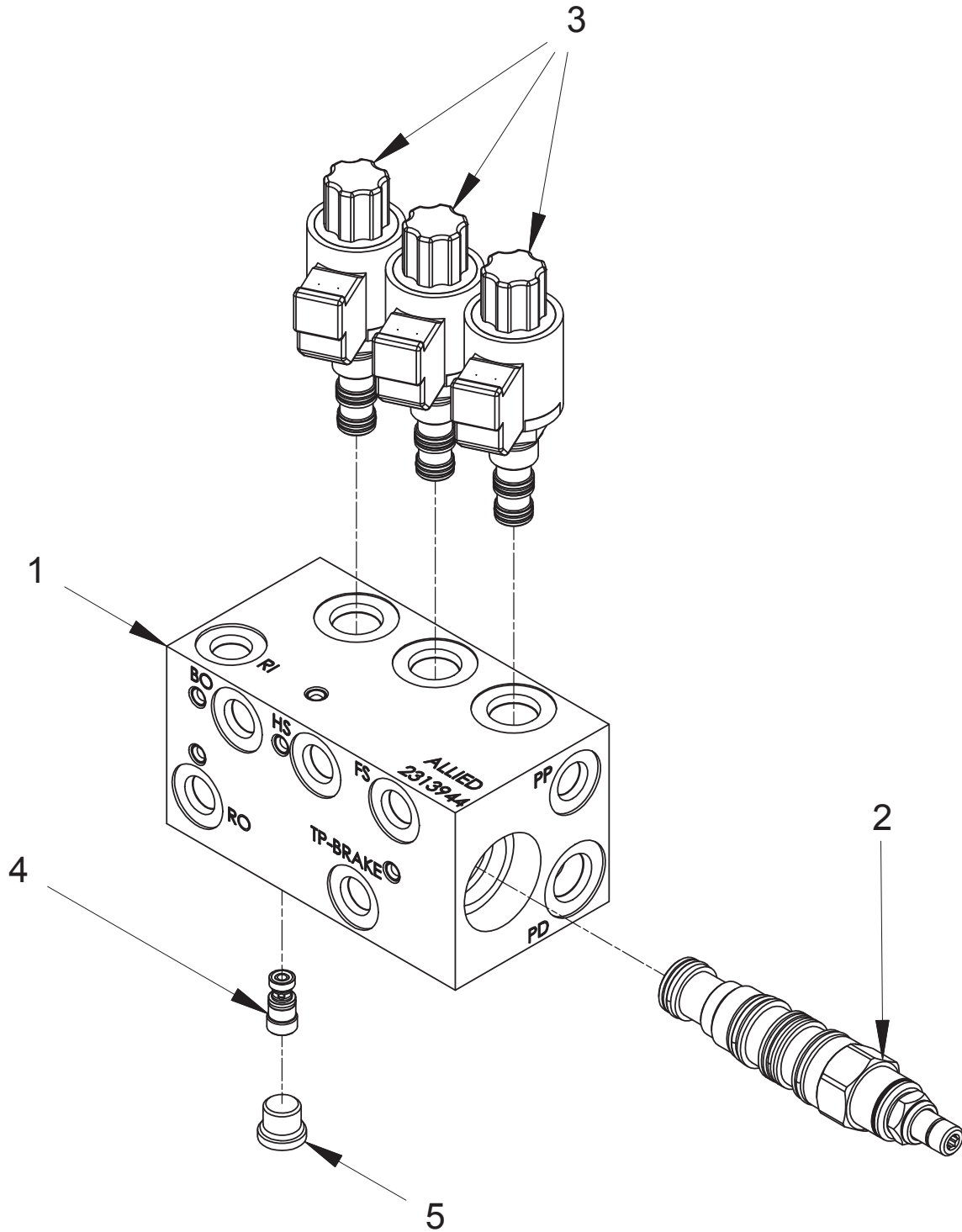
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2311770	1	Assy, Control Manifold				
1	2311771	1	. Body, Control Manifold	4	2312074	1	. Valve, Shuttle
2	2311592	1	. Valve, Directional		2312112	1	.. Seals, O-Ring
	252566	1	.. Kit, Seal				
3	2312073	2	. Valve, Cartridge				
	2314106	1	.. Base, Valve Cartridge				
	2313984	1	.. Coil				
	2312111	1	.. Kit, Seal				

Counterbalance Relief Manifold Assy



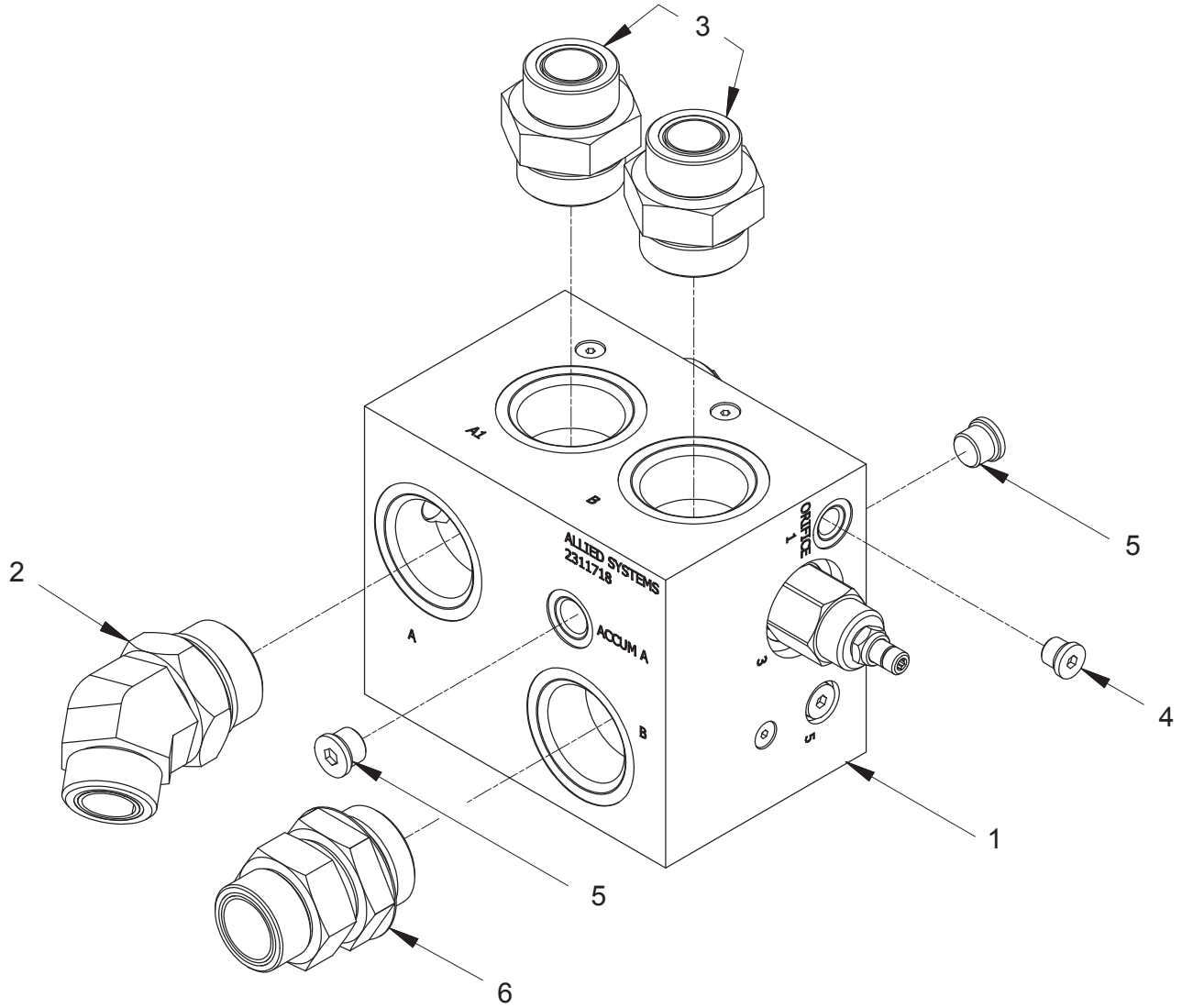
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312941		Assembly - Manifold, Counterbalance Relief				
1	2312940	1	. Manifold - Body, Counterbalance Relief	4	2310181	1	. Plug
2	2312068	1	. Valve, Counterbalance	5	235387	3	. Fitting
	243815	1	.. Seal Kit	6	229345	1	. Fitting
3	2307438W	2	. Relief Valve	7	227949	1	. Fitting
	259258	1	.. Seal Kit				

Control Manifold Assy



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313944	1	Assy, Control Manifold				
1	2313943	1	. Body, Control Manifold	4	2312074	1	. Valve, Shuttle
2	2311592	1	. Valve, Directional		2312112	1	.. Seal, O-Ring
	252566	1	.. Kit, Seal	5	235387	1	. Fitting
3	2312073	3	. Valve, Cartridge				
	2312111	1	.. Kit, Seal				

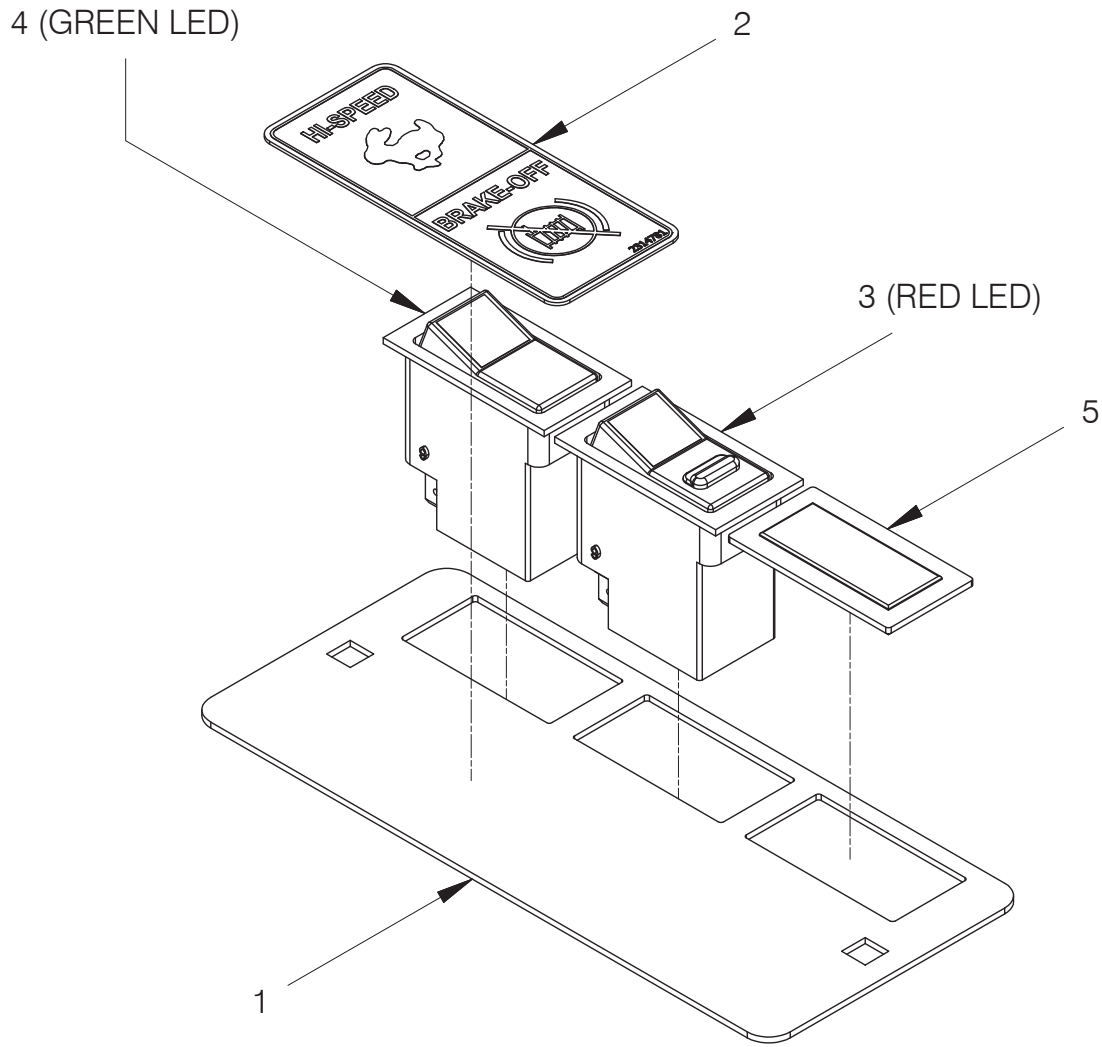
Manifold Assy
First Used on S/N H6H-1497



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2314691	1	Assy, Manifold	4	235387	1	. Fitting
	*a 2311718	1	. Assy, Counterbalance Relief Manifold	5	229383	2	. Fitting
2	R833218	1	. Fitting	6	2313948	1	. Fitting
3	R833133	2	. Fitting				

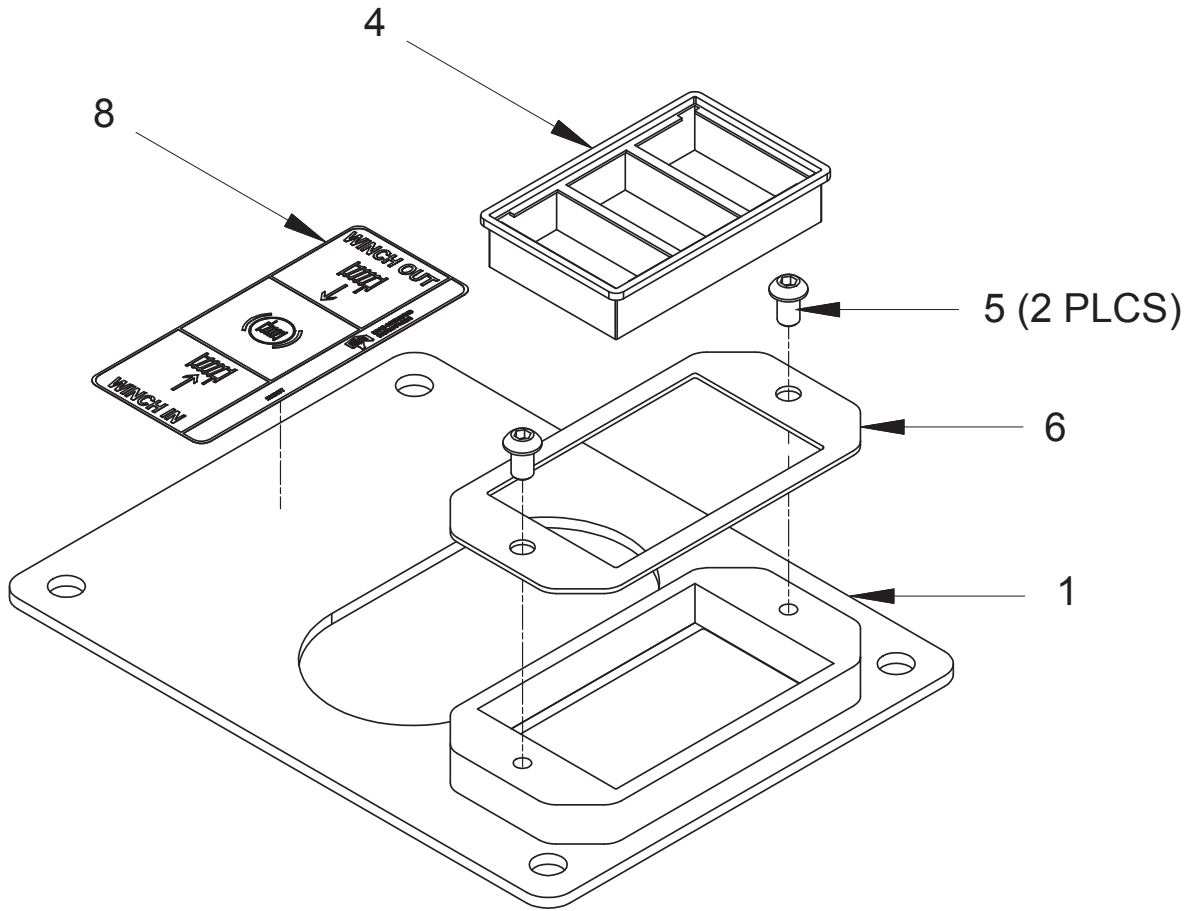
*a See page 89 for details

Switch Panel Assy
 FREESPOOL, BRAKE-OFF & HI-SPEED



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314787	1	Assy, Switch Panel; BRAKE-OFF & HI-SPEED				
1	2313136	1	. Plate, Switch Mounting	4	2311072	1	. Assy, Switch; 12/24V, Green LED
2	2314781	1	. Decal, Switch Panel; Brake-Off & Hi-Speed	5	234509	1	. Cover, Bland
3	2310504	1	. Assy, Switch; 24V, Red LED				

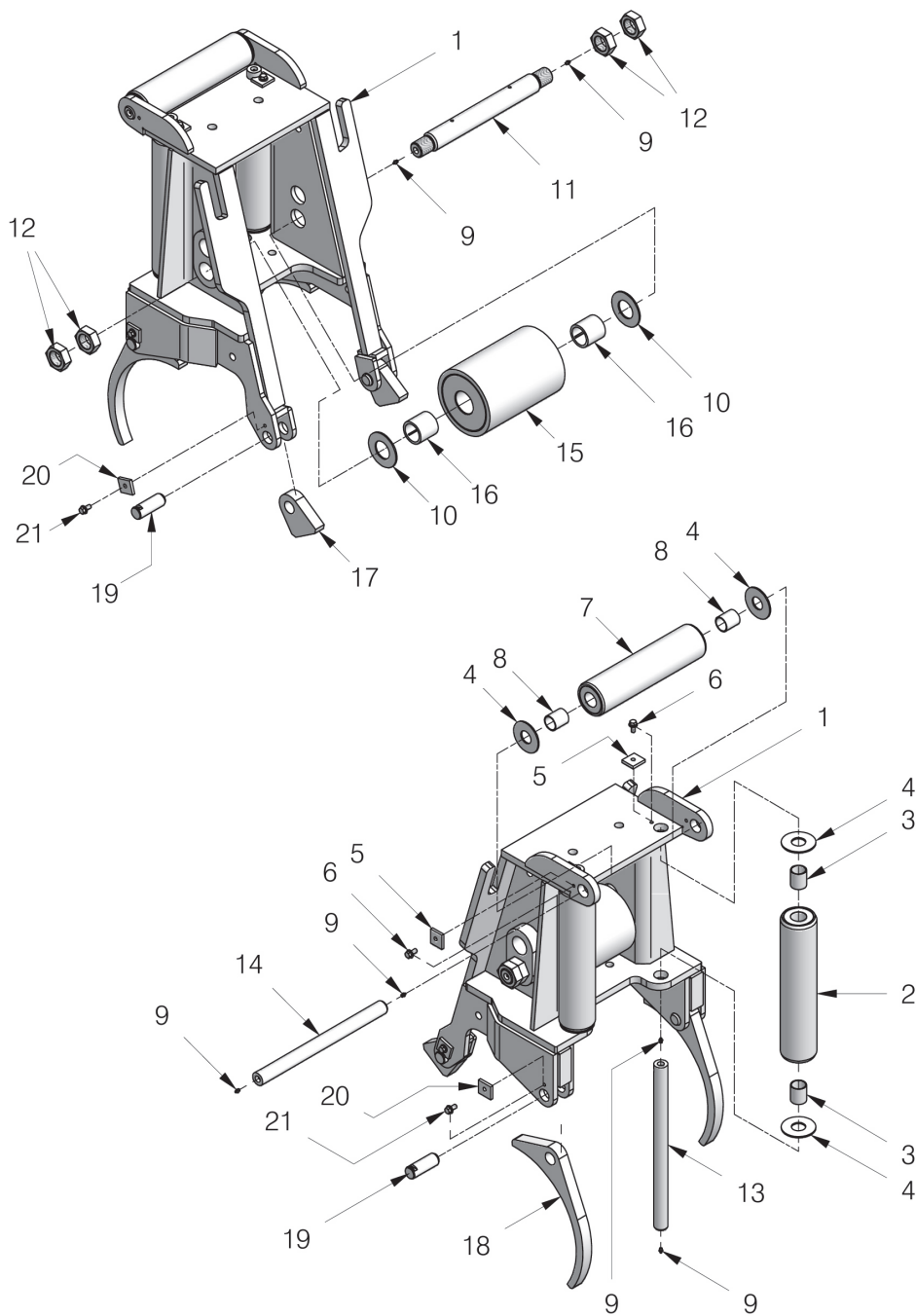
Switch Panel Assy
Komatsu D61X-23 (H6HT**K471)



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2312979	1	Assy, Switch Panel				
1	2312216	1	. Bracket, Control Lever	6	2311863	1	. Plate, Switch Mounting
4	234740	1	. Frame, Mounting	8	2312177	1	. Decal, Winch In, Winch Out
5	296157W	2	. Capscrew				

Section 4
Optional Equipment

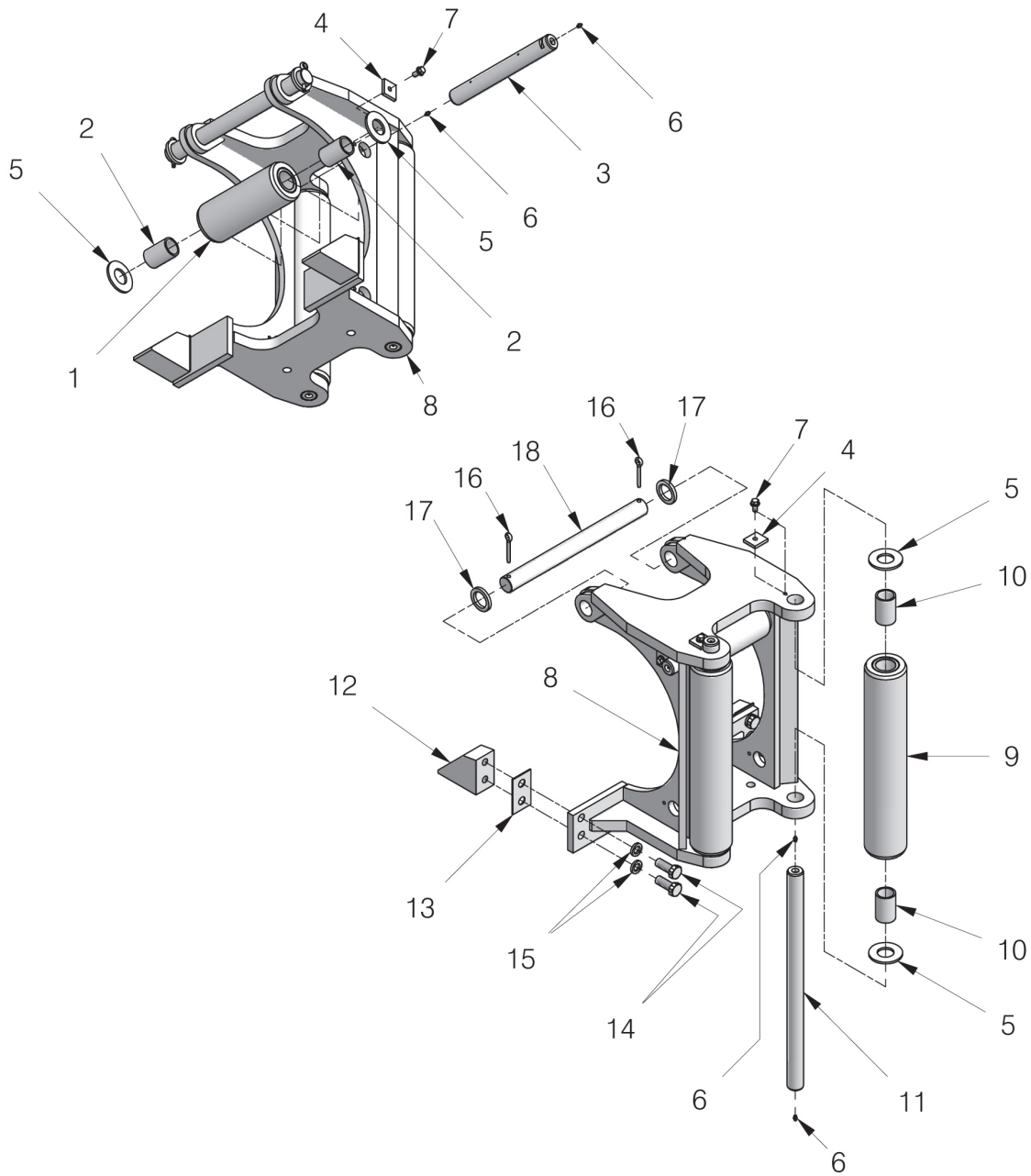
Arch



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2301748W	1	Arch Assembly				
1	2301749W	1	. Arch	12	221336W	4	. Nut
2	2301907W	2	. Roller	13	2301920W	2	. Shaft
3	35135W	2	. . Bushing	14	2301919W	1	. Shaft
4	331767W	6	. Washer	15	2301925W	1	. Roller
5	2301706W	3	. Keeper	16	2817W	2	. . Bushing
6	398817W	3	. Flange, Screw	17	2310726	2	Ear, Arch
7	2301910W	1	. Roller	18	2312168	2	Lug, Wrapped
8	35135W	2	. . Bushing	19	2301924W	4	Pin
9	16001W	8	. Fitting, Grease	20	2301706W	4	Keeper
10	2821W	2	. Washer	21	398817W	4	Flange Screw
11	2302120W	1	. Shaft				

Fairlead

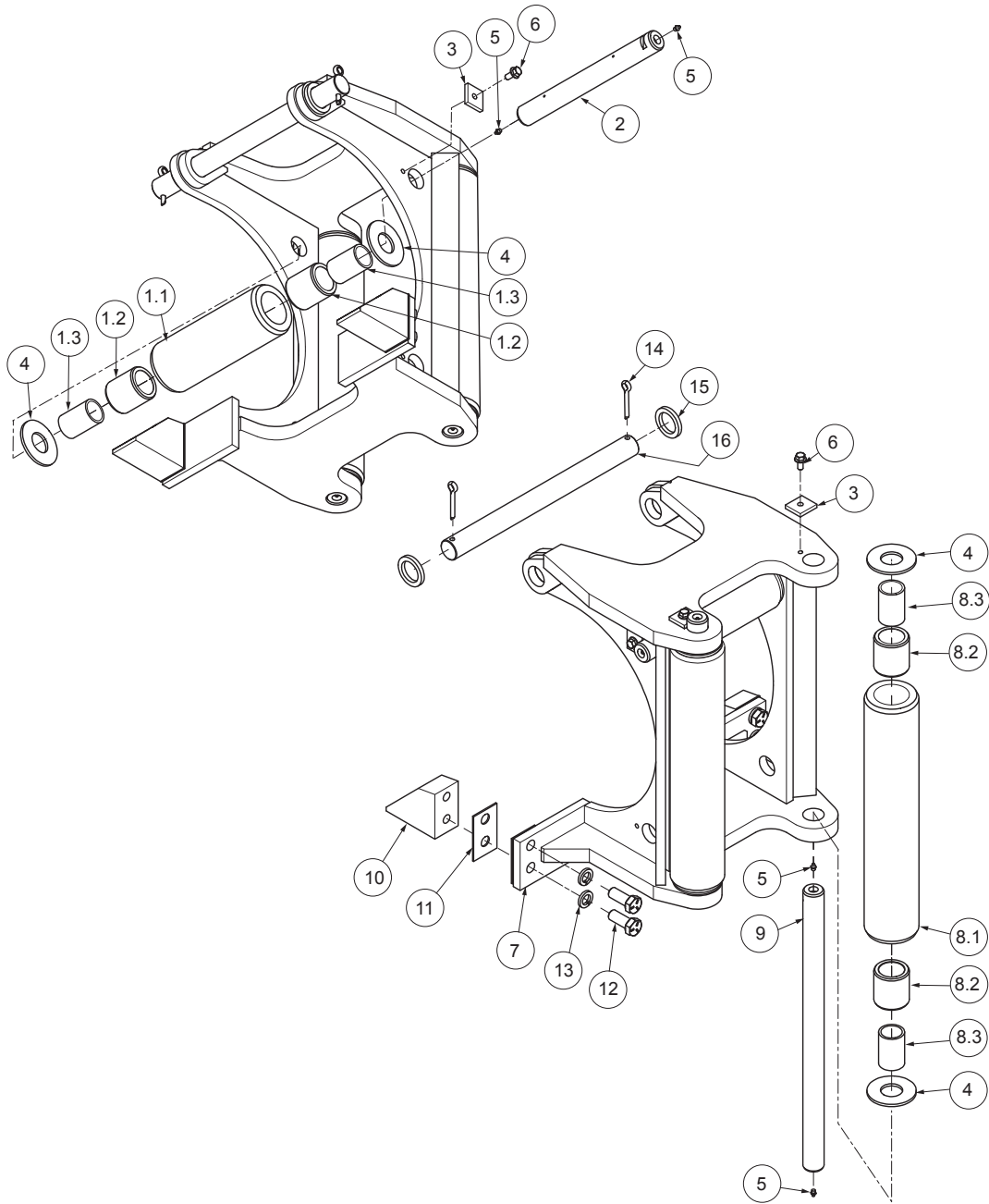
3-Roller, Last Used S/N 1609



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2301731W		Fairlead Assembly, 3-Roller				
1	2301727W	1	. Roller	10	2570W	4	.. Bushing
2	2570W	2	.. Bushing	11	2301721W	2	. Shaft
3	2301722W	1	. Shaft	12	226374W	2	Bracket
4	2301706W	3	. Keeper	13	93878W	AR	Shim
5	33394W	6	. Washer	14	18669W	4	Capscrew
6	16001W	6	. Fitting, Grease	15	15166W	4	Washer
7	398817W	3	. Screw, Flange	16	15272W	2	Pin, Cotter
8	2301718W	1	. Fairlead	17	2312437	2	Spacer
9	2301726W	2	. Roller	18	2312580	1	Bar, Tie

Fairlead

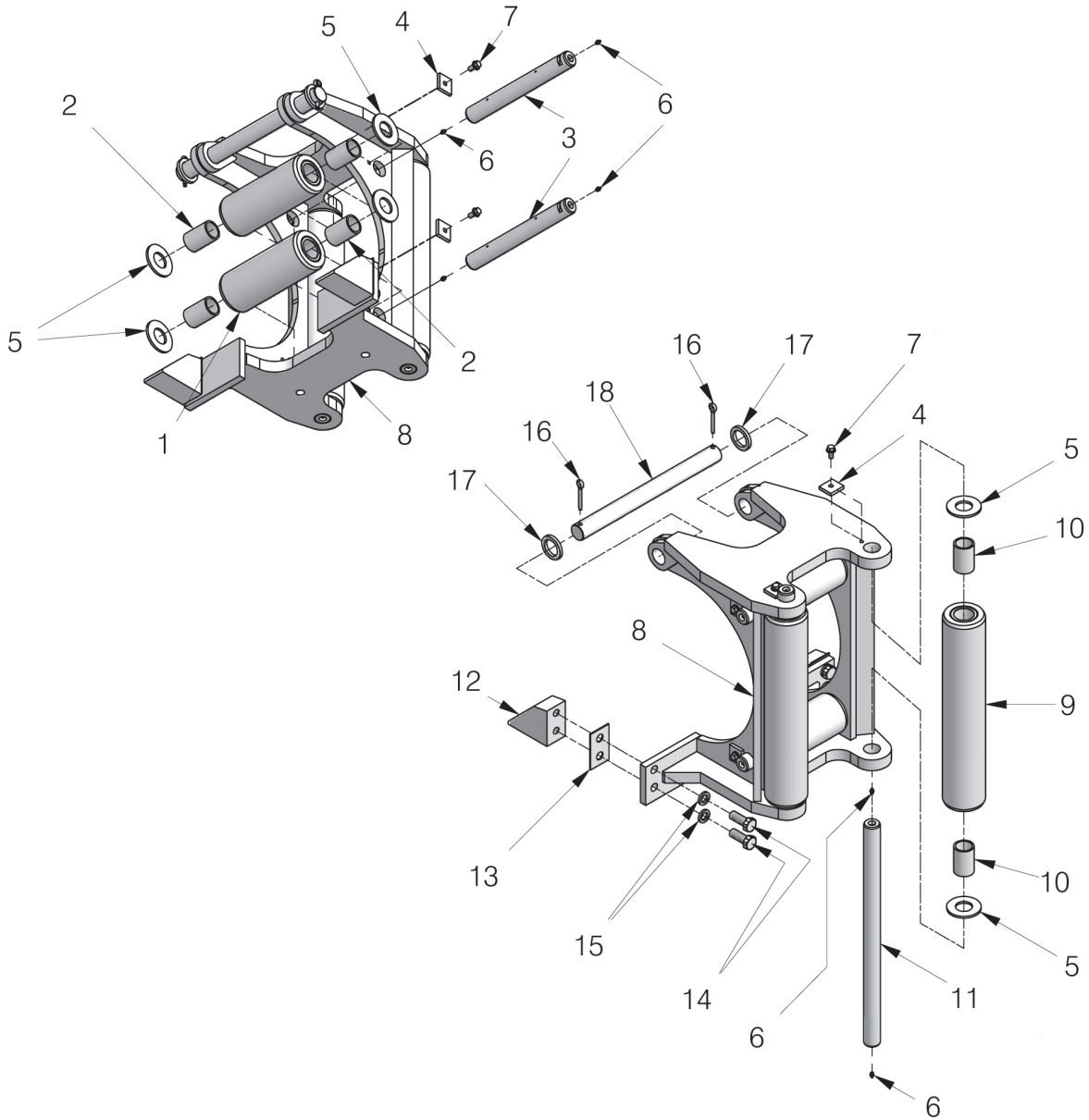
3-Roller, First Used S/N 1610



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2315548		Fairlead Assembly, 3-Roller				
1	2315545	1	Roller Assy	8.1	2301724W	1	. Tube
1.1	2315544	1	. Tube	8.2	2301961W	2	. Spacer
1.2	2301961W	2	. Spacer	8.3	2570W	2	. Bushing
1.3	2570W	2	. Bushing	9	2301721W	2	Shaft, Vertical
2	2315546	1	Shaft	10	226374W	2	Bracket - Fairlead
3	2301706W	3	Keeper	11	93878W	8	Shim
4	2314097	6	Washer	12	18668W	4	Capscrow
5	16001W	6	Fitting, Lube	13	15166W	4	Washer
6	398817W	3	Screw, Flange	14	15272W	2	Cotter Pin
7	2315555	1	Frame, Fairlead	15	173607W	2	Spacer
8	2301726W	2	Roller Assy	16	2312580	1	Rod - Tie

Fairlead

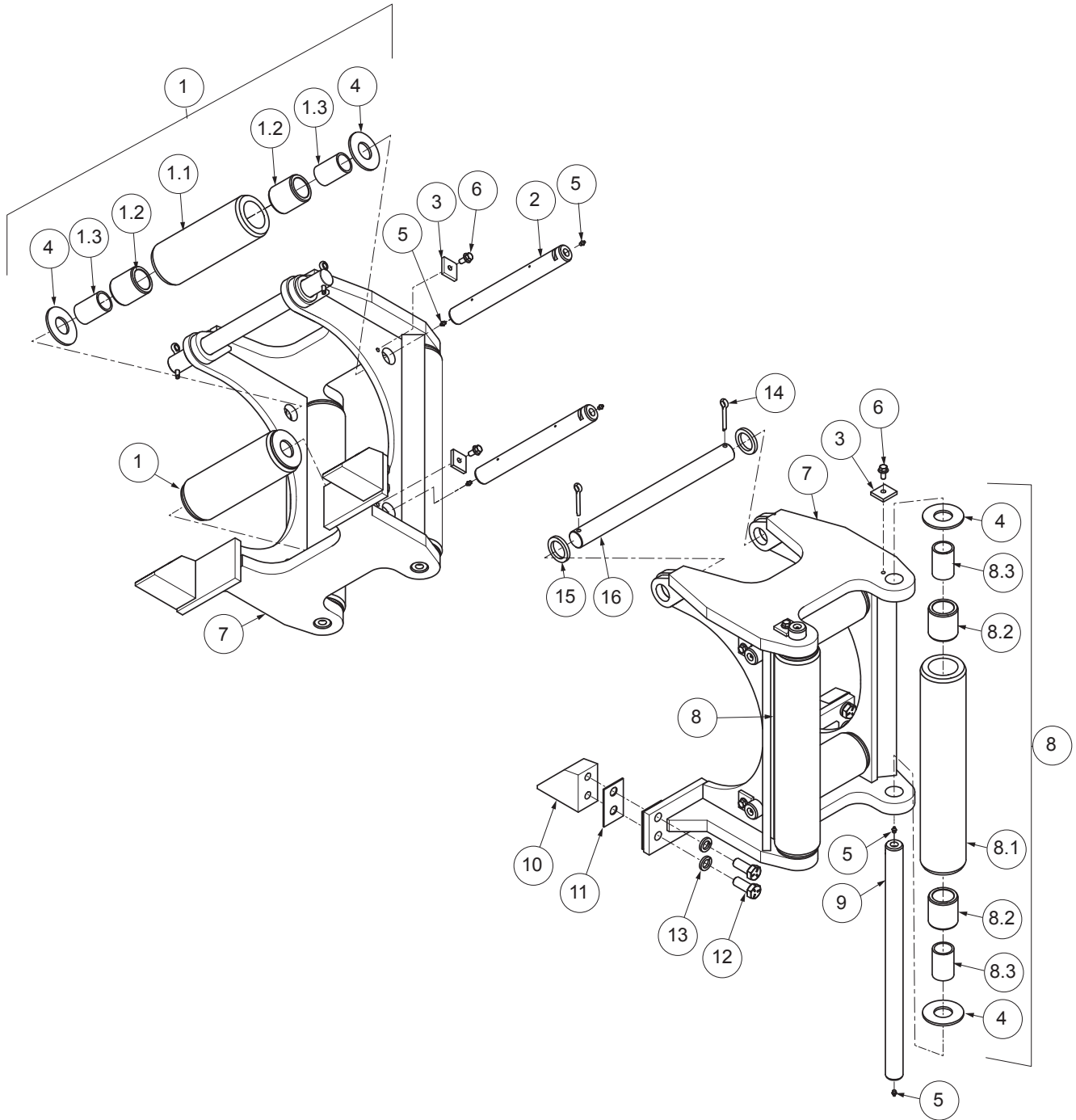
4-Roller, Last Used S/N 1609



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2301732W Fairlead Ass'y, 4-Roller							
1	2301727W	2	. Roller	10	2570W	4	. . Bushing
2	2570W	4	. . Bushing	11	2301721W	2	. Shaft
3	2301722W	2	. Shaft	12	226374W	2	Bracket
4	2301706W	4	. Keeper	13	93878W	AR	Shim
5	33394W	8	. Washer	14	18668W	4	Cap screw
6	16001W	8	. Fitting, Grease	15	15166W	4	Washer
7	398817W	4	. Screw, Flange	16	15272W	2	Pin, Cotter
8	2301718W	1	. Fairlead	17	2312437	2	Spacer
9	2301726W	2	. Roller	18	2312580	1	Bar, Tie

Fairlead

4-Roller, Wide, First Used S/N 1610



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2315549		Fairlead Ass'y, 4-Roller				
1	2315545	2	Assy, Roller	8.1	2315544	1	. Tube
1.1	2315544	1	. Tube	8.2	2301961W	2	. Spacer
1.2	2301961W	2	. Spacer	8.3	2570W	2	. Bushing
1.3	2570W	2	. Bushing	9	2301721W	2	Shaft, Vertical
2	2315546	2	Shaft	10	226374W	2	Bracket, Fairlead
3	2301706W	4	Keeper	11	93878W	8	Shim
4	2314097	8	Washer	12	18668W	4	Capscrew
5	16001W	8	Fitting, Lube	13	15166W	4	Washer
6	398817W	4	Screw, Flange	14	15272W	2	Cotter Pin
7	2315555	1	Frame, Fairlead	15	173607W	2	Spacer
8	2301726W	2	Assy, Roller	16	2312580	1	Bar, Tie

Wire Rope Assemblies

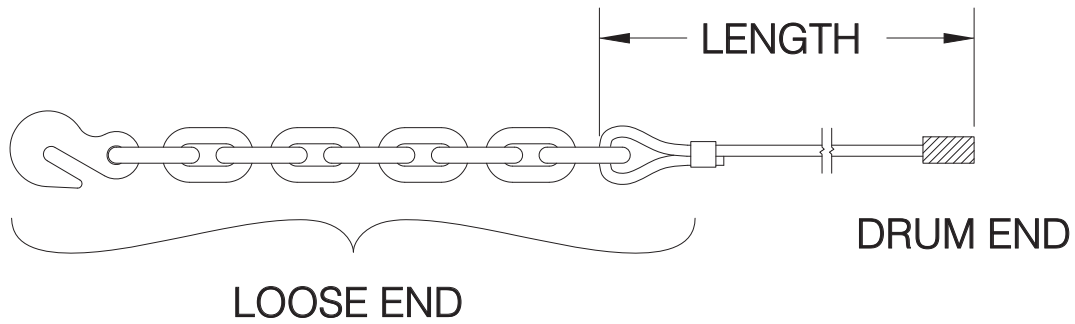


Figure A

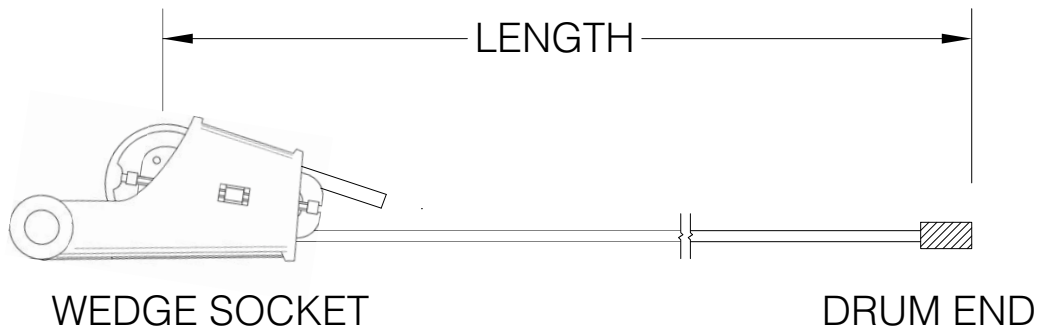


Figure B

Part No.	Wire Diameter	Length FT (M)	Part No.	Wire Diameter	Length FT (M)
WR6-275L *a	3/4"	275 (84) *c	WR8-154L *a	1"	154 (47) *c
WR6-413L *a	3/4"	413 (126) *d	WR8-230L *a	1"	230 (70) *d
YS6-275LWS *b	3/4"	275 (84) *c	YS8-154LWS *b	1"	154 (47) *c
YS6-413LWS *b	3/4"	413 (126) *d	YS8-230LWS *b	1"	230 (70) *d
WR7-198L *a	7/8"	198 (60) *c			
WR7-297L *a	7/8"	297 (91) *d			
YS7-198LWS *b	7/8"	198 (60) *c			
YS7-297LWS *b	7/8"	297 (91) *d			

*a WR Series Wire Rope (Illustrated in Figure A)
 *b YS Series Wire Rope (Illustrated in Figure B)
 *c Length to fill drum to 2/3 capacity (recommended)
 *d Length to fill drum to full capacity

Section 5
Recommended Winch Service Intervals and Kits

Intentionally Blank

Recommended Winch Service Intervals and Kits

Following 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.

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 every week.					
<p>* 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.</p> <p>* Inspect = Disassemble and inspect for wear.</p> <p>** Service winch using the dozer's hour meter or the length of time the winch is mounted to the dozer, whichever occurs first.</p> <p>*** Follow dozer schedule if using dozer filter.</p>					
Recommended Gear Compartment Oil					
Chevron	Drive Train Fluids HD	Consult service/operating manual for low temperature oils and other details. Use of non-recommended oil may void the warranty.			
ExxonMobil	Mobiltrans HD Series				

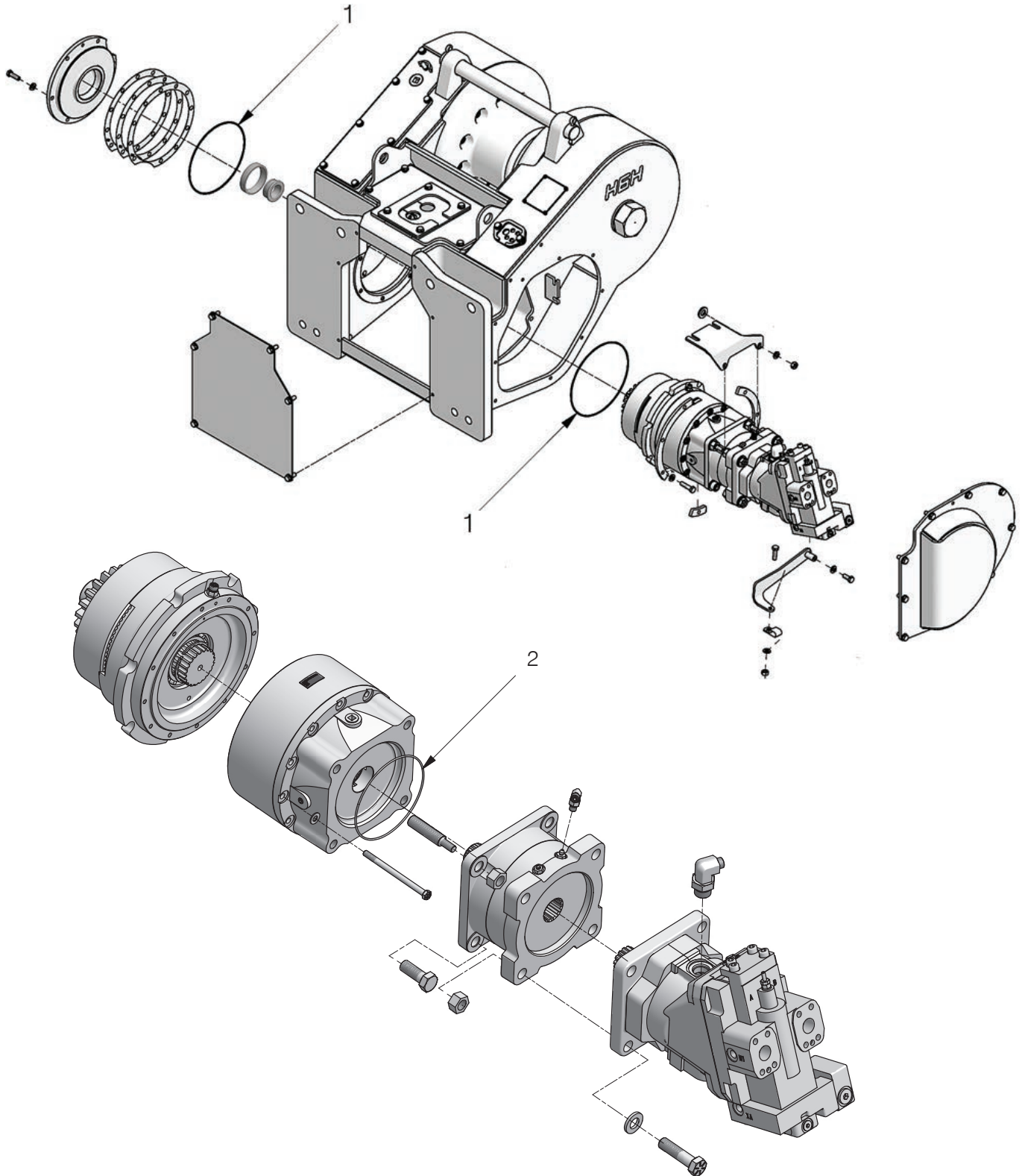
Table 1 Recommended Winch Service Intervals

Service Kits for H6H Winches				
Service Description	Kit Description	Winch Serial Number	Kit Part# for Hi-Performance (H) Winches	Kit Part# for Standard (T) Winches
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	2314659	
Major overhaul (every 10,000 hours)	Intermediate/drum shaft & brake assembly rebuild kit	All	2314660	

Table 2 Routine Maintenance Kits

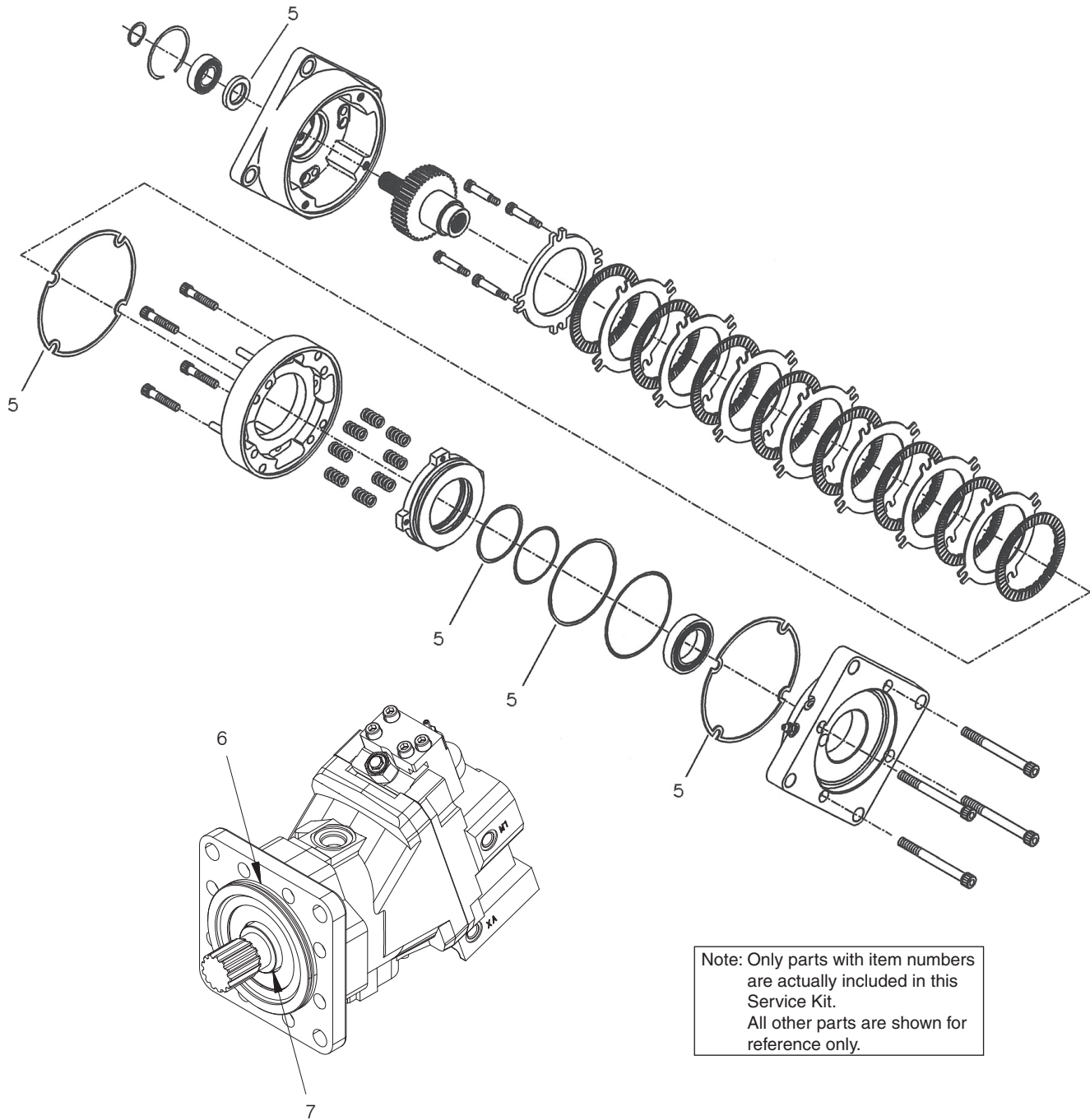
Motor, Reducer & Brake Assembly Rebuild Kit: 2314659

Page 1 of 2



Motor, Reducer & Brake Assembly Rebuild Kit: 2314659

Page 2 of 2

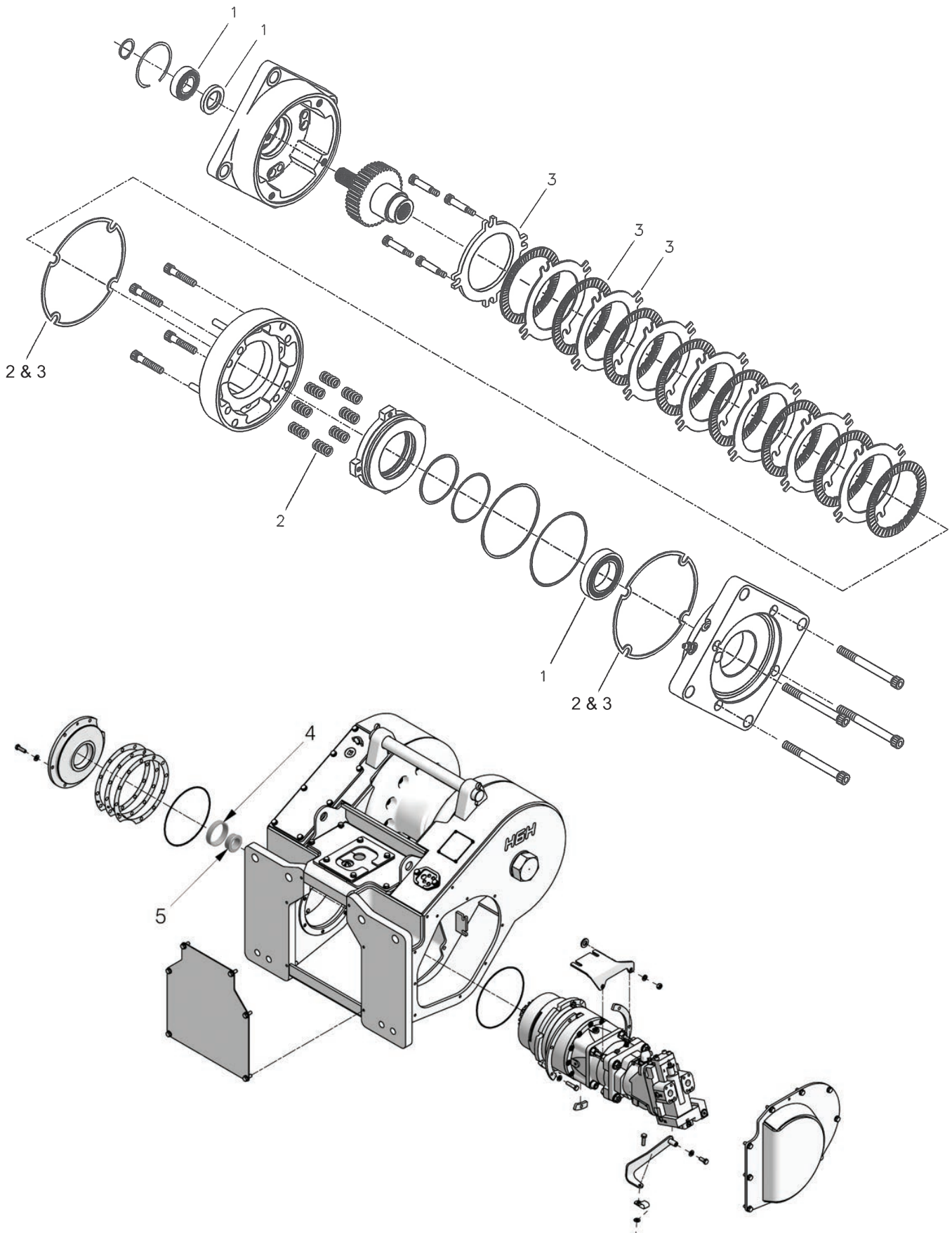


Note: Only parts with item numbers are actually included in this Service Kit. All other parts are shown for reference only.

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314659		Rebuild Kit, Motor, Reducer & Brake Assy				
1	203564	2	. O-Ring	4	230064W	1	. Adhesive (Not Shown)
2	237349	1	. O-Ring	5	2312302	1	. Kit, O-Ring
3	313022W	1	. Adhesive (Not Shown)	6	2313890	1	. O-Ring
				7	2313891	1	. Kit, Shaft Seal

Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314660

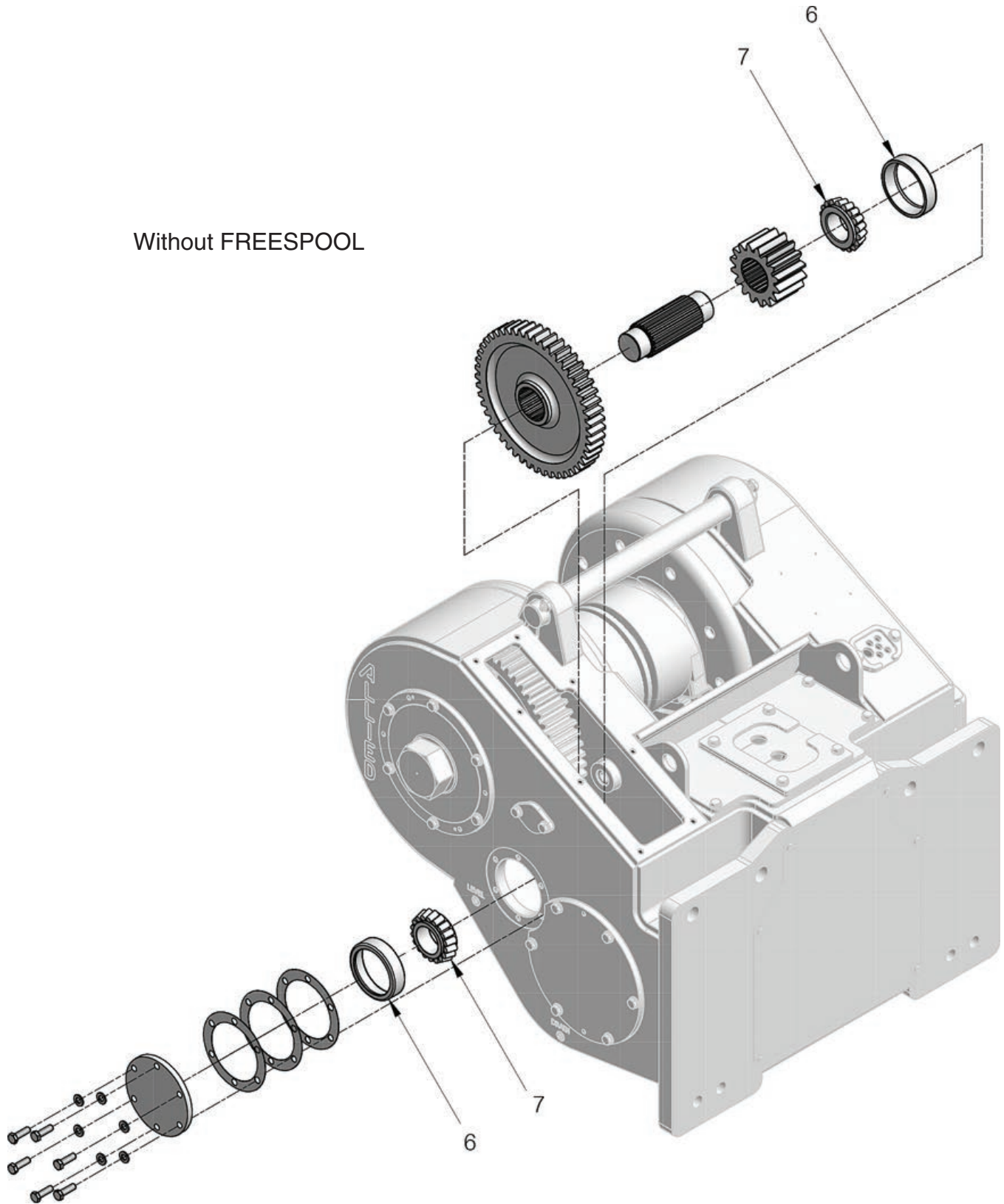
Page 1 of 4



Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314660

Page 2 of 4

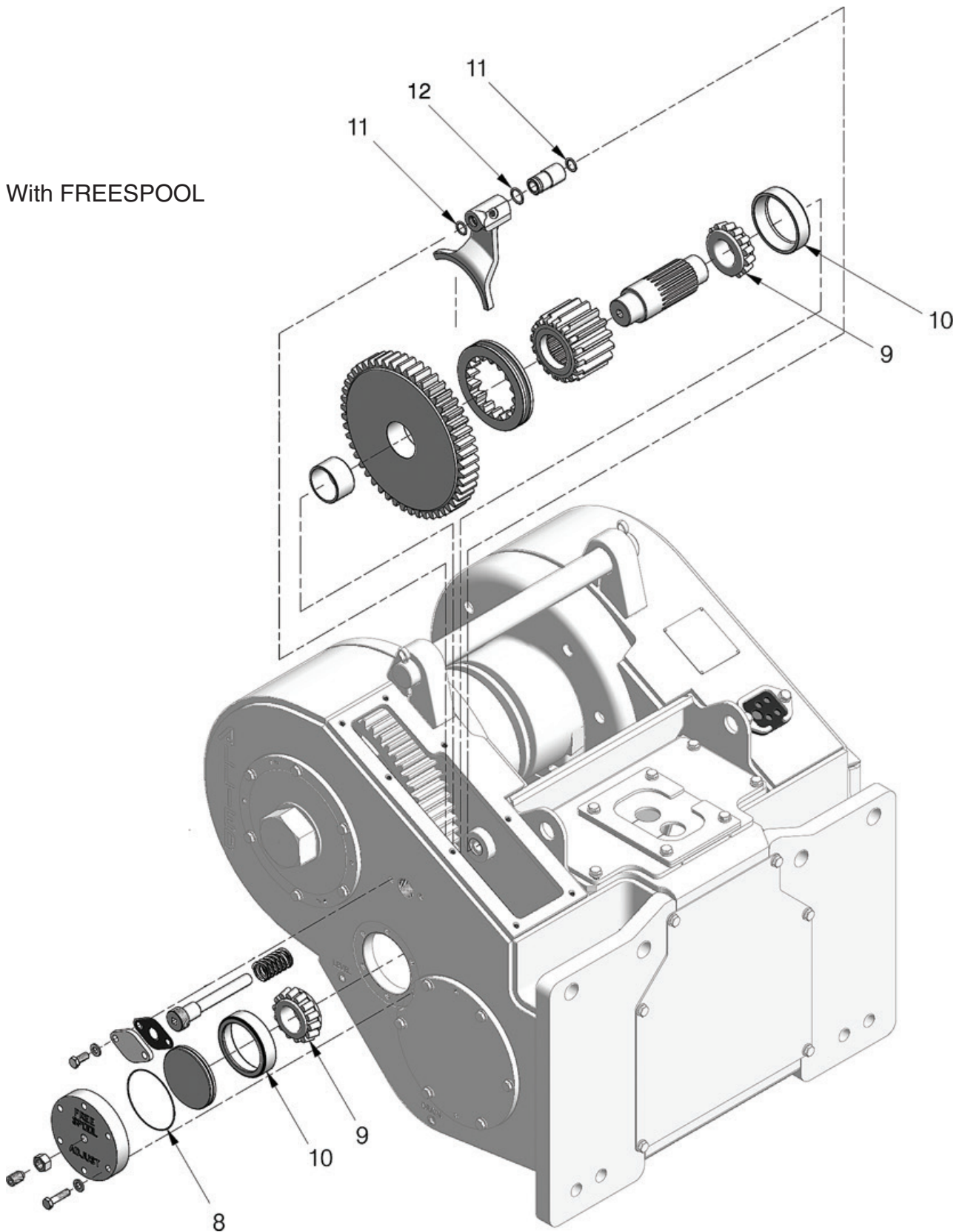
Without FREESPOOL



Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314660

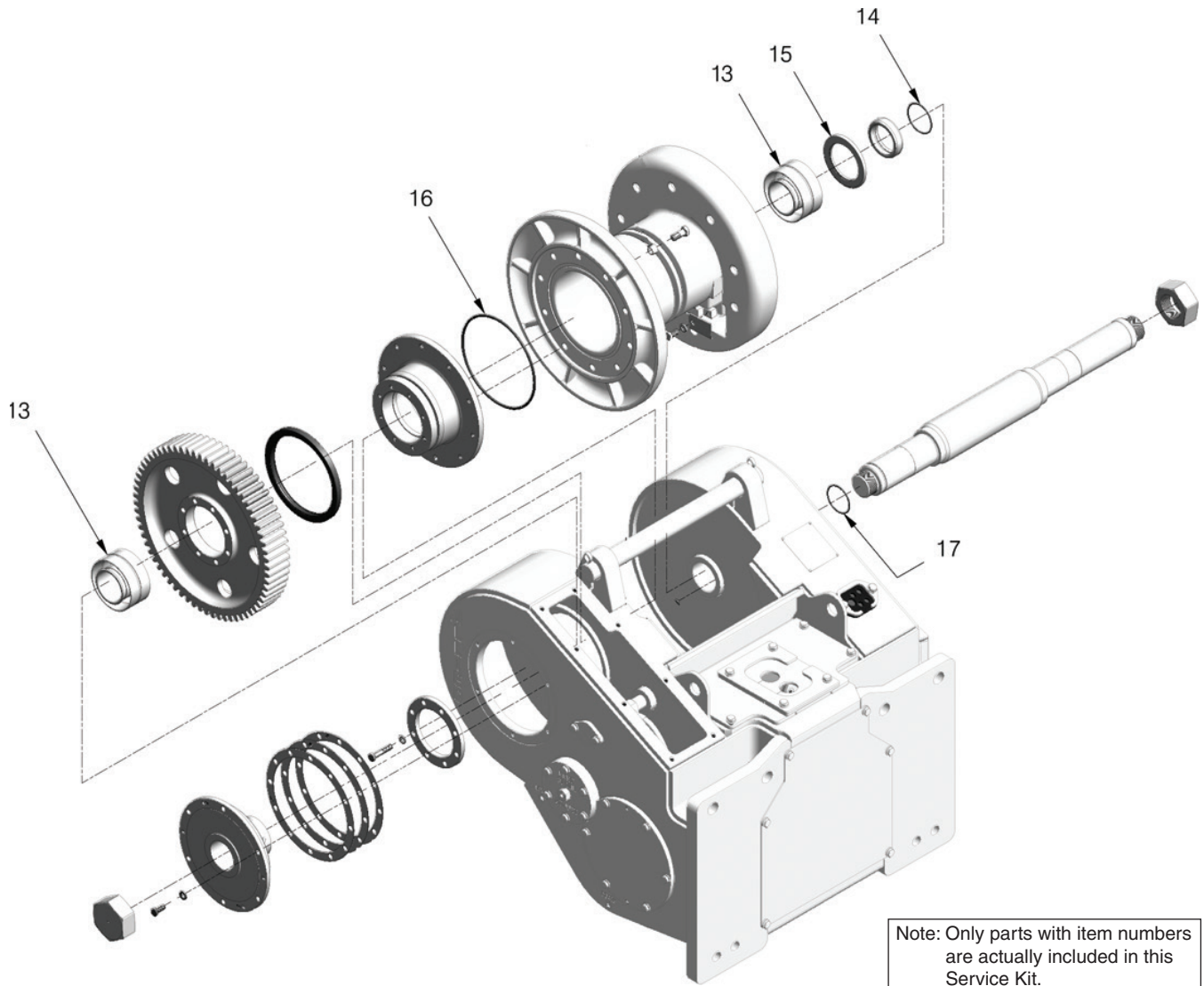
Page 3 of 4

With FREESPOOL



Intermediate/Drum Shaft & Brake Assembly Rebuild Kit: 2314660

Page 4 of 4



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
	2314660		Rebuild Kit, Intermediate/ Drum Shaft & Brake Assy				
1	2312303	1	.Repair Kit, Bearing	10	30059W	2	. Cup, Bearing
2	250850	1	. Repair Kit, Spring	11	15862W	2	. O-Ring
3	250847	1	. Repair Kit, Lining	12	212380	1	. O-Ring
4	2300668W	1	. Cup, Bearing	13	230406W	2	. Bearing, Roller
5	2300669W	1	. Cone, Bearing	14	15881W	1	. O-Ring
6	30059W	2	. Cup, Bearing	15	44547W	1	. Seal, Oil
7	30080W	2	. Cone, Bearing	16	133927W	1	. Ring, Piston Seal
8	159940W	1	. O-Ring	17	90263W	1	. O-Ring
9	2302311W	2	. Cone, Bearing				

Section 6
Recommended Service Parts

H6H Hydraulic Winch Recommended Service Parts

The following pages list some of the service parts and kits that are available for your Allied H6H Winch. Page 108 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 108 and page 108 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 108 also contains a list of wire rope assemblies. Order parts as required and as relevant for your installation.

Page 108 contains a list of spare parts. Order parts or kits as required and as relevant for your installation.

Page 108 contains lists of operator controls components, and hose kits. Order parts or kits as required and as relevant for your installation.

Page 108 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: H6H Standard Winch mounted on Komatsu D65-15 (K46) and D65-16/17 (K49)				
Allied P/N	Description	Qty on Winch	See Parts Manual Page	Order Qty
2312045	Gasket, Top Right-Hand	1	Frames/Covers	
151646W	Gasket, Freespool	1	Frames/Covers	
2312009	Seal, Top	1	Frames/Covers	
2312208	Gasket, Hose Seal	1	Frames/Covers	
252566	Seal Kit, Directional Valve (P/N 2311592)	1	Control Manifold Assembly	
2312111	Seal Kit, Cartridge Valve (P/N 2312073)	2	Control Manifold Assembly	
2312112	Seal Kit, Shuttle Valve (P/N 2312074)	1	Control Manifold Assembly	
243815	Seal Kit, Counterbalance Valve (P/N 2312068)	1	CBR Manifold Assembly	
259258	Seal Kit (Buna), Relief Valve (P/N 2307438W)	2	CBR Manifold Assembly	
Applies to: H6H Standard Winch mounted on Komatsu D61-23 (K471)				
Allied P/N	Description	Qty on Winch	See Parts Manual Page	Order Qty
2312045	Gasket, Top Right-Hand	1	Frames/Covers	
151646W	Gasket, Freespool	1	Frames/Covers	
252566	Seal Kit, Directional Valve	1	Control Manifold Assembly	
2312111	Seal Kit, Cartridge Valve	2	Control Manifold Assembly	
2312112	Seal Kit, Shuttle Valve	1	Control Manifold Assembly	
243815	Seal Kit, Counterbalance Valve (P/N 2307265W)	1	Directional Manifold Assembly	
243815	Seal Kit, Counterbalance Valve (P/N 2312068)	1	CBR Manifold Assembly	
255601	Seal Kit (Viton), Relief Valve (P/N 2307438W)	2	CBR Manifold Assembly	
259258	Seal Kit (Buna), Relief Valve (P/N 2307438W)	2	CBR Manifold Assembly	

Motor, Reducer & Brake Assembly Rebuild Kit, P/N: 2314659**Applies to: All****Service Interval: Every 5,000 Hours**

Allied P/N	Description	Qty in Kit	See Parts Manual Page	Order Qty
2314659	Rebuild Kit, Motor, Reducer & Brake Assy			
203564	. O-Ring	2	Motor Shaft Group	
237349	. O-Ring	1	Motor Shaft Assembly	
313022W	. Adhesive	1	Motor Shaft Assembly	
230064W	. Adhesive	1	Motor Shaft Assembly	
2312302	. Kit, O-Ring	1	Brake, Dry Disc	
2313890	. O-Ring	1	Hydraulic Motor	
2313891	. Kit, Shaft Seal	1	Hydraulic Motor	

Intermediate/Drum Shaft, and Brake Assembly Rebuild Kit, P/N: 2314660**Applies to: All****Service Interval: Every 10,000 hours**

Allied P/N	Description	Qty in Kit	See Parts Manual Page	Order Qty
2314660	Rebuild Kit, Intermed./Drum Shaft, & Brake Assy			
2312303	. Repair Kit, Bearing	1	Brake, Dry Disc	
250850	. Repair Kit, Spring	1	Brake, Dry Disc	
250847	. Repair Kit, Lining	1	Brake, Dry Disc	
2300668W	. Cup, Bearing	1	Motor Shaft Group	
2300669W	. Cone, Bearing	1	Motor Shaft Group	
30059W	. Cup, Bearing	1	Shaft, Intermediate Gear	
30080W	. Cone, Bearing	1	Shaft, Intermediate Gear	
159940W	. O-Ring	1	Shaft, Intermediate Gear	
2302311	. Cone, Bearing	2	Shaft, Intermediate Gear	
30059W	. Cup, Bearing	2	Shaft, Intermediate Gear	
15862W	. O-Ring	2	Shaft, Intermediate Gear	
212380	. O-Ring	1	Shaft, Intermediate Gear	
230406W	. Bearing, Roller	2	Shaft, Drum	
15881W	. O-Ring	1	Shaft, Drum	
44547W	. Seal, Oil	1	Shaft, Drum	
133927W	. Ring, Piston Seal	1	Shaft, Drum	
90263W	. O-Ring	1	Shaft, Drum	

Wire Rope Assemblies				Order as Required
Applies to: All				
Allied P/N	Description	Length	Will Fill Drum To:	Order Qty
WR6-275L	Wire Rope Assembly, 3/4"	275' (84 M)	2/3 Capacity (Recommended)	
WR6-413L	Wire Rope Assembly, 3/4"	413' (126 M)	Full Capacity	
WR7-198L	Wire Rope Assembly, 7/8"	198' (60 M)	2/3 Capacity (Recommended)	
WR7-297L	Wire Rope Assembly, 7/8"	297' (91 M)	Full Capacity	
WR8-154L	Wire Rope Assembly, 1"	154' (47 M)	2/3 Capacity (Recommended)	
WR8-230L	Wire Rope Assembly, 1"	230' (70 M)	Full Capacity	
YS6-275LWS	Wire Rope Assembly, 3/4"	275' (84 M)	2/3 Capacity (Recommended)	
YS6-413LWS	Wire Rope Assembly, 3/4"	413' (126 M)	Full Capacity	
YS7-198LWS	Wire Rope Assembly, 7/8"	198' (60 M)	2/3 Capacity (Recommended)	
YS7-297LWS	Wire Rope Assembly, 7/8"	297' (91 M)	Full Capacity	
YS8-154LWS	Wire Rope Assembly, 1"	154' (47 M)	2/3 Capacity (Recommended)	
YS8-230LWS	Wire Rope Assembly, 1"	230' (70 M)	Full Capacity	

Operator Controls Components			Order as Required
Applies to: All			
Allied P/N	Description	Qty on Winch	Order Qty
2310013	Assembly, Switch (Yellow LED)	1	
2310504	Assembly, Switch (Red LED)	1	
2310506	Assembly, Switch (Red LED), Momentary	1	
2311072	Assembly, Switch (Green LED)	1	

Spare Parts				Order as Required	
Applies to: See "Relevant for Installation" Column					
Allied P/N	Description	Qty on Winch	Relevant for Installation	See Parts Manual Page	Order Qty
2316125 *a 2313780 *b	Motor, Hydraulic	1	Komatsu D65-15 (H6HT6U**K46)	Motor Shaft Group	
2316120 *a 2313028 *b	Motor, Hydraulic	1	Komatsu D61-23/24 (H6HT2B**K471)	Motor Shaft Group	
2316119 *a 2311815 *b	Motor, Hydraulic	1	Komatsu D65-16 & D65-17 (H6HT1B**K49)	Motor Shaft Group	
2311883	Assembly, Reducer	1	Komatsu D65-16/-17 (H6HT1B**K49); Komatsu D61-23 (H6HT2B**K471)	Motor Shaft Assembly	
2312965	Assembly, Reducer	1	Komatsu D61-23 (H6HH4B**K471)	Motor Shaft Assembly	
2312554	Assembly, Reducer	1	Komatsu D65-15 (H6HT6U**K46)	Motor Shaft Assembly	
2312155	Assembly, Brake	1	All	Motor Shaft Assembly	
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	
2301783W	Keeper, Ferrule	1	All	Shaft, Drum	
328715W	Disc, Friction	7	All	Clutch Assembly	
283434W	Assembly, Gear	1	All	Shaft, Intermediate Gear	
2570W	Bushing	6	All	Fairlead, 3-Roller	
2570W	Bushing	8	All	Fairlead, 4-Roller	

*a First used with S/N1714

*b Last used with S/N1713

Hose Kits				Order as Required
Applies to: See "Relevant for Installation" Column				
Allied P/N	Description	Qty on Winch	Relevant for Installation	Order Qty
2314771	Hose Kit, Winch Hydraulics	1	Komatsu D61-23 (K471), Standard	
2314772	Hose Kit, Winch Hydraulics	1	Komatsu D61-23 (K471), Hi-Performance Winch Hoses Only	
2314773	Hose Kit, Winch Hydraulics	1	Komatsu D61-23 (K471), Hi-Performance Dozer Hoses Only	
2314774	Hose Kit, Winch Hydraulics	1	Komatsu D65-16/17 (K49), Standard	
2315052	Hose Kit, Winch Hydraulics	1	Komatsu D61-23 (K471) Non-FS, Standard	

Tool Kits

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

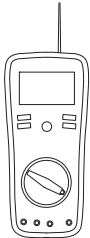
Allied P/N	Description	Order Qty
588466	Socket Set, 3/8DR 3/8" to 7/8" STD/Deep, 22 PC	
588467	Socket Set, 1/2DR 3/8" to 1-1/4" STD/Deep, 30 PC	
588468	Socket Set, 3/4DR 7/8" to 2-3/8" STD, 29 PC	
588469	Wrench Set, 5/16" to 2-1/2", 31 PC	
588527	Hex Key Sets, .025" to 5/8", 18 PC	
588530	Socket Sets, 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

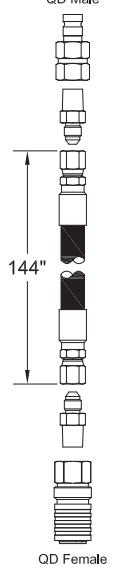
Order these tools as required for maintenance and service of your winch(es).

Allied P/N	Description	Order Qty
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

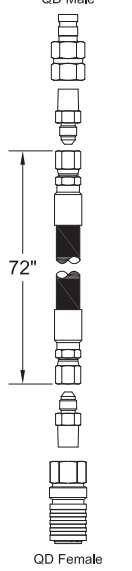


QD Male

144"

QD Female

70381
Kit, Hose Assembly, W/QD Both Ends

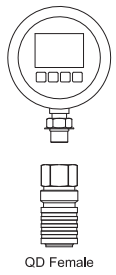


QD Male

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

Section 7
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2312353	47	1.14	2312580	101	16	2313029	60	4.5
2312353	49	2.28	2312628	15	14.4	2313029	68	4.5
2312353	51	4.17	2312628	39	1.16.22	2313029	72	4.5
2312353	52	3.1	2312628	41	1.26	2313032	15	14.1
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2312355	43	2.11	2312675	17	1.45	2313043	86	
2312355	44	3.11	2312816	39	1.1	2313045	60	2.8
2312355	52	3.11	2312816	47	2.1	2313045	64	2.5
2312356	42	1.17.13	2312816	51	4.1	2313046	60	4.2
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2312357	41	1.4	2312878	39	1.16.16	2313047	72	4.1
2312357	47	2.4	2312878	47	1.16	2313111	64	2.3
2312357	49	2.4	2312878	60	2.21	2313112	64	2.4
2312357	51	4.3	2312878	64	1.16	2313115	64	4.7
2312358	39	1.12	2312878	68	1.16	2313116	74	1.12
2312358	41	1.12	2312908	39	1.13	2313116	79	
2312358	47	2.12	2312908	41	1.13	2313117	74	1.13
2312358	49	2.12	2312908	47	2.13	2313136	94	1
2312358	51	4.8	2312908	49	2.13	2313140	64	2.8
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2312437	100	17	2312928	23	4	2313155	64	2.1
2312442	30	6	2312928	25	4	2313157	64	4.1
2312485	42	1.17.1	2312928	30		2313159	64	4.5
2312485	43	2.1	2312940	87	1	2313160	64	4.6
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2313639	72	3.31	2314269	78	24	2315544	101	1.1
2313719	39	1.15	2314272	78	2	2315544	101	8.1
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2313890	23		2314286	78	12	2315546	99	2
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2313891	27		2314294	78	16	2315555	99	7
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2313943	92	1	2314297	78	18	2315558	18	1.22
2313944	92		2314298	78	19	2315558	54	1.22
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2313991	75	3.4	2314338	78	62	2316119	25	2
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2314225	16	1.22	2314690	51		2316489	72	3.8
2314230	78	34	2314690	60	2.13	2316491	21	7
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2314242	68	3.3	2314692	41	1.1	2316714	41	1.15
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