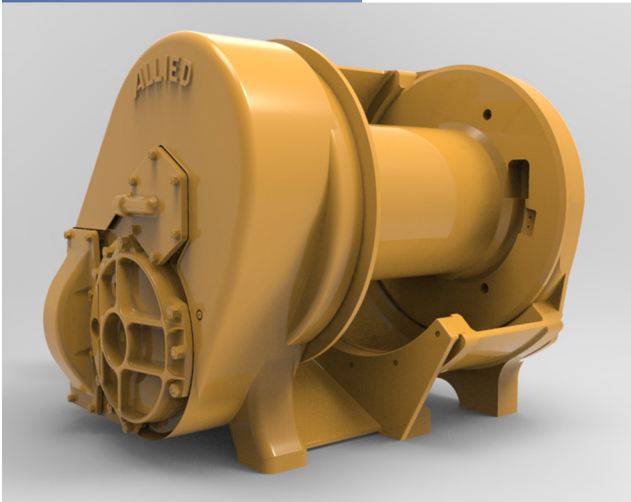




# Parts Manual



## Allied WH400Y Yarder Winch

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

# CUSTOMER EDITION

A PRODUCT OF  
**Allied Systems**  
COMPANY

SHERWOOD, OREGON USA

P/N 599054W

Printed in USA

09/19/2014

# **Safety Precautions**

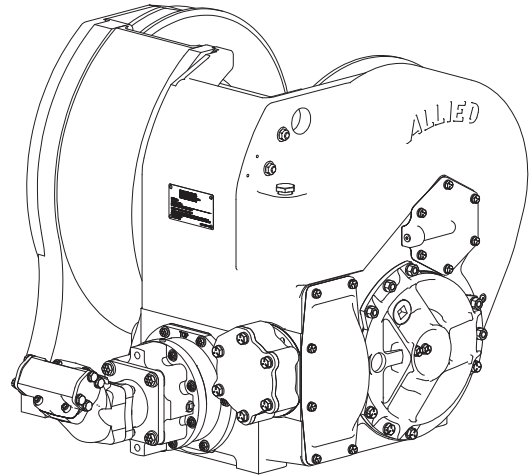
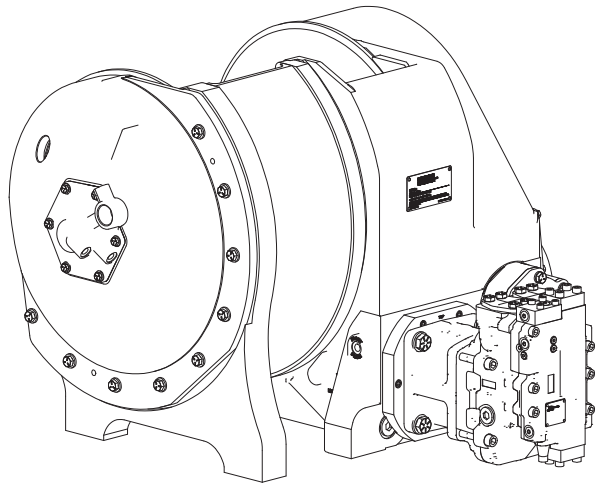
**Read, understand and observe the Safety Summary  
on pages 1-3 through 1-5  
to prevent injury to personnel and damage to equipment.**

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

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

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

Illustrated Index



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**Master Index**

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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.

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

### Safety Regulations

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

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

### Operation, Inspection, and Maintenance Warnings

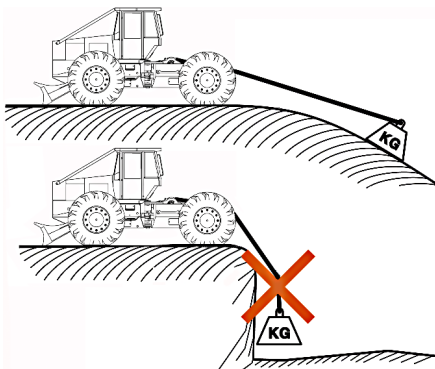
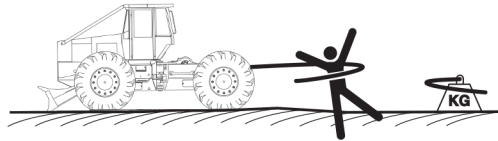


## WARNING

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

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

- » If the wire rope and ferrule must be removed from the drum, make sure the end of the wire rope and ferrule are controlled when the ferrule is released. The end of the wire rope can suddenly move from the drum like a compressed spring when the ferrule is released, and cause an injury.
- Stay in the operator's seat when operating the winch.
- Do not stand on the vehicle when operating the winch.
- Avoid winch operation near people or other machines.
- Never stand nor permit others to stand in the bight (loop) of a wire rope.
- Do not stand nor permit others to be near the winch or wire rope when there is tension on the wire rope.
- Observe jobsite rules.
- Be in complete control at all times.
- Do not use the control levers as hangers for clothes, water bags, grease guns, lunch pails, etc.
- Do not leave the vehicle when the winch wire rope is under tension.
- Do not permit riders on the vehicle or load.
- Do not use the winch as an anchor for a double or two-part line.
- Do not pull the hook through the throat or over the drum, which will cause damage.
- When the winch is not in use, make sure the control lever is in **BRAKE-ON** position and the winch brake is applied.
- Do not use winch as a hoist. Tractor and skidder mounted winches are designed for towing.
- Always inspect wire rope, tail chain and other rigging components for wear, damage, broken strands or abuse before use.
- Never use wire rope, tail chain or other rigging that is worn-out, damaged or abused.
- Never overload wire rope, tail chain or rigging.
- Wire rope and tail chain will fail if worn-out, overloaded, misused, damaged, improperly maintained or abused. Wire rope or tail chain failure may cause serious injury or death!
- Do not terminate wire rope to tail chain by the use of a knot.
- Do not handle wire rope if the hook end is not free. A load could break away, suddenly tensioning the wire rope, resulting in serious injury or death.
- Make sure ground personnel are in plain view of the operator, and at a distance of at least 1½ times the working length of the wire rope.
- Make sure that any hand signals used by ground personnel are clearly defined and understood by everyone involved.
- Do not attempt to "jerk" or "shock" a load free. Doing so can cause loads in excess of the rated capacity of the wire rope, winch, or mounting hardware.
- Replace any parts only with genuine Allied Winch parts.
- Maintain a **minimum of three (3) complete wraps of wire rope** on the drum for normal operation. It may help to paint the last five wraps of wire rope a contrasting color, to serve as a visual indicator.
- Do not handle wire rope with bare hands. Wear leather gloves at all times.

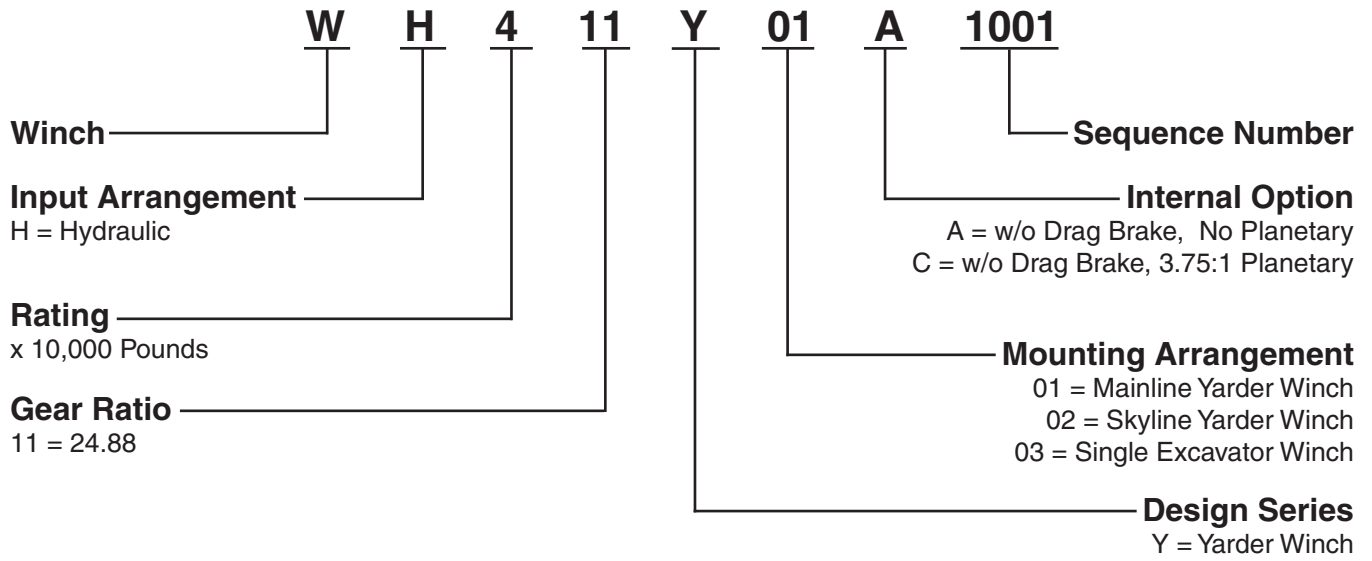


- Align the tractor with the load to prevent side loading the winch, and to maintain even spooling of the wire rope.
- If applying tension to the wire rope manually during spooling:
  - » ensure that the operator is winching in slowly,
  - » keep your hands and clothing well clear of any rollers or the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



**Unit Identification**

S/N Nameplate Data





How to Use the Illustrated Parts Manual

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### Numerical Index

Part No.	Page	Item	Description	Part No.
108877W	2-8	23	O-Ring	1305093W
109453W	1-9	9	O-Ring	1306001W
109453W	2-2	10	O-Ring	1306001W
110322W	3-12	11	Clamp	1306002W
110322W	3-27	9	Clamp	1306002W
110322W	2-5	23	Shim, .005	1306003W
110933W	2-5	23	Shim, .007	1306003W
110933W	2-5	23	Shim, .020	1308401W
114312W	2-5	24	Clamp, Strap	1308402W
118361W	3-10	13	O-Ring	1308403W
118361W	3-7	13	O-Ring	1308406W
118361W	3-8	13	O-Ring	1308436W
118361W	3-9	16	O-Ring	1308437W
118361W	3-9	21	O-Ring	1308438W
118365W	3-7	26	O-Ring	1308439W
118365W	3-8	17	O-Ring	1308440W
119491W	2-5	22	Seal, Oil	1308441W
12327W	2-11	3	Cap screw	1308442W
12447W	2-2	8	Bearing	1308443W
125399W	3-3	9	Clamp	1310
127045W	3-5	14	Clamp	1311
127045W	2-10	3	Snap-Ring	1312

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### Index-Master

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Box-Gear	2-5 thru 2-7
Brake	2-10
	2-9
	2-9
	1-4
	4-3 & 4-4

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### Shaft-PTO

Last Used on S/N W8LP-2099 & AW8L-1000

Tractor Model	Shaft-PTO (Item 3)		Bearing Carrier (Item 4)	Pin (Item 5)	Lo Pin (Item 6)
	Gear Ratio	Part No.			
Caterpillar D7 DD	49.8:1	132909W	98362W	19929W	9563W
Caterpillar D7 FS	259770W	132909W	98362W	19929W	9563W
Caterpillar 972	259770W	132909W	98362W	9563W	
Fiat-Allis 16B	253797W		216222W	19929W	
Fiat-Allis 20		132909W	216222W	9563W	
Dresser TD-20E	259768W		98362W	19929W	
Komatsu D6SA-12E-18 D6S-1 DESESS-1	219032W		98362W	213139W	
Terex D700A	259854W	253030W	98362W		

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### Index-Illustrated

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2	Gear Train/Shaft	2-1
3	Hydraulics/Controls	3-1
4	Optional	4-1
5	Numerical Index	5-1

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

Item	Part No.	Description	A	B	Item
1	134078W	Shim, .005	A/R	A/R	11
1	134079W	Shim, .007	A/R	A/R	11
2	79389W	Seal, Oil	1	1	12
3	-----	Shaft, PTO	1	1	13
4	"a	-----	1	1	14
4	"a	Bearing, Carrier	1	1	15
5	"a	Pin	1	1	16
6	"a	Ring, Lock	1	1	1
7	"a	Coupler	1	1	1
8	35573W	Ring, Snap	1	1	1
9	125399W	Bearing	1	1	1
10	109453W	O-Ring	1	1	1

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

1. Determine the function and application of the part required. Turn to the illustrated index page and select the most appropriate area.
2. Line up the black arrow containing the appropriate reference number, with the black tab on the division index page with the same reference number. Use the division index to determine the assembly which would normally contain the part required. Proceed 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 immediately following 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:**

1. The assembly breakdowns include part numbers, descriptions, quantities required, keys and footnotes to help in selecting the correct parts.
2. 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.
3. Indented 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 immediately above.
4. 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.
5. Serial numbers are shown to allow for the most current parts information to be incorporated into the parts manual. See page 1-6 for serial number information.

**Ordering Parts:**

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

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

Allied Systems Company  
21433 SW Oregon Street  
Sherwood, OR 97140 USA

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

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

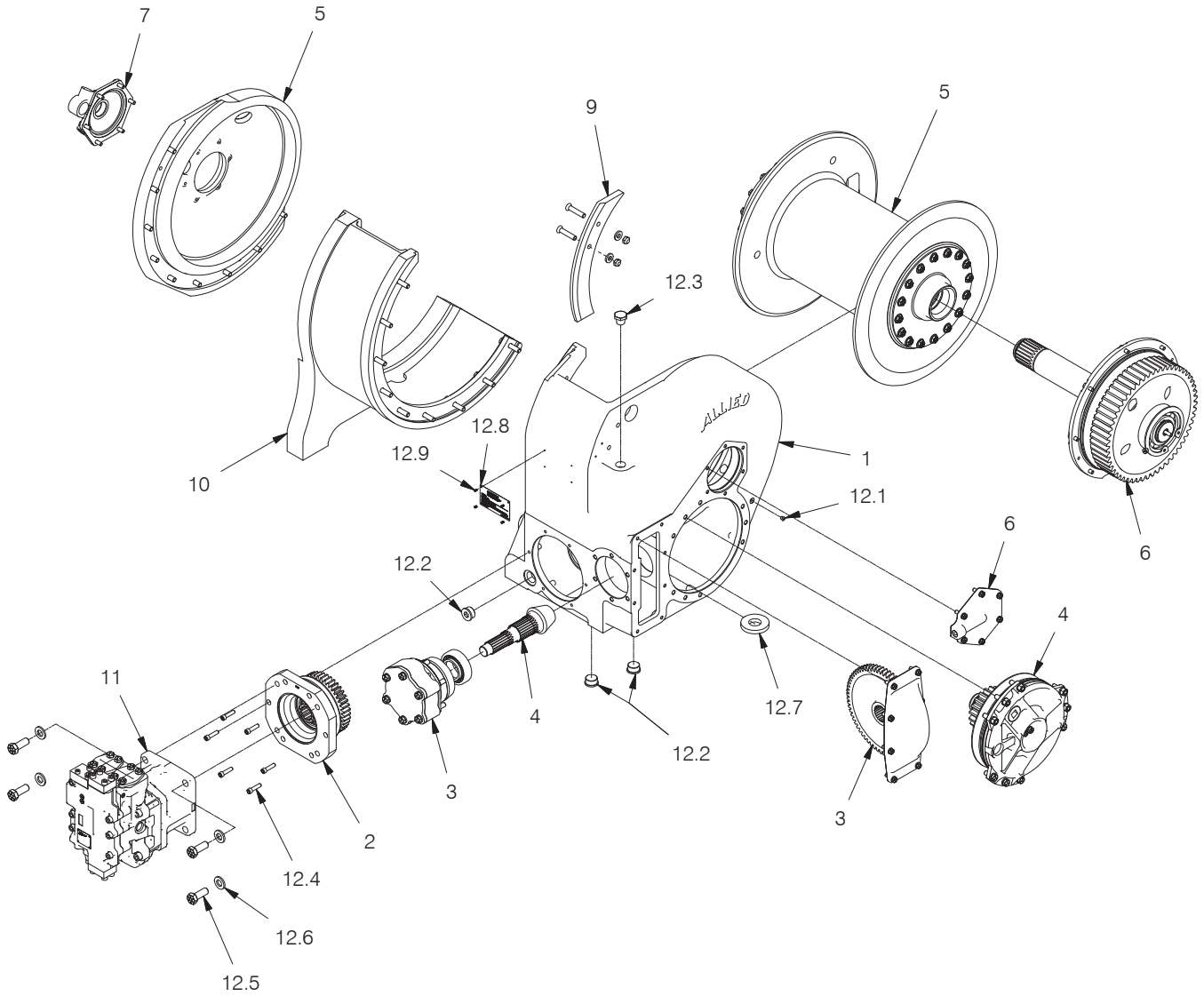
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## Winch Assemblies / Nameplate & Decals

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# Winch Assemblies

WH411Y01A  
Mainline Yarder Winch

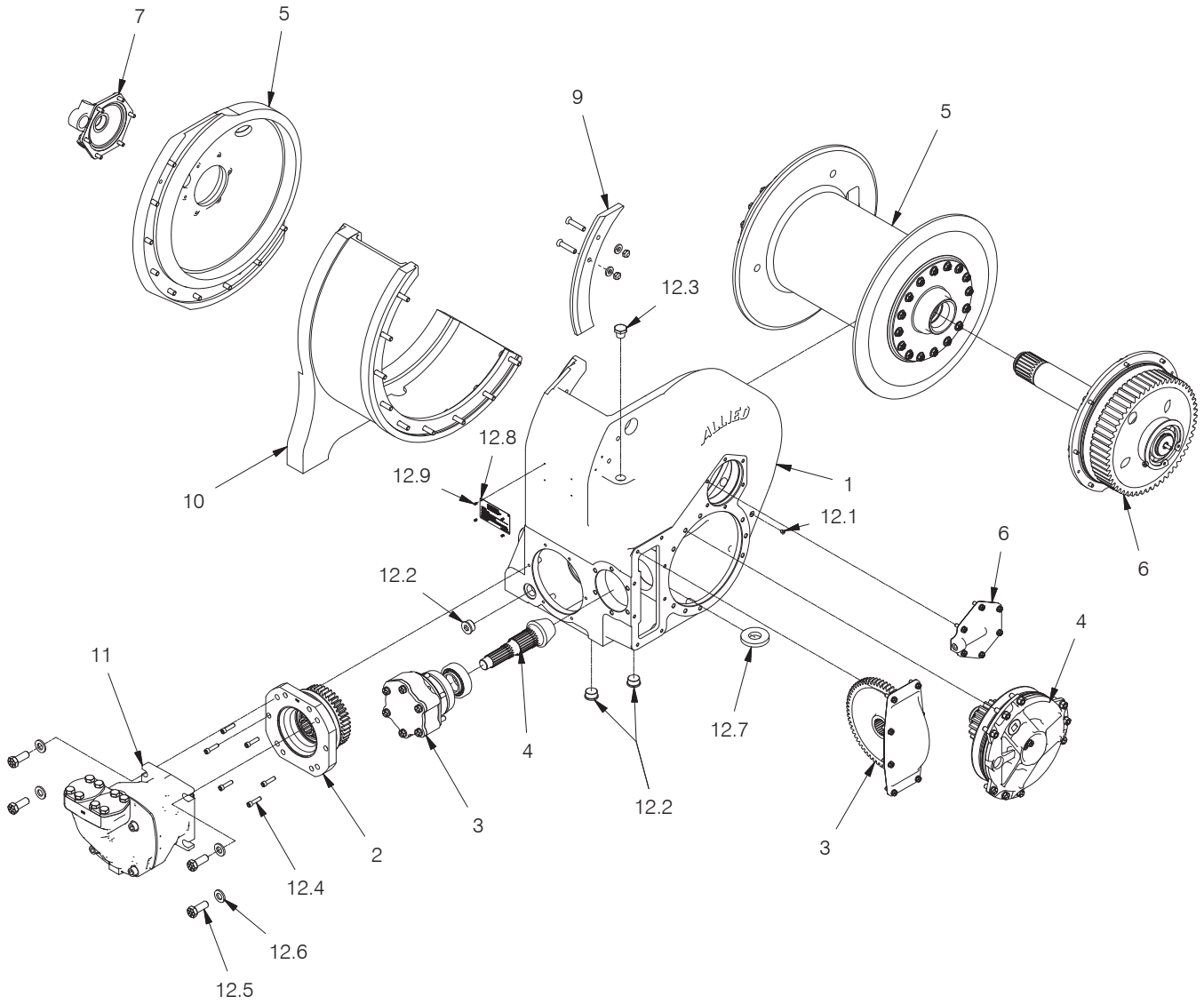


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2314510	Frame - Yarder Winch	1	12	2314831	Miscellaneous Parts	1
2	* 2314514	Input, Motor (SAE D) Parts Group (see 3-2)	1	12.1	222441W	. Fitting, O-Ring	2
3	* 2306791W	Pinion Shaft Parts Group (see 4-2)	1	12.2	233683W	. Fitting, O-Ring	3
4	* R232380	Ring Gear Shaft Parts Group (see 4-3)	1	12.3	17636W	. Fitting	1
5	* 2314630	Cable Drum & Clutch Parts Group (see 4-4)	1	12.4	426371	. Capscrew	6
6	* 2314512	Drum Drive Shaft Parts Group (see 4-6)	1	12.5	Y17C-1232	. Capscrew	4
7	* 2314828	Cap Bearing Cover Parts Group (see 4-8)	1	12.6	221777W	. Washer	4
9	* 2314830	Drum Filler Parts Group (see 3-4)	1	12.7	R525293	. Magnet, Ceramic	1
10	* 2315086	Frame Extension Parts Group (see 3-5)	1	12.8	2315006	. Nameplate	1
11	2315234	Motor Assembly, Variable	1	12.9	16602W	. Screw	4
	224964	. Fitting	1				

\* Parts Group

# Winch Assemblies

WH411Y02A  
Skyline Yarder Winch



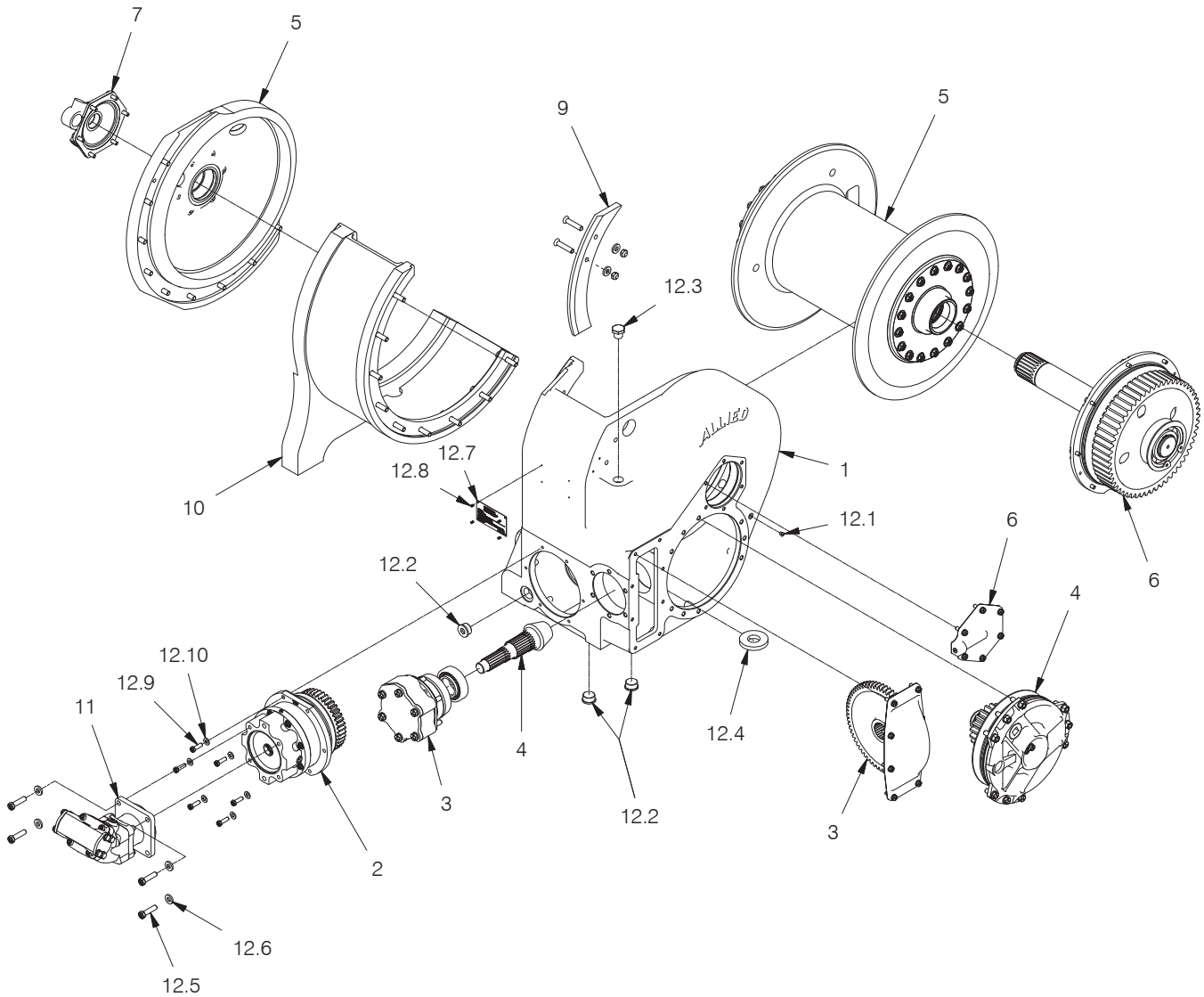
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2314510	Frame - Yarder Winch	1	12	2314831	Miscellaneous Parts	1
2	* 2314514	Input, Motor (SAE D) Parts Group (see 3-2)	1	12.1	222441W	. Fitting, O-Ring	2
3	* 2306791W	Pinion Shaft Parts Group (see 4-2)	1	12.2	233683W	. Fitting, O-Ring	3
4	* R232380	Ring Gear Shaft Parts Group (see 4-3)	1	12.3	17636W	. Fitting	1
5	* 2314630	Cable Drum & Clutch Parts Group (see 4-4)	1	12.4	426371	. Capscrew	6
6	* 2314512	Drum Drive Shaft Parts Group (see 4-6)	1	12.5	Y17C-1232	. Capscrew	4
7	* 2314828	Cap Bearing Cover Parts Group (see 4-8)	1	12.6	221777W	. Washer	4
9	* 2314830	Drum Filler Parts Group (see 3-4)	1	12.7	R525293	. Magnet, Ceramic	1
10	* 2315086	Frame Extension Parts Group (see 3-5)	1	12.8	2315006	. Nameplate	1
11	2315235	Motor Assembly, Fixed	1	12.9	16602W	. Screw	4

\* Parts Group

# Winch Assemblies

WH411Y03C

Single Excavator Winch



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	2314510	Frame - Yarder Winch	1	12	2315387	Miscellaneous Parts	1
2	* 2314047	Input, 3.75 Planetary Parts Group (see 3-3)	1	12.1	222441W	. Fitting, O-Ring	1
3	* 2306791W	Pinion Shaft Parts Group (see 4-2)	1	12.2	233683W	. Fitting, O-Ring	3
4	* R232380	Ring Gear Shaft Parts Group (see 4-3)	1	12.3	17636W	. Fitting	1
5	* 2315390	Cable Drum & Clutch Parts Group (see 4-5)	1	12.4	R525293	. Magnet, Ceramic	1
6	* 2315389	Drum Drive Shaft Parts Group (see 4-7)	1	12.5	R13811077	. Capscrew	4
7	* 2314828	Cap Bearing Cover Parts Group (see 4-8)	1	12.6	221771W	. Washer	4
9	* 2314830	Drum Filler Parts Group (see 3-4)	1	12.7	2315006	. Nameplate	1
10	* 2315086	Frame Extension Parts Group (see 3-5)	1	12.8	16602W	. Screw	4
11	2315424	Motor Assembly, Fixed	1	12.9	221499W	. Capscrew	6
				12.10	221767W	. Hard Washer	6

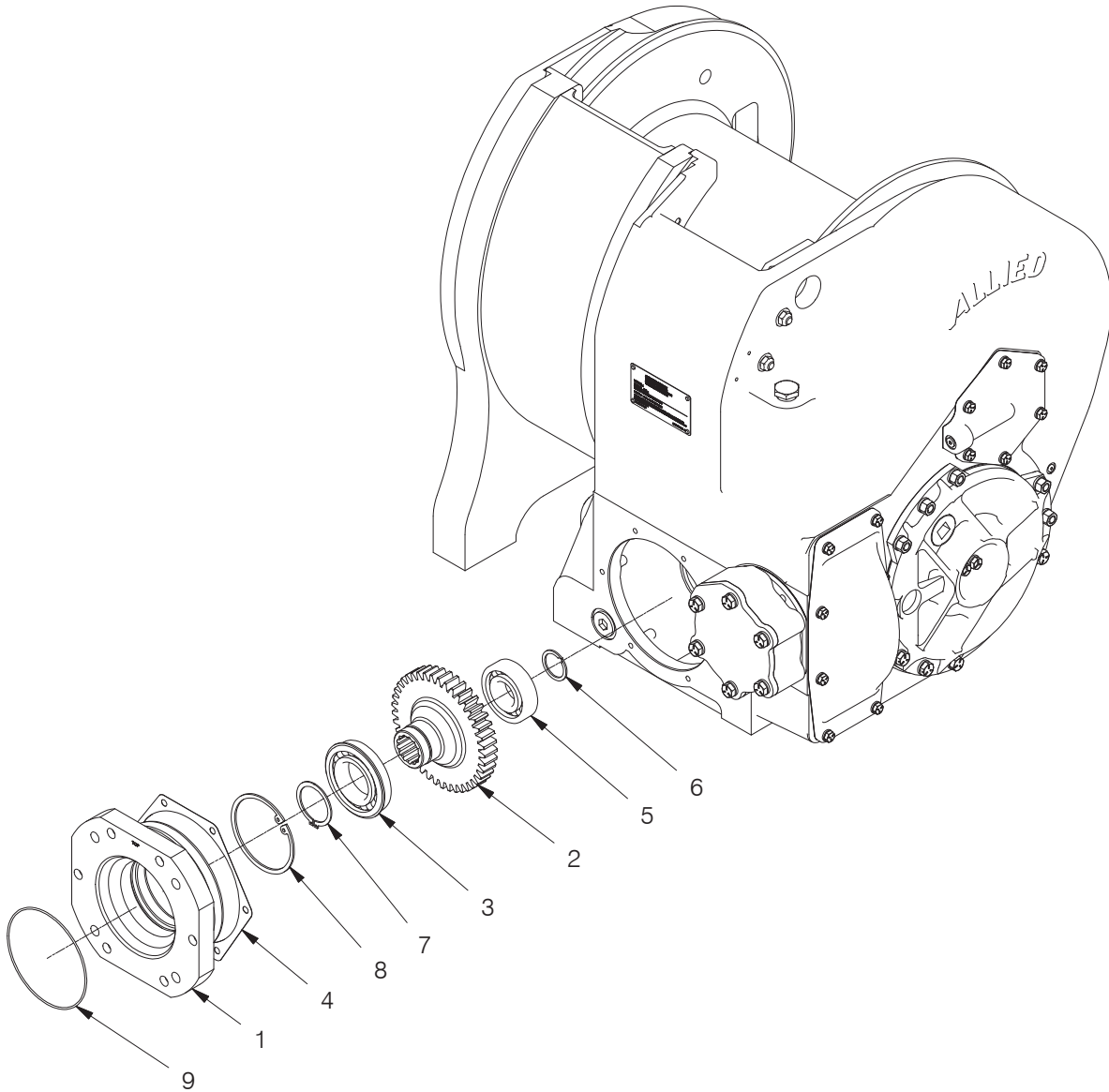
\* Parts Group

### Winch Case & Parts Group

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Input, 3.75 Planetary.....	3-3
Input, Motor (SAE D).....	3-2

# Input, Motor (SAE D) Parts Group

WH411Y01A, WH411Y02A



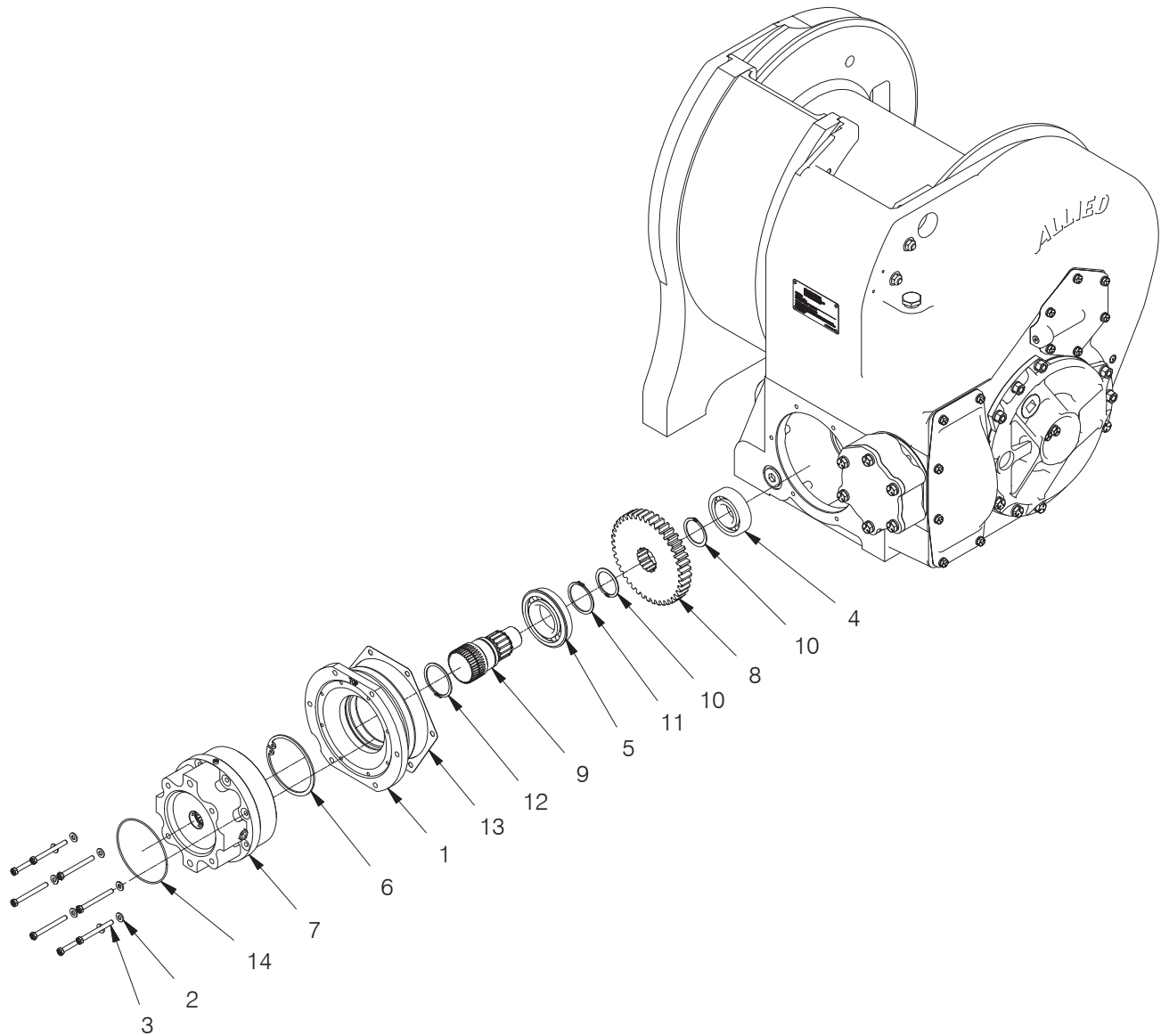
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314514</b>	<b>Input, Motor (SAE D)</b>	<b>1</b>				
1	2314515	. Bearing Carrier, Input (SAE D)	1	6	R224083	. Ring, Snap	1
2	2314516	. Gear/Shaft Input - 41T	1	7	12975W	. Snap Ring - Ext	1
3	*a 2303628W	. Bearing - Ball	1	8	304562W	. Snap Ring - Int	1
4	*a R231264	. Gasket - Input Bearing Cap	1	9	*a 237349	. O-Ring	1
5	*a 43308W	. Bearing - Ball	1				

\*a Included in 2315580 Input, Motor Service Kit



# Input, 3.75 Planetary Parts Group

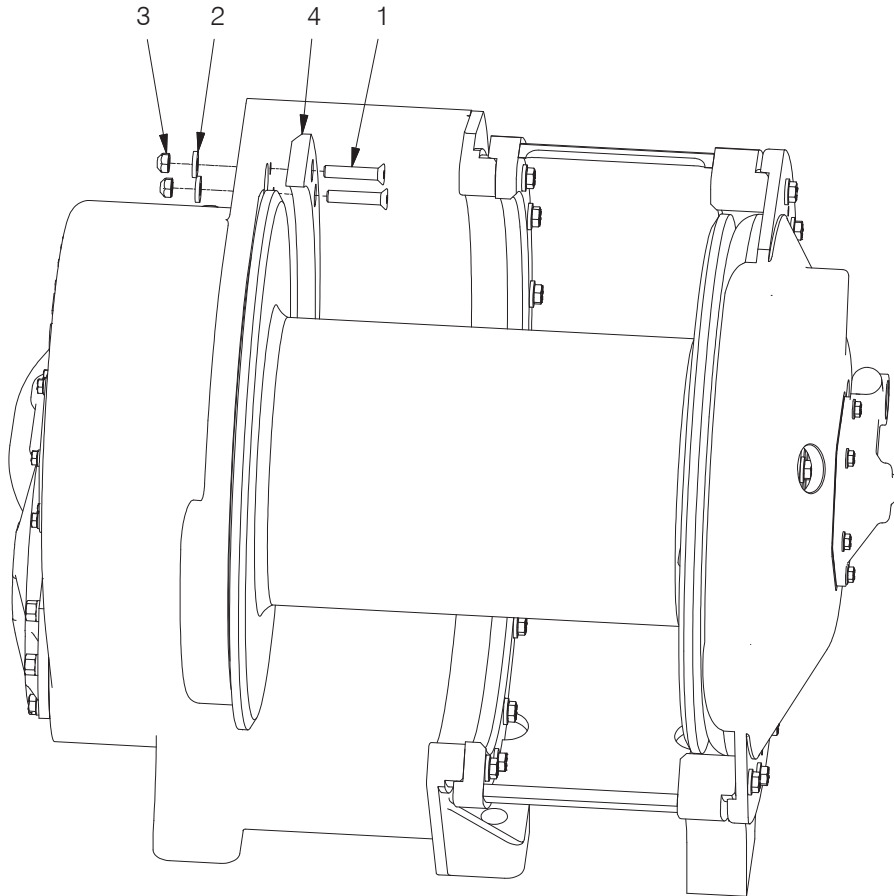
WH411Y03C



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314047</b>	<b>Input, 3.75 Planetary</b>	<b>1</b>				
1	2313975	. Carrier - Bearing, Input	1	8	2311602	. Gear - 41T	1
2	R13802914	. Washer	8	9	2313974	. Shaft - Input	1
3	R13811023	. Capscrew	8	10	58954W	. Snap Ring - Ext	2
4	*a 43308W	. Bearing - Ball	1	11	12917W	. Snap Ring - Ext	1
5	*a 2303628W	. Bearing - Ball	1	12	73688W	. Snap Ring - Ext	1
6	304562W	. Snap Ring - Int	1	13	*a R231264	. Gasket - Input Bearing Cap	1
7	2313977	. Kit - Drive, Planetary	1	14	*a 27725	. O-Ring	1

\*a Included in 2315581 Input, 3.75 Planetary Service Kit

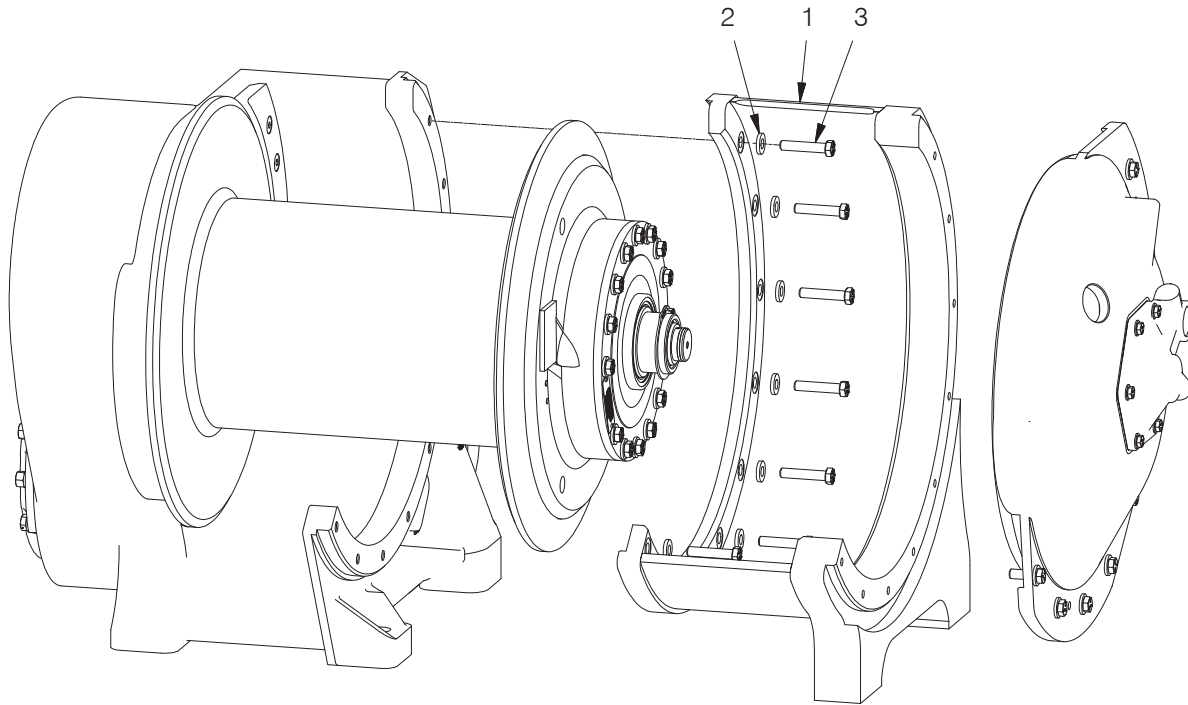
**Drum Filler Parts Group**  
 WH411Y01A, WH411Y02A, WH411Y03C



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314830</b>	<b>Drum Filler</b>	<b>1</b>				
1	Y09G-0840	. Capscrew	2	3	R13804125	. Locknut	2
2	221771W	. Washer	2	4	2314809	. Drum Filler	1

**Frame Extension Parts Group**

WH411Y01A, WH411Y02A, WH411Y03C



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315086</b>	<b>Frame Extension</b>	<b>1</b>				
1	2314783	. Extension - Frame W400	1	3	221576W	. Capscrew	9
2	221771W	. Washer	9				

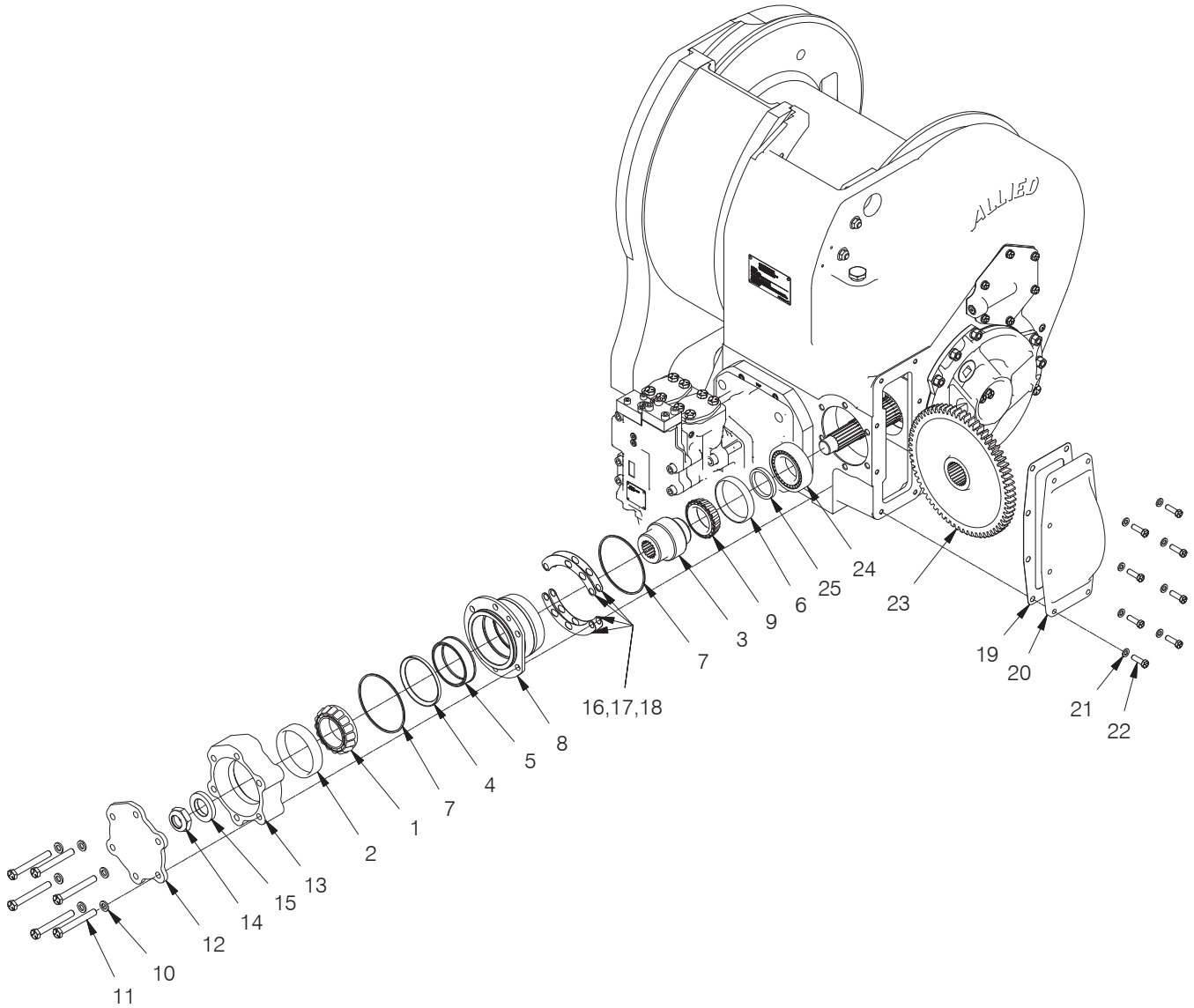
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## Gear Train

Cable Drum & Clutch.....	4-4 thru 4-5
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## Pinion Shaft Parts Group

WH411Y01A, WH411Y02A, WH411Y03C

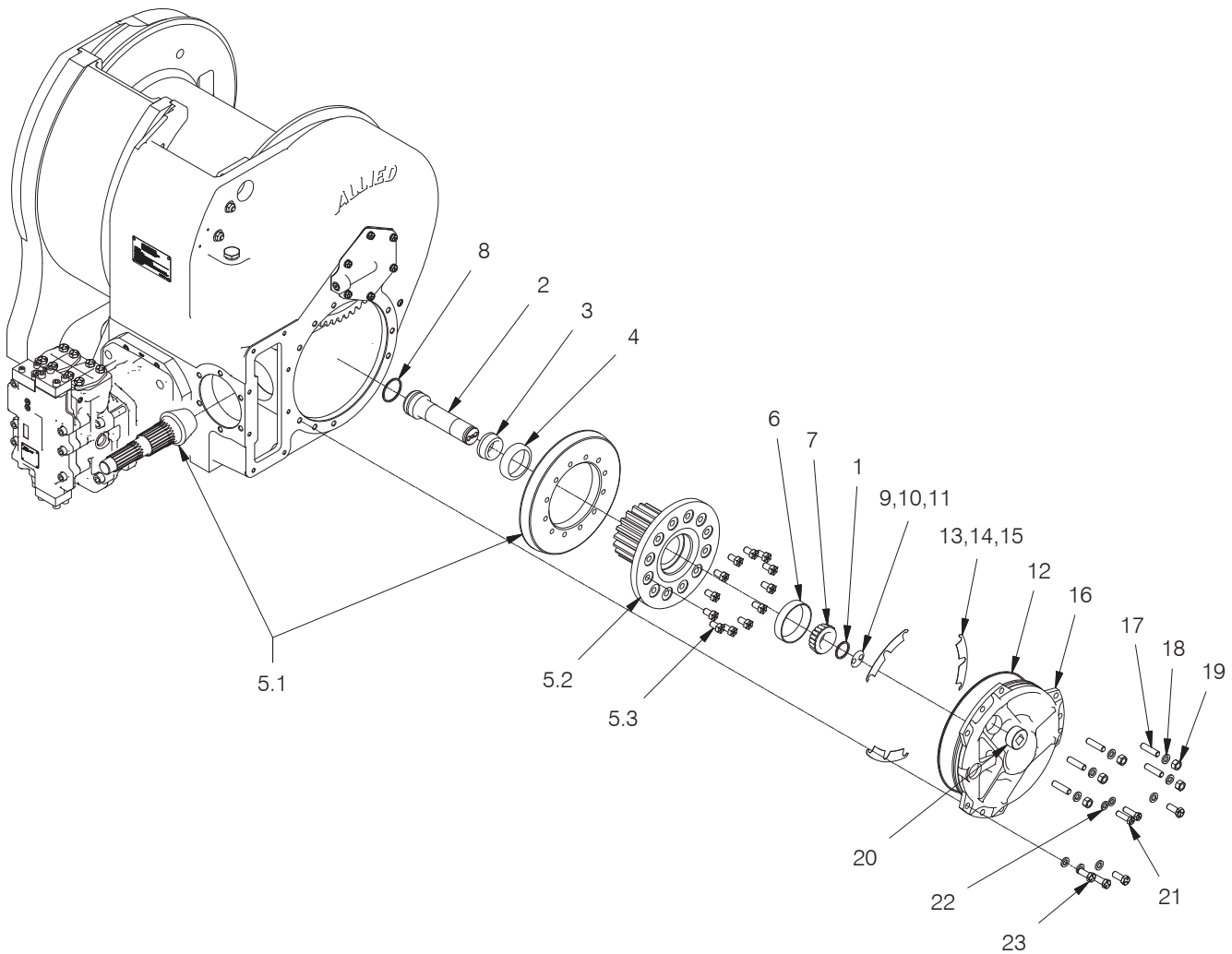


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2306791W</b>	<b>Pinion Shaft</b>	<b>1</b>				
1	*a R4064002	. Bearing Cone	1	14	17411W	. Nut	1
2	*a R4064001	. Bearing Cup	1	15	R400103	. Spacer - Pinion Shaft,	1
3	R232350	. Race - Inner	1	16	R231274	. Shim .004	A/R
4	R233850	. Retainer - Sprag	1	17	R231275	. Shim .007	A/R
5	R232351	. Sprag	1	18	R232715	. Shim .020	A/R
6	*a 45733W	. Cup - Roller Bearing	1	19	*a R231279	. Gasket	1
7	*a 203540	. O-Ring	2	20	R400082	. Cover - Pinion Gear	1
8	R232349	. Race - Outer	1	21	15156W	. Washer	8
9	*a 2303791W	. Cone - Roller Bearing	1	22	252928W	. Capscrew	8
10	15158W	. Washer	6	23	R231744	. Gear - 67T	1
11	2313376	. Capscrew	6	24	*a 2306097W	. Bearing - Roller, Spherical	1
12	2306197W	. Plate - Cover, Pinion Shaft Housing	1	25	R400041	. Spacer - Pinion Bearing	1
13	2306193W	. Housing - Shaft, Pinion	1				

\*a Included in 2315582 Pinion Shaft Service Kit

### Ring Gear Shaft Parts Group

WH411Y01A, WH411Y02A, WH411Y03C

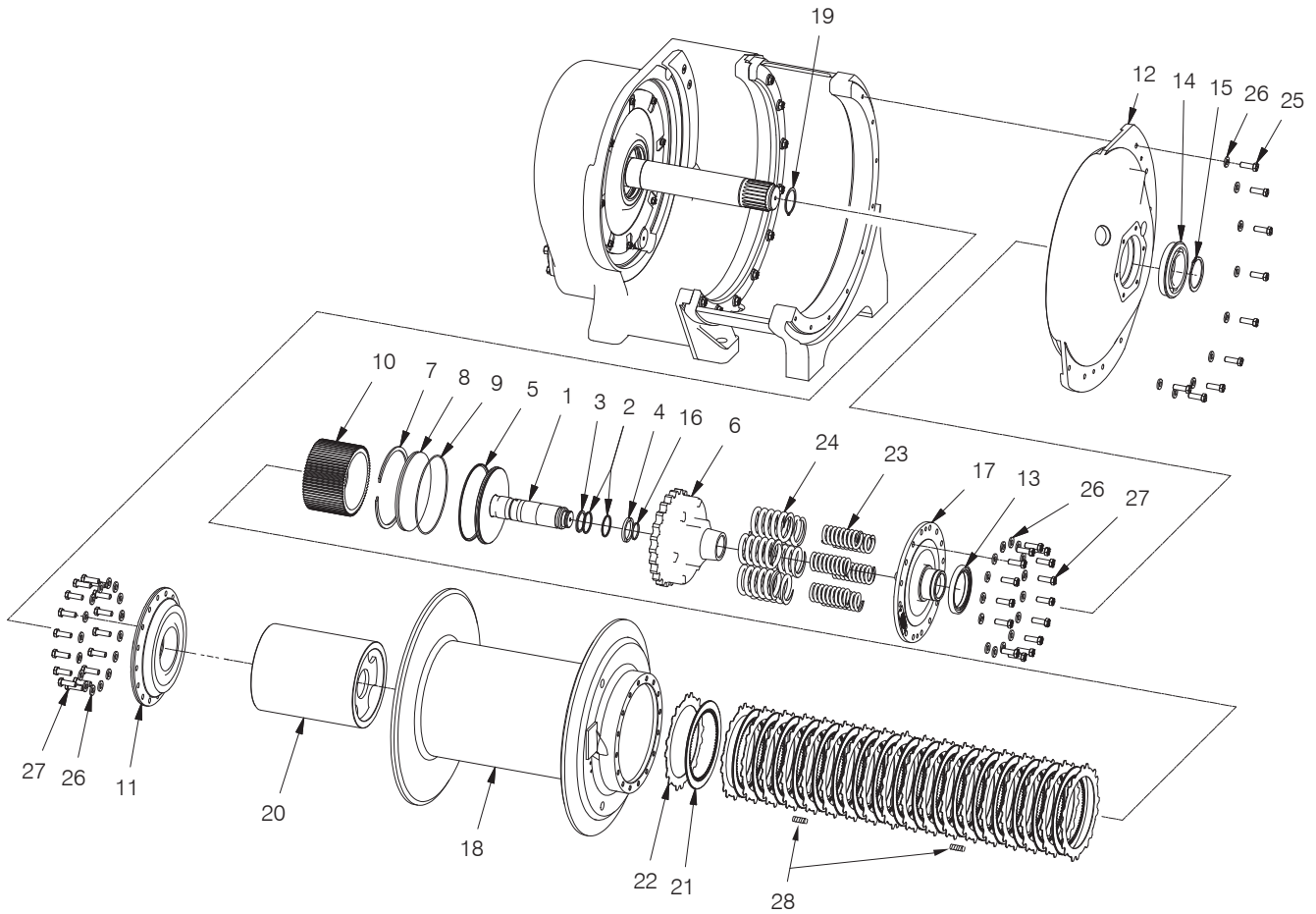


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>R232380</b>	<b>Ring Gear Shaft</b>	<b>1</b>				
1	*a 203444	. O-Ring	1	12	*a 14718W	. O-Ring	1
2	R232363	. Shaft	1	13	R232365	. Shim .005	A/R
3	*a R1314773	. Bearing Cone	1	14	R232366	. Shim .007	A/R
4	*a R1314774	. Bearing Cup	1	15	R232367	. Shim .020	A/R
5	R233360	. Ring Gear, Pinion & Ring Gear Hub Assy	1	16	R233194	. Cover	1
5.1	R233361	. . Ring & Pinion Set	1	17	2313419	. Stud - Epoxy Lock	5
5.2	R233302	. . Hub - Gear	1	18	15158W	. Washer	9
5.3	2303603W	. . Bolt - 1/2 X 7/8 Grd 5	12	19	221712W	. Hex Nut	5
6	*a R1304638	. Bearing Cup	1	20	15319W	. Fitting	1
7	*a R232362	. Bearing Cone	1	21	134328W	. Capscrew	2
8	*a 59229W	. O-Ring	1	22	15157W	. Washer	2
9	R231283	. Shim .004	A/R	23	178402W	. Capscrew	4
10	R231284	. Shim .007	A/R				
11	R231285	. Shim .010	A/R				

\*a Included in 2315583 Ring Gear Shaft Service Kit

# Cable Drum & Clutch Parts Group - Wet Clutch

WH411Y01A, WH411Y02A



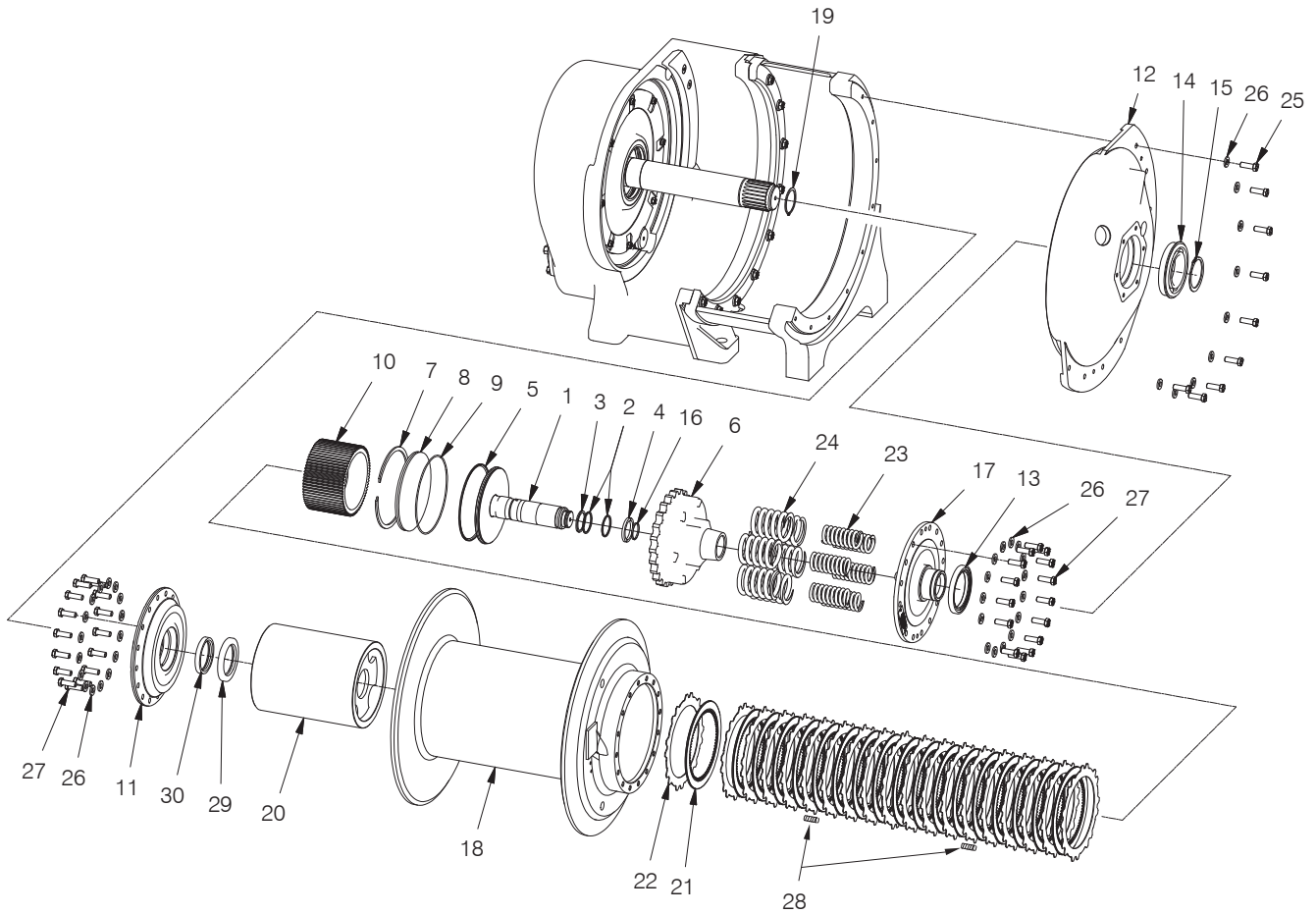
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314630</b>	<b>Cable Drum &amp; Clutch</b>	<b>1</b>				
1	R239216	. Shaft - Clutch	1	16	R223084	. Ring - Piston	1
2	*a 59229W	. O-Ring	2	17	R237329	. Support	1
3	*a R231017	. Seal - Lip	1	18	2314723	. Drum	1
4	R231811	. Split Ring	2	19	12940W	. Snap Ring - Ext	1
5	*a R231303	. Seal - Lip	1	20	2314812	. Spacer	1
6	R232239	. Piston - Clutch, Drum Release	1	21	*a 2311825	. Plate - Friction	18
7	R223989	. Ring, Snap	1	22	R400129	. Disc - Clutch, Outer	19
8	R232240	. Plug - Piston	1	23	R231333	. Spring	6
9	*a 17147W	. O-Ring	1	24	R231332	. Spring	6
10	R232370	. Assembly - Hub	1	25	18588W	. Capscrew	9
11	2314653	. Cable Drum Support & Wear Sleeve	1	26	221771W	. Washer	40
12	R232901	. Cover	1	27	200454W	. Capscrew	31
13	*a R231336	. Seal - Oil	1	28	R233029	. Spring	12
14	*a R231338	. Bearing	1				
15	307276W	. Ring - Retaining	1				

\*a Included in 2315584 Cable Drum & Clutch Service Kit



# Cable Drum & Clutch Parts Group - Dry Clutch

WH411Y03C

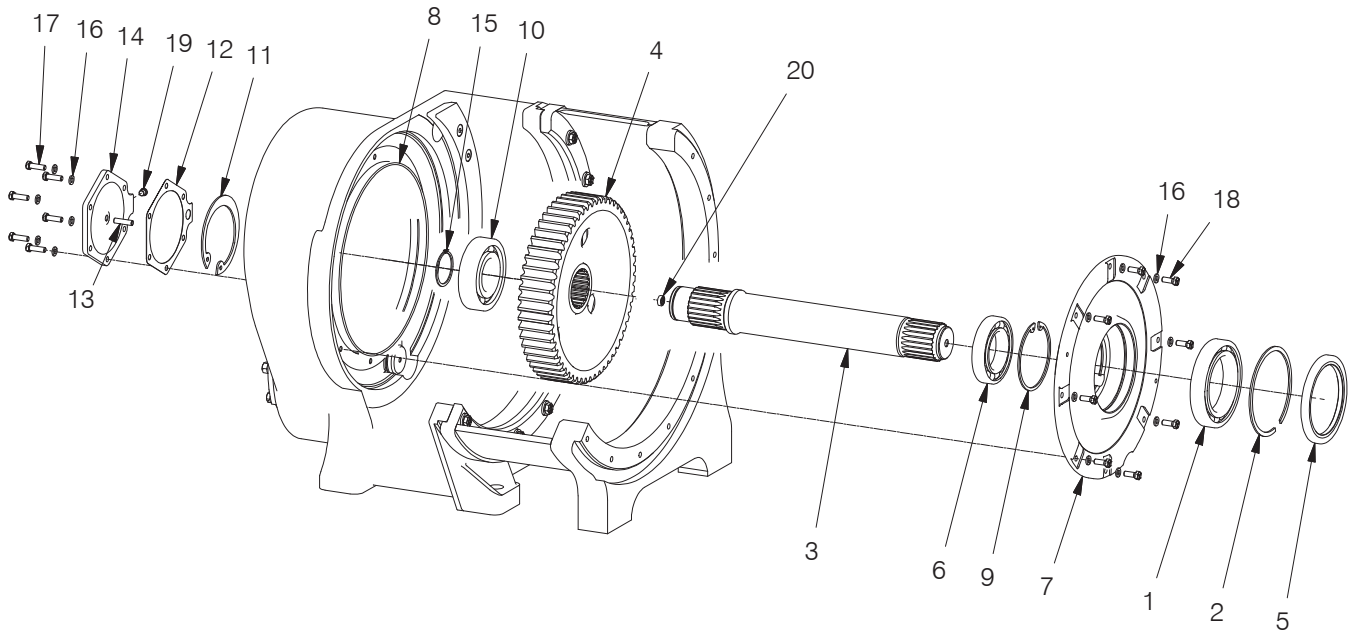


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315390</b>	<b>Cable Drum &amp; Clutch</b>	<b>1</b>				
1	R239216	. Shaft - Clutch	1	17	R237329	. Support	1
2	*a 59229W	. O-Ring	2	18	2314723	. Drum	1
3	*a R231017	. Seal - Lip	1	19	12940W	. Snap Ring - Ext	1
4	R231811	. Split Ring	2	20	2314812	. Spacer	1
5	*a R231303	. Seal - Lip	1	21	*a 2311825	. Plate - Friction	18
6	R232239	. Piston - Clutch, Drum Release	1	22	R400129	. Disc - Clutch, Outer	19
7	R223989	. Ring, Snap	1	23	R231333	. Spring	6
8	R232240	. Plug - Piston	1	24	R231332	. Spring	6
9	*a 17147W	. O-Ring	1	25	18588W	. Capscrew	9
10	R232370	. Assembly - Hub	1	26	221771W	. Washer	40
11	2304617W	. Assembly - Cable Drum & Wear Sleeve	1	27	200454W	. Capscrew	31
12	R232901	. Cover	1	28	R233029	. Spring	12
13	*a R231336	. Seal - Oil	1	29	*a 2304326W	. Seal - Oil	1
14	*a R231338	. Bearing	1	30	*a R247014	. Seal	1
15	307276W	. Ring - Retaining	1				
16	R223084	. Ring - Piston	1				

\*a Included in 2315585 Cable Drum & Clutch Service Kit

## Drum Drive Shaft Parts Group - Wet Clutch

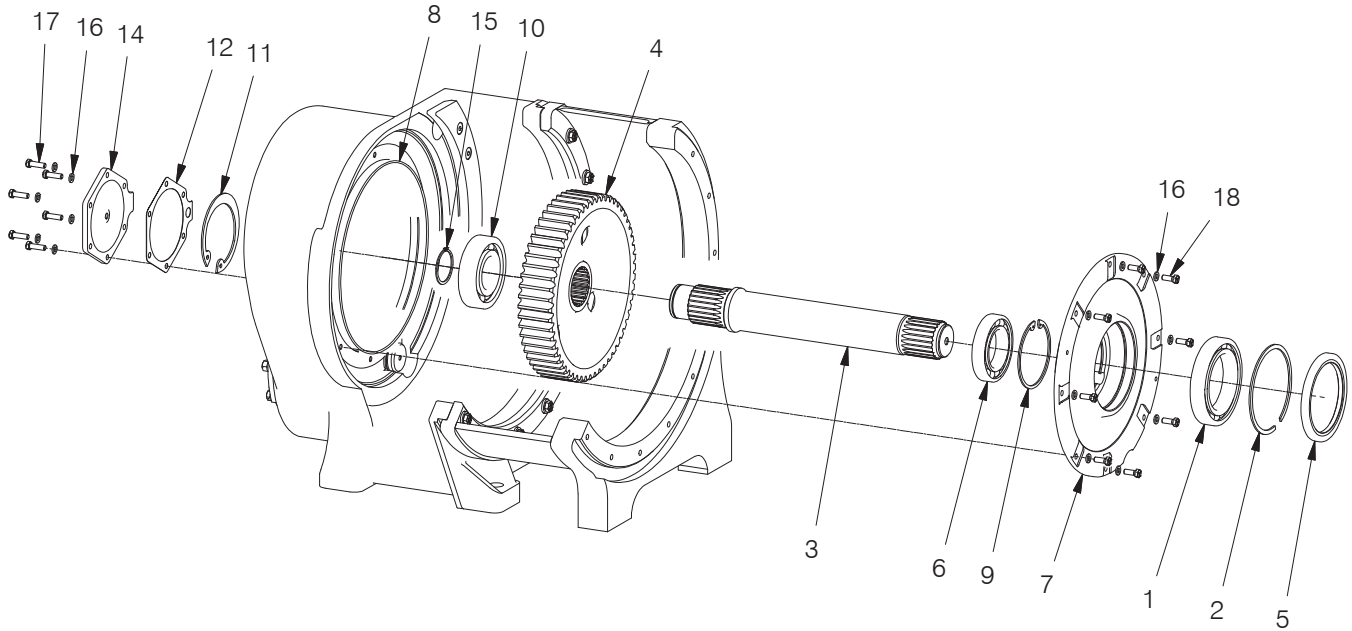
WH411Y01A, WH411Y02A



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314512</b>	<b>Drum Drive Shaft</b>	<b>1</b>				
1	*a 44322W	. Bearing - Ball	1	12	*a R231293	. Gasket	2
2	R217693	. Ring	1	13	2314851	. Tube, Oil	1
3	2314513	. Shaft, Cable Drum Drive	1	14	2314833	. Cover	1
4	R232368	. Gear - 56T	1	15	73688W	. Snap Ring - Ext	1
5	*a R231842	. Seal - Oil	1	16	15156W	. Washer	14
6	*a 41215W	. Bearing - Ball	1	17	252928W	. Capscrew	6
7	R231294	. Support, Cable Drum	1	18	179443W	. Capscrew	8
8	*a R218777	. O-Ring	1	19	235387	. Fitting	1
9	12925W	. Snap Ring - Int	1	20	*a 2314852	. Seal, Oil	1
10	*a 43313W	. Bearing - Ball	1				
11	12981W	. Snap Ring - Int	1				
					*a	Included in 2315586 Drum Drive Shaft Service Kit	

## Drum Drive Shaft Parts Group - Dry Clutch

WH411Y03C

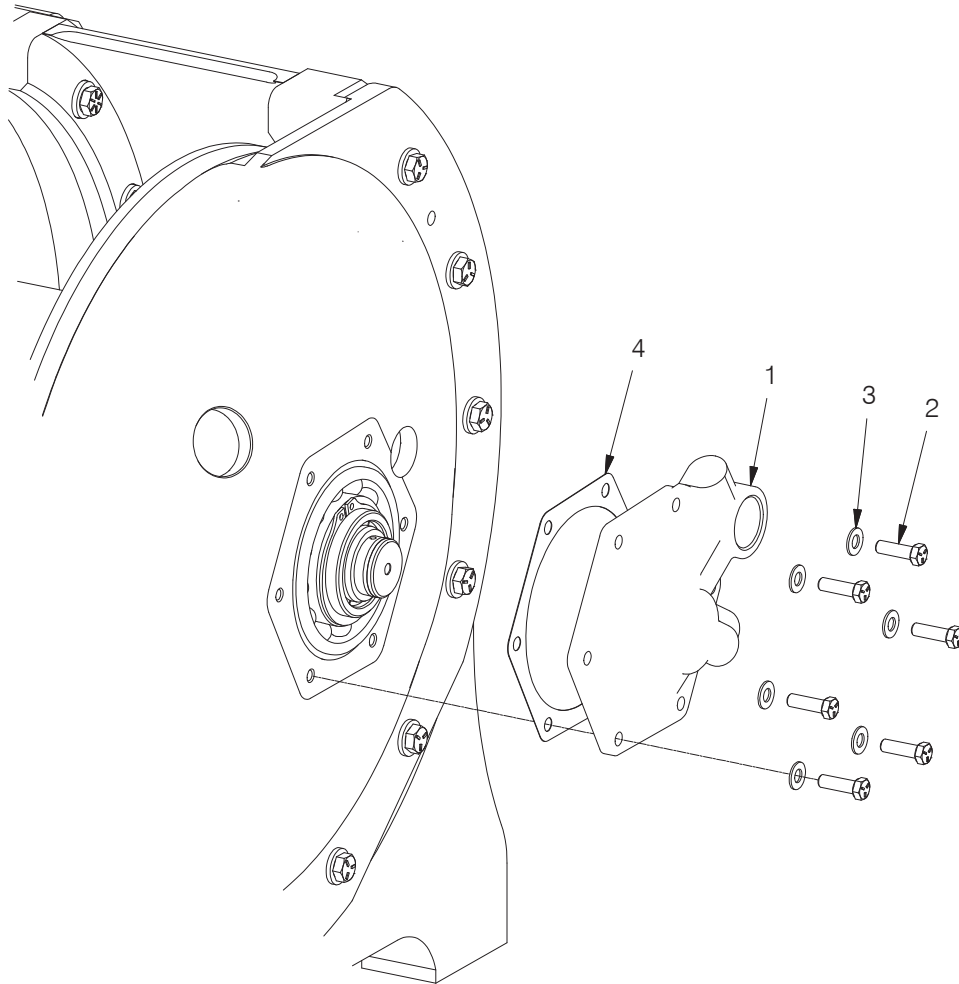


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2315389</b>	<b>Drum Drive Shaft</b>	<b>1</b>				
1	*a 44322W	. Bearing - Ball	1	10	*a 43313W	. Bearing - Ball	1
2	R217693	. Ring	1	11	12981W	. Snap Ring - Int	1
3	2315388	. Shaft, Cable Drum Drive	1	12	*a R231293	. Gasket	1
4	R232368	. Gear - 56T	1	14	2306722W	. Cover	1
5	*a R231842	. Seal - Oil	1	15	73688W	. Snap Ring - Ext	1
6	*a 41215W	. Bearing - Ball	1	16	15156W	. Washer	14
7	R231294	. Support, Cable Drum	1	17	252928W	. Capscrew	6
8	*a R218777	. O-Ring	1	18	179443W	. Capscrew	8
9	12925W	. Snap Ring - Int	1				

\*a Included in 2315587 Drum Drive Shaft Service Kit

**Cap Bearing Cover Parts Group**

WH411Y01A, WH411Y02A, WH411Y03C



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
	<b>2314828</b>	<b>Cap Bearing Cover</b>	<b>1</b>				
1	2306796W	. Cap - Release, Clutch	1	3	15134W	. Washer	6
2	16828W	. Capscrew	6	4	R231308	. Gasket	1

## Suggested Spares Guide

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- Input, 3.75 Planetary Service Kit ..... 5-2
- Input, Motor Service Kit ..... 5-2
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## Suggested Spares Guide

### WH400Y Series Winch

#### Recommended Service Kits

The following pages list the service kits and hose kits that are available for your Allied WH400Y series winch. Each kit includes all parts listed in the table. Select the kit number relevant for your winch, and order a quantity of kits necessary. Order the kits in preparation for your scheduled maintenance.

Page 5-5 contains a list of Tool Kits and a list of Diagnostic Tools, which will help you install and maintain your winch(es).

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

#### Input, Motor Service Kit, P/N 2315580

Applies to: WH411Y01A, WH411Y02A		See Section 3 in Parts Manual	
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315580</b>	<b>Input, Motor Service Kit</b>		
2303628W	. Bearing - Ball	1	
R231264	. Gasket - Input Bearing Cap	1	
43308W	. Bearing - Ball	1	
237349	. O-Ring	1	

#### Input, 3.75 Planetary Service Kit, P/N 2315581

Applies to: WH411Y03C		See Section 3 in Parts Manual	
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315581</b>	<b>Input, 3.75 Planetary Service Kit</b>		
43308W	. Bearing - Ball	1	
2303628W	. Bearing - Ball	1	
R231264	. Gasket - Input Bearing Cap	1	
27725	. O-Ring	1	

#### Pinion Shaft Service Kit, P/N 2315582

Applies to: WH411Y01A, WH411Y02A, WH411Y03C		See Section 4 in Parts Manual	
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315582</b>	<b>Pinion Shaft Service Kit</b>		
R4064002	. Bearing Cone	1	
R4064001	. Bearing Cup	1	
45733W	. Cup - Roller Bearing	1	
203540	. O-Ring	2	
2303791W	. Cone - Roller Bearing	1	
R231279	. Gasket	1	
2306097W	. Bearing - Roller, Spherical	1	



## Suggested Spares Guide

### Ring Gear Shaft Service Kit, P/N 2315583

Applies to:		WH411Y01A, WH411Y02A, WH411Y03C	See Section 4 in Parts Manual	
Allied P/N	Description		Quantity in Kit	Order Quantity
<b>2315583</b>	<b>Ring Gear Shaft Service Kit</b>			
203444	. O-Ring		1	
R1314773	. Bearing Cone		1	
R1314774	. Bearing Cup		1	
R1304638	. Bearing Cup		1	
R232362	. Bearing Cone		1	
59229W	. O-Ring		1	
14718W	. O-Ring		1	

### Cable Drum & Clutch Service Kit, P/N 2315584

Applies to:		WH411Y01A, WH411Y02A	See Section 4 in Parts Manual	
Allied P/N	Description		Quantity in Kit	Order Quantity
<b>2315584</b>	<b>Cable Drum &amp; Clutch Service Kit</b>			
59229W	. O-Ring		2	
R231017	. Seal - Lip		1	
R231303	. Seal - Lip		1	
17147W	. O-Ring		1	
R231336	. Seal - Oil		1	
R231338	. Bearing		1	
2311825	. Plate - Friction		18	

### Cable Drum & Clutch Service Kit, P/N 2315585

Applies to:		WH411Y03C	See Section 4 in Parts Manual	
Allied P/N	Description		Quantity in Kit	Order Quantity
<b>2315585</b>	<b>Cable Drum &amp; Clutch Service Kit</b>			
59229W	. O-Ring		2	
R231017	. Seal - Lip		1	
R231303	. Seal - Lip		1	
17147W	. O-Ring		1	
R231336	. Seal - Oil		1	
R231338	. Bearing		1	
2311825	. Plate - Friction		18	
2304326W	. Seal - Oil		1	
R247014	. Seal		1	



## Suggested Spares Guide

### Drum Drive Shaft Service Kit, P/N 2315586

Applies to: WH411Y01A, WH411Y02A		See Section 4 in Parts Manual	
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315586</b>	<b>Drum Drive Shaft Service Kit</b>		
44322W	. Bearing - Ball	1	
R231842	. Seal - Oil	1	
41215W	. Bearing - Ball	1	
R218777	. O-Ring	1	
43313W	. Bearing - Ball	1	
R231293	. Gasket	2	
2314852	. Seal, Oil	1	

### Drum Drive Shaft Service Kit, P/N 2315587

Applies to: WH411Y03C		See Section 4 in Parts Manual	
Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315587</b>	<b>Drum Drive Shaft Service Kit</b>		
44322W	. Bearing - Ball	1	
R231842	. Seal - Oil	1	
41215W	. Bearing - Ball	1	
R218777	. O-Ring	1	
43313W	. Bearing - Ball	1	
R231293	. Gasket	1	





## Suggested Spares Guide

### Conversion Kit, WH411Y Skyline, P/N 2315529

This kit converts W400 series skidder winch to WH411Y Yarder Skyline winch.

Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315529</b>	<b>Conversion Kit, WH411Y Skyline</b>		
2314514	. Parts Group - Input, Motor (SAE D)	1	
2315086	. Parts Group - Frame Extension	1	
2314723	. Drum - Machining, Final - W400Y	1	
2314812	. Spacer	1	
2314513	. Shaft, Cable Drum Drive	1	
2314833	. Cover	1	
2314653	. Cable Drum Support & Wear Sleeve	1	
2315234	. Parts Group - Motor, Variable	1	
2314830	. Parts Group - Drum Filler	1	
2315530	. Kit, WH411Y; Conversion Service Parts	1	

### Conversion Kit, WH411Y Mainline, P/N 2315538

This kit converts W400 series skidder winch to WH411Y Yarder Mainline winch.

Allied P/N	Description	Quantity in Kit	Order Quantity
<b>2315538</b>	<b>Conversion Kit, WH411Y Mainline</b>		
2314514	. Parts Group - Input, Motor (SAE D)	1	
2315086	. Parts Group - Frame Extension	1	
2314723	. Drum - Machining, Final - W400Y	1	
2314812	. Spacer	1	
2314513	. Shaft, Cable Drum Drive	1	
2314833	. Cover	1	
2314653	. Cable Drum Support & Wear Sleeve	1	
2315235	. Parts Group - Motor, Fixed	1	
2314830	. Parts Group - Drum Filler	1	
2315530	. Kit, WH411Y; Conversion Service Parts	1	



# Suggested Spares Guide

## Tool Kits

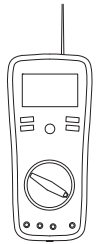
Order these Tool Kits as required for installation, maintenance and service of your winch(es).

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

## Diagnostic Tools

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

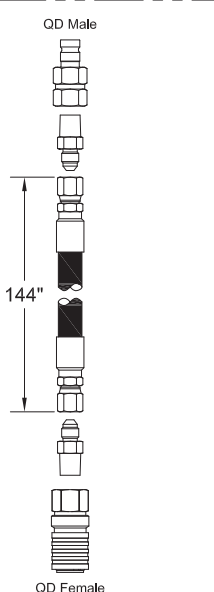
Allied P/N	Description	Order Quantity
906601	0 to 8700 PSI Digital Pressure Gauge W/Female QD Connector	
69782	72" Hose Assembly W/QD Connectors Both Ends	
70381	144" Hose Assembly W/QD Connectors Both Ends	
69778	Multi-Meter, 12 Function	



**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

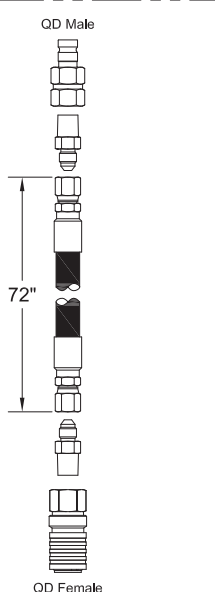


144"

QD Female

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

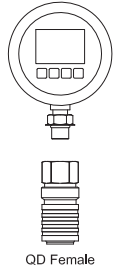
QD Male



72"

QD Female

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



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

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69782	5-6		2314653	5-5		2315580	5-2		221771W	4-5	26
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203444	5-3		2314723	4-5	18	2315583	5-3		222441W	2-2	12.1
203540	4-2	7	2314723	5-5		2315584	5-3		222441W	2-3	12.1
203540	5-2		2314723	5-5		2315585	5-3		222441W	2-4	12.1
224964	2-2		2314783	3-5	1	2315586	5-4		2303603W	4-3	5.3
235387	4-6	19	2314809	3-4	4	2315587	5-4		2303628W	3-2	3
237349	3-2	9	2314812	4-4	20	12917W	3-3	11	2303628W	3-3	5
237349	5-2		2314812	4-5	20	12925W	4-6	9	2303628W	5-2	
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588468	5-6		2314828	2-4	7	12981W	4-6	11	2304326W	5-3	
588469	5-6		2314828	4-8		12981W	4-7	11	2304617W	4-5	11
588526	5-6		2314830	2-2	9	134328W	4-3	21	2306097W	4-2	24
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2311602	3-3	8	2314831	2-2	12	15156W	4-7	16	2306791W	2-3	3
2311825	4-4	21	2314831	2-3	12	15157W	4-3	22	2306791W	2-4	3
2311825	4-5	21	2314833	4-6	14	15158W	4-2	10	2306791W	4-2	
2311825	5-3		2314833	5-5		15158W	4-3	18	2306796W	4-8	1
2311825	5-3		2314833	5-5		15319W	4-3	20	233683W	2-2	12.2
2313376	4-2	11	2314851	4-6	13	16602W	2-2	12.9	233683W	2-3	12.2
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2313974	3-3	9	2314852	5-4		16602W	2-4	12.8	252928W	4-2	22
2313975	3-3	1	2315006	2-2	12.8	16828W	4-8	2	252928W	4-6	17
2313977	3-3	7	2315006	2-3	12.8	17147W	4-4	9	252928W	4-7	17
2314047	2-4	2	2315006	2-4	12.7	17147W	4-5	9	304562W	3-2	8
2314047	3-3		2315086	2-2	10	17147W	5-3		304562W	3-3	6
2314510	2-2	1	2315086	2-3	10	17147W	5-3		307276W	4-4	15
2314510	2-3	1	2315086	2-4	10	17411W	4-2	14	307276W	4-5	15
2314510	2-4	1	2315086	3-5		17636W	2-2	12.3	41215W	4-6	6
2314512	2-2	6	2315086	5-5		17636W	2-3	12.3	41215W	4-7	6
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599054W 09/19/2014 Printed in USA