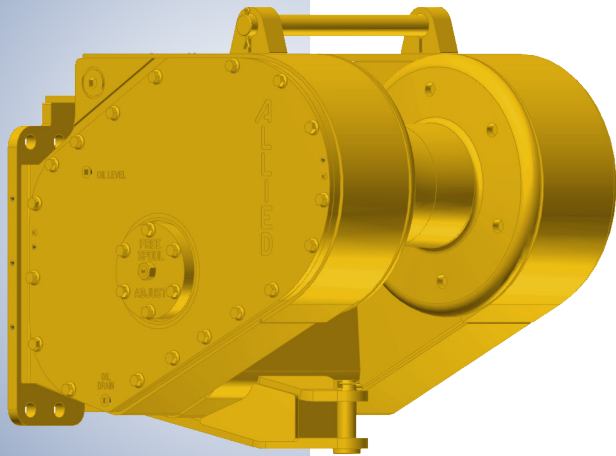




Parts Manual



Allied H5C Hydraulic Winch for Case Dozers

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

Customer Edition

A PRODUCT OF
Allied Systems
COMPANY

SHERWOOD, OREGON USA

P/N 599029W-CASE

Printed in U.S.A. 11/2019

Safety Precautions

**Read, understand and observe the Safety Summary
on pages 1 through 3
to prevent injury to personnel and damage to equipment.**

Winch serial number _____

Date put into service _____

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

Index

H5C Winch Parts for Case Dozers

Safety Summary	1
Unit Identification	4
Using this Manual	5
Oil Specifications	6
Ordering Parts	7
Nameplate & Decals	8
Section 1 Frame/Covers/Mounting Parts	9
Section 2 Gear/Shaft Train	15
Section 3 Hydraulics/Electrical/Controls	21
Section 4 Optional Equipment	34
Section 5 Recommended Service Parts	38
Numerical Index	45

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

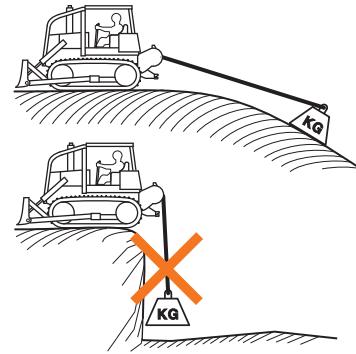
- Stay in the operator’s seat when operating the winch.
- Do not stand on the vehicle when operating the winch.
- Avoid winch operation near people or other machines.
- Never stand nor permit others to stand in the bight (loop) of a wire rope.

- 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 tractor 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 tractor and winch. Manual override of high temperature shut-off will cause damage to tractor and winch.
- This winch is neither intended, designed, nor rated for any application involved in the lifting or moving of personnel.
- Do not use the winch as an anchor for a double or two-part line.
- Do not pull the hook through the throat or over the drum, which will cause damage.
- When the winch is not in use, make sure the control lever is in **BRAKE-ON** position and the winch brake is applied.
- Do not use winch as a hoist. Tractor and skidder mounted winches are designed for towing.



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 tractor with the load to prevent side loading the winch, and to maintain even spooling of the wire rope.
- If applying tension to the wire rope manually during spooling:
 - ... ensure that the operator is winching in slowly,
 - ... keep your hands and clothing well clear of any rollers or the winch drum,
 - ... do not maintain tension by letting the wire rope to slip through your hands,
 - ... use a hand-over-hand technique to maintain tension.
- 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.

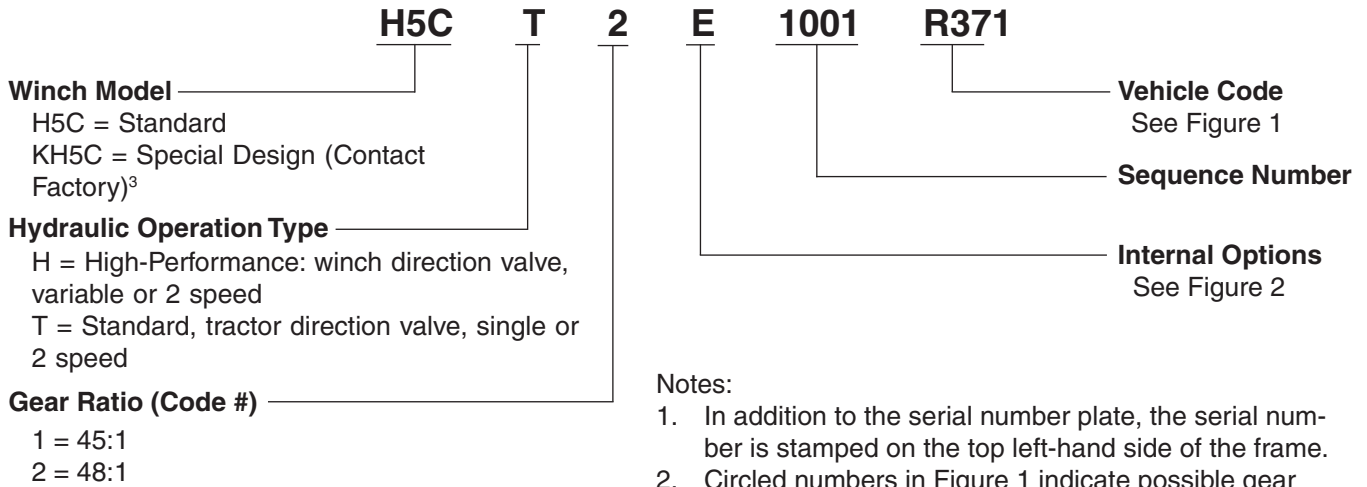


Maintenance Warnings

- 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 6.

Unit Identification

Allied Winch Serial Number Nameplate Data For Dozer Mountings



Notes:

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

C O D E	R Case
371	1150M ① ②
42	1650M ① ②

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

Circled numbers in Figure 1 indicate possible gear ratios.

	D	E	U
FREESPOOL	X	X	X
EXTERNAL PUMP	X	X	X
PFR	X	X	X
OVERWIND	X	X	
UNDERWIND			X
SINGLE SPEED		X	X
2 SPEED	X		
BRAKE-OFF (HI-P)		X	X

Figure 2, Internal Options

Using this Manual

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

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

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

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

When the part number is known:

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

General:

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

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

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

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

Serial numbers are shown to allow for the most current parts information to be incorporated into the parts manual. See page 4 for serial number information.

Abbreviations

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

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

Figure 3, Abbreviations

Oil Specifications

Oil Selection

For winches using tractor-supplied hydraulics for winch operation, use the dozer manufacturer's specified fluids. For gear oil, use the oils specified listed here. The winch gear housing factory fill is Mobil 424, which has an ISO Viscosity Grade 46 to 68.

The hydraulic circuit and winch gear housing have different fluids.

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

	Hydraulic System (Pump)	Winch Case (Gear Train)
Chevron	Use Tractor Fluid	Drive Train Fluids HD
Exxon-Mobil	Use Tractor Fluid	Mobil Trans HD Series

Figure 5, Recommended Oil List

Oil Capacity

The oil capacity for H5C winch case (gear train) is 17 quarts (16 liters).

Ordering Parts

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

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

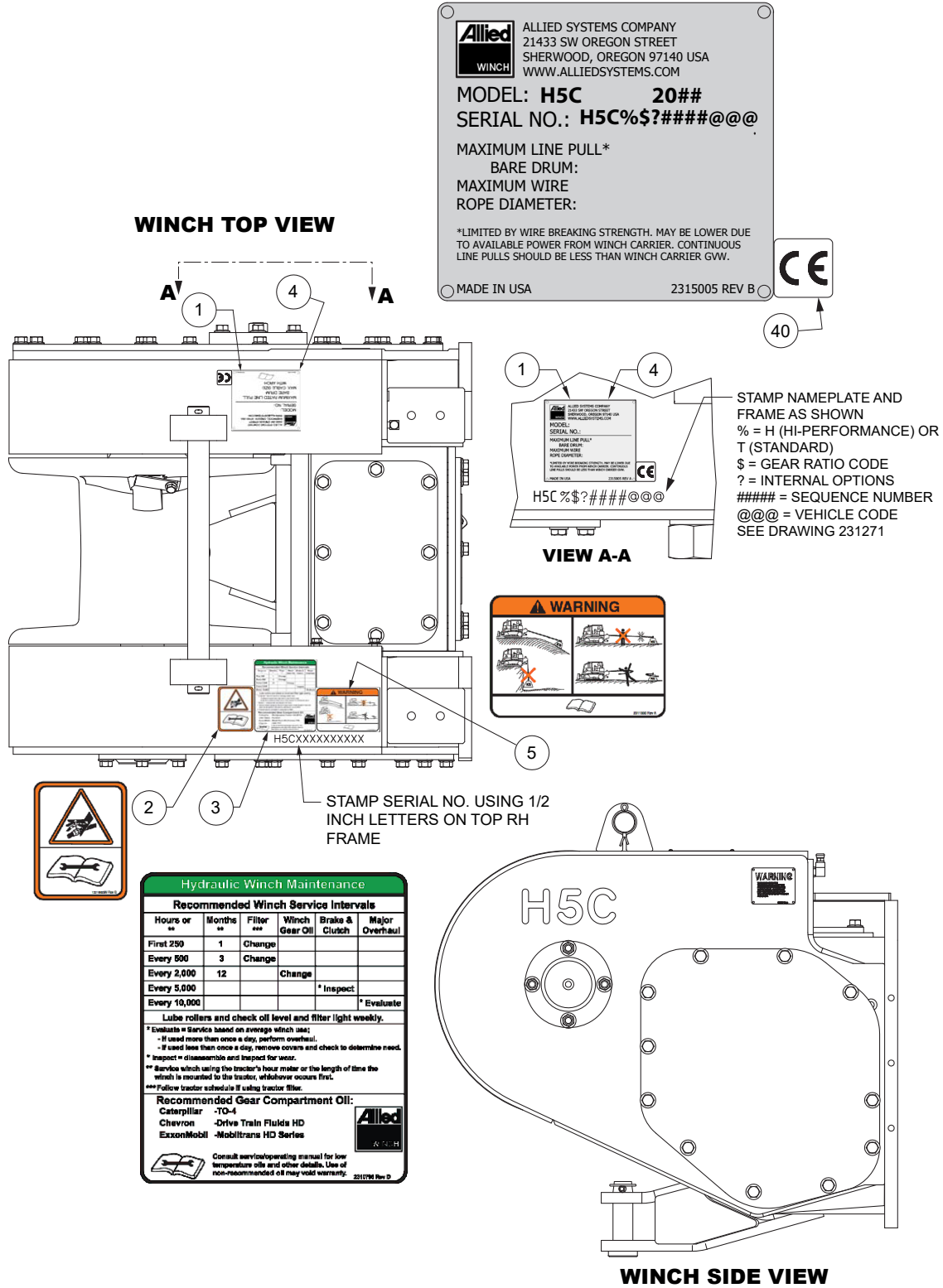
Allied Systems Company
21433 SW Oregon Street
Sherwood, OR 97140 U.S.A.

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

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



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

MODEL: **H5C** 20##
 SERIAL NO.: **H5C%\$?####@@@**

MAXIMUM LINE PULL*
 BARE DRUM:
 MAXIMUM WIRE
 ROPE DIAMETER:

*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 B **CE**

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

STAMP SERIAL NO. USING 1/2 INCH LETTERS ON TOP RH FRAME

WINCH SIDE VIEW

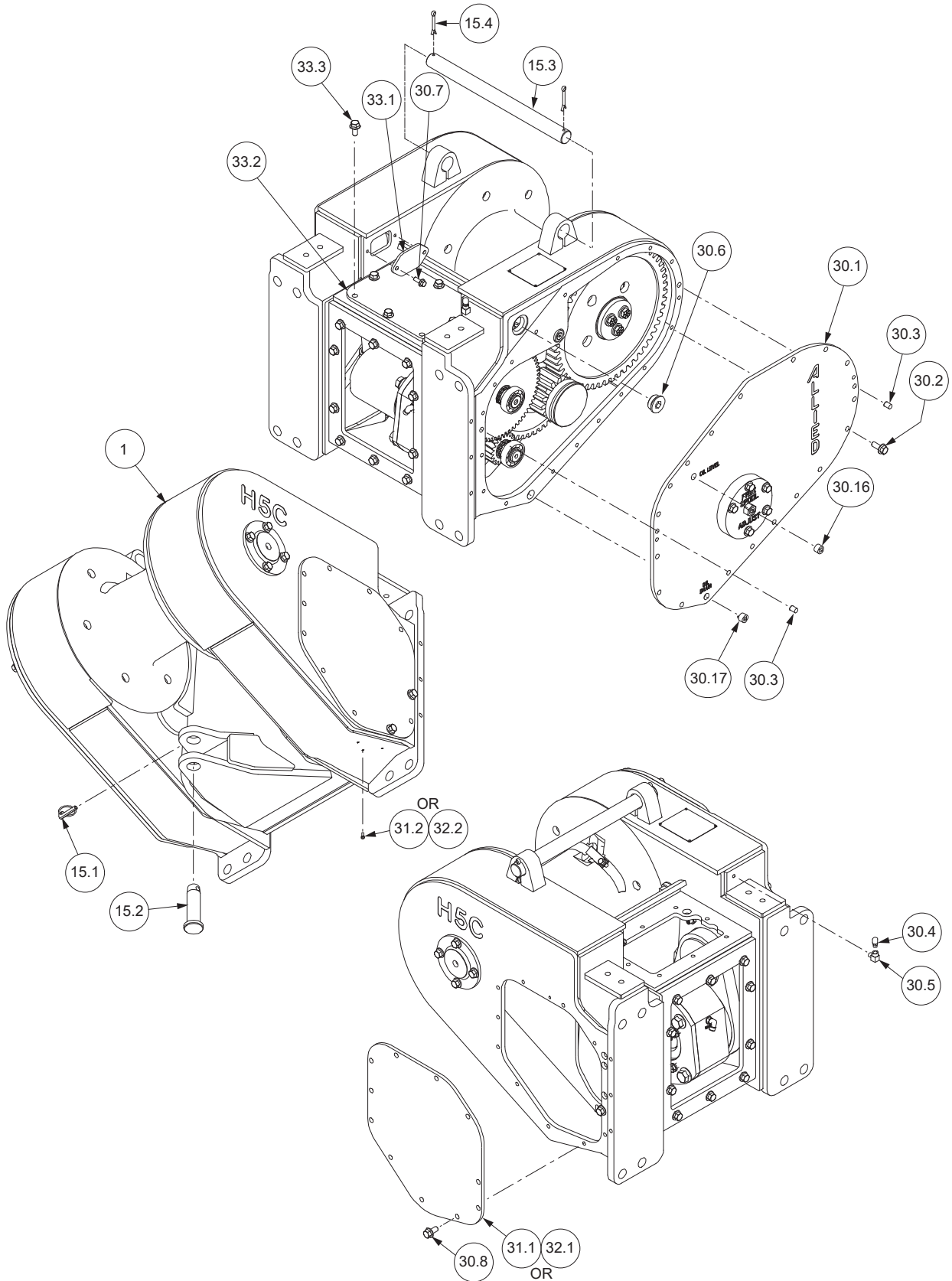
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	*	-----	1 Nameplate	5	2311330	1	Decal, Load & Wire Rope
2	1321665W	2	Decal, Warning	40	2311557	AR	Label, CE Mark
3	2311329	1	Decal, Maintenance				
4	16602W	4	Screw	*	Contact Factory		

Section 1
Frames/Covers/Mounting Parts

Frame and Covers

Case 1650M (H5CT2D**R42) & Case 1150M (H5CT2E**R371, H5CT2D**R371)

Page 1 of 2



Frame and Covers

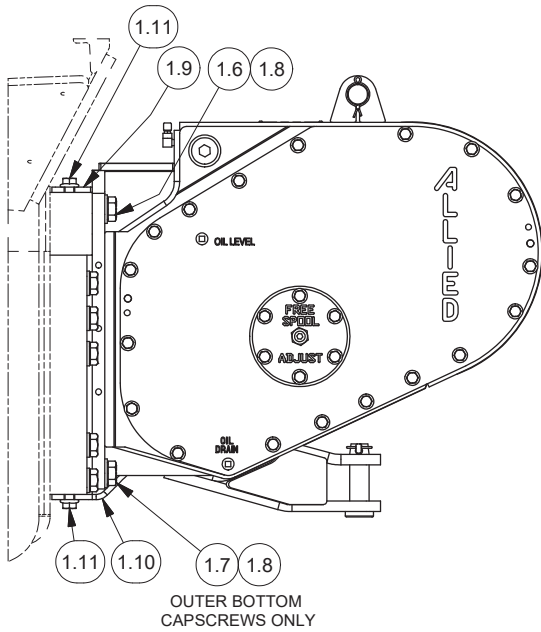
Case 1650M (H5CT2D**R42) & Case 1150M (H5CT2E**R371, H5CT2D**R371)

Page 2 of 2

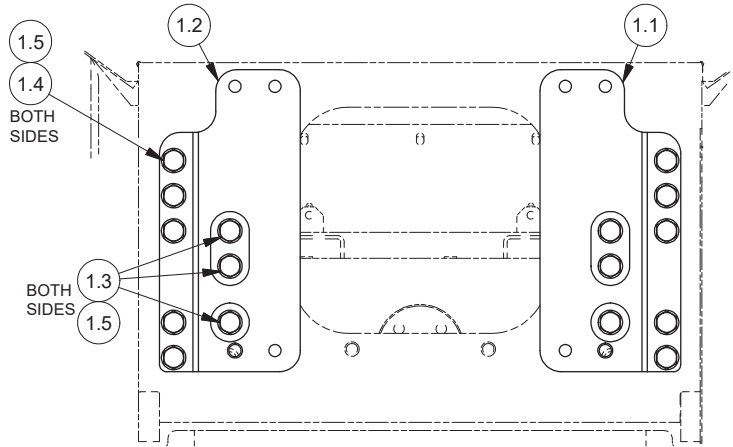
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2306189W	1	Frame	30.9	264159W	1	Adhesive
15.1	2303221W	1	Pin, Retaining	30.12	16243W	1	Screw
15.2	1314656W	1	Pin, Drawbar	30.16	15315W	1	Fitting
15.3	93927W	1	Rod, Tie	30.17	15290W	1	Fitting
15.4	15256W	2	Cotter Pin	31.1	2307097W	1	Cover, RH
30.1	2306570W	1	Cover, LH	31.2	16243W	1	Screw
30.2	2303848W	18	Screw, Flange	32.2	16243W	3	Screw
30.3	176208W	2	Pin	33.1	2307342W	1	Cover, Inner, RH
30.4	2304101W	1	Breather	33.2	2302513W	1	Cover, Top
30.5	16151W	1	Fitting	33.3	398817W	4	Screw, Flange
30.6	188210W	1	Fitting	33.4	16243W	1	Screw
30.7	398567W	2	Screw, Flange				
30.8	398817W	15	Screw, Flange				

Mounting Parts

Case 1150M (H5CT2E**R371, H5CT2D**R371)



WINCH INSTALLATION
LEFT VIEW

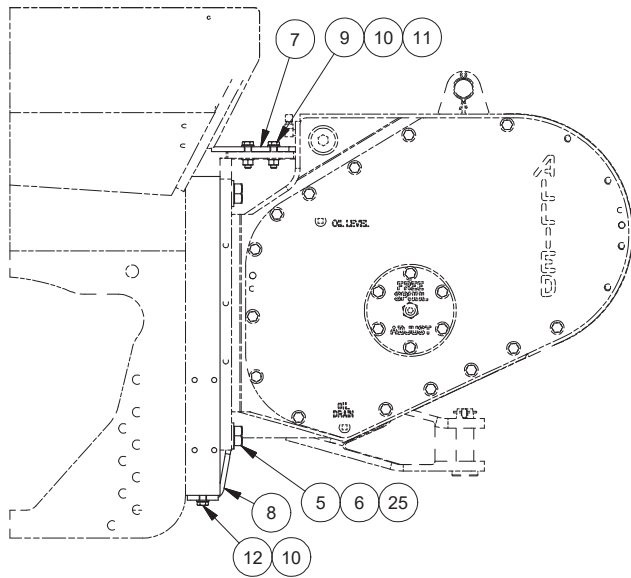


MOUNTING BRACKET INSTALLATION
REAR VIEW

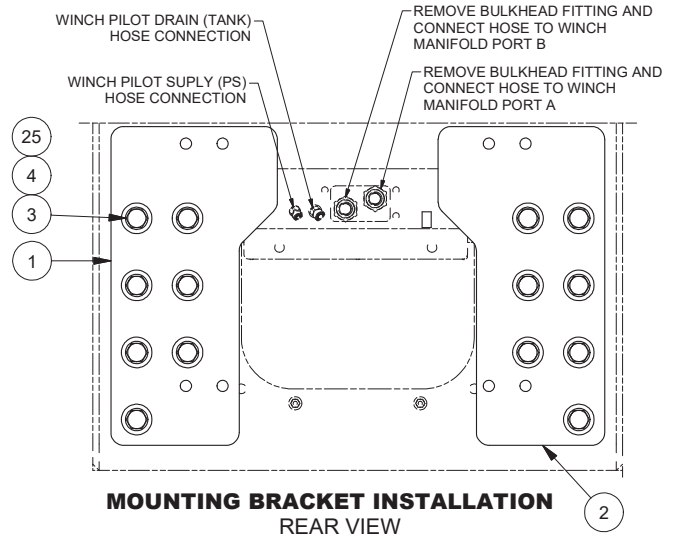
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2314371	1	Mounting Bracket, RH	1.7	221698W	2	Capscrew
1.2	2314372	1	Mounting Bracket, LH	1.8	221780W	8	Washer
1.3	293731W	6	Capscrew	1.9	2314368	1	Guard, Top
1.4	Y19C-M24130	10	Capscrew	1.10	2314367	1	Guard, Bottom
1.5	296434W	16	Washer	1.11	2303904W	4	Screw, Flg
1.6	221690W	6	Capscrew				

Mounting Parts

Case 1650M (H5CT2D**R42)



WINCH INSTALLATION
LEFT VIEW



MOUNTING BRACKET INSTALLATION
REAR VIEW

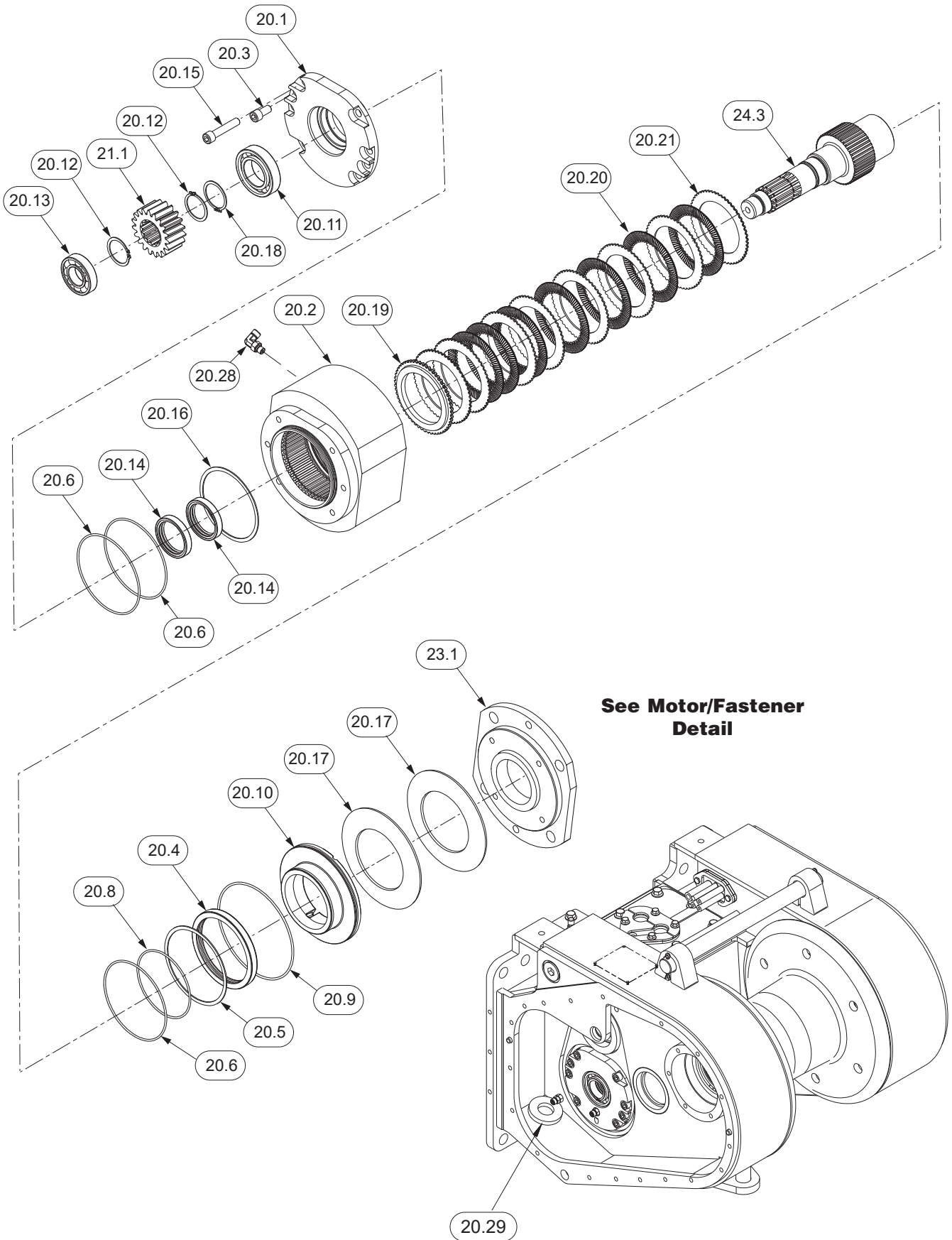
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2314992	1	Bracket, Mounting, LH	9	248986	4	Capscrew
2	2314991	1	Bracket, Mounting, RH	10	296422W	10	Washer
3	*a 293729W	14	Capscrew	11	292656W	4	Nut
4	296434W	14	Washer	12	293646W	2	Capscrew
5	*a 221690W	8	Capscrew	25	*b 318702W	A/R	Threadlock
6	221780W	8	Washer	27	*b 2314046	1	Wrench, Torque Extension
7	2314989	1	Guard, Top				
8	2314990	1	Guard, Bottom				
				*a	Use 318702W Threadlock		
				*b	Not Shown		

Intentionally Blank

Section 2
Gear/Shaft Train

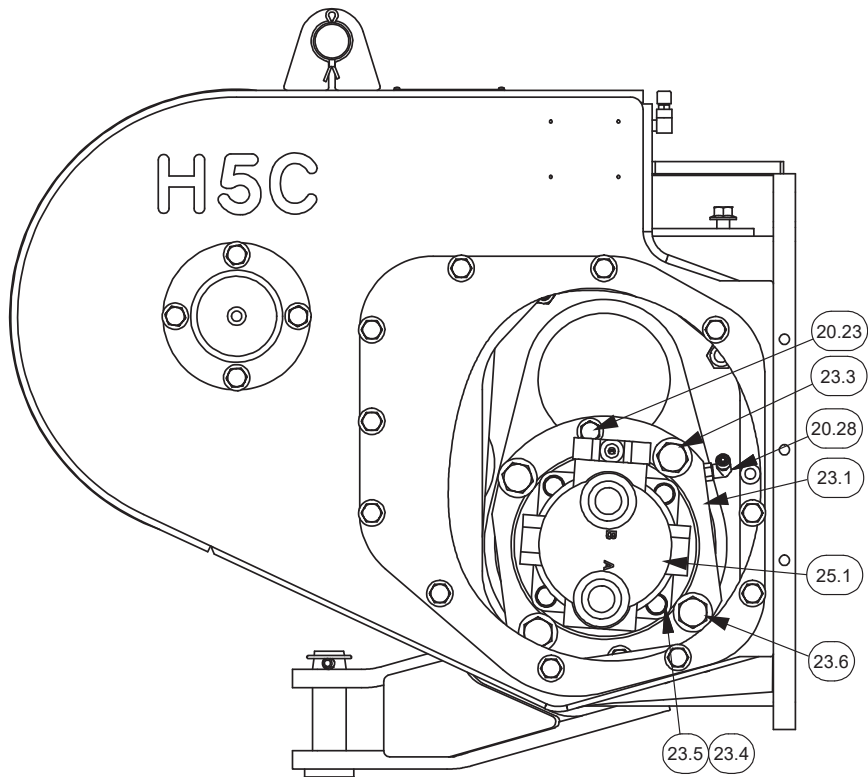
Motor Shaft Assembly

Page 1 of 2



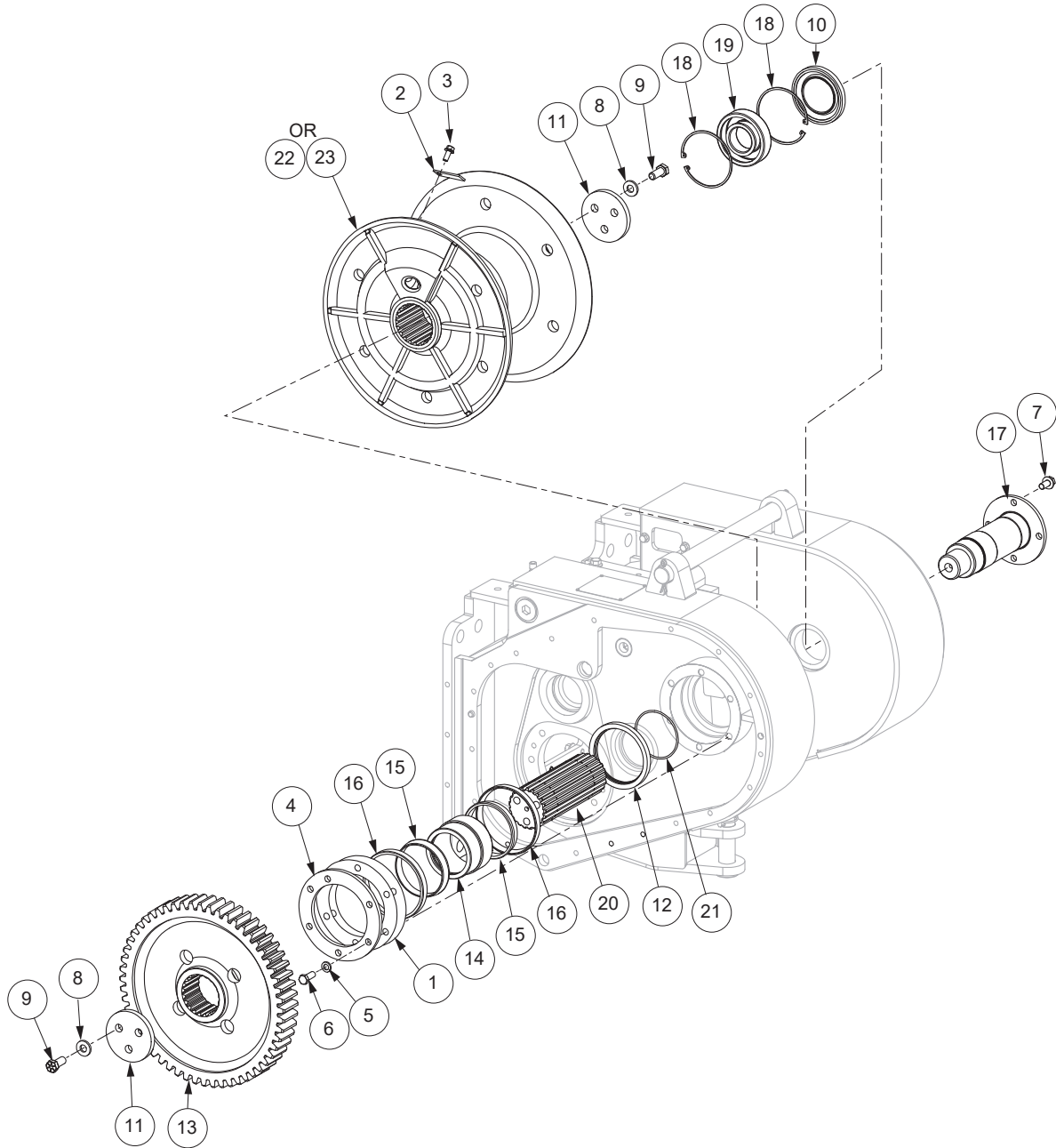
Motor Shaft Assembly

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
20.1	2314062	1	Brake Mounting	20.19	334442W	1	Plate, Pressure
20.2	2306078W	1	Housing, Brake	20.20	2306198W	7	Disc, Friction
20.3	Y73G-0816	2	Capscrew	20.21	2304874W	8	Plate, Separator
20.4	2306599W	1	Sleeve	20.23	398820W	2	Screw
20.5	2306604W	1	Snap Ring	20.25	NS 313022W	A/R	Adhesive (for 20.23)
20.6	89776W	3	O-Ring	20.28	R833251	1	Fitting
20.8	86596W	1	O-Ring	20.29	R525293	1	Magnet, Ceramic
20.9	87287W	1	O-Ring	21.1	2311411	1	Gear, 24T
20.10	2306077W	1	Piston, Brake	23.1	2306214W	1	Plate, Mounting, Motor
20.11	41210W	1	Bearing, Ball	23.3	398828W	2	Screw
20.12	12916W	2	Snap Ring	23.4	15158W	4	Lockwasher
20.13	41207W	1	Bearing, Ball	23.5	18588W	4	Capscrew
20.14	2306073W	2	Seal	23.6	917373W	2	Capscrew
20.15	Y73G-0840	6	Capscrew	24.3	2306494W	1	Shaft, Motor
20.16	334475W	1	Snap Ring, Internal	25.1	2306938W	1	Motor, Hydraulic 2 Speed (See p. 31)
20.17	219084W	2	Spring				
20.18	12944W	1	Snap Ring	NS	Not Shown		



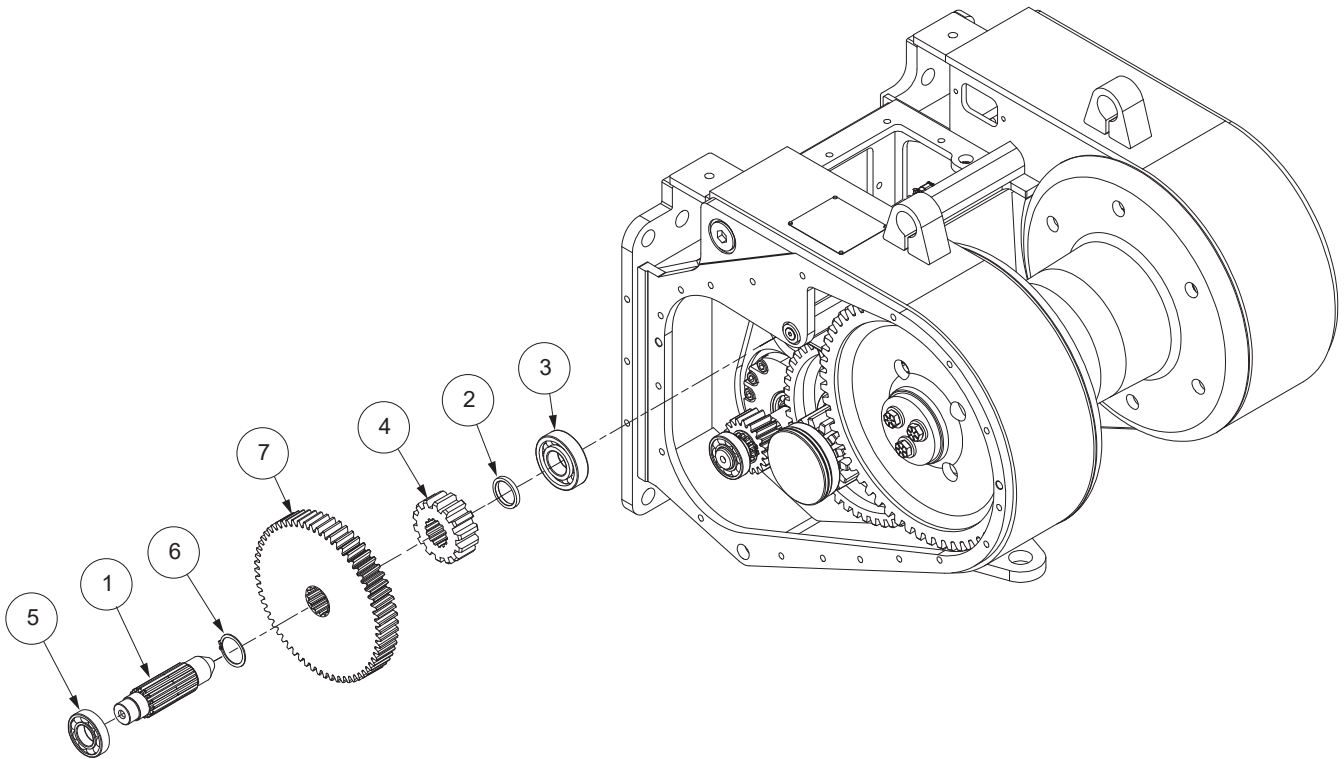
Motor/Fastener Detail

Drum Shaft



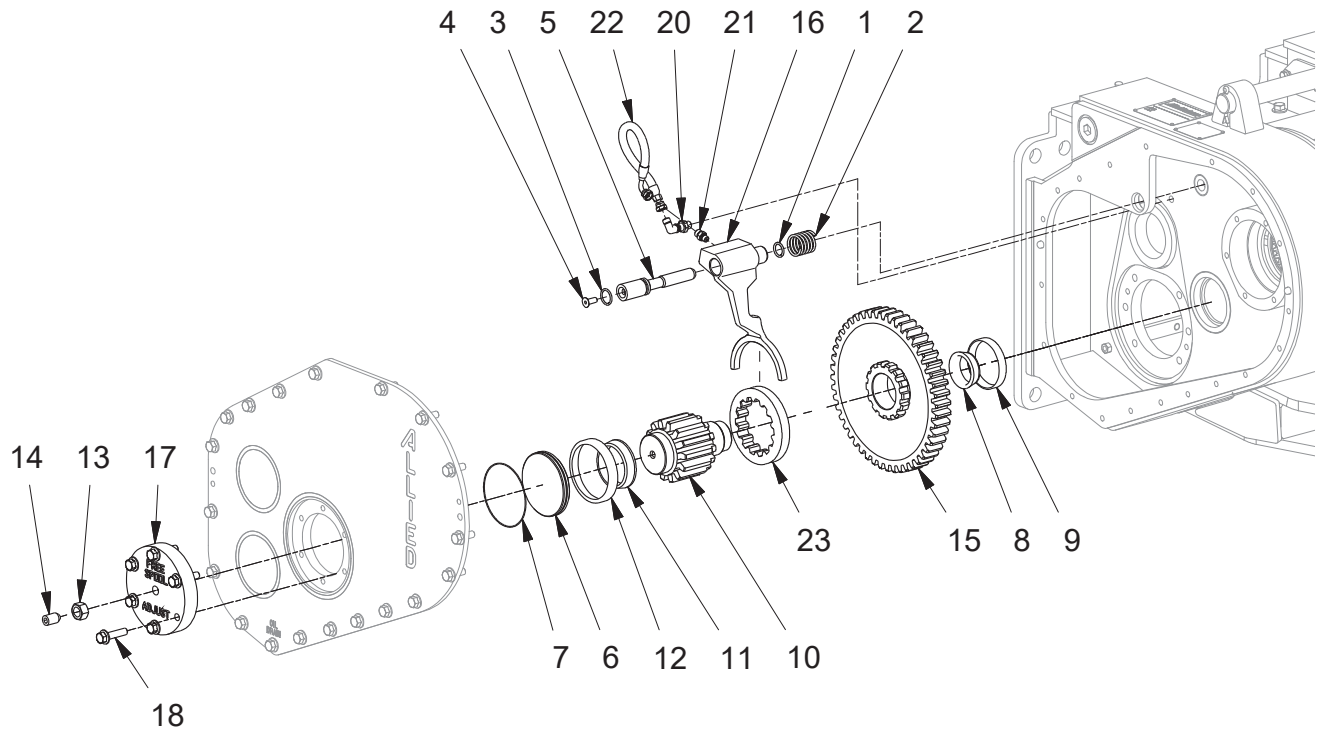
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2303257W	AR	Shim, .005	14	2302335W	1	Spacer
2	1314503W	1	Keeper, Ferrule	15	219093W	2	Cone, Roller Bearing
3	1300780W	1	Screw, Flange	16	219094W	2	Cup, Roller Bearing
4	2303256W	1	Retainer	17	2302379W	1	Shaft, Drum
5	15158W	6	Washer	18	12956W	2	Ring, Snap
6	16830W	6	Capscrew	19	219095W	1	Bearing, Roller
7	2303902W	4	Screw, Flange	20	2302334W	1	Shaft, Drum
8	221775W	6	Washer	21	203533	1	O-Ring
9	Y17C-1024	6	Capscrew	22	2302338W	1	Drum, Overwind
10	133523W	1	Seal, Oil				
11	*a 2302336W	2	Retainer	*a	Use 313022W Adhesive		
12	339681W	1	Seal, Oil				
13	2302333W	1	Gear, Drum				

Shaft, Idler



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	2307282W	1	Shaft, Idler	6	12916W	1	Ring, Snap
2	2300842W	1	Spacer	7	2306229W	1	Gear, 62T (Ratio #1 Only)
3	2304580W	1	Bearing, Cylinder Roller	*a	2311412	1	Gear, 84T (Ratio #2 Only)
4	219066W	1	Gear, Pinion				
5	41207W	1	Bearing, Ball	*a	First Used on S/N H5C*****1024		

Intermediate Gear Shaft With Freespool



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	61142W	1	O-Ring	13	221717W	1	Nut
2	2303906W	1	Spring, Freespool	14	2304803W	1	Screw
3	61056W	1	O-Ring	15	225050W	1	Assy, Intermediate Gear
4	Y09G-0616	1	Capscrew	16	2303908W	1	Fork, Freespool Shifter
5	2303907W	1	Shaft, Freespool	17	2302625W	1	Housing, Freespool Adjust
6	2302624W	1	Piston, Freespool Adjust	18	2305415W	6	Screw, Flange
7	159940W	1	O-Ring	20	2307081W	1	Fitting
8	2305923W	1	Cone, Roller Bearing	21	231439	1	Fitting
9	45733W	1	Cup, Roller Bearing	22	*a 2307037W	1	Assy, Hose
10	2305915W	1	Shaft, Pinion	23	224108W	1	Clutch, Dental
11	219114W	1	Cone, Roller Bearing				
12	2302515W	1	Cup, Roller Bearing				

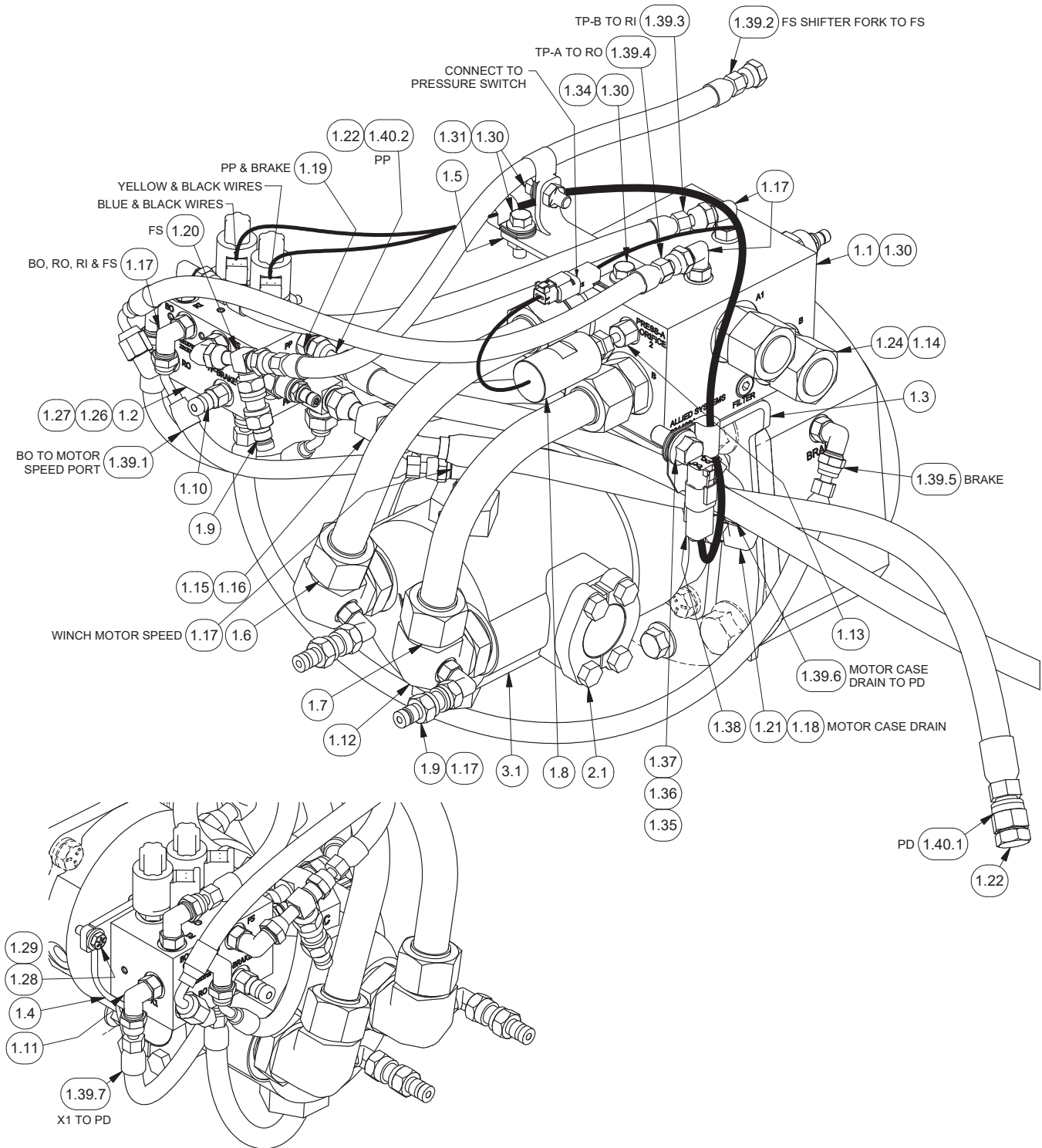
*a Use 313022W Adhesive

Section 3
Hydraulics/Electrical/Controls

Internal Hydraulic Group

Case 1150M (H5CT2D**R371)

Page 1 of 2



Internal Hydraulic Group

Case 1150M (H5CT2D**R371)

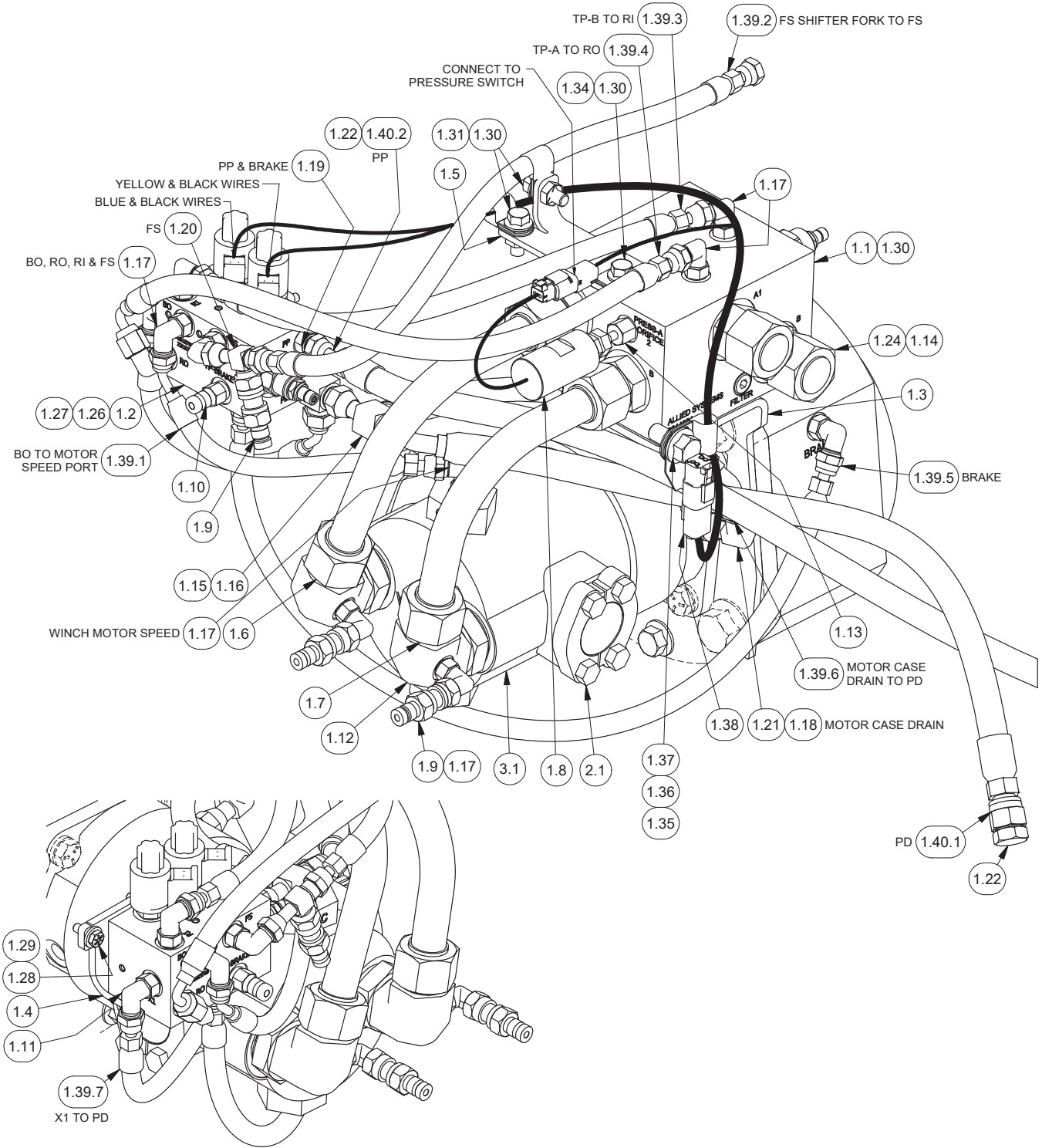
Page 2 of 2

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2314984	1	Counterbalance Manifold Assy (See p. 27)	1.24	296420W	2	Washer
1.2	2313758	1	Control Manifold Assy (See p. 32)	1.25	224120W	2	Capscrew
1.3	2314983	1	Bracket, Manifold	1.26	221763W	2	Washer
1.4	2313443	1	Bracket, Manifold	1.27	398567W	5	Screw, Flange
1.5	2316646	1	Bracket, Support, Hose	1.28	209579	2	Clip, Insul
1.6	2312197	1	Tube Assembly, Motor A	1.32	2311550	1	Clip, Harness Mounting
1.7	2314986	1	Tube Assembly, Motor B	1.33	2313663	1	Clip, Harness, Mounting
1.8	2307291W	1	Switch	1.34	R13807642	1	Clip, Insul
1.9	2307625W	3	Fitting	1.35	398817W	1	Screw, Flange
1.10	R14040	1	Coupler, Male	1.36	2315003	1	Harness, Wire, Winch
1.11	2311500	1	Fitting Assembly	1.37	232960	1	Fitting
1.12	2307123W	2	Fitting	1.38	R834201	1	Fitting
1.13	2304147W	1	Fitting	1.39	2306151W	1	Label, T
1.14	231444	4	Fitting	1.40	2306152W	1	Label, PS
1.15	231465	1	Fitting	1.41	2314995	1	Kit, Hose
1.16	231955	1	Fitting	1.41.1	2313639	1	. Hose Assembly
1.17	R833251	9	Fitting	1.41.2	257331	1	. Hose Assembly
1.18	231440	1	Fitting	1.41.3	2314278	1	. Hose Assembly
1.19	231439	2	Fitting	1.41.4	242260	1	. Hose Assembly
1.20	236855	1	Fitting	1.41.5	243178	1	. Hose Assembly
1.21	R833801	1	Fitting	1.41.6	2312695	1	. Hose Assembly
1.22	231820	2	Fitting	1.41.7	2314993	1	. Hose Assembly
	232383	1	. O-Ring	1.41.8	2314994	1	. Hose Assembly
1.23	293628W	2	Capscrew	1.41.9	2313389	1	. Hose Assembly
				1.42	229383	3	Fitting
				2.1	11740	1	Kit, Split Flange
				3.1	2306938W	1	Motor, Hydraulic 2-Speed

Internal Hydraulic Group

Case 1150M (H5CT2E**R371)

Page 1 of 2



Internal Hydraulic Group

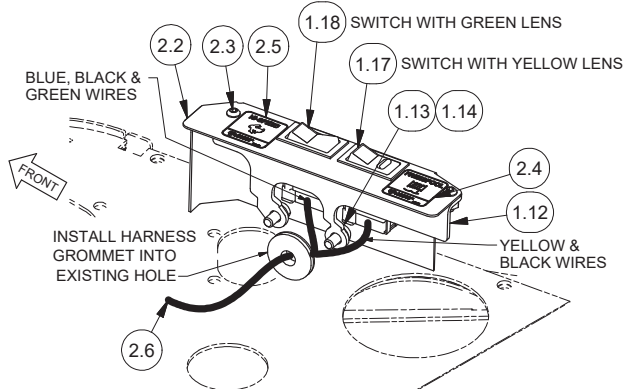
Case 1150M (H5CT2E**R371)

Page 2 of 2

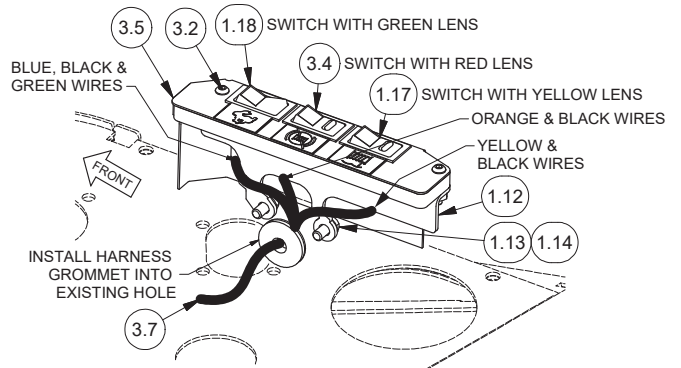
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2314984	1	Counterbalance Manifold Assy (See p. 27)	1.25	229383	3	Fitting
				1.26	293628W	2	Capscrew
1.2	2313758	1	Control Manifold Assy (See p. 32)	1.27	296420W	2	Washer
				1.28	224120W	2	Capscrew
1.3	2314983	1	Bracket, Manifold	1.29	221763W	2	Washer
1.4	2313443	1	Bracket, Manifold	1.30	398567W	5	Screw, Flange
1.5	2316646	1	Bracket, Support, Hose	1.31	209579	2	Clip, Insul
1.6	2312197	1	Tube Assembly, Motor A	1.34	2311550	1	Harness Mounting Clip
1.7	2314986	1	Tube Assembly, Motor B	1.35	2313663	1	Harness Mounting Clip
1.8	2307291W	1	Switch	1.36	R13807642	1	Clip, Insul
1.9	2307625W	3	Fitting	1.37	398817W	1	Screw, Flange
1.10	R14040	1	Coupler, Male	1.38	2315003	1	Wire Harness, Winch
1.11	2311500	1	Fitting Assembly	1.39	2315012	1	Kit, Hose
1.12	2307123W	2	Fitting	1.39.1	2313639	1	. Hose Assembly
1.13	2304147W	1	Fitting	1.39.2	257331	1	. Hose Assembly
1.14	231444	4	Fitting	1.39.3	2315374	1	. Hose Assembly
1.15	231465	1	Fitting	1.39.4	2315375	1	. Hose Assembly
1.16	231955	1	Fitting	1.39.5	243178	1	. Hose Assembly
1.17	R833251	9	Fitting	1.39.6	2312695	1	. Hose Assembly
1.18	231440	1	Fitting	1.39.7	2314993	1	. Hose Assembly
1.19	231439	2	Fitting	1.40	2315383	1	Kit, Hose
1.20	236855	1	Fitting	1.40.1	2315124	1	. Hose Assembly
1.21	R833801	1	Fitting	1.40.2	2315573	1	. Hose Assembly
1.22	232960	2	Fitting	2.1	11740	1	Kit, Split Flange
1.24	231820	2	Fitting	3.1	2306938W	1	Motor, Hydraulic 2-Speed
	232383	1	. O-Ring				

Electrical Installation

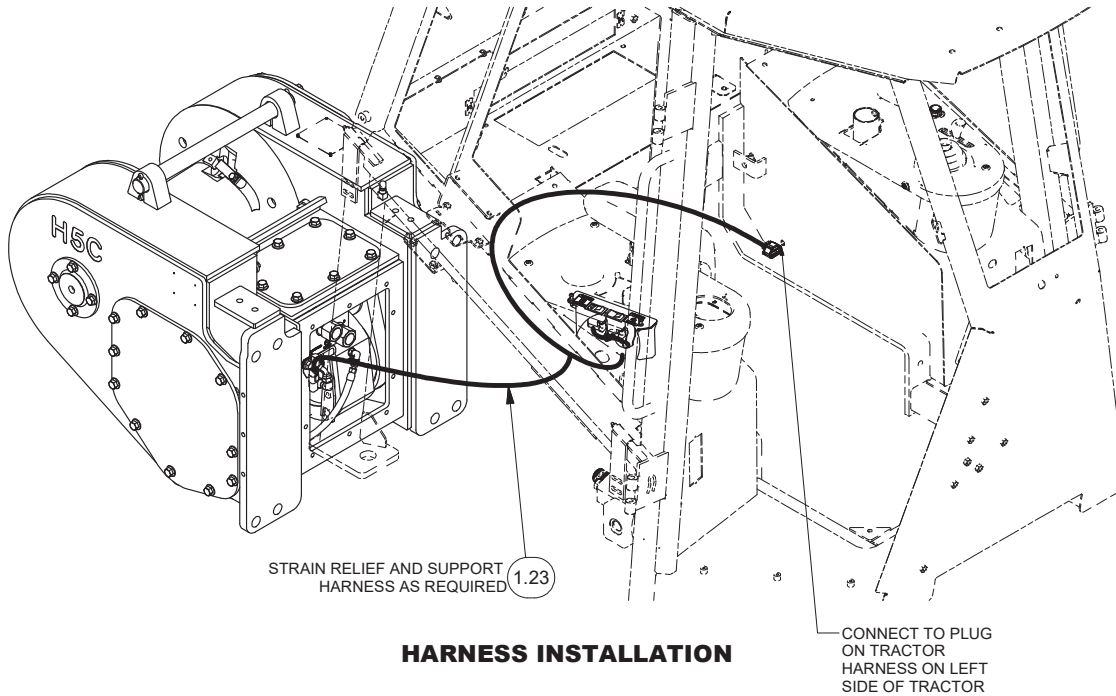
Case 1150M (H5CT2D**R371, H5CT2E**R371)



**SWITCH MOUNTING
NON BRAKE-OFF**



**SWITCH MOUNTING
WITH BRAKE-OFF**

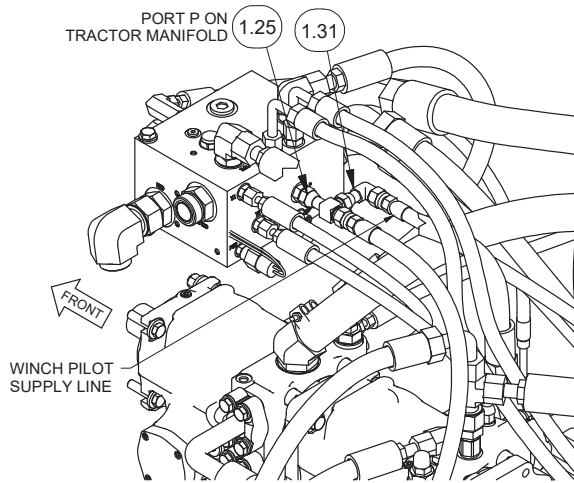


HARNESS INSTALLATION

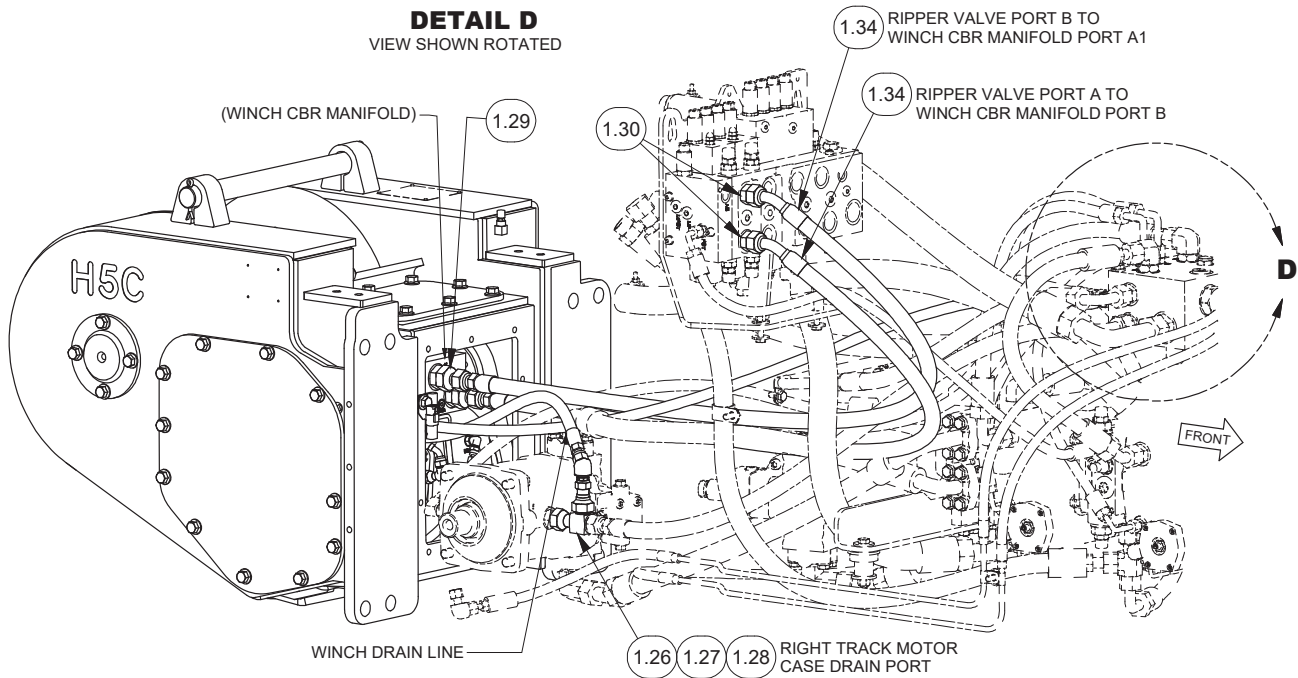
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.12	2314082	1	Bracket	2.6	2314997	1	Harness, Wire, Console
1.13	Y09C-M0816	2	Capscrew	3.2	296162W	2	Capscrew
1.14	296418W	2	Washer	3.4	2310504	1	Switch Assy, Red
1.17	2310013	1	Switch Assy, Yellow	3.5	2315456	1	Assy, Switch Panel
1.18	2310502	1	Switch Assy, Green	3.6	2315449	1	Spacer
1.23	137852W	10	Cable Tie	3.7	2315454	1	Harness, Wire Console
2.2	2313993	1	Plate, Switch Mounting				
2.3	296159W	2	Capscrew				
2.4	2313992	1	Decal, FS				
2.5	2314996	1	Decal, Hi Speed				

Hydraulic Installation

Case 1150M (H5CT2D**R371, H5CT2E**R371)



DETAIL D
VIEW SHOWN ROTATED

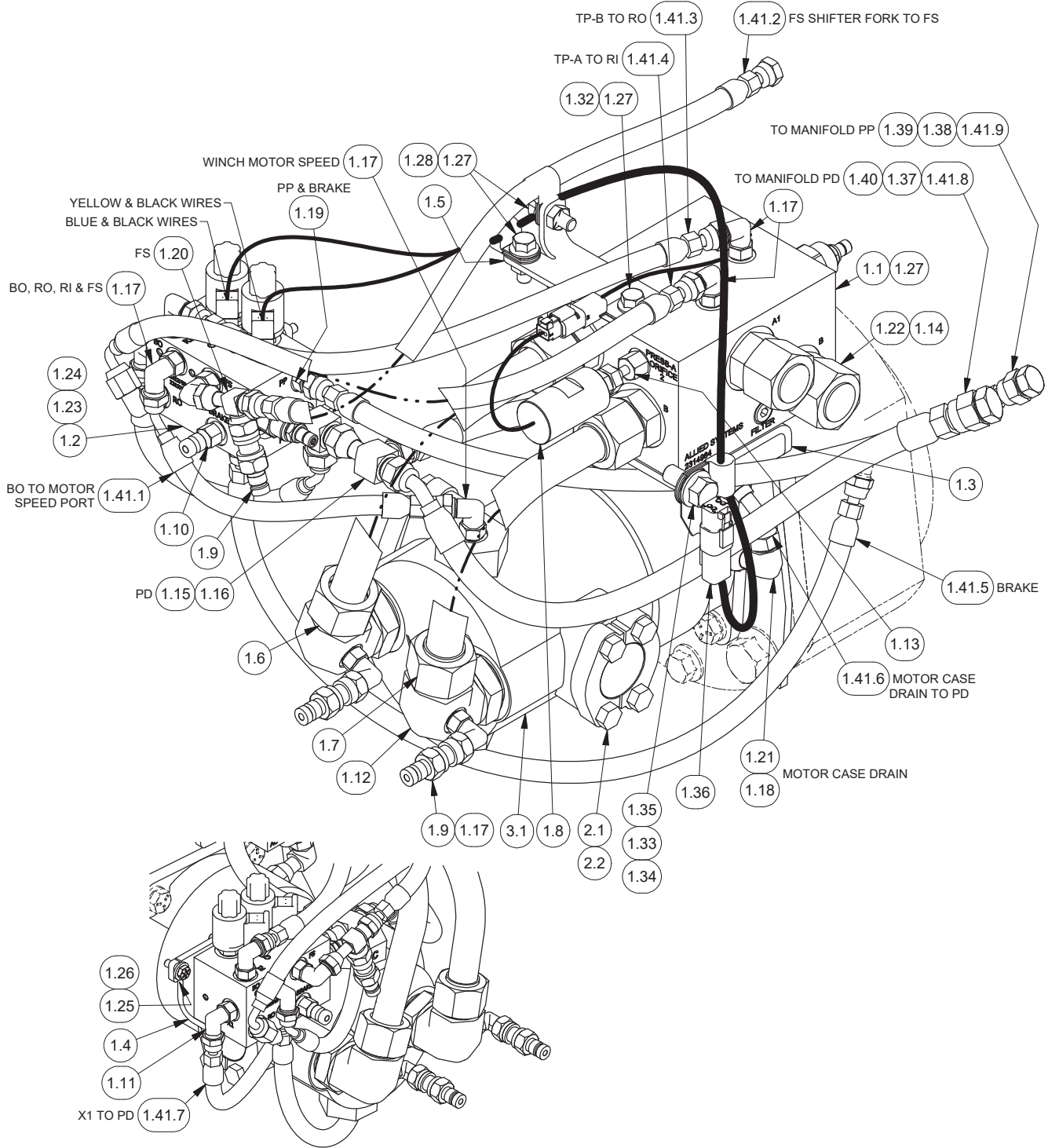


Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.25	R834052	1	Fitting	1.29	234191	2	Fitting
1.26	R834055	1	Fitting	1.30	231443	2	Fitting
1.27	2307958W	1	Fitting	1.31	R833802	1	Fitting
1.28	2315121	1	Fitting	1.34	2315125	2	Hose Assembly

Internal Hydraulic Group

Case 1650M (H5CT2D**R42)

Page 1 of 2



Internal Hydraulic Group

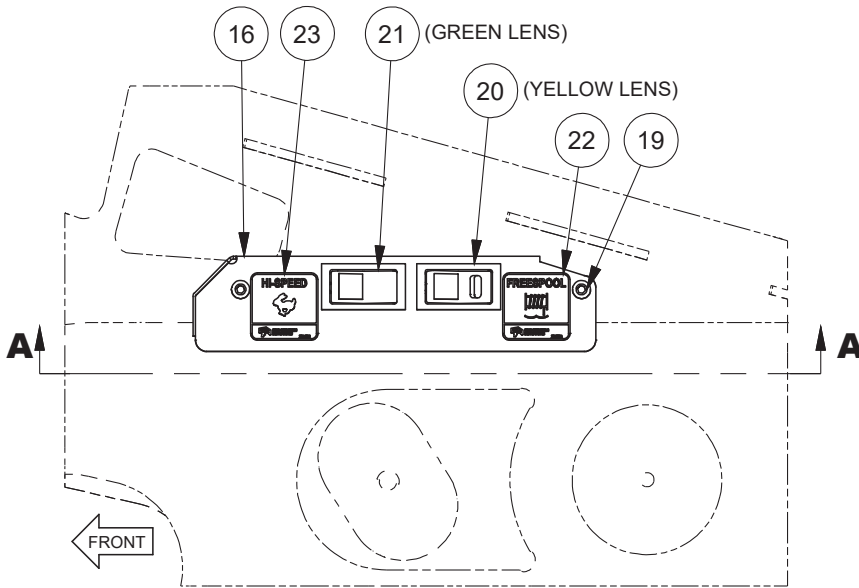
Case 1650M (H5CT2D**R42)

Page 2 of 2

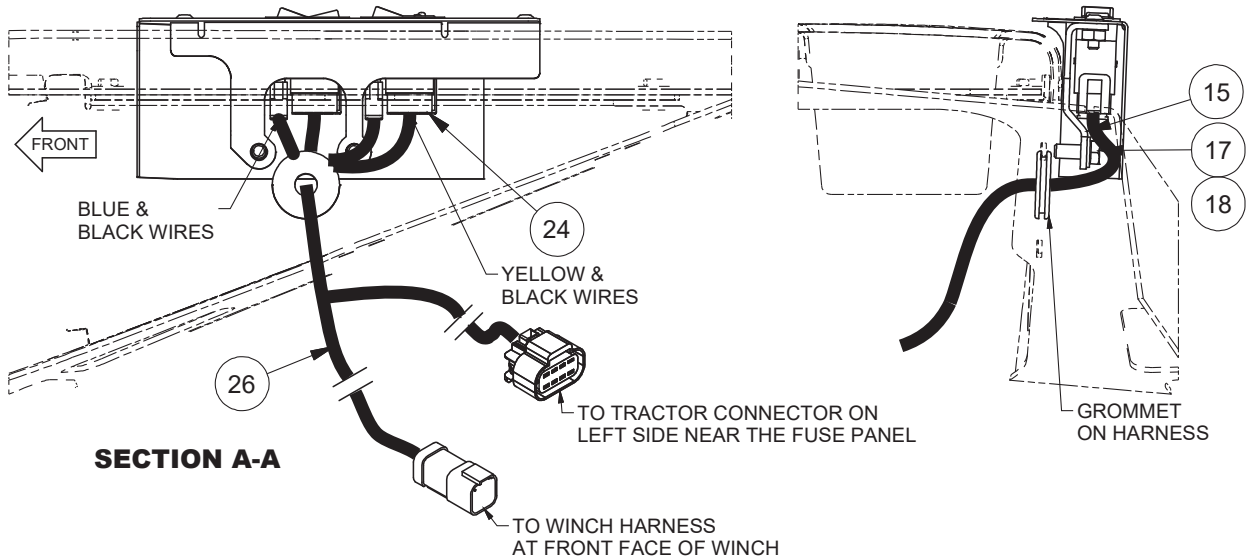
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1.1	2314984	1	Counterbalance Manifold	1.24	296420W	2	Washer
			Assy (See p. 33)	1.25	224120W	2	Capscrew
1.2	2313758	1	Control Manifold Assy	1.26	221763W	2	Washer
			(See p. 32)	1.27	398567W	5	Screw, Flange
1.3	2314983	1	Bracket, Manifold	1.28	209579	2	Clip, Insul
1.4	2313443	1	Bracket, Manifold	1.32	2311550	1	Clip, Harness Mounting
1.5	2316646	1	Bracket, Support, Hose	1.33	2313663	1	Clip, Harness, Mounting
1.6	2312197	1	Tube Assy, Motor A	1.34	R13807642	1	Clip, Insul
1.7	2314986	1	Tube Assy, Motor B	1.35	398817W	1	Screw, Flange
1.8	2307291W	1	Switch	1.36	2315003	1	Harness, Wire, Winch
1.9	2307625W	3	Fitting	1.37	232960	1	Fitting
1.10	R14040	1	Coupler, Male	1.38	R834201	1	Fitting
1.11	2311500	1	Fitting Assembly	1.39	2306151W	1	Label, T
1.12	2307123W	2	Fitting	1.40	2306152W	1	Label, PS
1.13	2304147W	1	Fitting	1.41	2314995	1	Kit, Hose
1.14	231444	4	Fitting	1.41.1	2313639	1	. Hose Assembly
1.15	231465	1	Fitting	1.41.2	257331	1	. Hose Assembly
1.16	231955	1	Fitting	1.41.3	2314278	1	. Hose Assembly
1.17	R833251	9	Fitting	1.41.4	242260	1	. Hose Assembly
1.18	231440	1	Fitting	1.41.5	243178	1	. Hose Assembly
1.19	231439	2	Fitting	1.41.6	2312695	1	. Hose Assembly
1.20	236855	1	Fitting	1.41.7	2314993	1	. Hose Assembly
1.21	R833801	1	Fitting	1.41.8	2314994	1	. Hose Assembly
1.22	231820	2	Fitting	1.41.9	2313389	1	. Hose Assembly
	232383	1	. O-Ring	1.42	229383	3	Fitting
1.23	293628W	2	Capscrew				

Electrical Installation

Case 1650M (H5CT2D**R42)



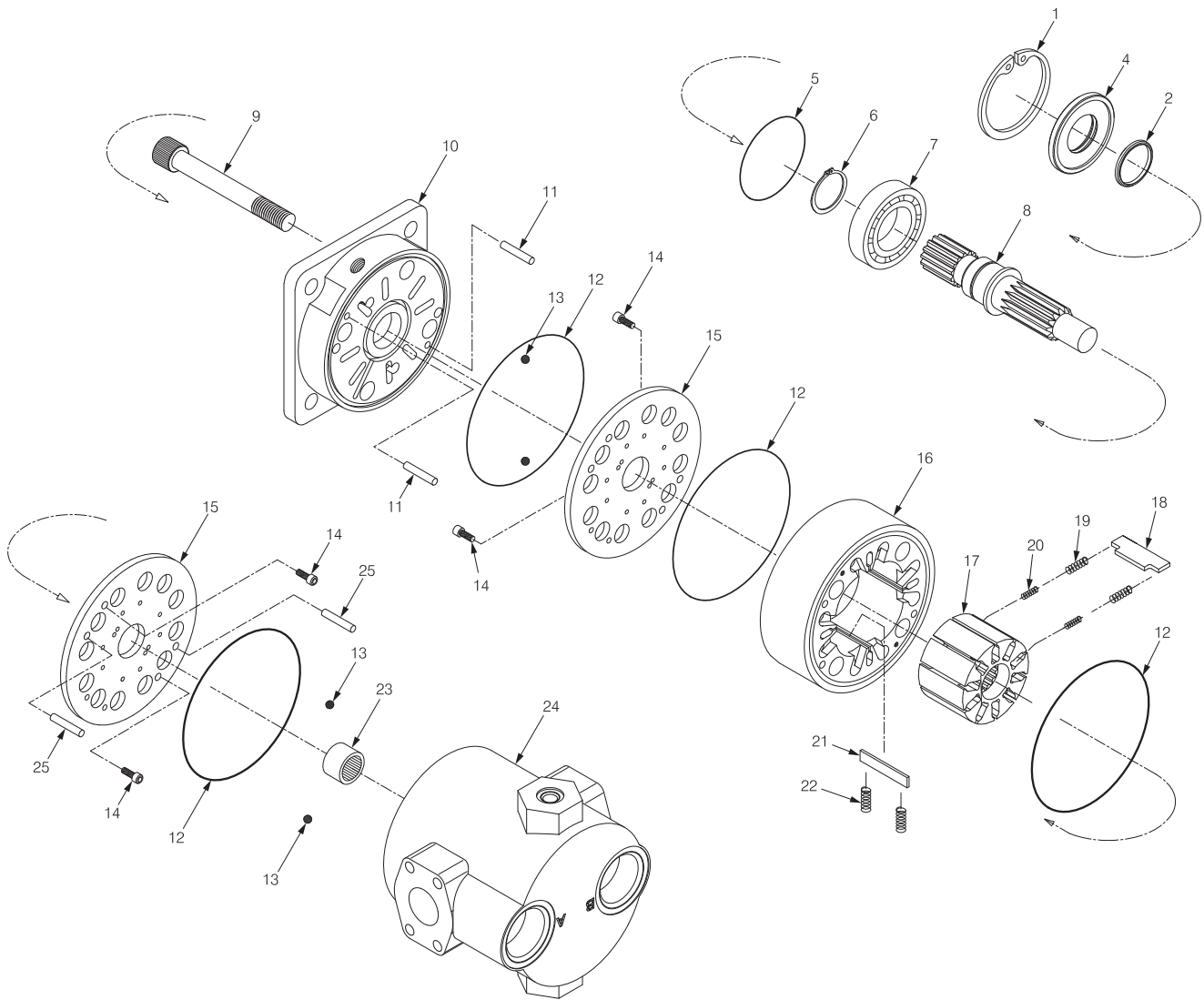
CONTROLS INSTALLATION
RIGHT CONSOLE (TOP VIEW)



SECTION A-A

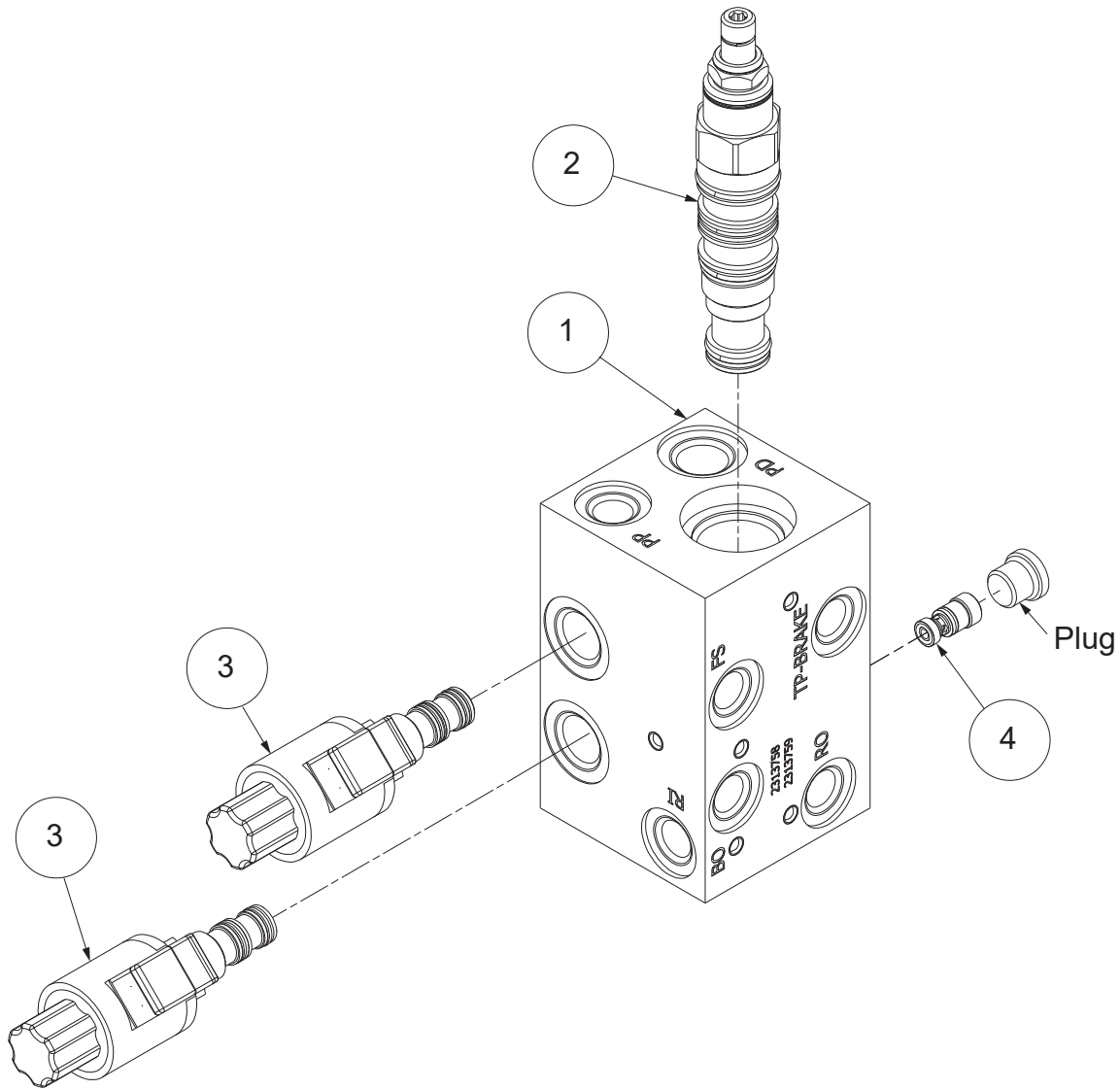
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
15	2314082	1	Bracket	21	2310502	1	Switch Assy, Green
16	2313993	1	Plate, Switch Mounting	22	2313992	1	Decal, FS
17	Y09C-M0820	2	Capscrew	23	2314996	1	Decal, Hi-Speed
18	296418W	2	Washer	24	2314997	1	Harness, Wire, Console
19	296159W	2	Capscrew	26	137852W	10	Cable Tie
20	2310013	1	Switch Assy, Yellow				

Hydraulic Motor, 2-Speed



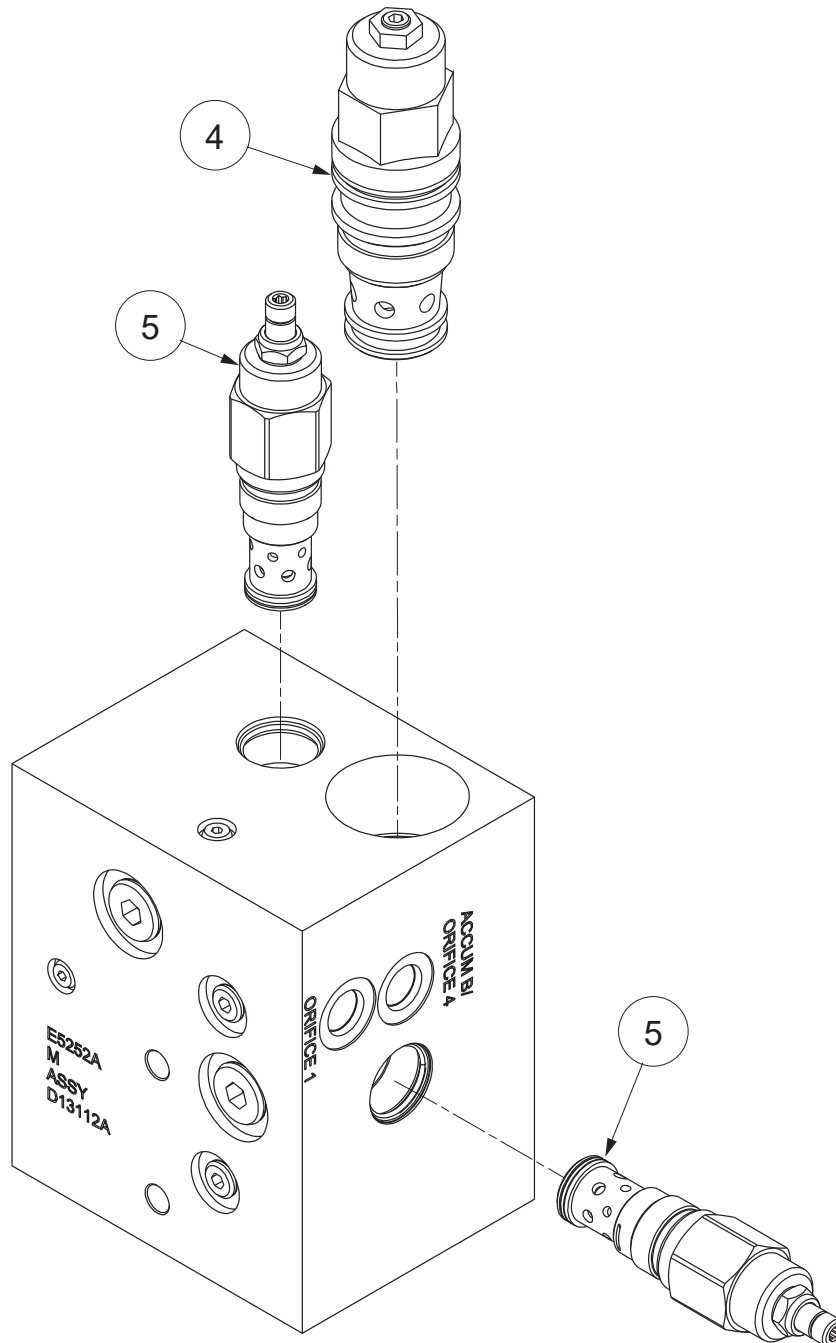
Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
2306938W Hydraulic Motor, 2-Speed							
1	*a 238060	1	. Ring, Snap	16	238070	1	. Stator
2	*a 238056	1	. Seal	17	238073	1	. Rotor
4	*a 238061	1	. Seal Plate	18	*b 238074	10	. Vane, Rotor
5	*a 238058	1	. O-Ring	19	*b 238075	20	. Spring, Outer
6	238062	1	. Ring, Snap	20	*b 238076	20	. Spring, Inner
7	238063	1	. Bearing	21	*b 238072	4	. Vane, Stator
8	238064	1	. Shaft	22	*b 238071	8	. Spring, Vane
9	238065	4	. Bolt	23	238078	1	. Bearing, Needle
10	NSS	1	. Housing	24	NSS	1	. Rear Housing
11	238067	2	. Pin, Front Dowel	25	238080	2	. Pin, Rear Dowel
12	*a 238059	4	. O-Ring				
13	238077	4	. Check, Ball				
14	238068	4	. Screw				
15	2307962W	2	. Plate, Timing				
				*a	Included in Seal Kit 2307244W		
				*b	Included in Vane & Spring Kit 246726		
				NSS	Not Sold Separately		

Control Manifold Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2313758		Control Manifold Assy				
1	2313759	1	. Manifold, Body, Control	3	2312073	2	. Valve, Solenoid
2	2311592	1	. Valve, Brake		2312111	1	.. Seal Kit
	252566	1	.. Seal Kit	4	2312074	1	. Valve, Shuttle
					2312112	1	.. Seal Kit

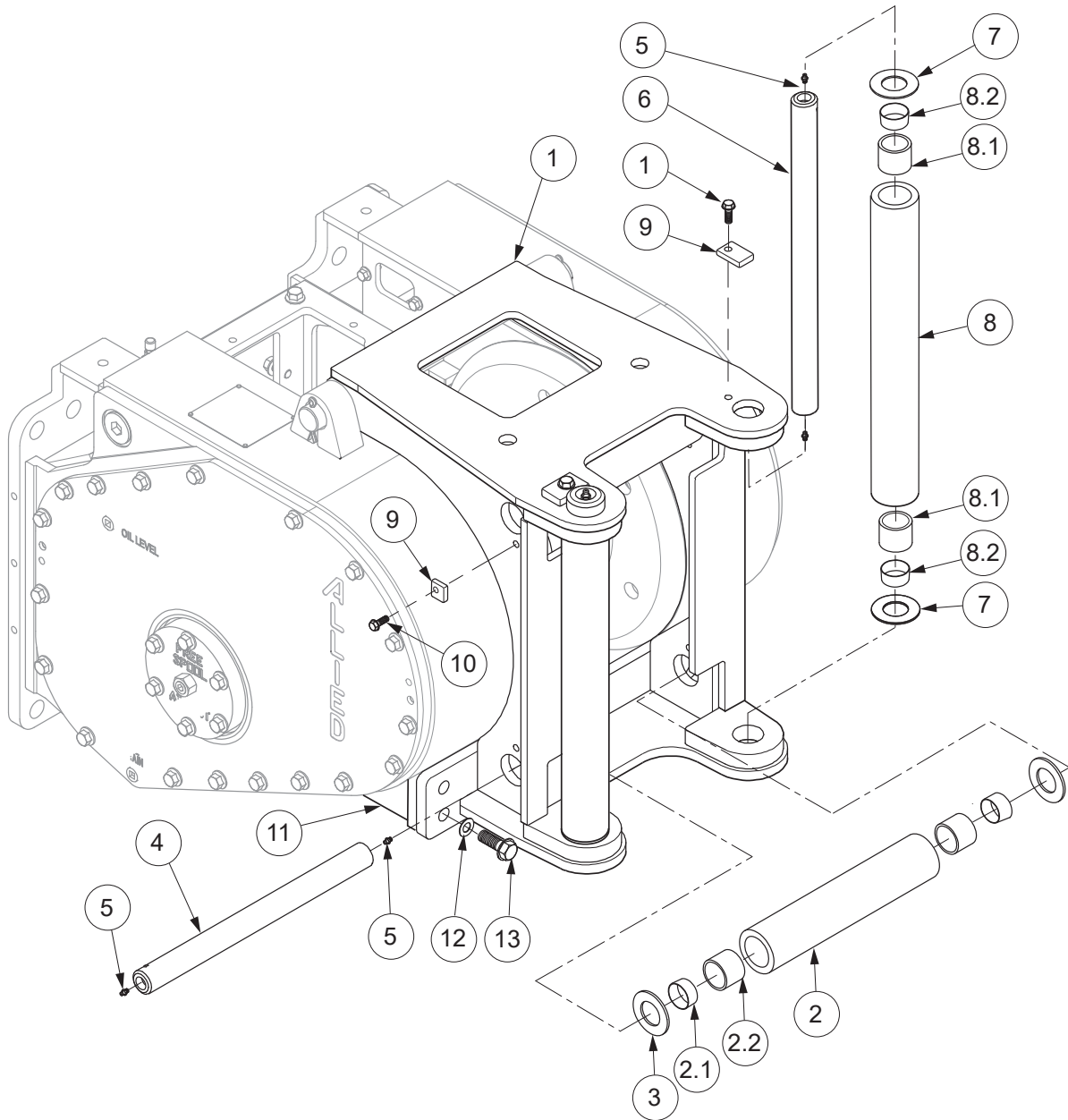
Counterbalance Manifold Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2314984		Counterbalance Manifold Assy				
4	2312068	1	. Counterbalance Valve				
	243815		.. Kit, Seal				
5	2307438W	2	. Relief Valve				
	259258	1	.. Seal Kit				

Section 4
Optional Equipment

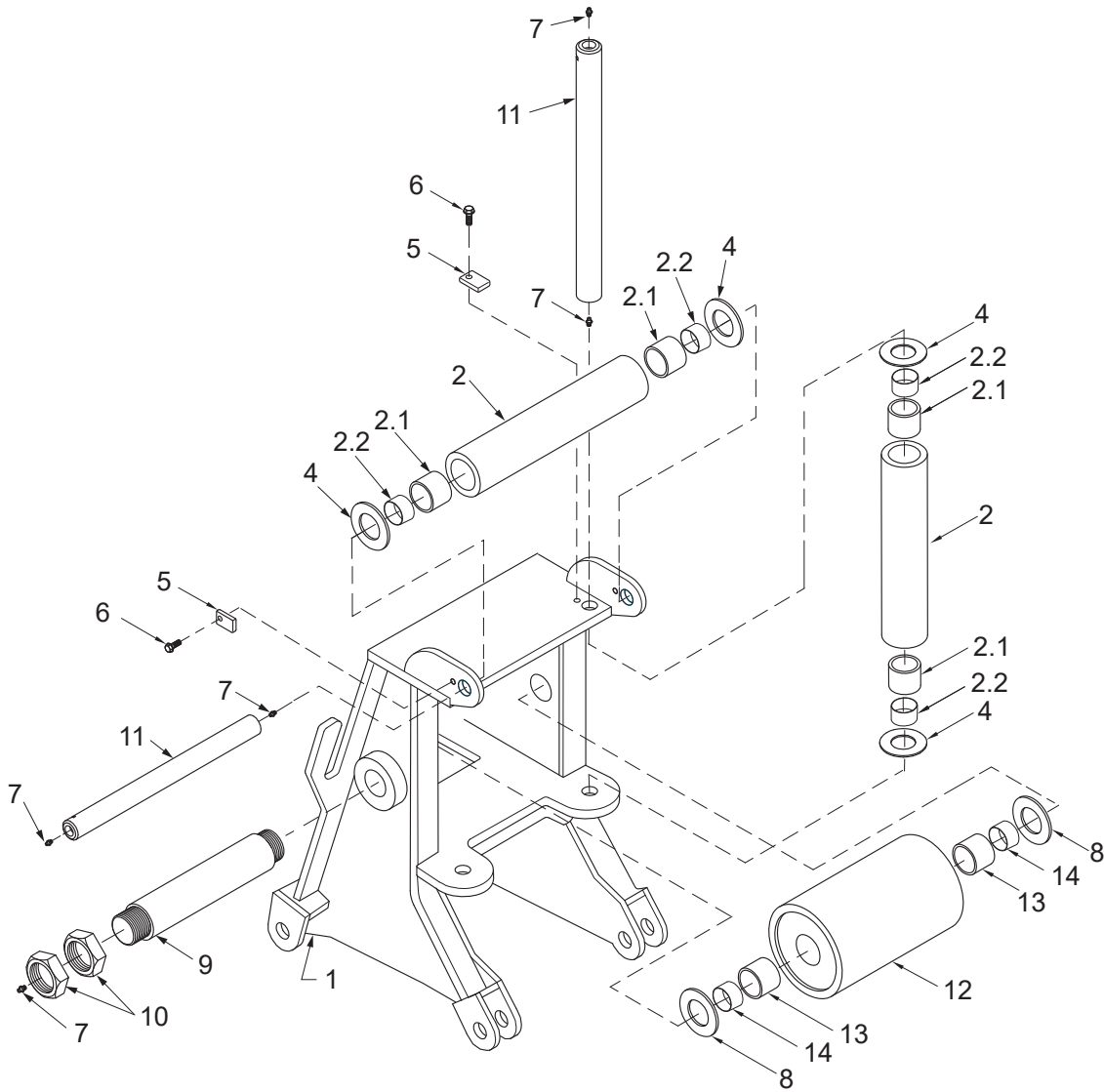
Fairlead



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

Item	Part No.	Qty A/B	Description	Item	Part No.	Qty A/B	Description
	2307784W	1--	Fairlead, 3-Roller				
	2306335W	--1	Fairlead, 4-Roller				
1	2306333W	1/1	. Frame	7	331767W	4/4	. Washer
2	2301727W	1/2	. Assy Roller	8	2301907W	2/2	. Assy Roller
2.1	2570W	2/4	. . Bushing	8.1	2301742W	2/2	. . Spacer
2.2	2301961W	2/4	. . Spacer	8.2	35135W	2/2	. . Bushing
3	33394W	2/2	. Washer	9	2301706W	3/4	. Keeper
4	2301722W	1/2	. Shaft	10	398817W	3/4	. Screw, Flange
5	16001W	8/8	. Fitting, Lube	11	2306330W	2/2	Block, Mounting
6	2306572W	2/2	. Shaft	12	221777W	4/4	Washer
				13	221657W	4/4	Capscrew

Arch Assembly



Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
	2301923W		Assy Arch				
1	2301922W	1	. Arch	7	16001W	8	. Fitting, Lube
2	2301910W	3	. Assy Roller	8	2821W	2	. Washer
2.1	2301742W	2	.. Spacer	9	2302120W	1	. Shaft
2.2	35135W	2	.. Bushing	10	221336W	4	. Nut
4	331767W	6	. Washer	11	2301919W	3	. Shaft
5	2301706W	3	. Keeper	12	2301925W	1	. Roller
6	398817W	3	. Capscrew	13	2301927W	2	.. Spacer
				14	2817W	2	.. Bushing

Wire Rope Assemblies

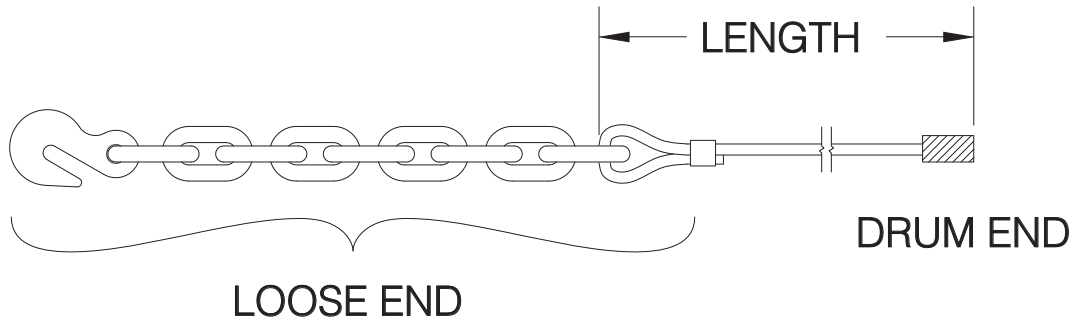


Figure A

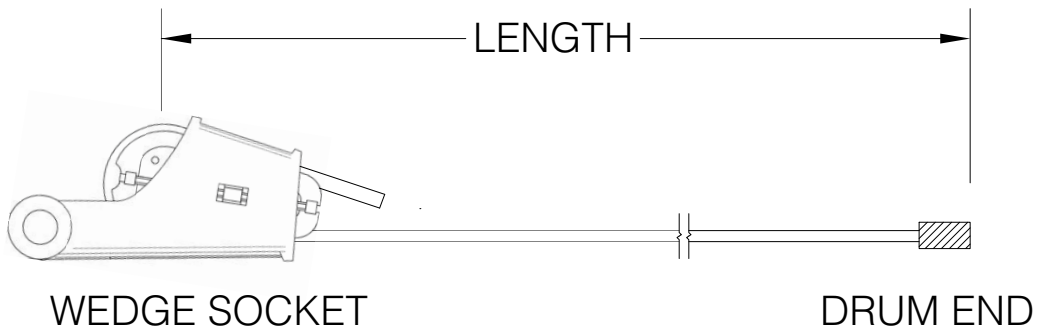


Figure B

	Wire Rope	Tail Chain & Hook
Wire Rope Diameter Dia (in)	Breaking Strength New (lbs)	Working Load Limit (lbs) 3.5:1 Design Factor
5/8	41,200	13,000
3/4	58,800	34,200
7/8	79,600	34,200

⚠ CAUTION

Do not use larger than 5/8" diameter wire rope if winch is equipped with arch assembly.

Part No.	Wire Diameter	Length FT (M)	Part No.	Wire Diameter	Length FT (M)
WR5-279L	5/8"	279 (85) *c			
WR5-423L	5/8"	423 (129) *a			
WR6-197L	3/4"	197 (60) *c			
WR6-298L	3/4"	298 (91) *a			
WR7-142L	7/8"	142 (43) *c			
WR7-215L	7/8"	215 (66) *a			
YS7-215LWS	7/8"	215 (66) *b			

*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 Service Parts, Intervals & Kits

Recommended Winch Service Intervals and Kits

Follow the service schedule recommended here to help keep tractor 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.					

* Evaluate = Service based on average winch use;

If used more than once a day, perform an overhaul.

If used less than once a day, remove covers and check to determine need.

* Inspect = Disassemble and inspect for wear.

** Service winch using the 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.

Table 1 Recommended Winch Service Intervals

Service Kits for H5C Winches			
Service Description	Kit Description	Winch Serial Number	Kit Part#
Filter change	Filter kit	All	Refer to tractor operator and service manuals
Complete oil change (every 1,000 hours)	N/A	All	Check our website for current operator's and service manuals for appropriate oils
Clutch and brake overhaul (every 5,000 hours)	Motor, reducer & brake assembly rebuild kit	All	2312857
Major overhaul (every 10,000 hours)	Intermediate/drum shaft & brake assembly rebuild kit	All	2311896

Table 2 Routine Maintenance Kits

H5C Hydraulic Winch Recommended Service Parts

The following pages list some of the service parts and kits that are available for your Allied H5C Winch.

Page 41 lists seal kits and hose kits. Keep these parts in stock at all times for regular maintenance. Order parts from the table based on your winch.

Page 42 and page 43 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 43 also contains a list of wire rope assemblies. Order parts as required and as relevant for your installation.

Page 44 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>.

Seal Kits		Order as Required		
Allied P/N	Description	Quantity on Winch	See Parts Manual Page	Order Quantity
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	

Hose Kits		Order as Required	
Allied P/N	Description	Quantity on Winch	Order Quantity
2314995	Hose Kit, Winch Hydraulics	1	
2315383	Hose Kit, Winch Hydraulics	1	
2315012	Hose Kit, Winch Hydraulics	1	

Wire Rope Assemblies		Order as Required		
Allied P/N	Description	Length	Will Fill Drum To:	Order Quantity
WR5-279L	Wire Rope Assy 5/8" TC	279' (85 M)	2/3 Capacity (Recommended)	
WR5-423L	Wire Rope Assy 5/8" TC	423' (129 M)	Full Capacity	
YS5-279LWS	Wire Rope Assy 5/8" WS	279' (85 M)	2/3 Capacity (Recommended)	
YS5-423LWS	Wire Rope Assy 5/8" WS	423' (129 M)	Full Capacity	
WR6-197L	Wire Rope Assy 3/4" TC	197' (60 M)	2/3 Capacity (Recommended)	
WR6-298L	Wire Rope Assy 3/4" TC	298' (91 M)	Full Capacity	
YS6-197LWS	Wire Rope Assy 3/4" WS	197' (60 M)	2/3 Capacity (Recommended)	
YS6-298LWS	Wire Rope Assy 3/4" WS	298' (91 M)	Full Capacity	
WR8-142L	Wire Rope Assy 7/8" TC	142' (43 M)	2/3 Capacity (Recommended)	
WR7-215L	Wire Rope Assy 7/8" WS	215' (66 M)	Full Capacity	
YS7-142LWS	Wire Rope Assy 7/8" TC	142' (43 M)	2/3 Capacity (Recommended)	
YS7-215LWS	Wire Rope Assy 7/8" WS	215' (66 M)	Full Capacity	

TC = Tail chain and hook

WS = Wedge socket

Motor, Reducer & Brake Assembly Rebuild Kit, P/N: 2311895

Applies to: All

Service Interval: Every 5,000 Hours

Allied P/N	Description	Quantity in Kit	See Parts Manual Page	Order Quantity
2311895	Kit, Motor, Reducer & Brake Assy Rebuild	1		
12916W	. Ring, Snap	2	Motor Shaft	
12944W	. Ring, Snap	1	Motor Shaft	
2306073W	. Seal, Rotary	2	Hydraulic Group	
89776W	. O-Ring	3	Hydraulic Group	
86596W	. O-Ring	1	Hydraulic Group	
87287W	. O-Ring	1	Motor Shaft	
334475W	. Ring, Snap	1	Motor Shaft	
12944W	. Ring, Snap	1	Motor Shaft	
246722	. Kit, Seal	1	Hydraulic Motor	

Intermediate/Drum/Idler Shaft, Motor and Brake Assembly Rebuild Kit, P/N: 2311896**Applies to: All****Service Interval: Every 10,000 hours**

Allied P/N	Description	Quantity in Kit	See Parts Manual Page	Order Quantity
2311896	Kit, Intermediate, Idler, Drum Shaft, Motor & Brake Assembly Rebuild	1		
41207W	. Bearing, Ball	1	Motor Shaft	
41210W	. Bearing, Ball	1	Motor Shaft	
2306198W	. Disc, Friction	7	Motor Shaft	
2304874W	. Plate, Separator	8	Motor Shaft	
218214	. O-Ring	1	Intermediate Gear Shaft	
212380	. O-Ring	1	Intermediate Gear Shaft	
159940W	. O-Ring	1	Intermediate Gear Shaft	
2305923W	. Cone, Roller Bearing	1	Intermediate Gear Shaft	
45733W	. Cup, Roller Bearing	1	Intermediate Gear Shaft	
219114W	. Cone, Roller Bearing	1	Intermediate Gear Shaft	
2302515W	. Cup, Roller Bearing	1	Intermediate Gear Shaft	
133523W	. Seal, Oil	1	Drum Shaft	
339681W	. Seal, Oil	1	Drum Shaft	
219093W	. Cone, Roller Bearing	1	Drum Shaft	
219094W	. Cup, Roller Bearing	1	Drum Shaft	
12956W	. Ring, Snap	2	Drum Shaft	
219095W	. Bearing, Roller	1	Drum Shaft	
203533	. O-Ring	1	Drum Shaft	
2304580W	. Bearing, Roller	1	Idler Shaft	
41207W	. Bearing, Ball	1	Idler Shaft	
12916W	. Ring, Snap	1	Idler Shaft	

Tool Kits

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

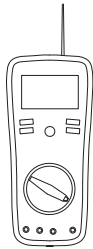
Allied P/N	Description	Order Quantity
588466	Socket Set, 3/8DR 3/8" to 7/8" STD/Deep, 22 PC	
588467	Socket Set, 1/2DR 3/8" to 1-1/4" STD/Deep, 30 PC	
588468	Socket Set, 3/4DR 7/8" to 2-3/8" STD, 29 PC	
588469	Wrench Set, 5/16" to 2-1/2", 31 PC	
588527	Hex Key Sets, .025" to 5/8", 18 PC	
588530	Socket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

Diagnostic Tools

Order as Required

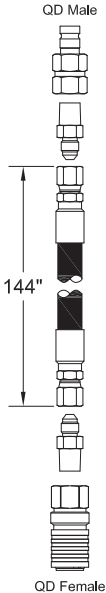
Order these Tools as required for maintenance and service of your winch(es).

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



69778
Multi-Meter, 12 Function

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

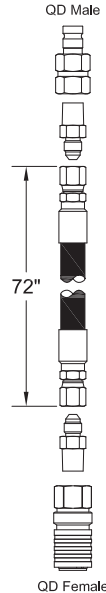


QD Male

144"

QD Female

70381
Kit, Hose Assembly, W/QD Both Ends




QD Male

72"

QD Female

69782
Kit, Hose Assembly, W/QD Both Ends



QD Female

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

Numerical Index

Part No.	Page	Item No.	Part No.	Page	Item No.	Part No.	Page	Item No.
11740	23	2.1	238068	31	14	2312197	25	1.6
11740	25	2.1	238070	31	16	2312197	29	1.6
203533	18	21	238071	31	22	2312695	23	1.41.6
209579	23	1.28	238072	31	21	2312695	25	1.39.6
209579	25	1.31	238073	31	17	2312695	29	1.41.6
209579	29	1.28	238074	31	18	2313389	23	1.41.9
229383	23	1.42	238075	31	19	2313389	29	1.41.9
229383	25	1.25	238076	31	20	2313443	23	1.4
229383	29	1.42	238077	31	13	2313443	25	1.4
231439	20	21	238078	31	23	2313443	29	1.4
231439	23	1.19	238080	31	25	2313639	23	1.41.1
231439	25	1.19	242260	23	1.41.4	2313639	25	1.39.1
231439	29	1.19	242260	29	1.41.4	2313639	29	1.41.1
231440	23	1.18	243178	23	1.41.5	2313663	23	1.33
231440	25	1.18	243178	25	1.39.5	2313663	25	1.35
231440	29	1.18	243178	29	1.41.5	2313663	29	1.33
231443	27	1.30	243815	33		2313758	23	1.2
231444	23	1.14	248986	13	9	2313758	25	1.2
231444	25	1.14	252566	32		2313758	29	1.2
231444	29	1.14	257331	23	1.41.2	2313758	32	
231465	23	1.15	257331	25	1.39.2	2313759	32	1
231465	25	1.15	257331	29	1.41.2	2313992	26	2.4
231465	29	1.15	259258	33		2313992	30	22
231820	23	1.22	2310013	26	1.17	2313993	26	2.2
231820	25	1.24	2310013	30	20	2313993	30	16
231820	29	1.22	2310502	26	1.18	2314046	13	27
231955	23	1.16	2310502	30	21	2314062	17	20.1
231955	25	1.16	2310504	26	3.4	2314082	26	1.12
231955	29	1.16	2311329	8	3	2314082	30	15
232960	23	1.37	2311330	8	5	2314278	23	1.41.3
232960	25	1.22	2311411	17	21.1	2314278	29	1.41.3
232960	29	1.37	2311412	19		2314367	12	1.10
234191	27	1.29	2311500	23	1.11	2314368	12	1.9
236855	23	1.20	2311500	25	1.11	2314371	12	1.1
236855	25	1.20	2311500	29	1.11	2314372	12	1.2
236855	29	1.20	2311550	23	1.32	2314983	23	1.3
238056	31	2	2311550	25	1.34	2314983	25	1.3
238058	31	5	2311550	29	1.32	2314983	29	1.3
238059	31	12	2311557	8	40	2314984	23	1.1
238060	31	1	2311592	32	2	2314984	25	1.1
238061	31	4	2312068	33	4	2314984	29	1.1
238062	31	6	2312073	32	3	2314984	33	
238063	31	7	2312074	32	4	2314986	23	1.7
238064	31	8	2312111	32		2314986	25	1.7
238065	31	9	2312112	32		2314986	29	1.7
238067	31	11	2312197	23	1.6	2314989	13	7

Part No.	Page	Item No.	Part No.	Page	Item No.	Part No.	Page	Item No.
2314990	13	8	15315W	11	30.16	2301910W	36	2
2314991	13	2	159940W	20	7	2301919W	36	11
2314992	13	1	16001W	35	5	2301922W	36	1
2314993	23	1.41.7	16001W	36	7	2301923W	36	
2314993	25	1.39.7	16151W	11	30.5	2301925W	36	12
2314993	29	1.41.7	16243W	11	30.12	2301927W	36	13
2314994	23	1.41.8	16243W	11	31.2	2301961W	35	2.2
2314994	29	1.41.8	16243W	11	32.2	2302120W	36	9
2314995	23	1.41	16243W	11	33.4	2302333W	18	13
2314995	29	1.41	16602W	8	4	2302334W	18	20
2314996	26	2.5	16830W	18	6	2302335W	18	14
2314996	30	23	176208W	11	30.3	2302336W	18	11
2314997	26	2.6	18588W	17	23.5	2302338W	18	22
2314997	30	24	188210W	11	30.6	2302379W	18	17
2315003	23	1.36	219066W	19	4	2302513W	11	33.2
2315003	25	1.38	219084W	17	20.17	2302515W	20	12
2315003	29	1.36	219093W	18	15	2302624W	20	6
2315012	25	1.39	219094W	18	16	2302625W	20	17
2315121	27	1.28	219095W	18	19	2303221W	11	15.1
2315124	25	1.40.1	219114W	20	11	2303256W	18	4
2315125	27	1.34	221336W	36	10	2303257W	18	1
2315374	25	1.39.3	221657W	35	13	2303848W	11	30.2
2315375	25	1.39.4	221690W	12	1.6	2303902W	18	7
2315383	25	1.40	221690W	13	5	2303904W	12	1.11
2315449	26	3.6	221698W	12	1.7	2303906W	20	2
2315454	26	3.7	221717W	20	13	2303907W	20	5
2315456	26	3.5	221763W	25	1.29	2303908W	20	16
2315573	25	1.40.2	221763W	29	1.26	2304101W	11	30.4
2316646	23	1.5	221763W	23	1.26	2304147W	23	1.13
2316646	25	1.5	221775W	18	8	2304147W	25	1.13
2316646	29	1.5	221777W	35	12	2304147W	29	1.13
12916W	17	20.12	221780W	12	1.8	2304580W	19	3
12916W	19	6	221780W	13	6	2304803W	20	14
12944W	17	20.18	224108W	20	23	2304874W	17	20.21
12956W	18	18	224120W	25	1.28	2305415W	20	18
1300780W	18	3	224120W	29	1.25	2305915W	20	10
1314503W	18	2	224120W	23	1.25	2305923W	20	8
1314656W	11	15.2	225050W	20	15	2306073W	17	20.14
1321665W	8	2	2300842W	19	2	2306077W	17	20.10
133523W	18	10	2301706W	35	9	2306078W	17	20.2
137852W	26	1.23	2301706W	36	5	2306151W	29	1.39
137852W	30	26	2301722W	35	4	2306151W	23	1.39
15158W	17	23.4	2301727W	35	2	2306152W	29	1.40
15158W	18	5	2301742W	35	8.1	2306152W	23	1.40
15256W	11	15.4	2301742W	36	2.1	2306189W	11	1
15290W	11	30.17	2301907W	35	8	2306198W	17	20.20

Part No.	Page	Item No.	Part No.	Page	Item No.	Part No.	Page	Item No.
2306214W	17	23.1	296159W	26	2.3	917373W	17	23.6
2306229W	19	7	296159W	30	19	93927W	11	15.3
2306330W	35	11	296162W	26	3.2	NSS	31	10
2306333W	35	1	296418W	26	1.14	NSS	31	24
2306335W	35		296418W	30	18	R13807642	25	1.36
2306494W	17	24.3	296420W	25	1.27	R13807642	29	1.34
2306570W	11	30.1	296420W	29	1.24	R13807642	23	1.34
2306572W	35	6	296420W	23	1.24	R14040	23	1.10
2306599W	17	20.4	296422W	13	10	R14040	25	1.10
2306604W	17	20.5	296434W	12	1.5	R14040	29	1.10
2306938W	17	25.1	296434W	13	4	R525293	17	20.29
2306938W	23	3.1	313022W	17	20.25	R833251	17	20.28
2306938W	25	3.1	318702W	13	25	R833251	23	1.17
2306938W	31		331767W	35	7	R833251	25	1.17
2307037W	20	22	331767W	36	4	R833251	29	1.17
2307081W	20	20	33394W	35	3	R833801	23	1.21
2307097W	11	31.1	334442W	17	20.19	R833801	25	1.21
2307123W	23	1.12	334475W	17	20.16	R833801	29	1.21
2307123W	25	1.12	339681W	18	12	R833802	27	1.31
2307123W	29	1.12	35135W	35	8.2	R834052	27	1.25
2307282W	19	1	35135W	36	2.2	R834055	27	1.26
2307291W	23	1.8	398567W	11	30.7	R834201	29	1.38
2307291W	25	1.8	398567W	25	1.30	R834201	23	1.38
2307291W	29	1.8	398567W	29	1.27	WR5-279L	37	
2307342W	11	33.1	398567W	23	1.27	WR5-423L	37	
2307438W	33	5	398817W	11	30.8	WR6-197L	37	
2307625W	23	1.9	398817W	11	33.3	WR6-298L	37	
2307625W	25	1.9	398817W	25	1.37	WR7-142L	37	
2307625W	29	1.9	398817W	29	1.35	WR7-215L	37	
2307784W	35		398817W	35	10	Y09C-M0816	26	1.13
2307958W	27	1.27	398817W	36	6	Y09C-M0820	30	17
2307962W	31	15	398817W	23	1.35	Y09G-0616	20	4
2570W	35	2.1	398820W	17	20.23	Y17C-1024	18	9
264159W	11	30.9	398828W	17	23.3	Y19C-M24130	12	1.4
2817W	36	14	41207W	17	20.13	Y73G-0816	17	20.3
2821W	36	8	41207W	19	5	Y73G-0840	17	20.15
292656W	13	11	41210W	17	20.11	YS7-215LWS	37	
293628W	25	1.26	45733W	20	9	WR6-298L	37	
293628W	29	1.23	61056W	20	3	WR7-142L	37	
293628W	23	1.23	61142W	20	1	WR7-215L	37	
293646W	13	12	86596W	17	20.8	YS7-215LWS	37	
293729W	13	3	87287W	17	20.9			
293731W	12	1.3	89776W	17	20.6			



To find a dealer in your area,
Call: (503) 625-2560,
Fax: (503) 625-7269, or
Email: marketing@alliedsystems.com, or
Visit our website: <http://www.alliedsystems.com>

599029W-CASE Rev. 11/2019 Printed in U.S.A.

The logo for Allied Systems Company. It features the words "Allied Systems" in a bold, italicized sans-serif font, with "COMPANY" in a smaller, all-caps, sans-serif font directly below it. A horizontal line is positioned under the "Allied Systems" text.

Allied Systems
COMPANY