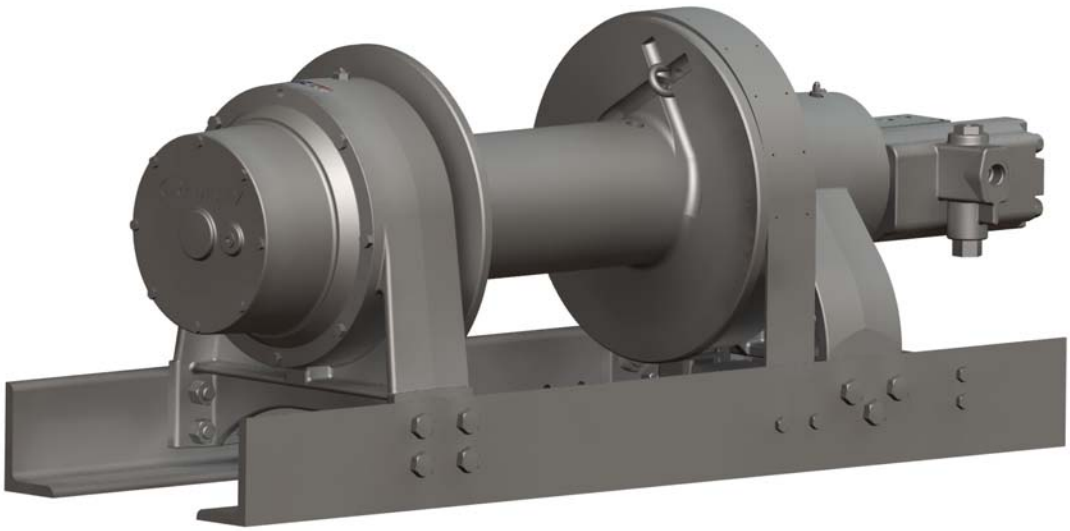
WILDCAT™ WINCH SERIES

OPERATING, SERVICE AND MAINTENANCE MANUAL

By RAMSEY



WILDCAT SERIES 60,000 LB INDUSTRIAL WINCH

CAUTION: ***READ AND UNDERSTAND THIS MANUAL BEFORE INSTALLATION AND OPERATION OF WINCH. SEE WARNINGS!***

TABLE OF CONTENTS

RAMSEY HYDRAULIC PLANETARY WINCH MODEL WILDCAT 60K

PLEASE READ THIS MANUAL CAREFULLY

This manual contains useful ideas in obtaining the most efficient operation from your Ramsey Winch, and safety procedures one needs to know before operating a Ramsey Winch. Do not operate this winch until you have carefully read and understand the "WARNINGS" and "OPERATION" sections of this manual.

WARRANTY INFORMATION

Ramsey Winches are designed and built to exacting specifications. Great care and skill go into every winch we make. If the need should arise, warranty procedure is outlined on the back of your self-addressed postage paid warranty card. Please read and fill out the enclosed warranty card and send it to Ramsey Winch Company. If you have any problems with your winch, please follow instructions for prompt service on all warranty claims. Refer to back page for limited warranty.

SPECIFICATIONS*

APPROXIMATE WEIGHT:	**1400 LBS**
WORKING PRESSURE:	**2600 PSI**
CABLE DIAMETER:	**1 INCH**
MAX FLOW:	**60 GPM**

LAYER OF CABLE	CABLE CAPACITY		LOW SPEED				HIGH SPEED			
			LINE PULL		LINE SPEED		LINE PULL		LINE SPEED	
	Ft	m	Lb	Kg	fpm	mpm	Lb	Kg	fpm	mpm
1	50	20	60000	27100	31	9	22500	10200	75	23
2	110	43	50000	22600	37	11	18700	8500	90	27
3	180	71	42800	19300	43	13	16000	7200	105	32
4	260	102	37500	16900	49	15	14000	6300	120	37

*** These specifications are based on recommended wire rope of 1" Extra Improved Plow Steel Cable and a 7.7 cu. in. / Rev. motor.**

NOTE: The rated line pulls shown are for the winch only. Consult the wire rope manufacturer for wire rope ratings.

WARNINGS:

CLUTCH MUST BE FULLY ENGAGED BEFORE STARTING THE WINCHING OPERATION.

DO NOT START WINCH MOTOR BEFORE ENGAGING CLUTCH.

DO NOT DISENGAGE CLUTCH UNDER LOAD.

STAY OUT FROM UNDER AND AWAY FROM RAISED LOADS.

STAND CLEAR OF CABLE WHILE PULLING. DO NOT TRY TO GUIDE CABLE.

DO NOT EXCEED MAXIMUM LINE PULL RATINGS SHOWN IN TABLE.

DO NOT USE WINCH TO LIFT, SUPPORT, OR OTHERWISE TRANSPORT PEOPLE.

A MINIMUM OF 5 WRAPS OF CABLE AROUND THE DRUM BARREL IS NECESSARY TO HOLD THE LOAD.

CABLE ANCHOR IS NOT DESIGNED TO HOLD LOAD.

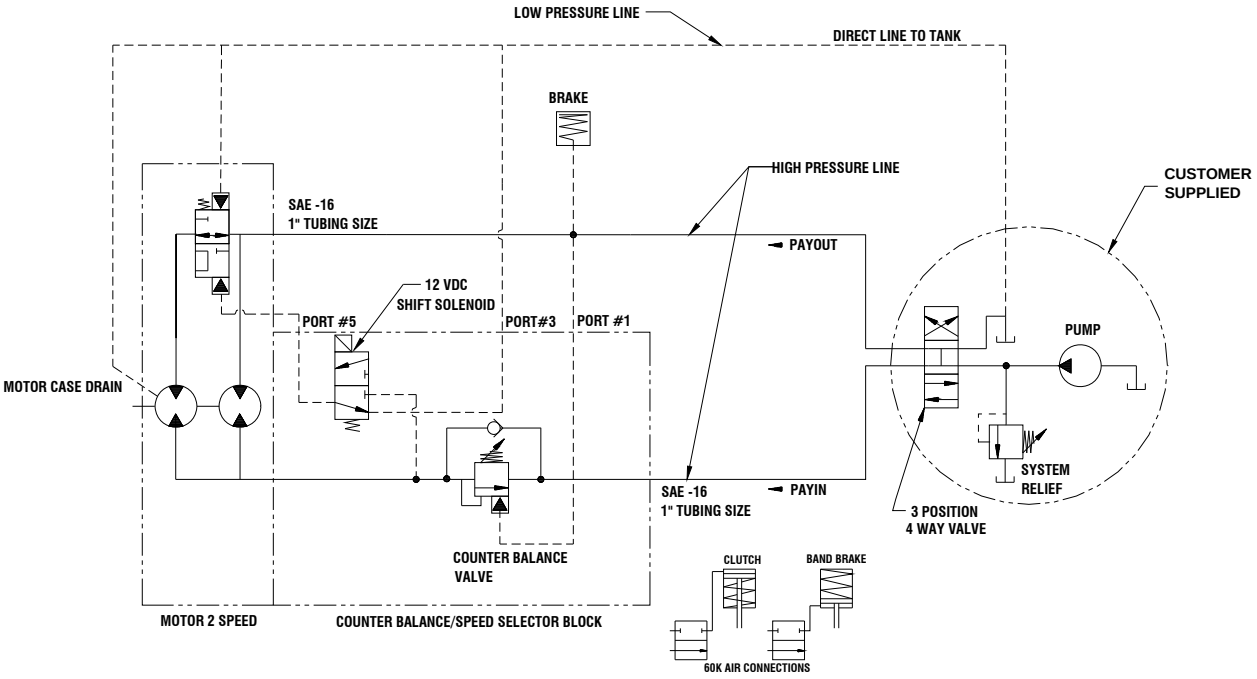
BAND BRAKE IS NOT TO BE USED TO HOLD LOAD

HYDRAULIC SYSTEM REQUIREMENTS

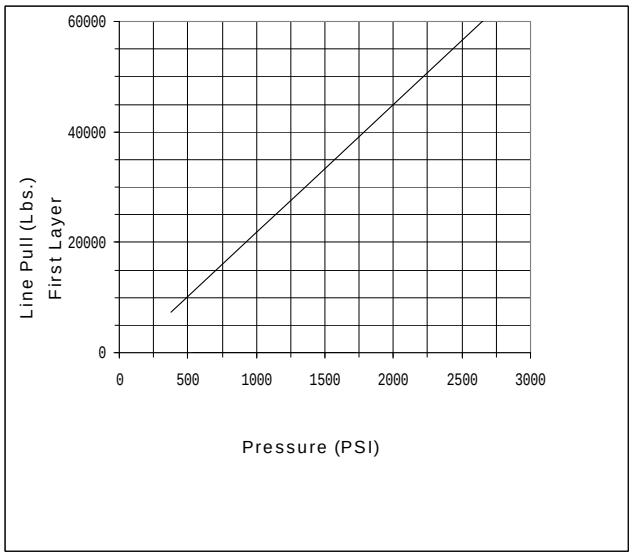
Refer to the performance charts, below, to properly match your hydraulic system to winch performance. The charts consist of:

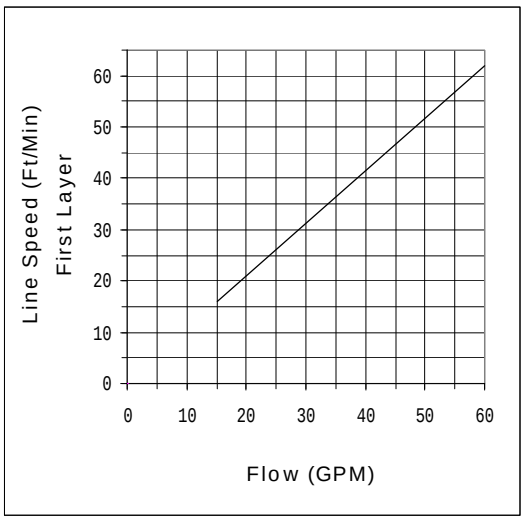
(1) Line pull (lb.) first layer vs. working pressure (PSI) and (2) line speed, first layer (FPM) vs. gallons per minute (GPM). Performance based on a motor displacement of 7.7 cubic inches/rev with 60 GPM maximum flow rate. Motor has (2) 1”-12 SAE straight thread o-ring ports.

Note: A motor spool (open center) directional control valve is required for brake operation.



PERFORMANCE CHARTS

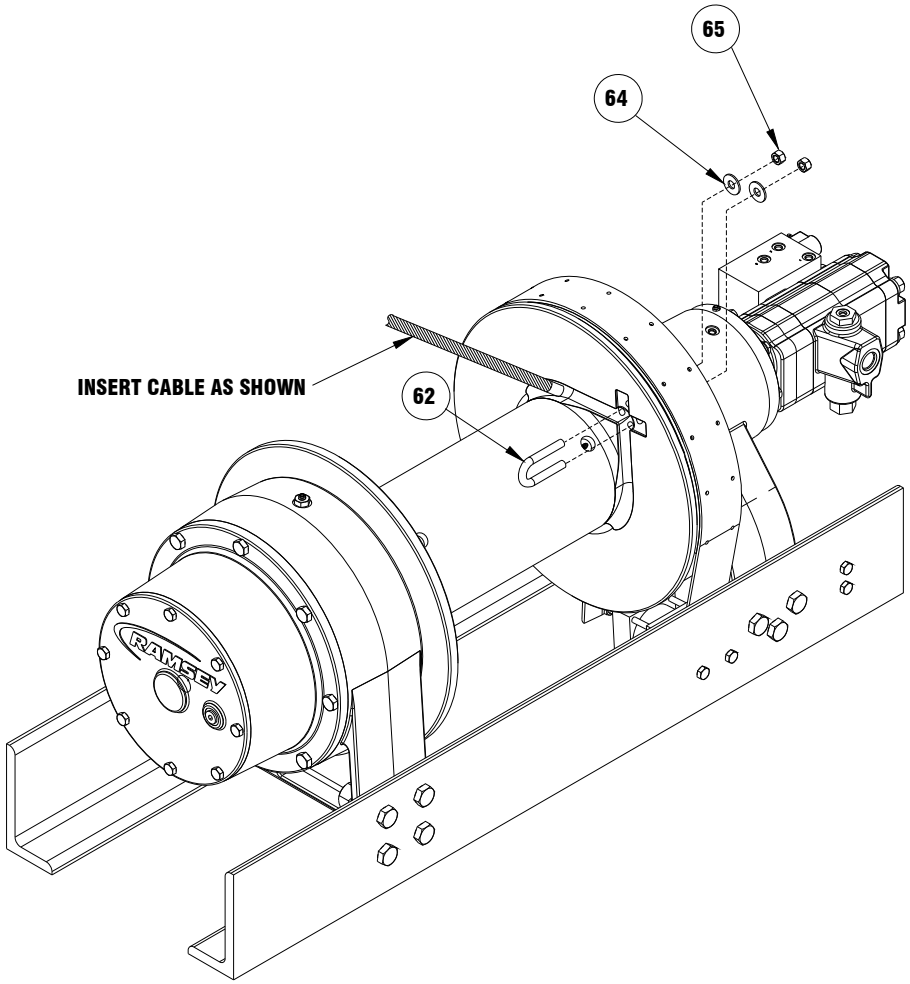




BASED ON 7.7 CU IN/REV MOTOR

CABLE INSTALLATION

1. Unwind cable by rolling it out along the ground to prevent kinking. Securely wrap end of wire rope, opposite hook, with plastic or similar tape to prevent fraying.
2. Place taped end of cable around the drum and into the track on drum flange. Secure using supplied u-bolt #62 and (2) washers #64 and (2) nuts #65.
3. Carefully run the winch in the “reel-in” direction. Keeping tension on end of cable, spool all the cable onto the cable drum, taking care to form neatly wrapped layers.
4. After installing cable, band brake is used to prevent bird nesting while pulling out cable, when clutch is disengaged.



CLUTCH OPERATION

WARNING: CLUTCH MUST BE FULLY ENGAGED BEFORE STARTING THE WINCHING OPERATION.

To engage clutch:

1. Move clutch control to engage the clutch.
2. Run the motor in the cable out direction until the drum begins to turn.

WARNING: DO NOT DISENGAGE CLUTCH UNDER LOAD.

To disengage clutch:

1. Run the winch in the "cable out" direction until the load is off the cable.
2. Move the clutch control to disengage the clutch. The cable may now be spooled off.

WINCH OPERATION

The best way to get acquainted with how your winch operates is to make test runs before you use it. Plan your test in advance. Remember, you hear your winch, as well as see it operate; learn to recognize the sounds of a light steady pull, a heavy pull, and sounds caused by load jerking or shifting. Gain confidence in operating your winch and its use will become second nature with you.

The uneven spooling of cable while pulling a load is not a problem, unless there is a cable pileup on one end of drum. If this happens reverse the winch to relieve the load and move your anchor point further to the center of the vehicle. After the job is done you can unspool and rewind for a neat lay of the cable.

MAINTENANCE

Adhering to the following maintenance schedule will keep your winch in top condition and performing as it should with a minimum of repair.

A. WEEKLY

1. Check the oil level and maintain it to the oil level plug. If oil is leaking out, determine location and repair.
2. Check the pressure relief plug on the gear housing cover and the brake housing cover. Be sure they are not plugged.
3. Lubricate cable with light oil.
4. Lubricate drum bushings with grease. It is necessary to remove cable to expose the grease zerks on drum. Use high quality lithium grease for best results.
5. Apply a high quality lithium grease to clutch spline. Apply band brake to control drum. Declutch drum and apply grease to spline between clutch and drum.

B. MONTHLY

1. Check the winch mounting bolts. If any are missing, replace them and securely tighten any that are loose. Use grade 5 or better bolts.
2. Inspect the cable. If the cable has become frayed with broken strands, replace immediately.

C. ANNUALLY

1. Drain the oil from the winch annually or more often if winch is used frequently.
2. Refill the winch to the oil level plug with all purpose GL-5 oil, (see page 6) or gear lube compatible with your climate.
3. Inspect winch for damage and wear.

LUBRICATION TABLE

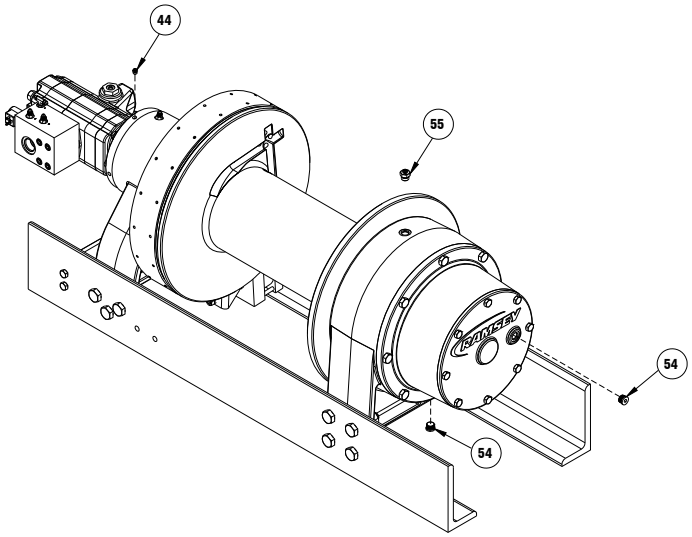
Lubricant Description*	Temp Range F(C)		
	Min Ambient & Operating	Max Ambient	Max Operating
80W140 Synthetic	-25 (-32)	125 (52)	225 (107)
75W90 Synthetic	-40 (-40)	115 (46)	215 (102)
80W90 Conventional	-20 (-29)	100 (38)	180 (82)
85W140 Conventional	20 (6)	120 (50)	200 (93)
*Use API GL-5 or EP lubricants.			

TROUBLE SHOOTING GUIDE

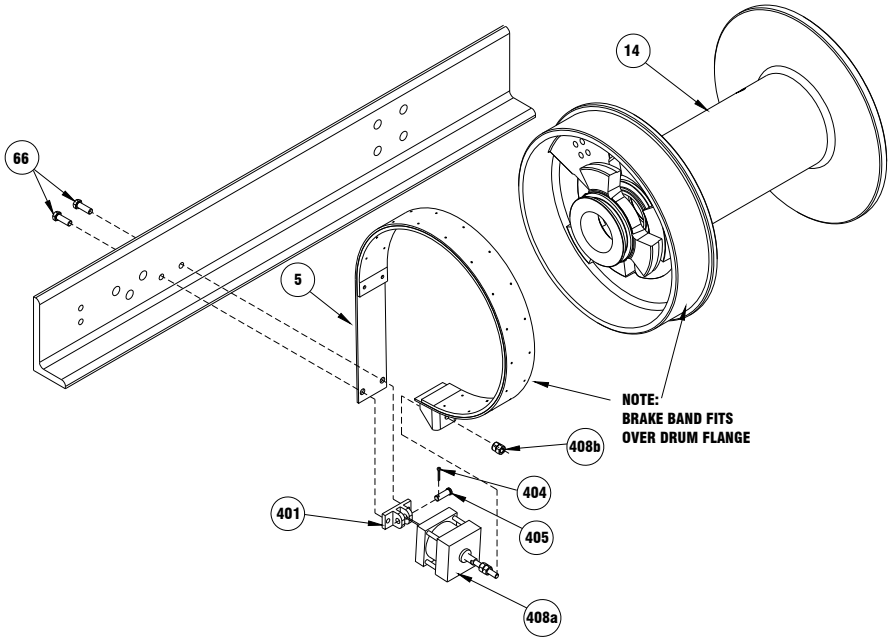
CONDITIONS	POSSIBLE CAUSE	CORRECTION
OIL LEAKS FROM WINCH	1. Seals damaged or worn. 2. Too much oil. 3. Damaged o-rings. 4. Case drain not connected.	1. Replace seal 2. Drain excess oil. Refer to page 7. 3. Replace o-rings. 4. Connect case drain.
WINCH RUNS TOO SLOW	1. Low flow rate. 2. Hydraulic motor worn out.	1. Check flow rate. Refer to Hydraulic Systems Performance Chart, page 3. 2. Replace motor.
CABLE DRUM WILL NOT FREESPOOL	1. Clutch not disengaged	1. Check operation, refer to Clutch Operation, page 5.
BRAKE WLL NOT HOLD	1. Incorrect directional control valve (cylinder spool, closed center). 2. Excessive hydraulic system back pressure. 3. Sprag clutch worn out.	1. Use only a motor spool (open center) directional control valve. 2. Reduce system back pressure to less than 100 psi. 3. Replace sprag clutch mechanism.
BRAKE WILL NOT RELEASE	1. Brake line disconnected or blocked	1. Repair brake line.
WINCH WILL NOT OPERATE AT HIGH SPEED	1. Shift solenoid not working.	1. Verify shift spool is energized.
WINCH OPERATES ERRATICALLY ON INHAUL	1. Sprag hub is reversed.	1. Install sprag hub correctly.

INSTRUCTIONS FOR DISASSEMBLY

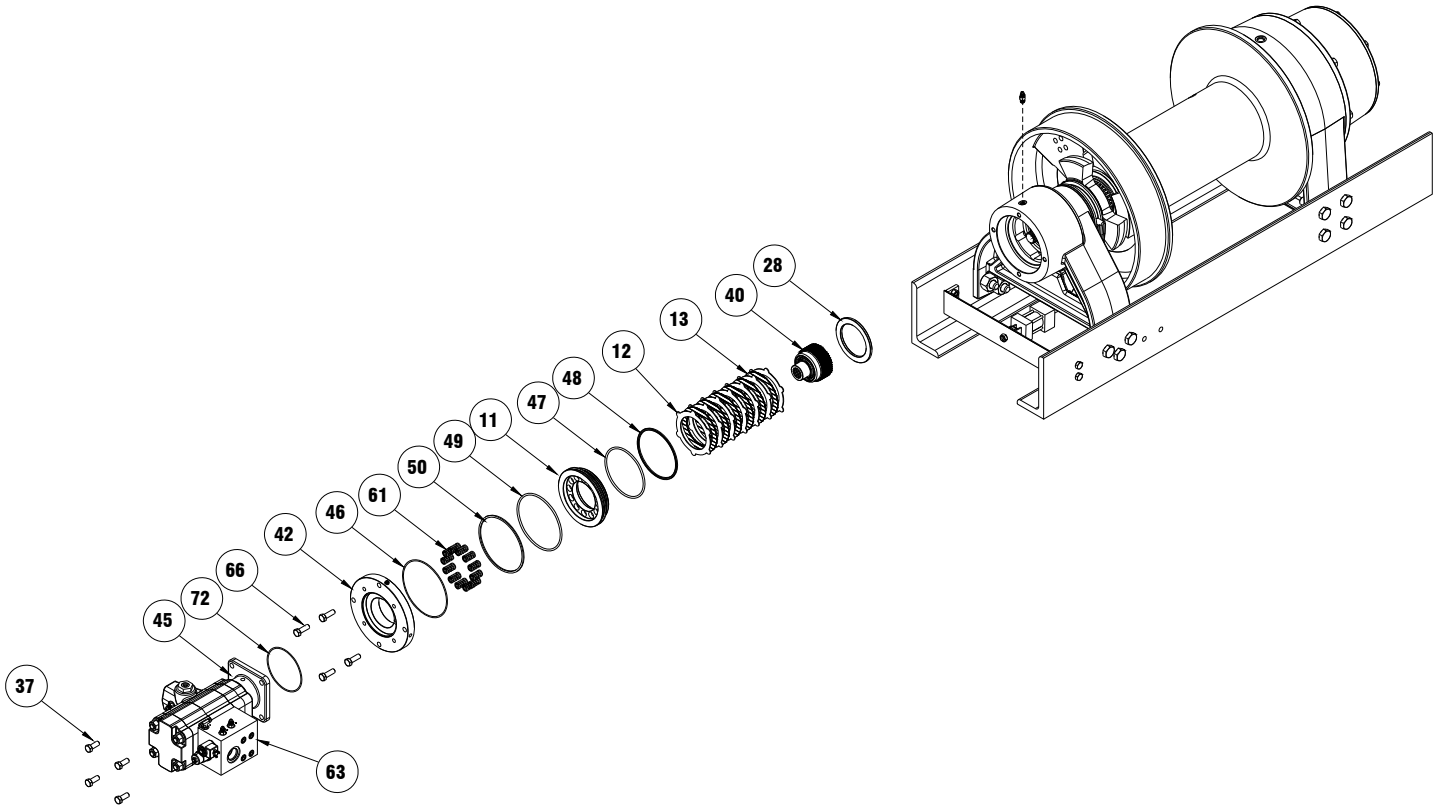
1. Remove wire rope from drum.
2. Drain oil from winch by removing (2) plugs #54, removing the lower plug first.
3. When replacing lubricant, use 160 oz of applicable lube for your climate from table on page 6 adding 4 oz at #44 and the remaining at # 55.



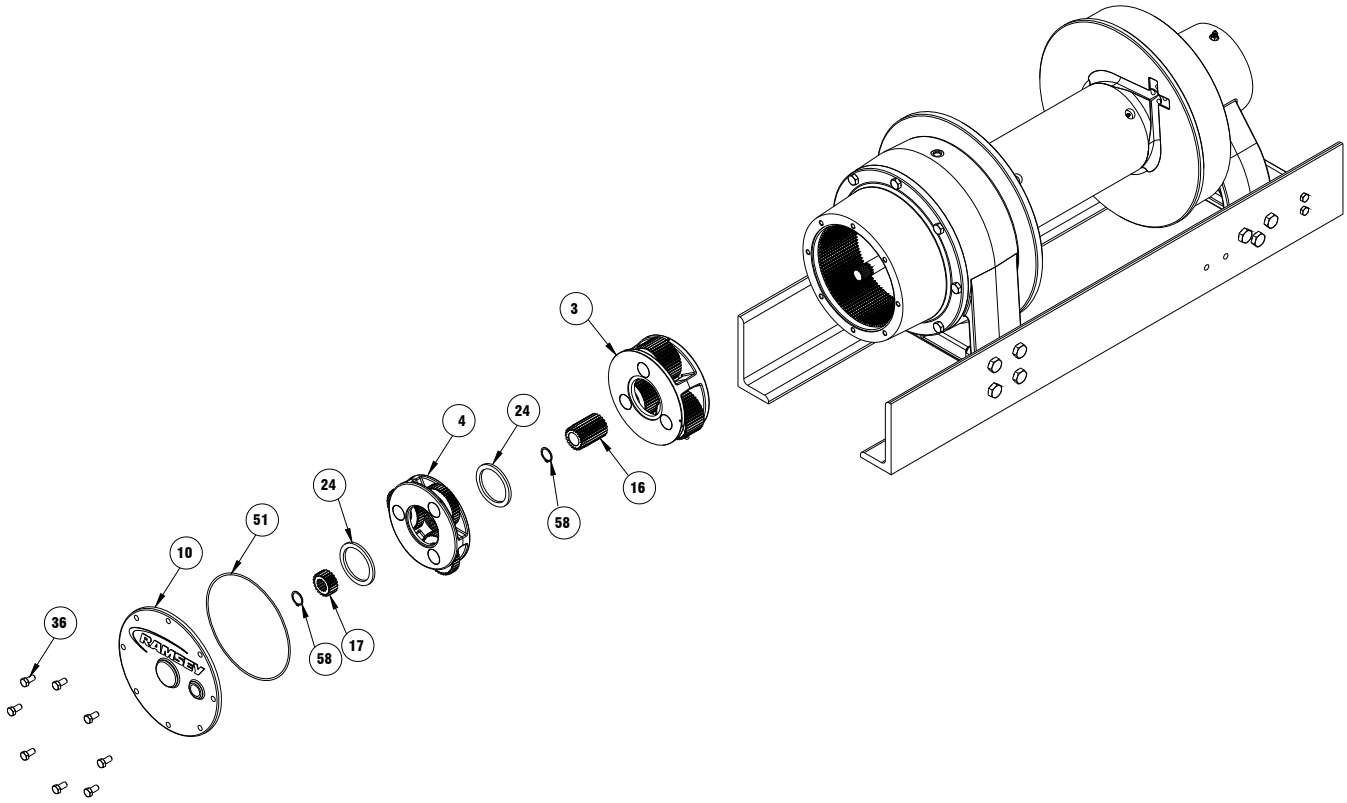
4. Remove (2) nuts #408b from air cylinder #408a. Air cylinder may now be removed. If needed, mounting bracket #401 may be removed by removing pin #404 from pin #405 and then sliding pin out of mounting bracket. Brake band #5 may be expanded over drum flange to barrel for easiest removal.



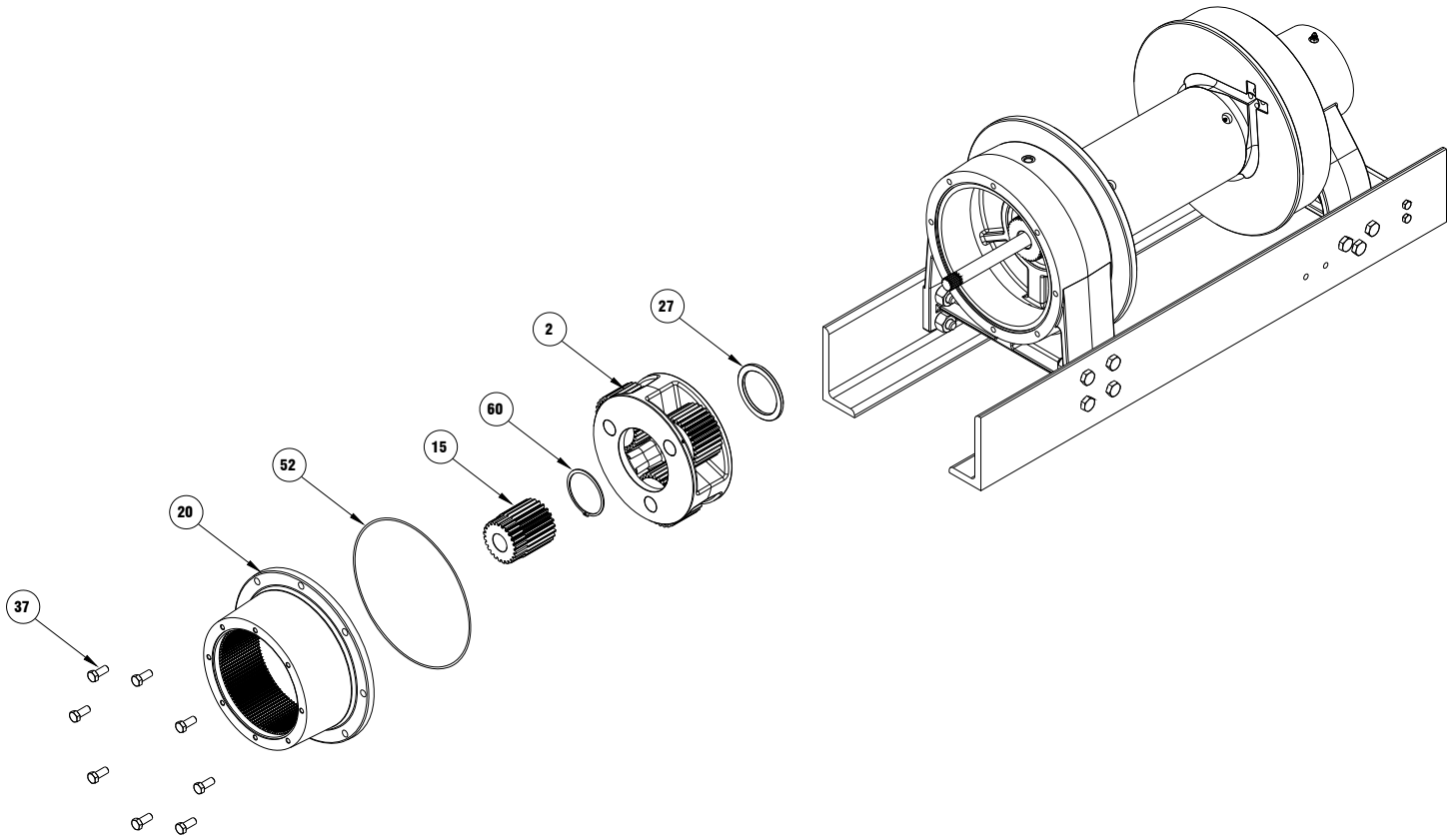
5. Remove motor #45 from winch by first disconnecting hydraulic lines (see page 21), solenoid wires, and then remove (4) bolts #37. O-ring #72 may now be removed.
6. Remove brake cover #42 by removing (4) bolts #66. **The cover is spring loaded, use care when removing.** Remove o-ring #46 then springs #61 may be removed; residual oil may be present in the brake housing.
7. Remove piston #11 including o-rings and backup rings #47, #48, #49, and #50 by using a momentary puff of compressed air into the brake port located on top of the end bearing. Capture the piston by placing a shop rag over the opening prior to using air.
8. Remove the sprag brake hub assembly #40, (7) stator plates #12, (6) disc brakes #13, and the spacer #28. The sprag brake hub assembly #40 is not a serviceable part, if damaged a replacement assembly should be ordered.



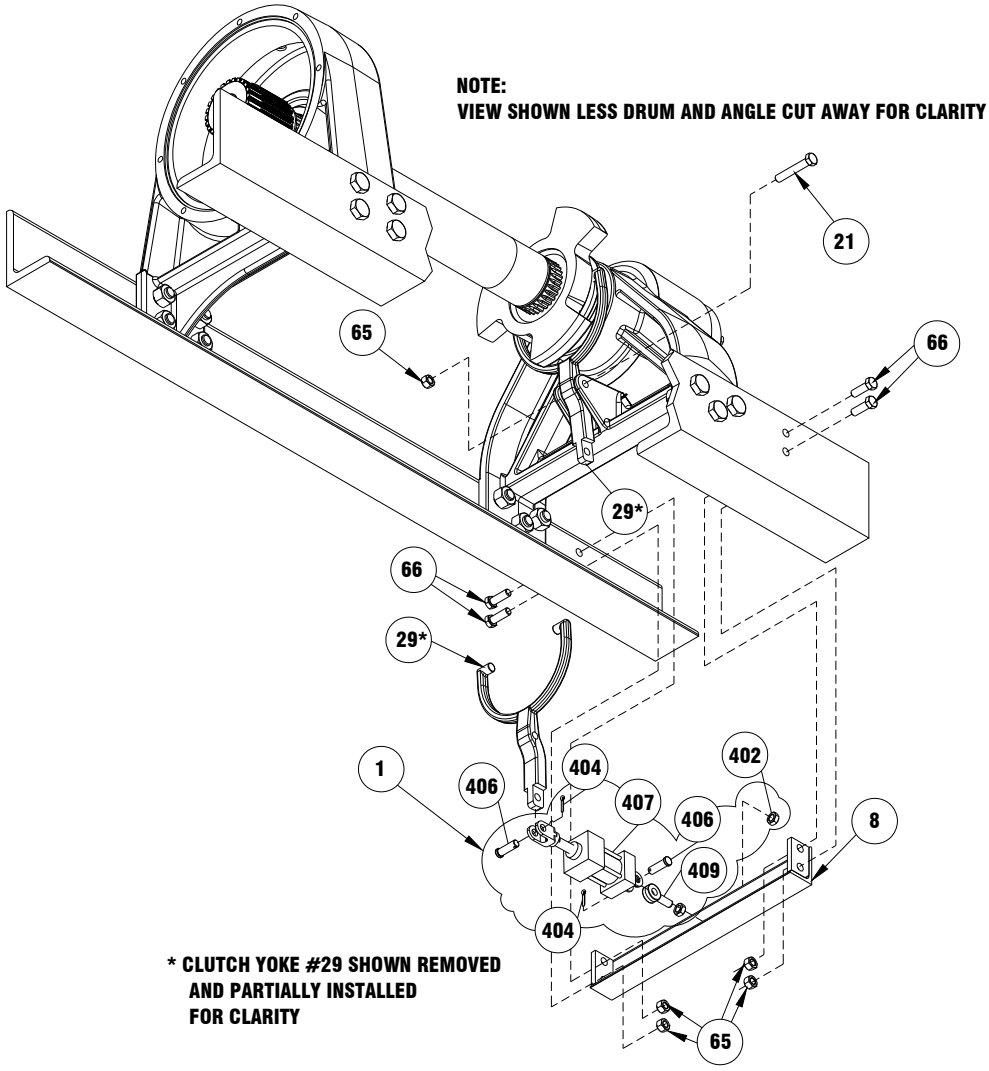
9. Remove (8) cover bolts #36; cover #10, and o-ring #51.
10. Remove snap ring #58, and sun gear #17.
11. The planetary carrier assembly #4 may now be removed along with (2) spacers #24.
12. Remove second snap ring #58 and intermediate sun gear #16.
13. Planetary carrier assembly #3 may now be removed.



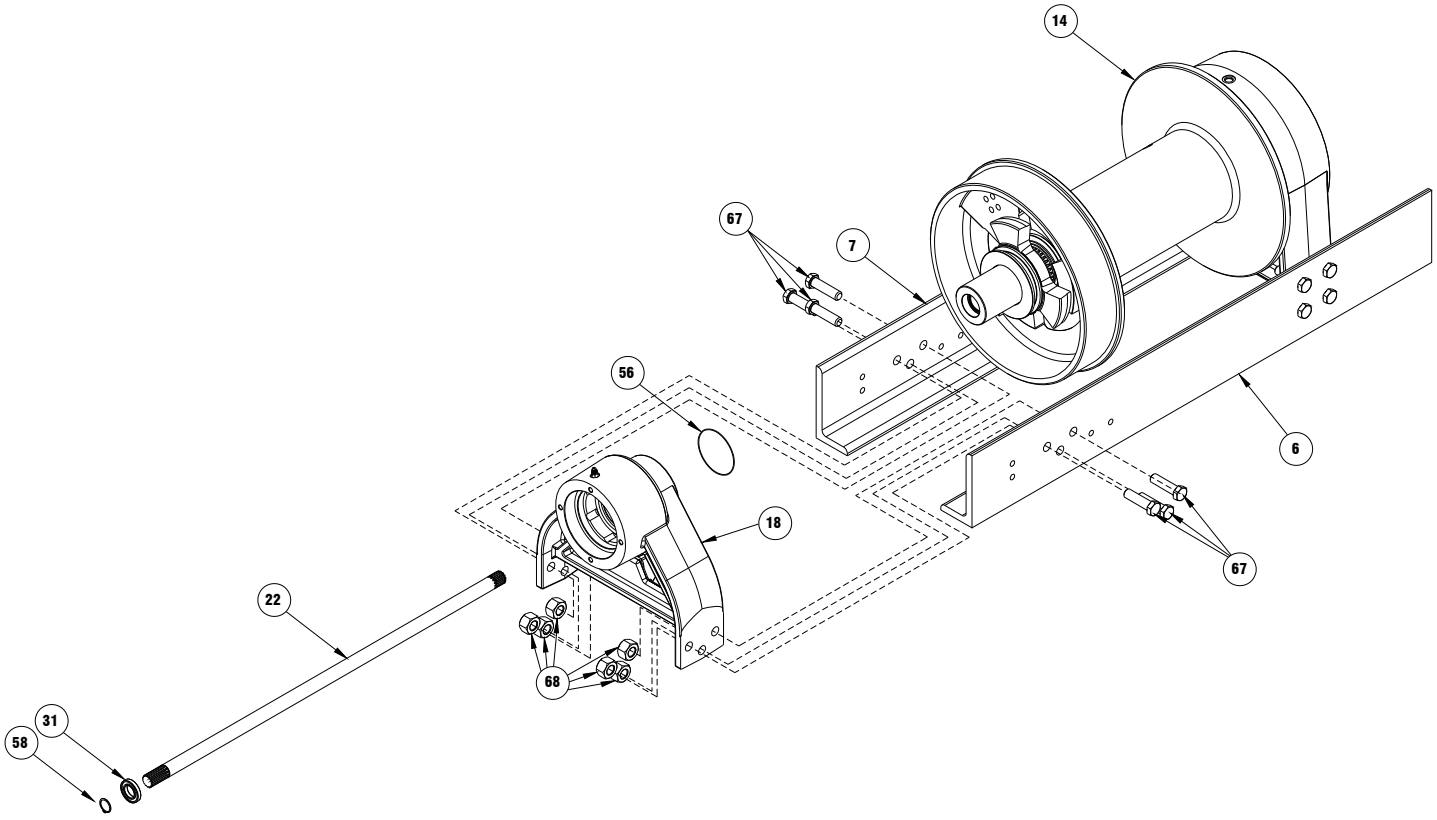
14. Using a nylon strap, support ring gear #20 from a hoist or boom, **this ring gear is heavy**. Remove (8) bolts #37 leaving the top most bolt for last. Remove the final bolt while supporting ring gear. Set ring gear aside. Remove the o-ring #52.
15. Remove output sun gear #15.
16. Using a large pair of snap ring pliers remove the snap ring #60 from the shaft located inside the planetary carrier assembly #2.
17. Using a nylon strap and hoist slide the output planetary carrier #2 from the ring gear housing. **The output planetary carrier is heavy**.
18. Remove the spacer #27.



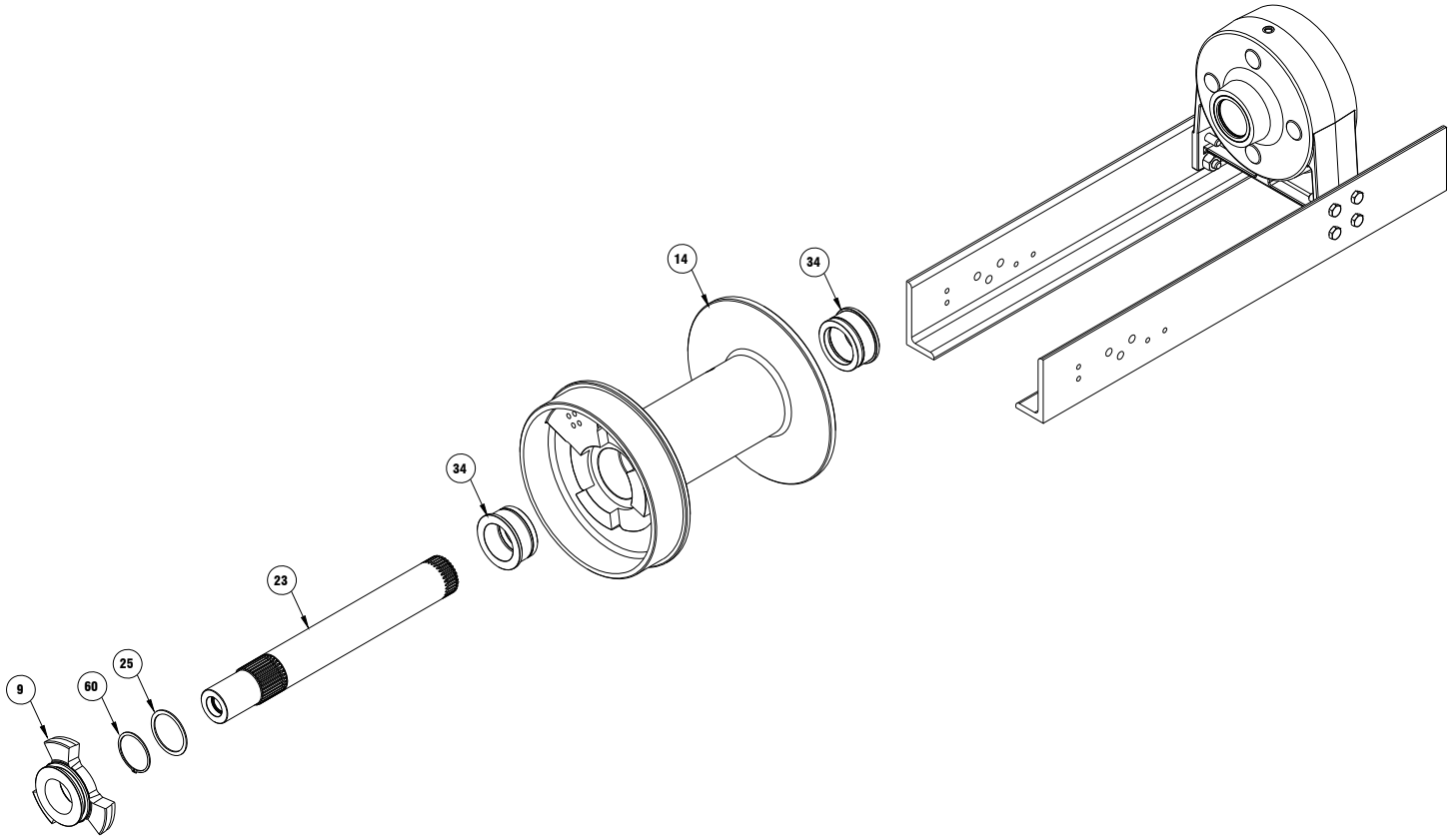
19. Remove the clutch cylinder #1 by removing the (2) cotter keys #404 and (2) pins #406 from either end of the air cylinder #407.
20. The clutch cylinder support angle #8 can be removed by removing the four bolts #38 and nuts #65 attaching it to the mounting angles.
21. Remove the clutch yoke #29 by removing center pivot bolt #21 and nut #65.



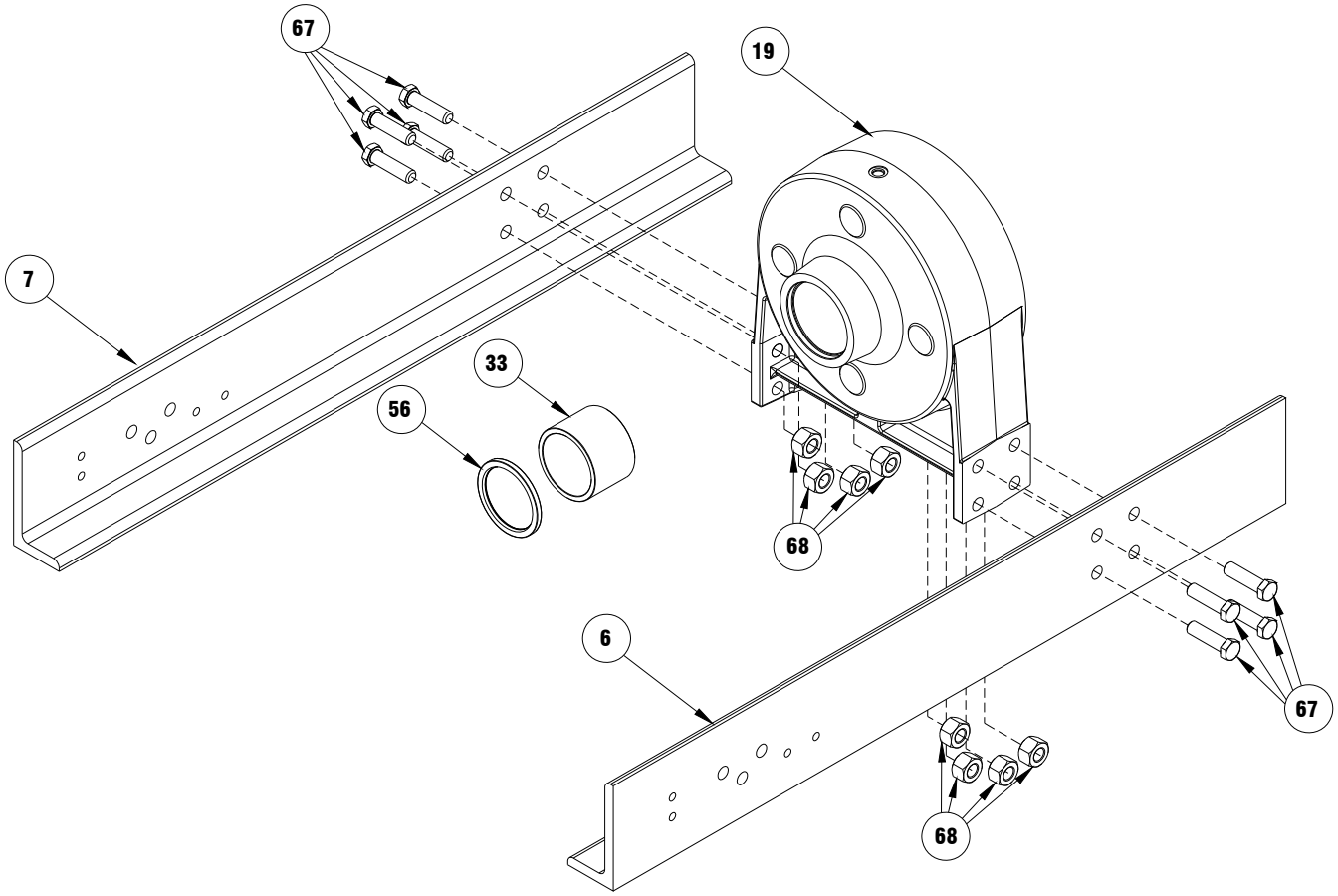
22. By removing snap ring #58 and ball bearing #31, the input shaft #22 may be removed.
23. To remove the motor end bearing #18, support drum #14 with a nylon strap or chain and hoist. Lift on the drum to tension the strap. Remove (6) bolts #67 and (6) nuts #68 attaching the end bearing to the mounting angles #6 and #7. The motor end bearing #18 will be supported on the output shaft end and may be slid off using a nylon strap and hoist to lift it.



24. While continuing to support the drum #14, remove the clutch #9, snap ring #60 and spacer #25.
25. The output shaft #23 may be slid from the drum assembly.
26. The drum #14 is now supported only by the nylon strap and maybe removed as needed.
27. The (2) bushings #34 may be pressed from the drum if replacement is necessary.



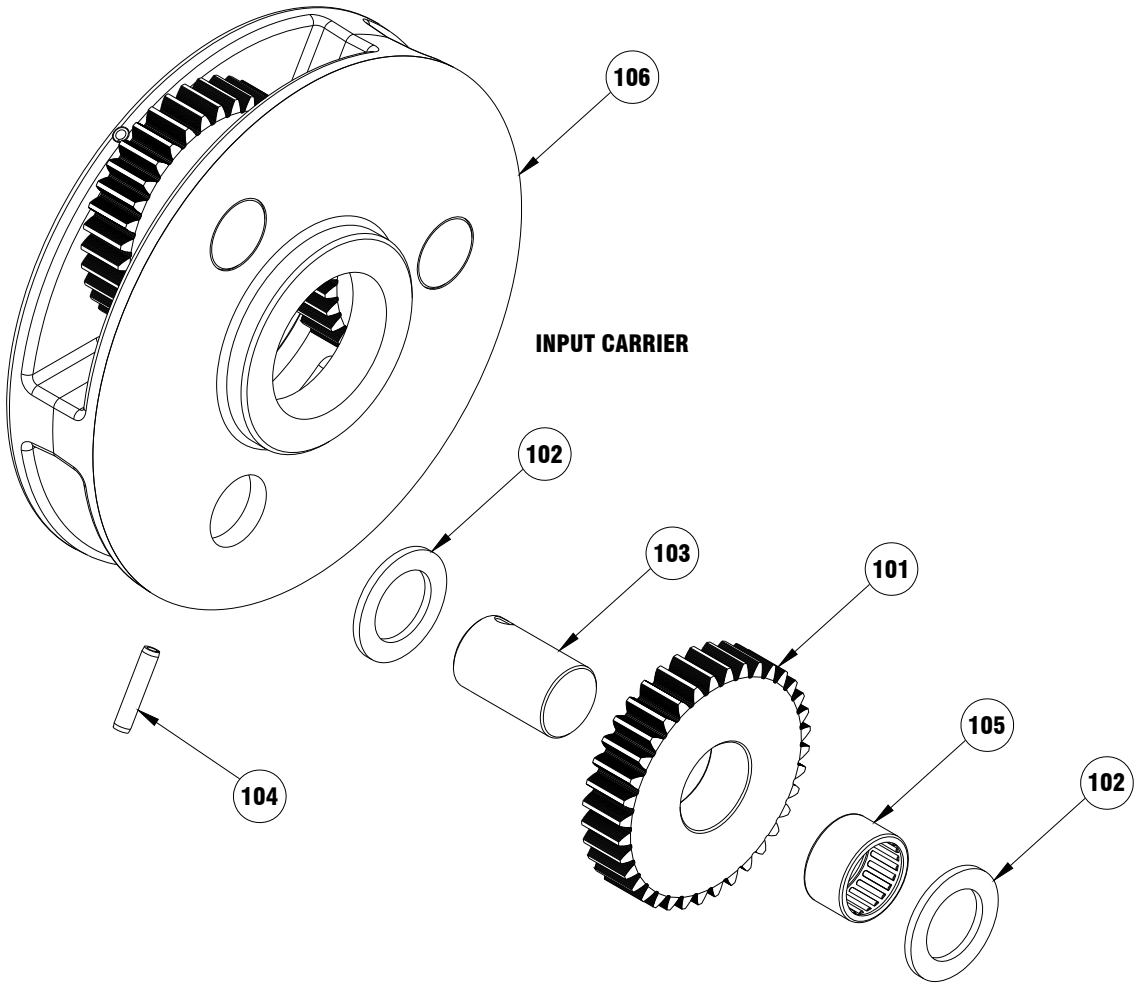
28. To remove gear end bearing #18, from mounting angles #6 and #7, first remove (4) 7/8-9NC bolts #67 and (4) nuts #68 from each angle. Shaft oil seal #56 and end bearing bushing #33 can be removed and replaced at this time, if necessary.



DISASSEMBLY OF INPUT CARRIER

Carrier assemblies may be purchased as a complete assembly (see pg. 23) or parts may be purchased individually (see parts list below). If purchasing individual parts, it will be necessary to disassemble the input gear carrier as outlined below.

1. Carefully drive roll pin #104 into carrier pin #103 so that it is captured within carrier pin #103 but not touching the opposite side of the input carrier #106.
2. Tap carrier pin #103 to remove it from the input carrier #106.
3. Slide the planet gear #101and the (2) thrust washers #102 from the carrier assembly #106. Bearings #105 may then be pressed out.
4. Remove the roll pin #104 from the carrier pin #106.
5. Repeat this process for the two remaining gears in the carrier.



ITEM #	QTY	PART #	DESCRIPTION
101	3	334221	GEAR-PLANET
102	6	518070	THRUST WASHER
103	3	470124	PIN-CARRIER
104	3	470040	ROLL PIN 1/4 DIA X 1 1/4 LG
105	3	402140	BEARING-DRAWN CUP NEEDLE ROLLER
106	1	317023	CARRIER-INPUT

ASSEMBLY OF INPUT CARRIER

Note: Item Numbers refer to Carrier parts list on page 15

1. Place carrier #106 on flat clean surface.

2. Place the gear #101 on a flat thin clean metal plate; Align the bearing with the chamfer facing toward the gear. Using a press, press the bearing flush to the gear surface.

3. Place thrust washer #102 on top of gear #101. Insert carrier pin #103 into carrier #106, aligning roll pin #104 with the matching hole on the carrier #106.

4. Insert a thrust washer between gear #101 and carrier #106. Completely insert carrier pin #103 into carrier #106 using care to align the roll pin hole in carrier pin #103 with the roll pin hole in the carrier #106.

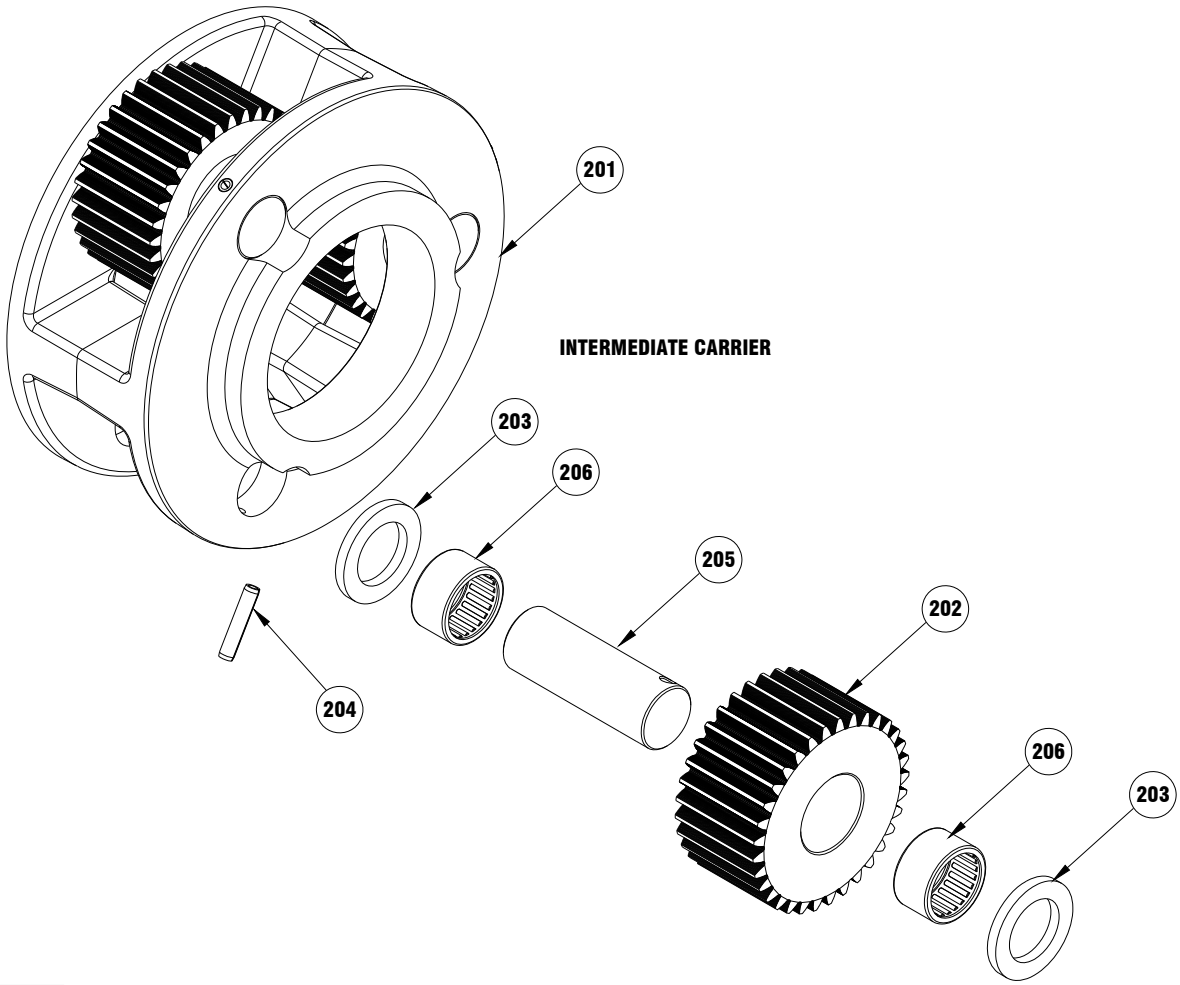
5. Drive roll pin #104 into carrier #106 until roll pin #104 is ¼” past flush with surface of the carrier #106.

6. Repeat this process to install the two remaining gears into the carrier.

DISASSEMBLY OF INTERMEDIATE CARRIER

Carrier assemblies may be purchased as a complete assembly (see pg. 23) or parts may be purchased individually (see parts list below). If purchasing individual parts, it will be necessary to disassemble the intermediate gear carrier as outlined below.

1. Carefully drive roll pin #204 into carrier pin #205 so that it is captured within carrier pin #205 but not touching the opposite side of the intermediate carrier #201.
2. Tap carrier pin #205 to remove it from the intermediate carrier #201.
3. Slide the planet gear #202and the (2) thrust washers #203 from the carrier assembly #201. Bearings #206 may then be pressed out.
4. Remove the roll pin #204 from the carrier pin #205.
5. Repeat this process for the two remaining gears in the carrier.



ITEM #	QTY	PART #	DESCRIPTION
201	1	317022	INTERMEDIATE CARRIER
202	3	334219	PLANET GEAR
203	6	518075	THRUST WASHER
204	3	470040	ROLL PIN 1/4 DIA X 5/8 LG
205	3	470125	CARRIER PIN
206	6	402140	BEARING-DRAWN CUP NEEDLE ROLLER

ASSEMBLY OF INTERMEDIATE CARRIER

Note: Item Numbers refer to Carrier parts list on page 17

1. Place carrier #201 on flat clean surface.

2. Place the gear #202 on a flat thin clean metal plate; Align the bearing with the chamfer facing of the gear. Using a press, press the bearing flush to the gear surface.

3. Repeat Step 2 for other side of gear #202.

4. Place thrust washer #203 on top of gear #202. Insert carrier pin #205 into carrier #201, aligning roll pin #204 with the matching hole on the carrier #201.

5. Insert a thrust washer #203 between gear #202 and carrier #201. Completely insert carrier pin #205 into carrier #201 using care to align the roll pin hole in carrier pin #205 with the roll pin hole in the carrier #201.

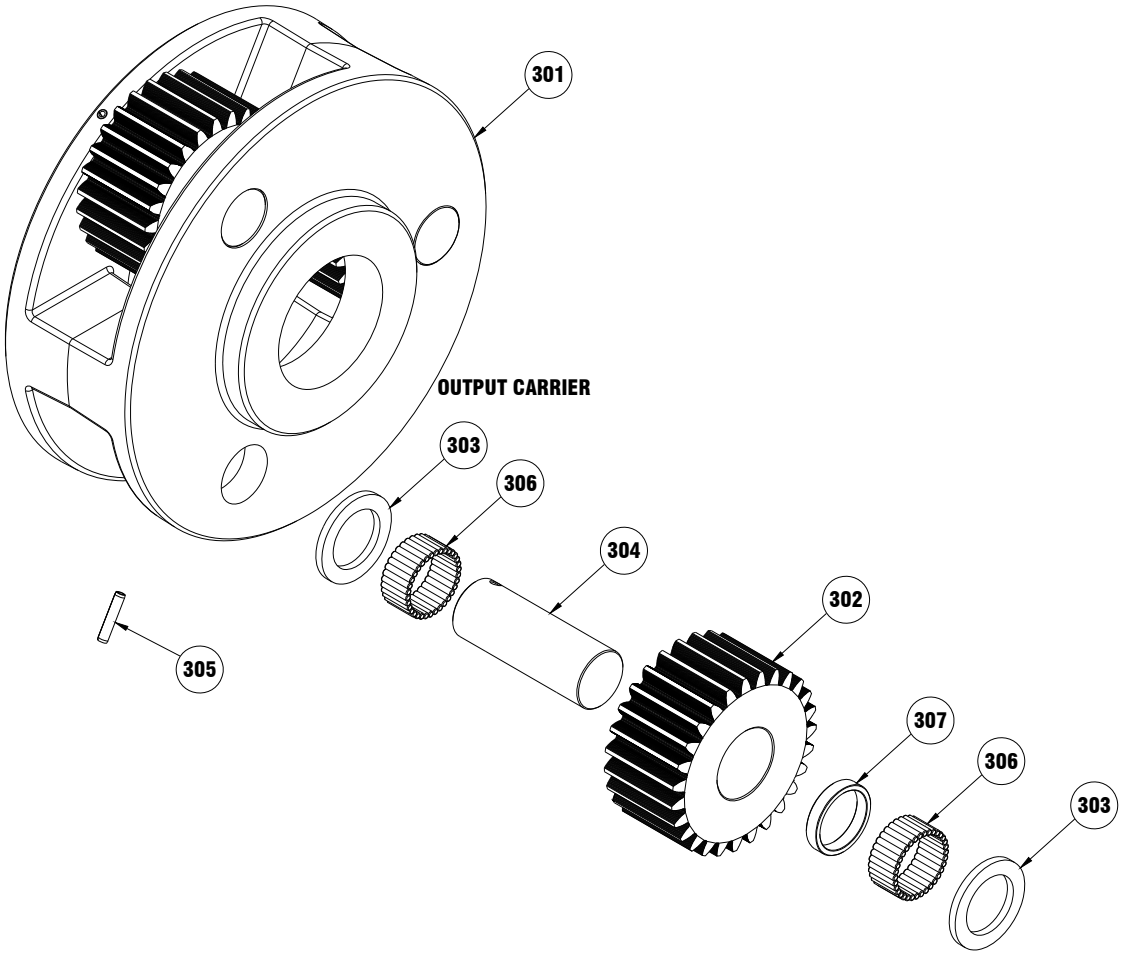
6. Drive roll pin #204 into carrier #206 until roll pin #204 is ¼” past flush with surface of the carrier #206.

7. Repeat this process to install the two remaining gears into the carrier.

DISASSEMBLY OF OUTPUT CARRIER

Carrier assemblies may be purchased as a complete assembly (see pg. 23) or parts may be purchased individually (see below). If purchasing individual parts, it will be necessary to disassemble the gear carrier as outlined below.

1. Carefully drive roll pin #305 into carrier pin #304 so that it is captured within carrier pin #304 but not touching the opposite side of the output carrier #301.
2. Tap carrier pin #304 to remove it from the output carrier #301.
3. Place a plastic pail in a position to catch bearings #306, spacer #307 and thrust washers #303, then slide the gear #302 from the carrier #301.
4. Remove the roll pin #305 from the carrier pin #304.
5. Repeat this process for the two remaining gears in the carrier.



ITEM #	QTY	PART #	DESCRIPTION
301	1	317021	OUTPUT CARRIER
302	3	334218	PLANET GEAR
303	6	518074	THRUST WASHER
304	3	470126	CARRIER PIN
305	3	470036	ROLL PIN 1/4 DIA X 1 1/4 LG
306	204	402136	BEARING-NEEDLE ROLLER
307	3	362315	SPACER

ASSEMBLY OF OUTPUT CARRIER

Note: Item Numbers refer to Carrier parts list on page 19

1. Place output carrier #301 on flat clean surface.

2. A tool the width of the gear #302 and the diameter of the carrier pin #304 is helpful to install needle bearings #306.

3. Place the output gear #302 on a flat thin clean metal plate; metal plate should not be thicker than thrust washer #303 and should be able to slide into gear pocket of output carrier #301. Grease the inside of gear #302 and insert the greased tool described above into gear #302.

4. Place one row of needle bearings #306 into gear #302 carefully sliding them down the gap between the tool and the gear so they stand vertically.

5. Install spacer #307, and the next row of needle bearings #306 as detailed in step 4 above.

6. With tool remaining in place slide the gear #302 (resting on the thin plate) into position in the output carrier #301.

7. Place thrust washer #303 on top of gear #302. Insert carrier pin #304 into carrier #301

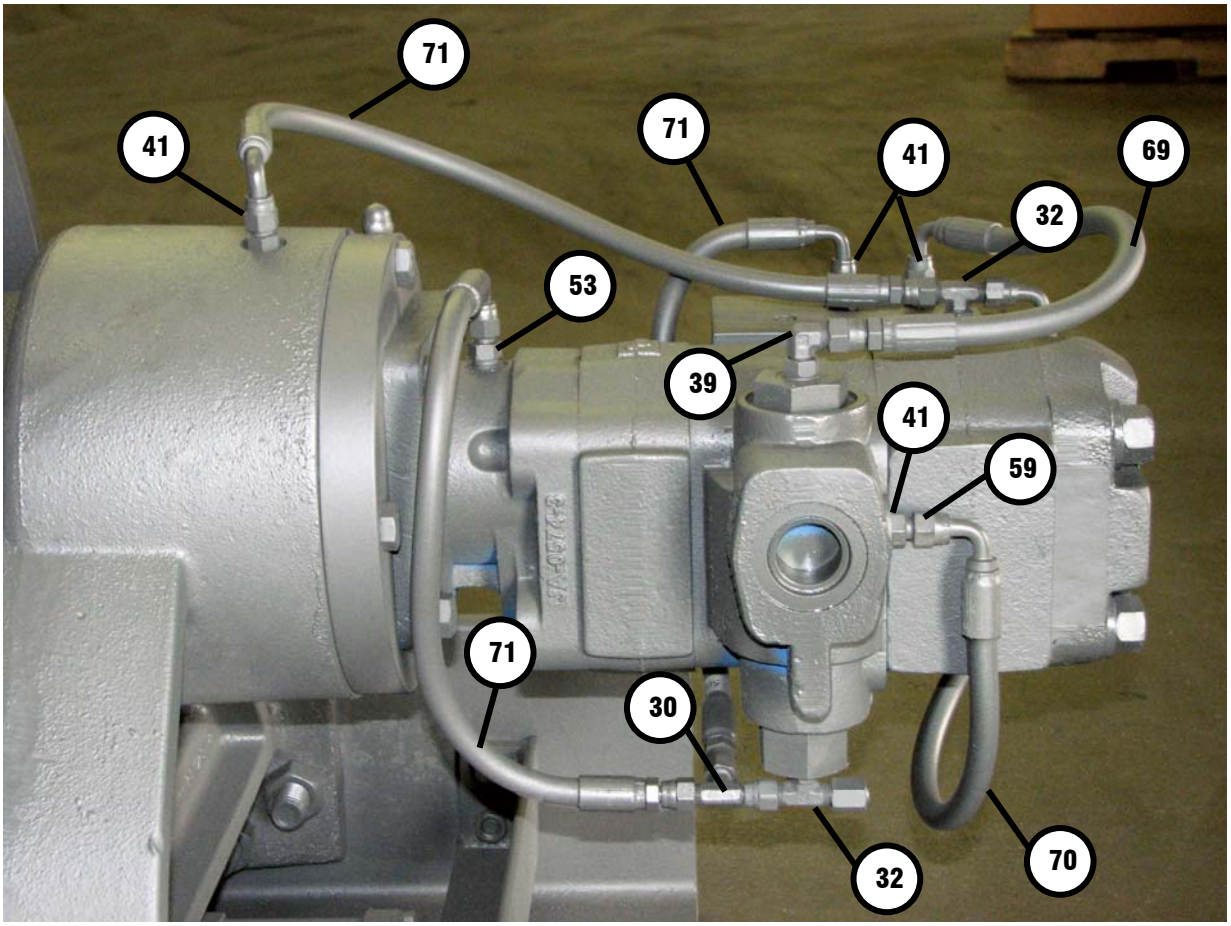
8. Turn output carrier #301 on its side so that the gear #302 is on top. Remove the thin plate. Remove tool by pushing carrier pin #304 into output carrier #301 until planet pin is at least half way past the last row of bearings #306. The tool may now be removed completely.

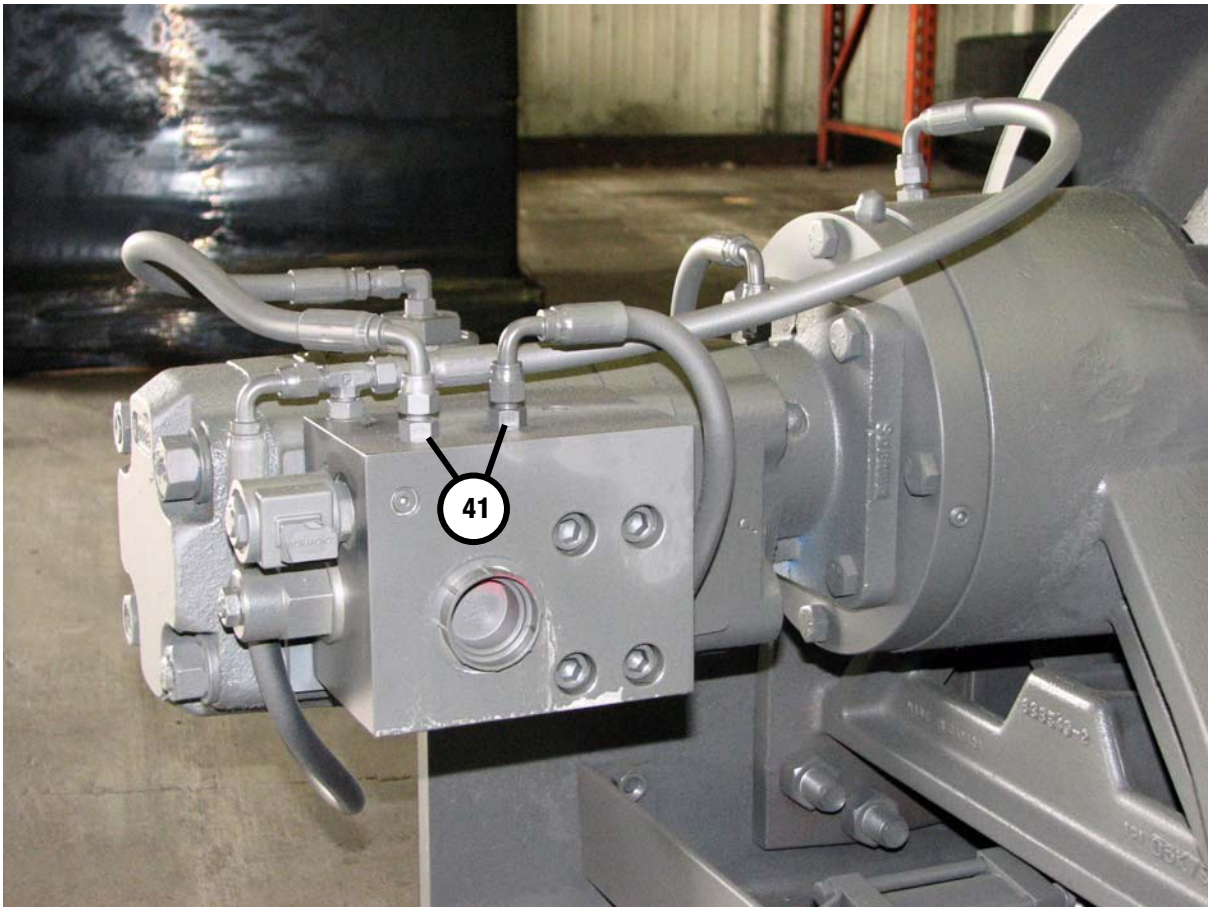
9. Insert a thrust washer between gear #302 and output carrier #301. Completely insert carrier pin #304 into carrier #301 using care to align the roll pin hole in carrier pin #304 with the roll pin hole in the output carrier #301.

10. Drive roll pin #305 into output carrier #301 until roll pin #305 is ¼” past flush with surface of the output carrier #301.

11. Repeat this process to install the two remaining gears into the output carrier.

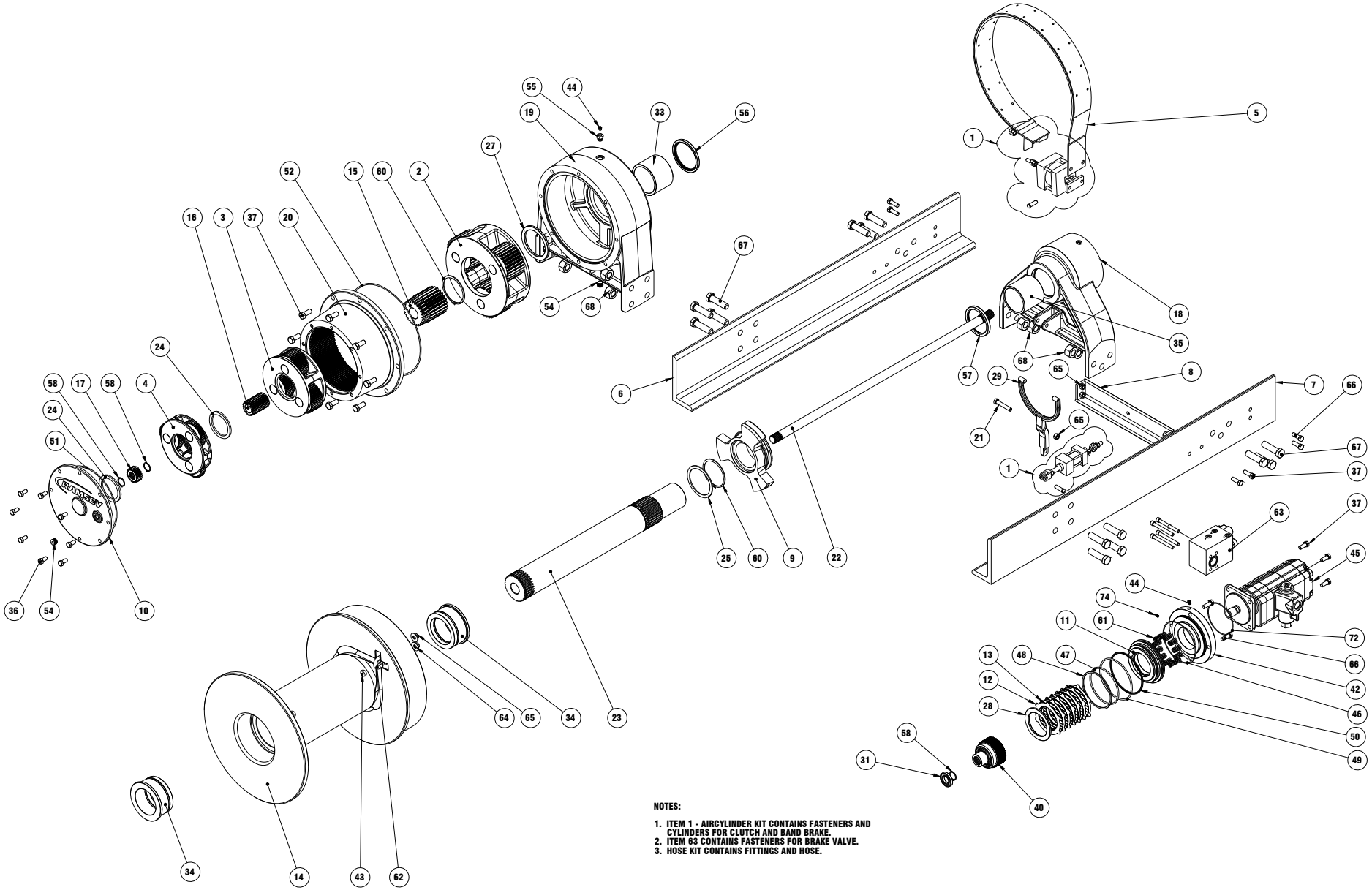
HOSE HOOKUP





NOTES

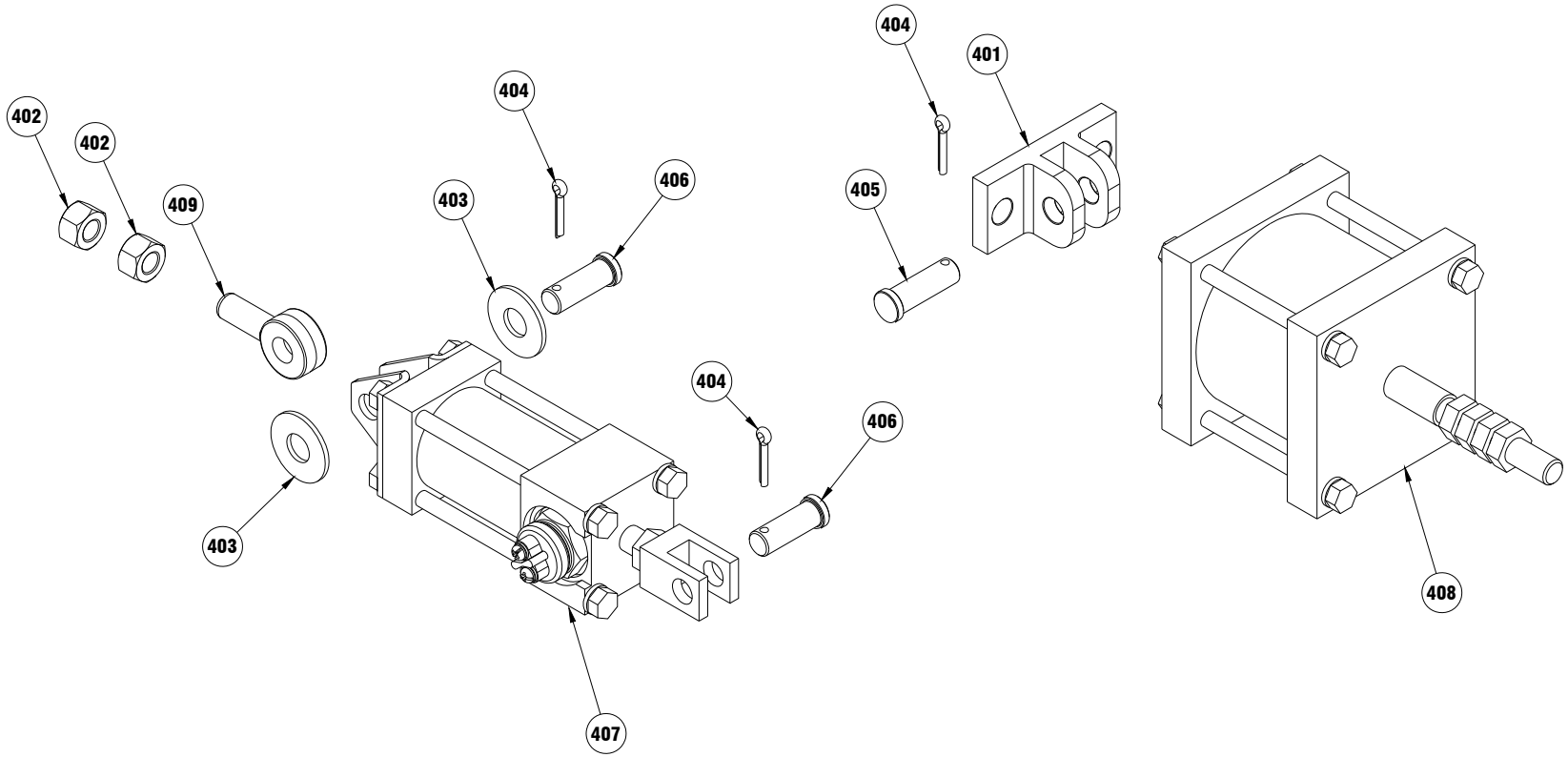
PARTS DRAWING



PARTS LIST

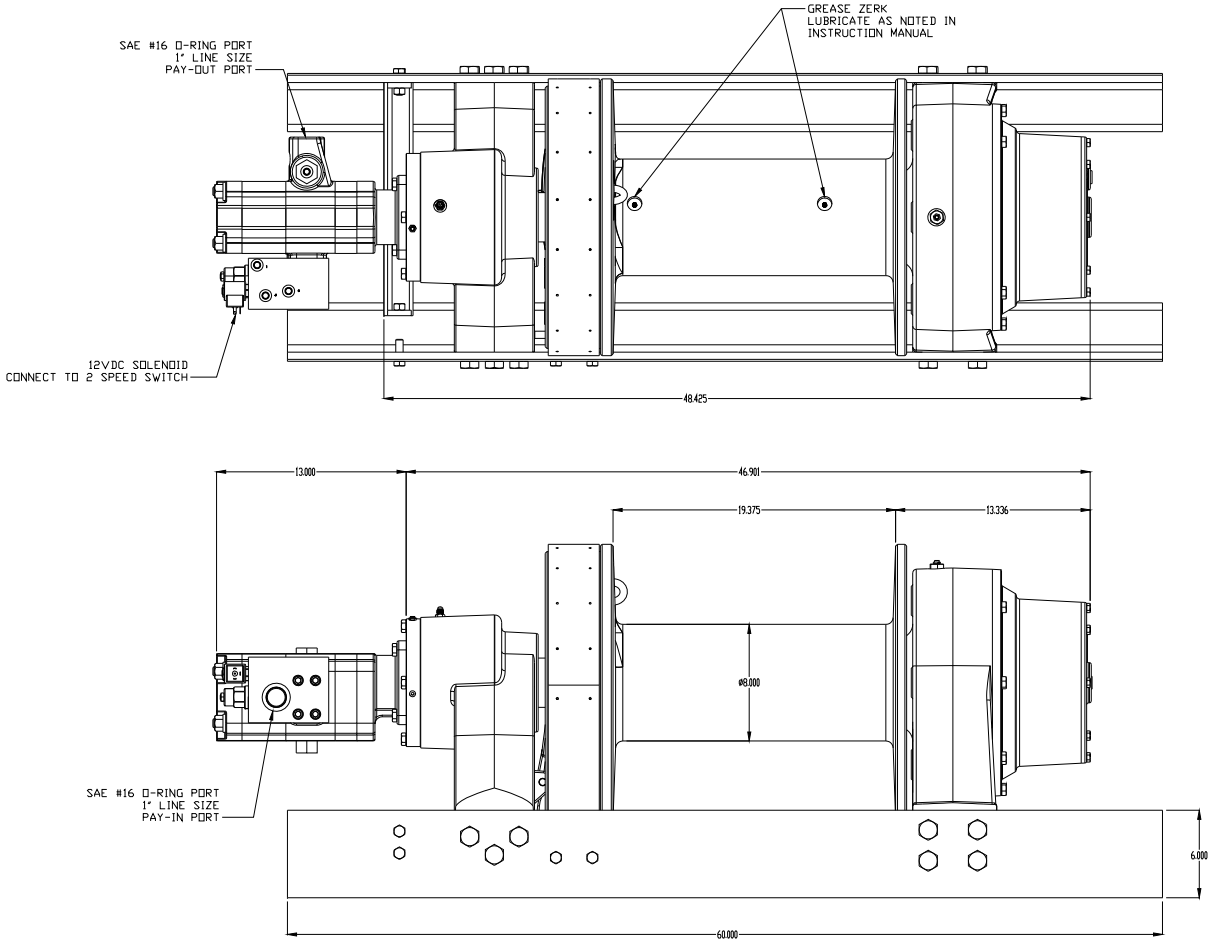
ITEM	QTY	PART NO	DESCRIPTION
1	1	256131	AIR CYLINDER
2	1	296691	OUTPUT CARRIER ASSEMBLY
3	1	296690	INTERMEDIATE CARRIER ASSEMBLY
4	1	296689	INPUT CARRIER ASSEMBLY
5	1	299749	BAND BRAKE
6	1	303146	LH MOUNTING ANGLE
7	1	303147	RH MOUNTING ANGLE
8	1	312574	CLUTCH CYLINDER SUPPORT BRACKET
9	1	324509	CLUTCH
10	1	328172	GEAR HOUSING COVER
11	1	330016	BRAKE PISTON
12	7	330017	STATOR PLATE
13	6	330018	DISC-BRAKE
14	1	332238	DRUM
15	1	334217	GEAR-SUN OUTPUT
16	1	334220	GEAR-SUN INTERMEDIATE
17	1	334222	GEAR-SUN INPUT
18	1	338378	END BEARING-MOTOR SIDE
19	1	338389	END BEARING-GEAR SIDE
20	1	338390	HOUSING-GEAR
21	1	414543	CAPSCREW-1/2-13NCX3LG,HXHD, GR 5
22	1	357186	INPUT SHAFT
23	1	357187	SHAFT-OUTPUT
24	2	362301	SPACER
25	1	362311	SPACER-SHAFT
26			NOT USED
27	1	362312	SPACER
28	1	362305	SPACER
29	1	370062	YOKE-SHIFTER
30	1	432048	FITTING JIC SWIVEL TEE
31	1	402132	BALL BEARING
32	2	432049	FITTING JIC BRANCH TEE
33	1	412135	END BEARING BUSHING
34	2	412137	DRUM BUSHING
35	1	412136	END BEARING BUSHING
36	8	414277	CAPSCREW-3/8-16NCX1LG HXHD GR 5
37	14	414578	CAPSCREW-1/2-13NCX1 1/4,HXHD,GR5,ZP
38			NOT USED
39	1	432018	FITTING JIC O-RING EL
40	1	296952	SPRAG BRAKE HUB ASSEMBLY
41	4	432023	FITTING JIC O-RING NIPPLE
42	1	438043	BRAKE COVER
43	2	456001	FITTING-LUBE, 3/16 DRIVE FIT, SHORT
44	2	456008	FITTING-RELIEF1/8-27NPTF, 15 PSI MAX
45	1	458148	MOTOR-HYD
46	1	462063	O-RING 2-165
47	1	462082	O-RING 2-358
48	1	462083	BACK UP RING
49	1	462084	O-RING 2-362
50	1	462085	BACK UP RING
51	1	462090	O-RING 2-270
52	1	462089	O-RING 2-279
53	1	432053	FITTING JIC O-RING NIPPLE
54	2	468041	PLUG, -8 SAE, 3/4"-16 UNF
55	1	468042	REDUCER-3/4-16 SAE O-RING X 1/8NPTF
56	1	486094	SEAL-OIL-SHAFT
57	1	486095	SEAL-OIL-SHAFT
58	3	490006	SNAP RING 5100-125
59	1	432054	FITTING JIC SWIVEL EL
60	2	490062	SNAP RING 5100-375
61	12	494129	SPRING-BRAKE
62	1	514021	U-BOLT
63	1	516048	COUNTER BALANCE BLOCK
64	2	418223	FLATWASHER 1/2
65	7	418069	NUT-1/2-13NC HEX REG,Z/P
66	8	414556	CAPSCREW-1/2-13NCX1 3/4 HXHD GR.5
67	14	414790	BOLT-7/8-9NC X 3.25 LG,HXHD,GR8,PLATED
68	14	418108	NUT-7/8-9NC HEX REG Z/P
69	1	509137	HOSE
70	2	509140	HOSE
71	3	509141	HOSE
72	1	462081	ORING 2-159
73			NOT USED
74	1	468016	PIPE PLUG 1/8-27NPTF

AIR CYLINDER KIT #256131 PARTS LIST

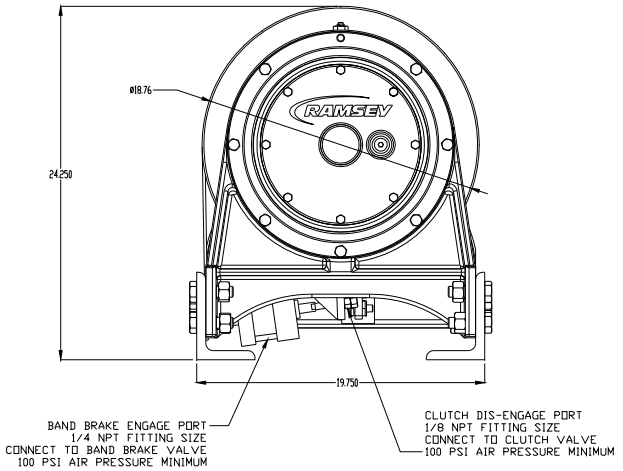


ITEM	QTY	PART NO	DESCRIPTION
401	1	408422	MOUNTING BRACKET
402	2	418067	NUT-1/2-20NF HEX JAM
403	2	418223	WASHER-1/2 USS FLAT
404	3	424005	COTTER PIN- 1/8 DIA X 1 LG
405	1	424027	CLEVIS PIN-1/2 SHAFT DIA X 1 1/2 LG
406	2	424205	CLEVIS PIN-1/2 SHAFT DIA X 1 23/64 LG
407	1	433031	AIR CYLINDER
408	1	433032	AIR CYLINDER
409	1	448108	EYE BOLT

DIMENSIONAL DRAWING



Bolt Size (inches)	Thds Per Inch	Bolt Torque (ft-lb)	
		SAE Grade 5	SAE Grade 8
7/16	14	54	78
1/2	13	78	119
5/8	11	154	230
3/4	10	257	380
7/8	9	382	600
1	8	587	700



WILDCAT™ WINCH SERIES

By RAMSEY

Limited Warranty

RAMSEY WINCH warrants each new RAMSEY WINCH to be free from defects in material and workmanship for a period of one (1) year from date of purchase.

The obligation under this warranty, statutory or otherwise, is limited to the replacement or repair at the Manufacturer's factory, or at a point designated by the Manufacturer, of such part that shall appear to the Manufacturer, upon inspection of such part, to have been defective in material or workmanship.

This warranty does not obligate RAMSEY WINCH to bear the cost of labor or transportation charges in connection with the replacement or repair of defective parts, nor shall it apply to a product upon which repair or alterations have been made, unless authorized by Manufacturer, or for equipment misused, neglected or which has not been installed correctly.

RAMSEY WINCH shall in no event be liable for special or consequential damages. RAMSEY WINCH makes no warranty in respect to accessories such as being subject to the warranties of their respective manufacturers.

RAMSEY WINCH, whose policy is one of continuous improvement, reserves the right to improve its products through changes in design or materials as it may deem desirable without being obligated to incorporate such changes in products of prior manufacture.

If field service at the request of the Buyer is rendered and the fault is found not to be with RAMSEY WINCH's product, the Buyer shall pay the time and expense to the field representative. Bills for service, labor or other expenses that have been incurred by the Buyer without approval or authorization by RAMSEY WINCH will not be accepted.

See warranty card for details.

RAMSEY WINCH

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