WILDCAT®
WINCH SERIES
By RAMSEY WINCH®

OPERATING, SERVICE AND MAINTENANCE MANUAL

WILDCAT 65K
MODEL WC 65R
65,000 LB INDUSTRIAL WINCH

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

OM-914273-0715-C

TABLE OF CONTENTS

RAMSEY HYDRAULIC PLANETARY WINCH MODEL WILDCAT 65K

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: ……	1305 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	40	12	65000	29480	34	10	26500	12020	76	23
2	90	27	53100	24080	41	12	21600	9790	91	27
3	150	45	45000	20410	48	14	18300	8300	106	32
4	215	65	39000	17690	55	16	15900	7210	121	37

*** These specifications are based on recommended wire rope of 1" Extra Improved Plow Steel Cable and a 10.9 cu. in. / Rev. motor.**

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

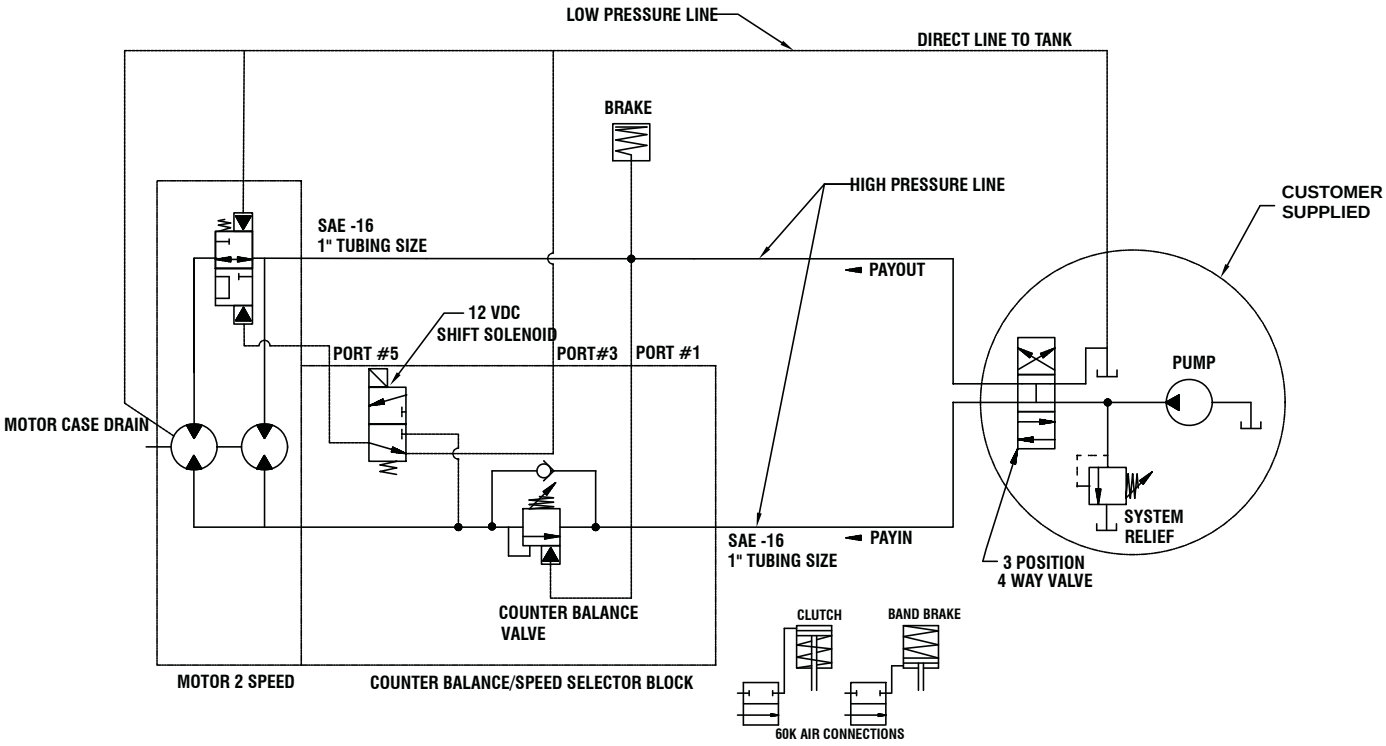
WARNINGS:

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

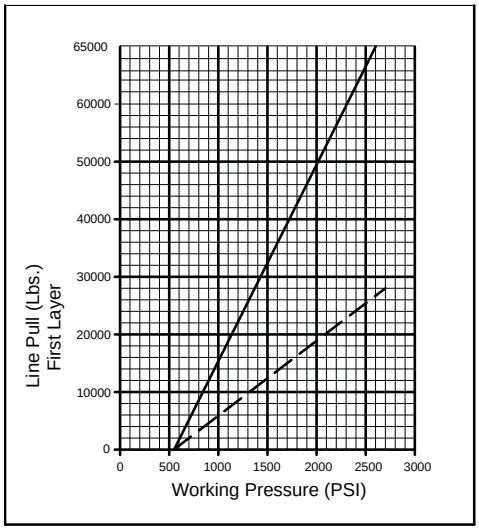
HYDRAULIC SYSTEM REQUIREMENTS

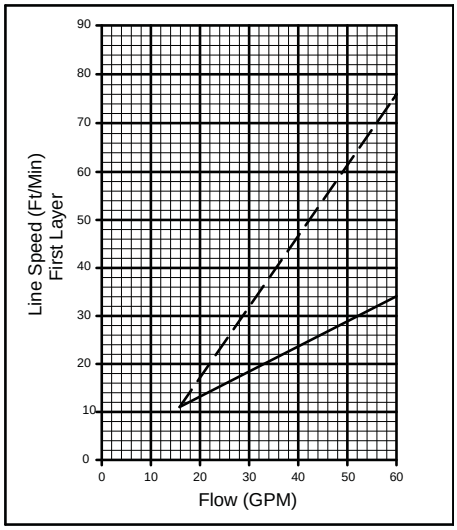
Refer to the performance charts, below, to properly match your hydraulic system to winch performance. The charts consist of:
(1) Line pull (lb.) first layer vs. working pressure (PSI) and (2) line speed, first layer (FPM) vs. gallons per minute (GPM). Performance based on a motor displacement of 10.9 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



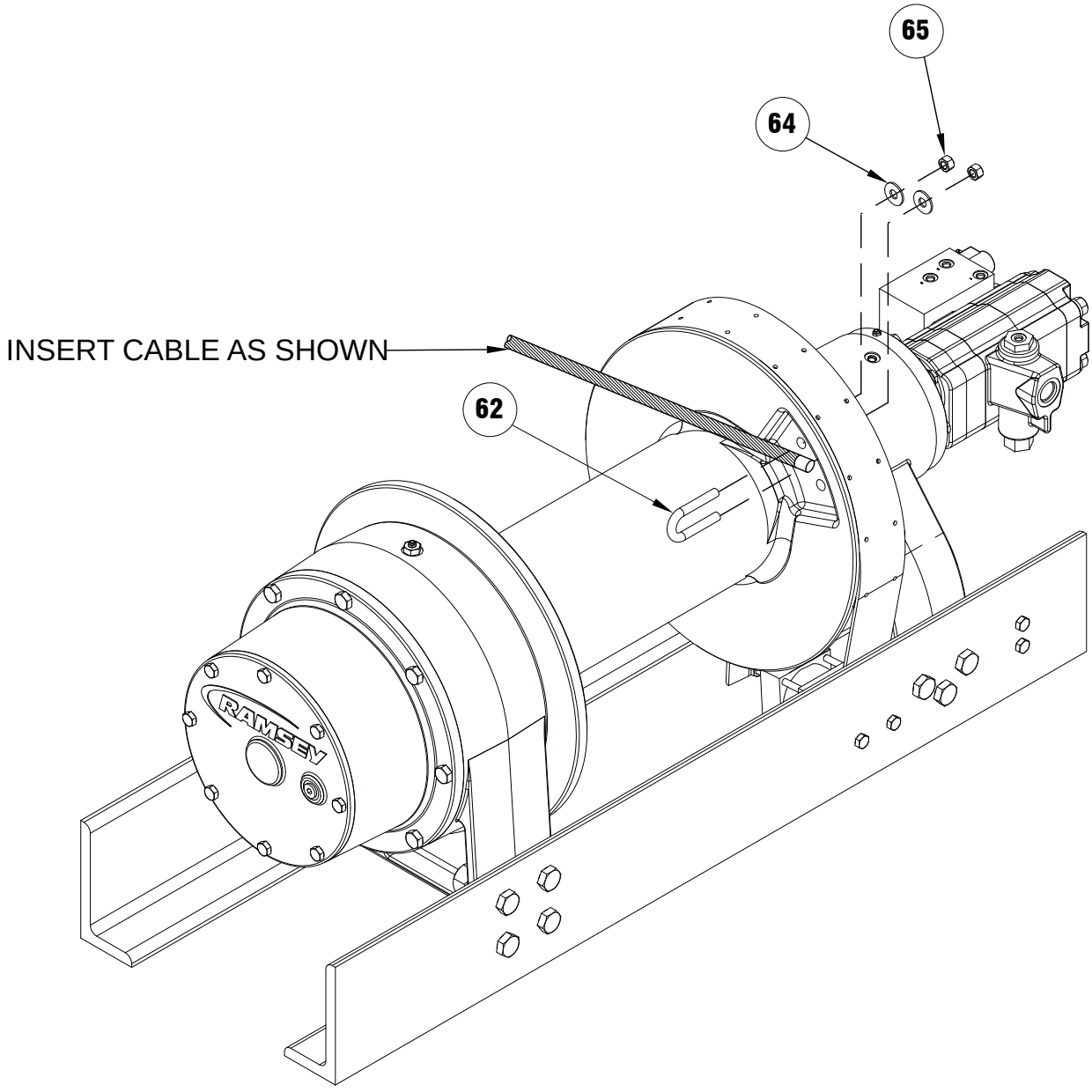


BASED ON 10.9 CU IN/REV MOTOR

CABLE INSTALLATION

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

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**.**

Drum bushings are oil impregnated with synthetic oil. The drum bushings do not require additional grease.

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. 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.

LUBRICANT CHART and TROUBLE SHOOTING GUIDE

LUBRICATION TABLE

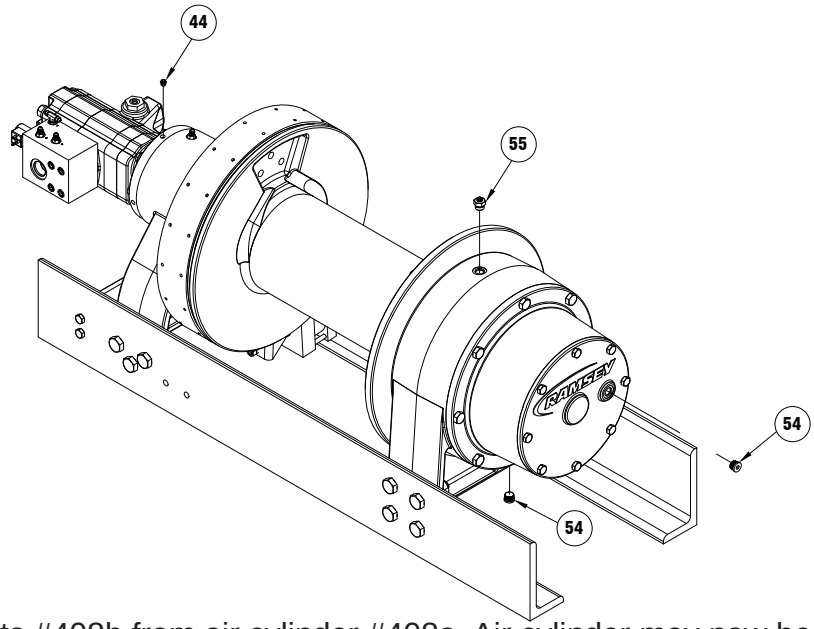
Lubricant Description*	Temp Range F(C)		
	Min Ambient & Operating	Max Ambient	Max Operating
80W140 Synthetic	-25 (-32)	125 (52)	225 (107)
75W90 Synthetic	-40 (-40)	115 (46)	215 (102)
80W90 Conventional	-20 (-29)	100 (38)	180 (82)
85W140 Conventional	20 (6)	120 (50)	200 (93)
*Use API GL-5 or EP lubricants.			

TROUBLE SHOOTING GUIDE

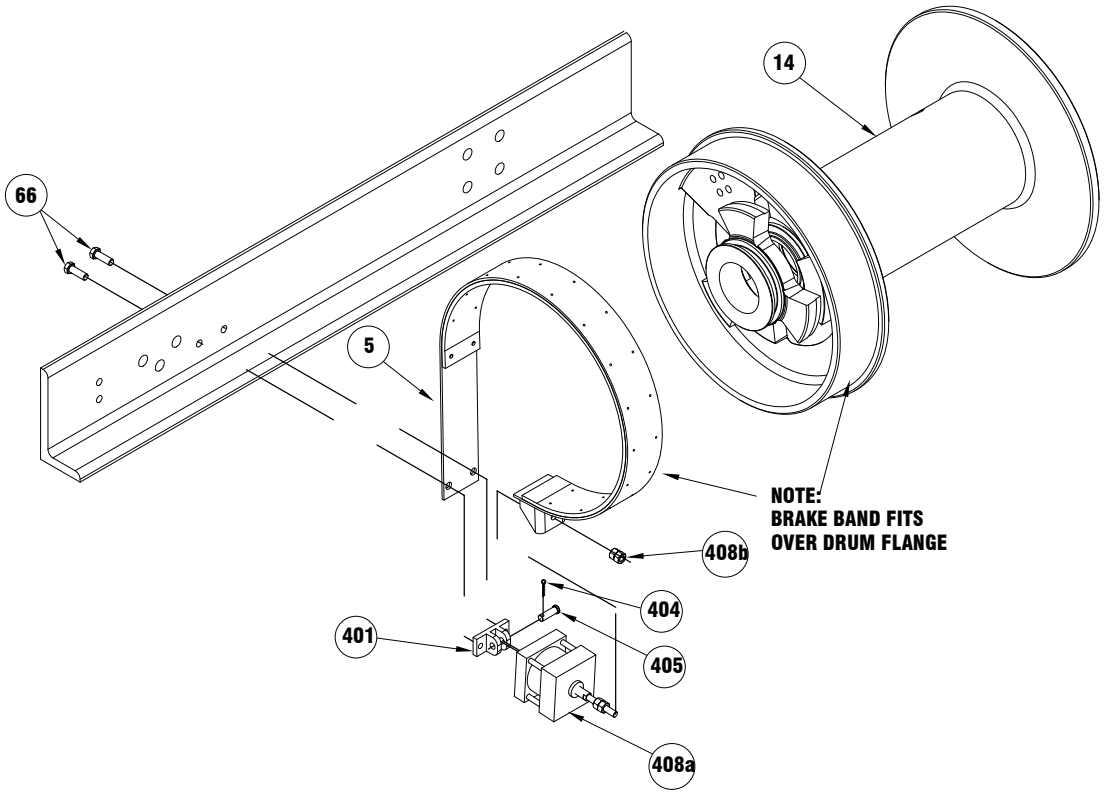
CONDITIONS	POSSIBLE CAUSE	CORRECTION
OIL LEAKS FROM WINCH	1. Seals damaged or worn. 2. Too much oil. 3. Damaged o-rings. 4. Case drain not connected.	1. Replace seal 2. Drain excess oil. Refer to page 7. 3. Replace o-rings. 4. Connect case drain.
WINCH RUNS TOO SLOW	1. Low flow rate. 2. Hydraulic motor 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

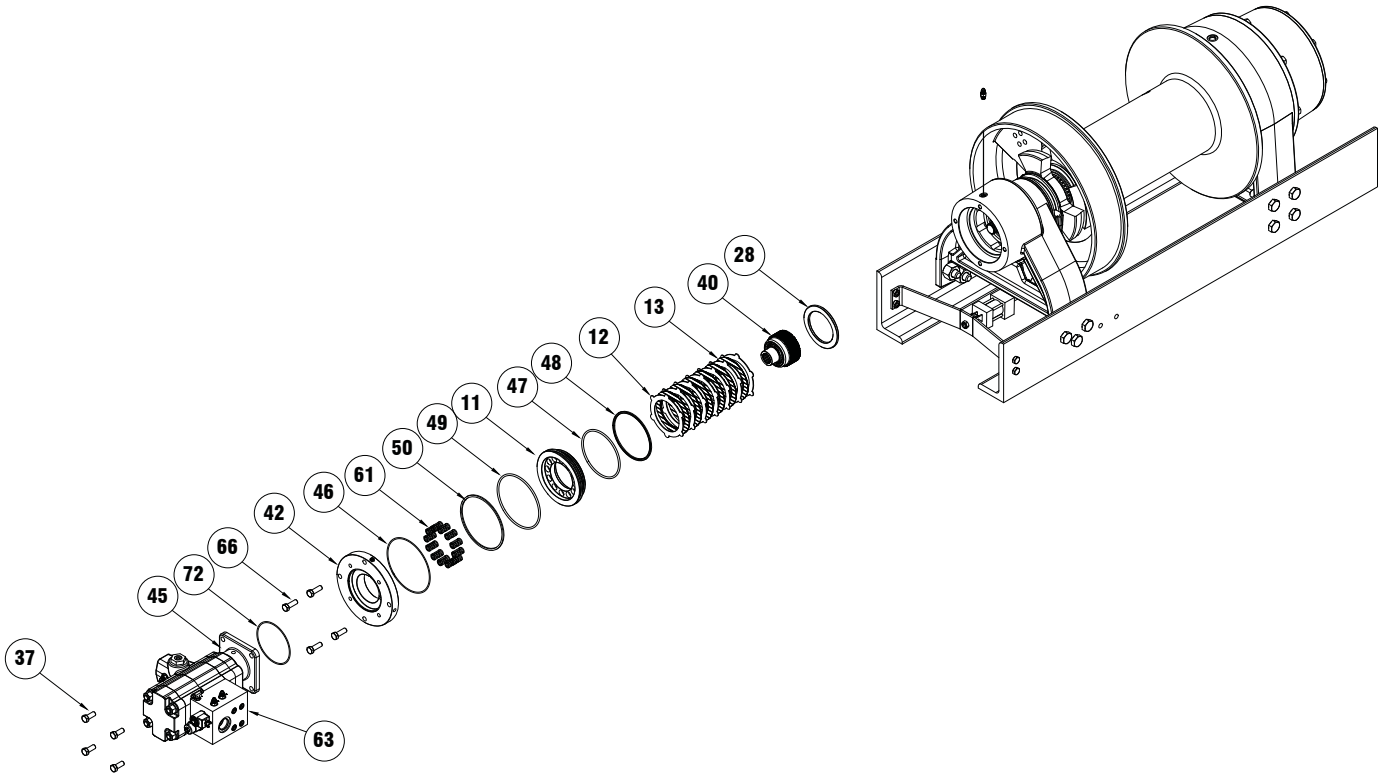
1. Remove wire rope from drum.
2. Drain oil from winch by removing (2) plugs #54, removing the lower plug first.
3. When replacing lubricant, use 160 oz of applicable lube for your climate from table on page 6 adding 4 oz at #44 and the remaining at # 55.



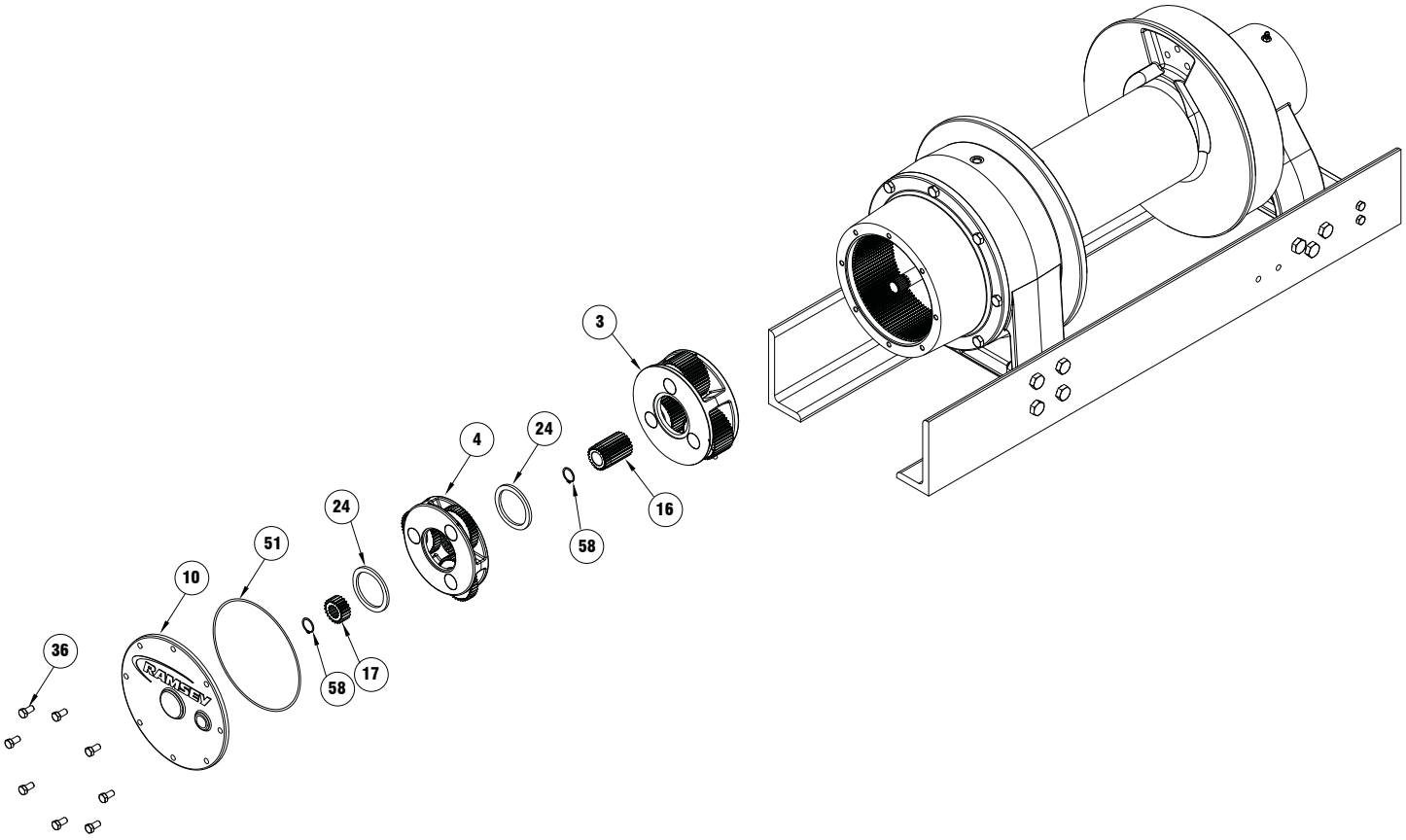
4. Remove (2) nuts #408b from air cylinder #408a. Air cylinder may now be removed. If needed, mounting bracket #401 may be removed by removing pin #404 from pin #405 and then slid ing pin out of mounting bracket. Brake band #5 may be expanded over drum flange to barrel for easiest removal.



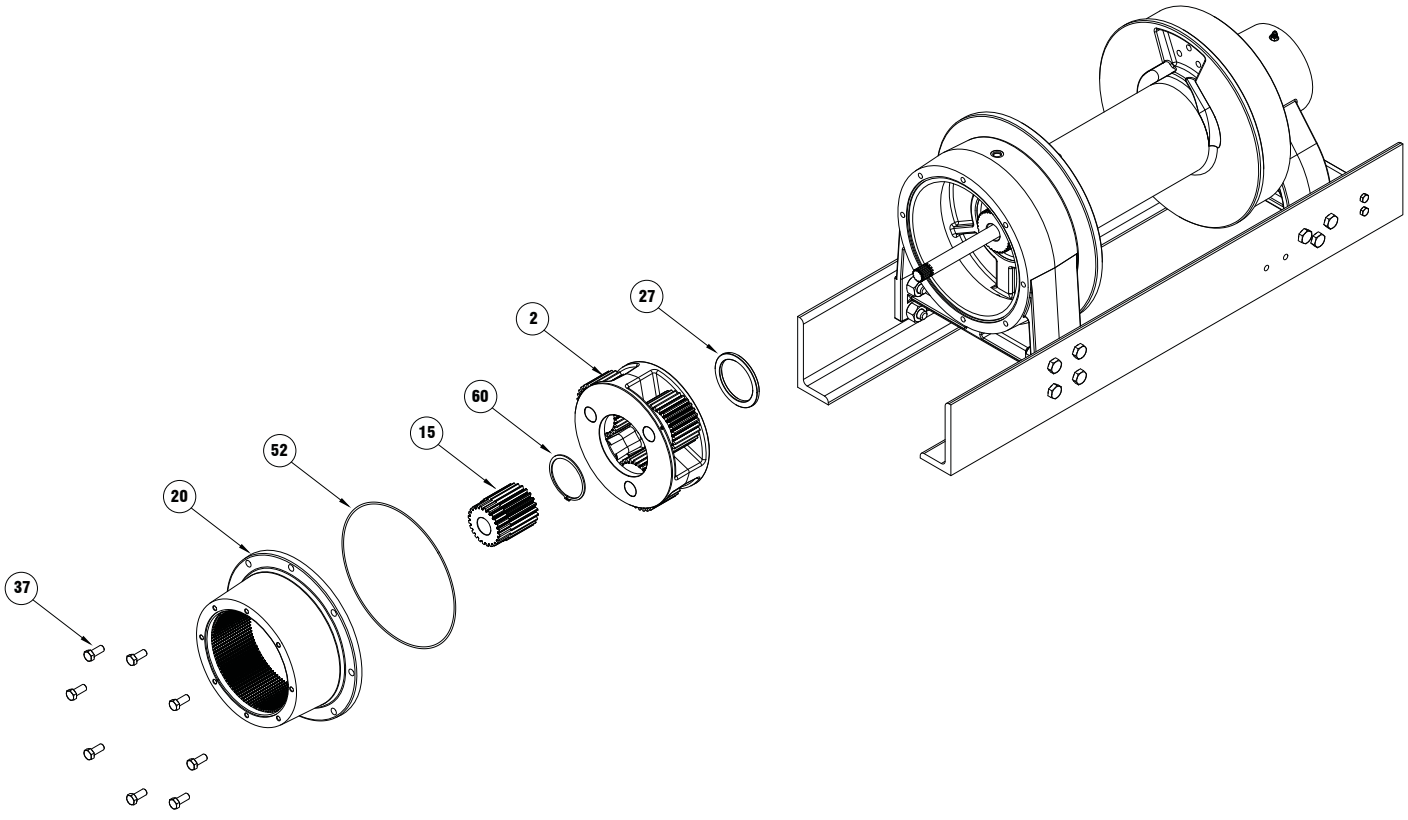
5. Remove motor #45 from winch by first disconnecting hydraulic lines (see page 21), sole noid wires, and then remove (4) bolts #37. O-ring #72 may now be removed.
6. Remove brake cover #42 by removing (4) bolts #66. The cover is spring loaded, use care when removing. Remove o-ring #46 then springs #61 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.



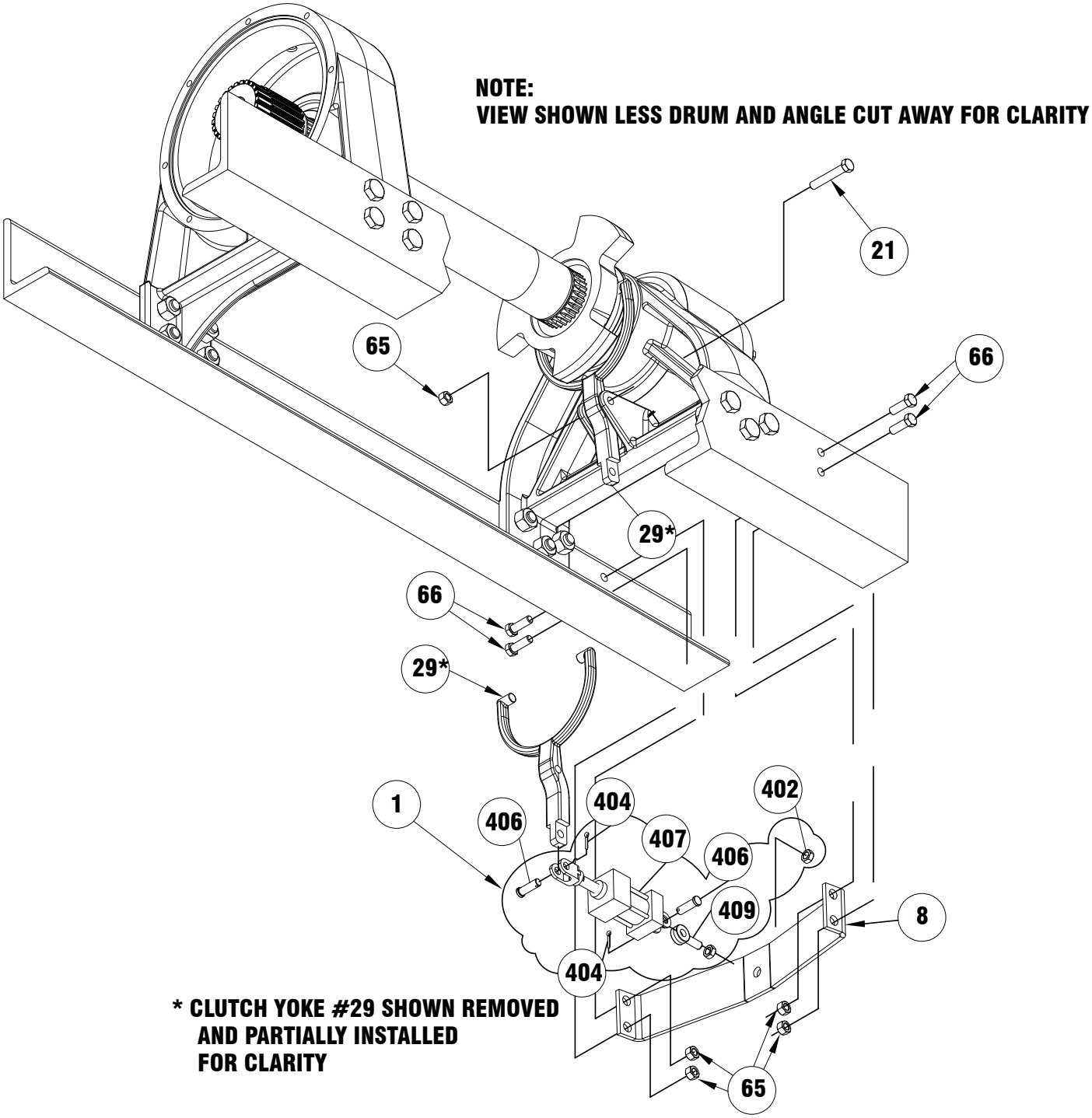
9. Remove (8) cover bolts #36; cover #10, and o-ring #51.
10. Remove snap ring #58, and sun gear #17.
11. The planetary carrier assembly #4 may now be removed along with (2) spacers #24.
12. Remove second snap ring #58 and intermediate sun gear #16.
13. Planetary carrier assembly #3 may now be removed.



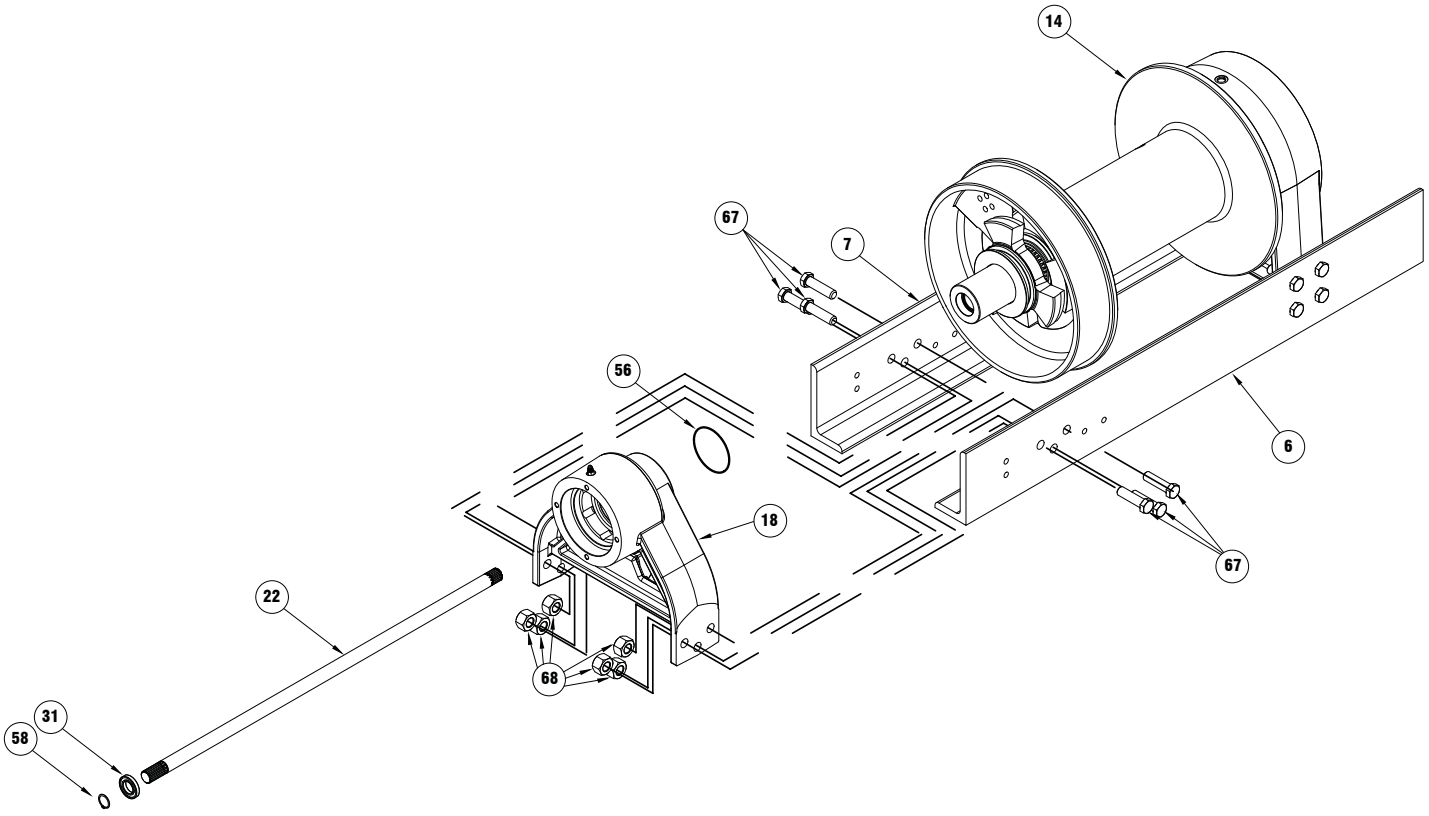
14. Using a nylon strap, support ring gear #20 from a hoist or boom, this ring gear is heavy. Remove (8) bolts #37 leaving the top most bolt for last. Remove the final bolt while support ing ring gear. Set ring gear aside. Remove the o-ring #52.
15. Remove output sun gear #15.
16. Using a large pair 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.



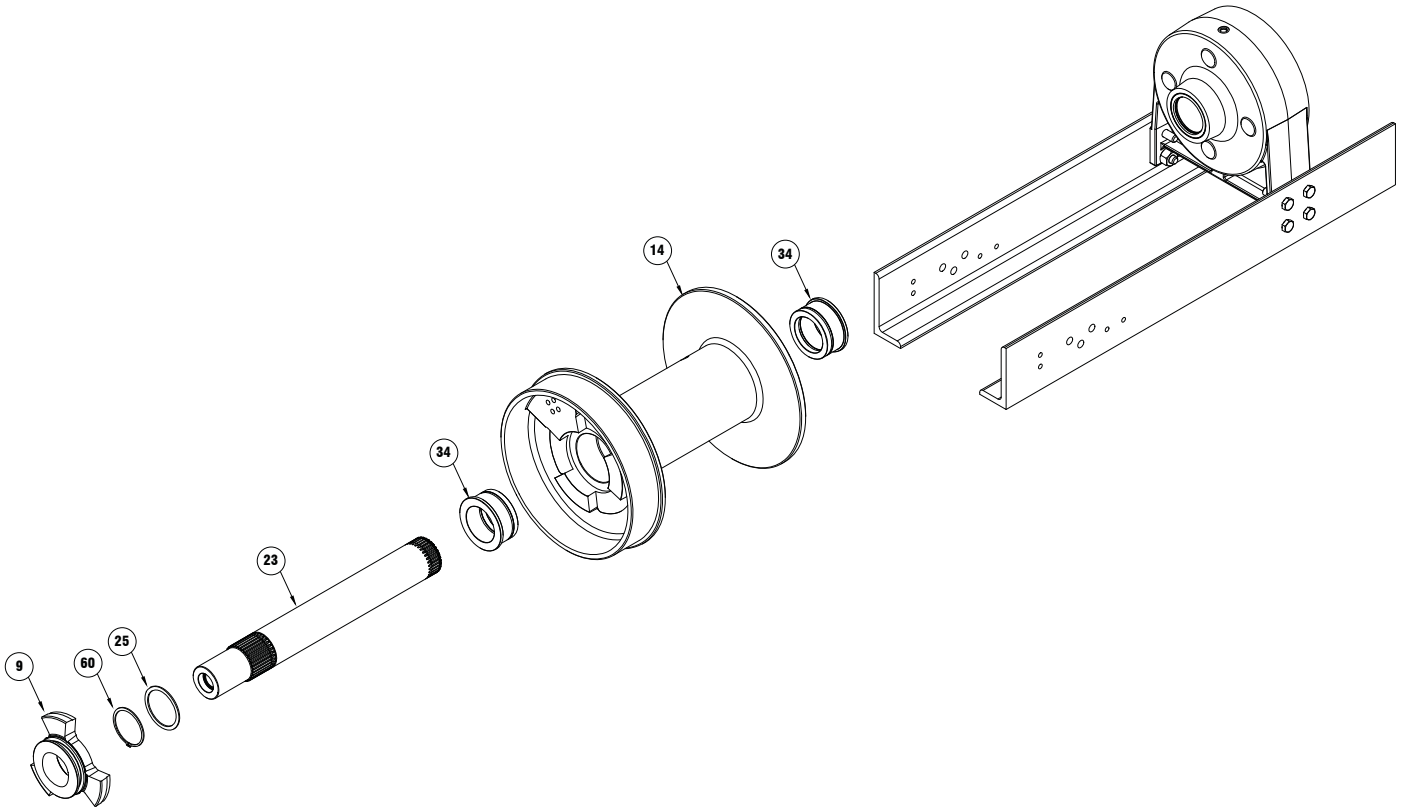
19. Remove the clutch cylinder #1 by removing the (2) cotter keys #404 and (2) pins #406 from either end of the air cylinder #407.
20. The clutch cylinder support angle #8 can be removed by removing the four bolts #38 and nuts #65 attaching it to the mounting angles.
21. Remove the clutch yoke #29 by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



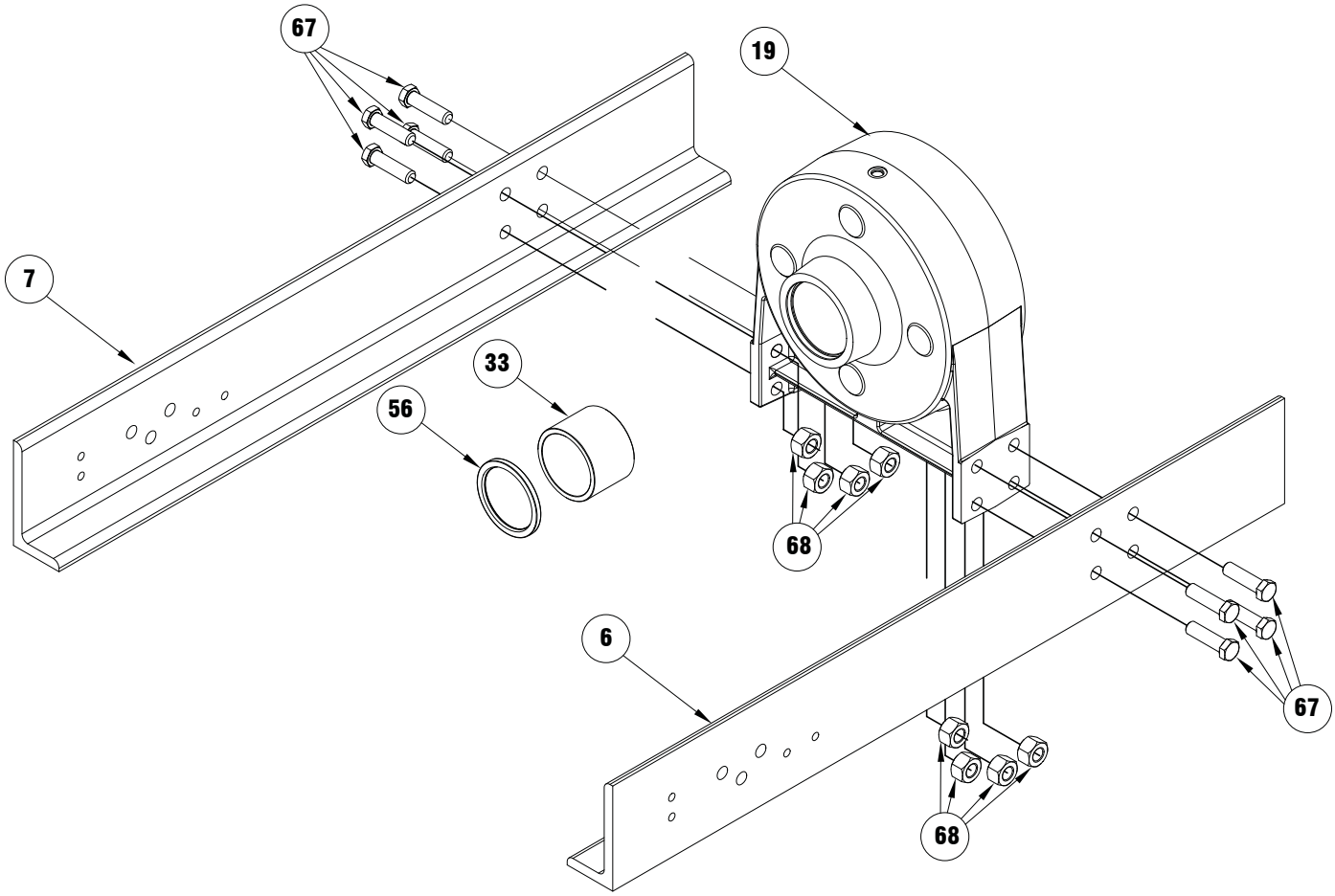
22. By removing snap ring #58 and ball bearing #31, the input shaft #22 may be removed.
23. To remove the motor end bearing #18, support drum #14 with a nylon strap or chain and hoist. Lift on the drum to tension the strap. Remove (6) bolts #67 and (6) nuts #68 attaching the end bearing to the mounting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



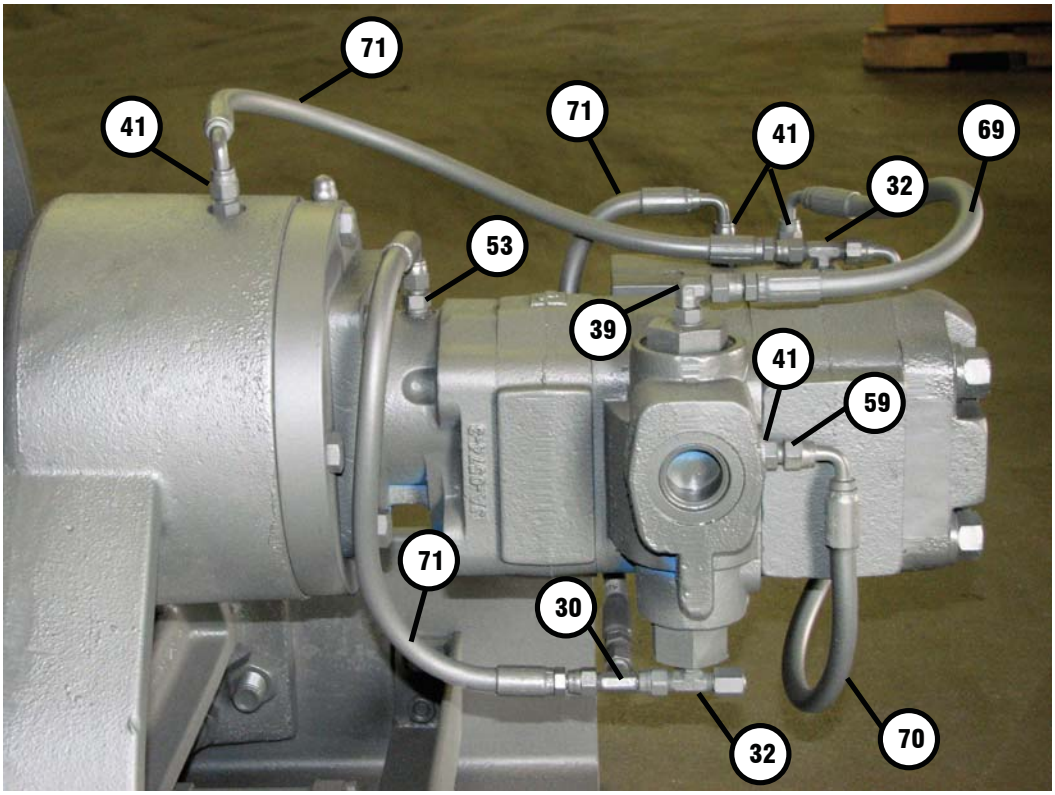
24. While continuing to support the drum #14, remove the clutch #9, snap ring #60 and spacer #25.
25. The output shaft #23 may be slid from the drum assembly.
26. The drum #14 is now supported only by the nylon strap and maybe removed as needed.
27. The (2) bushings #34 may be pressed from the drum if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

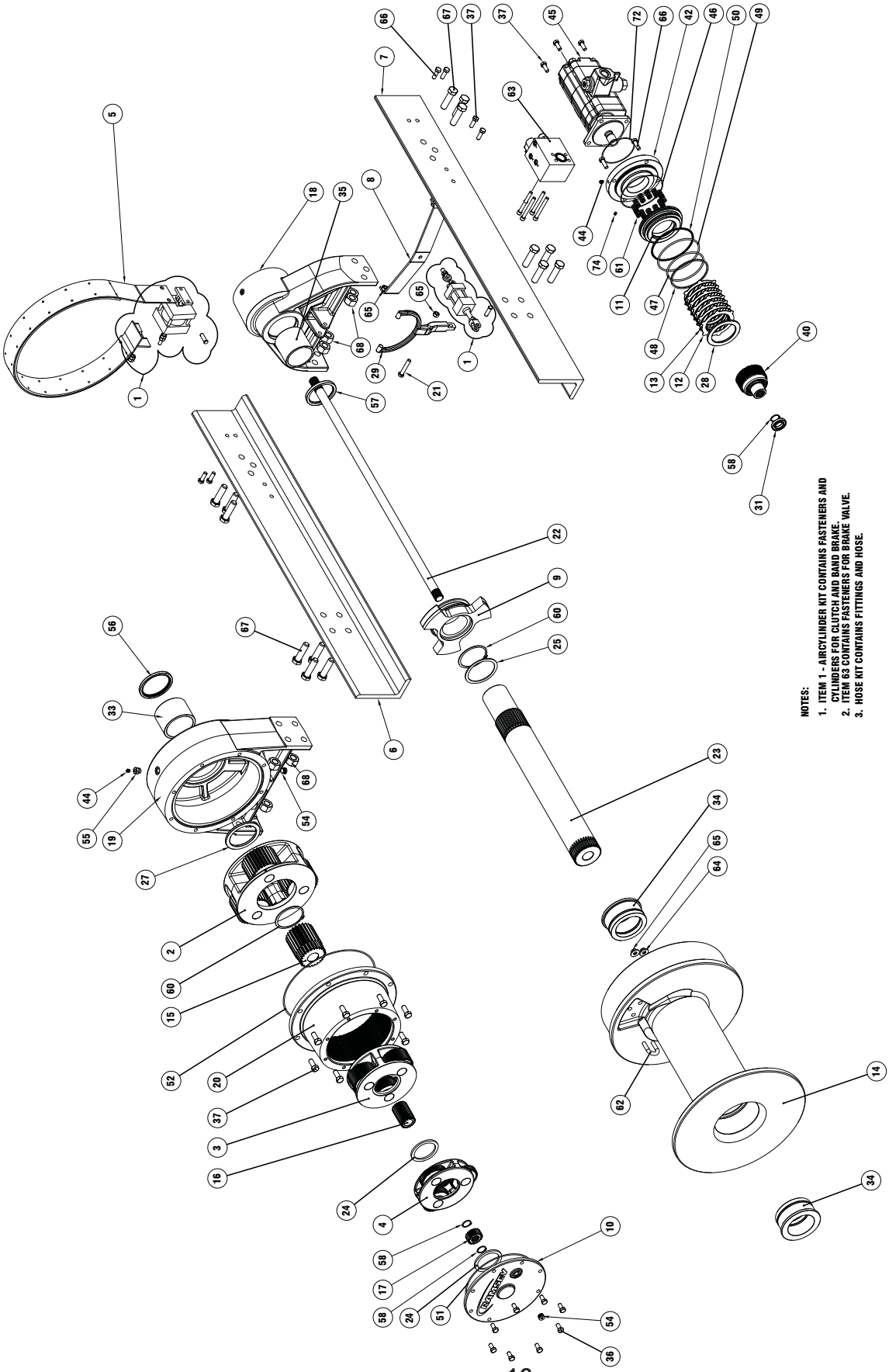


HOSE HOOKUP



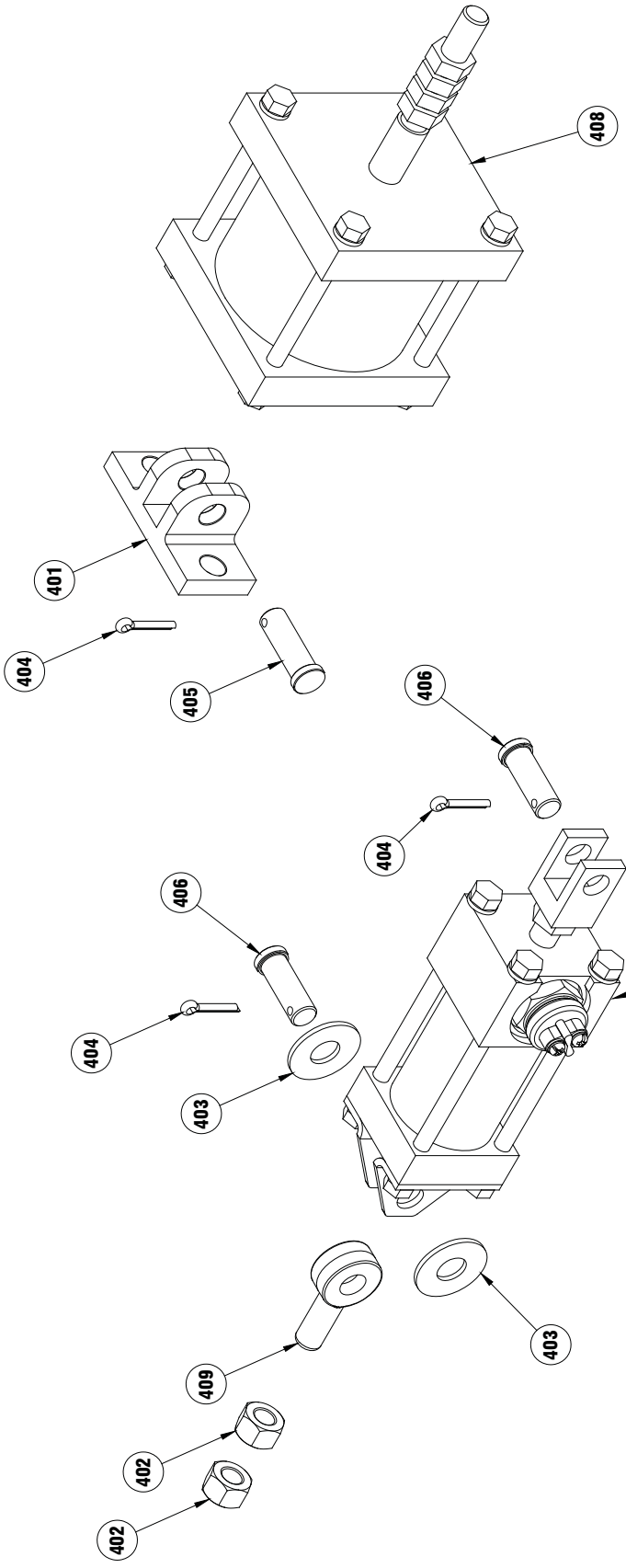
NOTES

EXPLODED VIEW



ITEM	QTY	PART NO	DESCRIPTION	ITEM	QTY	PART NO	DESCRIPTION
1	1	256131	AIR CYLINDER	38			NOT USED
2	1	251314	OUTPUT CARRIER ASSEMBLY	39	1	432018	FITTING JIC O-RING EL
3	1	296758	INTERMEDIATE CARRIER ASSEMBLY	40	1	296952	SPRAG BRAKE HUB ASSEMBLY
4	1	296757	INPUT CARRIER ASSEMBLY	41	4	432023	FITTING JIC O-RING NIPPLE
5	1	299749	BAND BRAKE	42	1	438043	BRAKE COVER
6	1	303146	LH MOUNTING ANGLE	43			NOT USED
7	1	303147	RH MOUNTING ANGLE	44	2	456008	FITTING-RELIEF1/8-27NPTF, 15 PSI MAX
8	1	312578	CLUTCH CYLINDER SUPPORT BRACKET	45	1	458215	MOTOR-HYD
9	1	324509	CLUTCH	46	1	462063	O-RING 2-165
10	1	328172	GEAR HOUSING COVER	47	1	462082	O-RING 2-358
11	1	330016	BRAKE PISTON	48	1	462083	BACK UP RING
12	7	330017	STATOR PLATE	49	1	462084	O-RING 2-362
13	6	330018	DISC-BRAKE	50	1	462085	BACK UP RING
14	1	332238	DRUM	51	1	462090	O-RING 2-270
15	1	334217	GEAR-SUN OUTPUT	52	1	462089	O-RING 2-279
16	1	334220	GEAR-SUN INTERMEDIATE	53	1	432053	FITTING JIC O-RING NIPPLE
17	1	334245	GEAR-SUN INPUT	54	2	468041	PLUG, -8 SAE, 3/4"-16 UNF
18	1	338378	END BEARING-MOTOR SIDE	55	1	468042	REDUCER-3/4-16 SAE O-RING X 1/8NPTF
19	1	338389	END BEARING-GEAR SIDE	56	1	486094	SEAL-OIL-SHAFT
20	1	338390	HOUSING-GEAR	57	1	486095	SEAL-OIL-SHAFT
21	1	414543	CAPSCREW-1/2-13NCX3LG,HXHD, GR 5	58	3	490006	SNAP RING 5100-125
22	1	357186	INPUT SHAFT	59	1	432054	FITTING JIC SWIVEL EL
23	1	357187	SHAFT-OUTPUT	60	2	490062	SNAP RING 5100-375
24	2	362301	SPACER	61	12	494129	SPRING-BRAKE
25	1	362311	SPACER-SHAFT	62	1	514021	U-BOLT
26			NOT USED	63	1	516048	COUNTER BALANCE BLOCK
27	1	362312	SPACER	64	2	418223	FLATWASHER 1/2
28	1	362305	SPACER	65	7	418069	NUT-1/2-13NC HEX REG,Z/P
29	1	370062	YOKE-SHIFTER	66	8	414540	CAPSCREW-1/2-13NCX 2 LG HXHD GR.5
30	1	432048	FITTING JIC SWIVEL TEE	67	14	414790	BOLT-7/8-9NC X 3.25 LG,HXHD,GR8,PLATED
31	1	402132	BALL BEARING	68	14	418108	NUT-7/8-9NC HEX REG Z/P
32	2	432049	FITTING JIC BRANCH TEE	69	1	509137	HOSE
33	1	412135	END BEARING BUSHING	70	2	509140	HOSE
34	2	412161	DRUM BUSHING	71	3	509141	HOSE
35	1	412136	END BEARING BUSHING	72	1	462081	ORING 2-159
36	8	414277	CAPSCREW-3/8-16NCX1LG HXHD GR 5	73			NOT USED
37	14	414578	CAPSCREW-1/2-13NCX1 1/4,HXHD,GR5,ZP	74	1	468016	PIPE PLUG 1/8-27NPTF

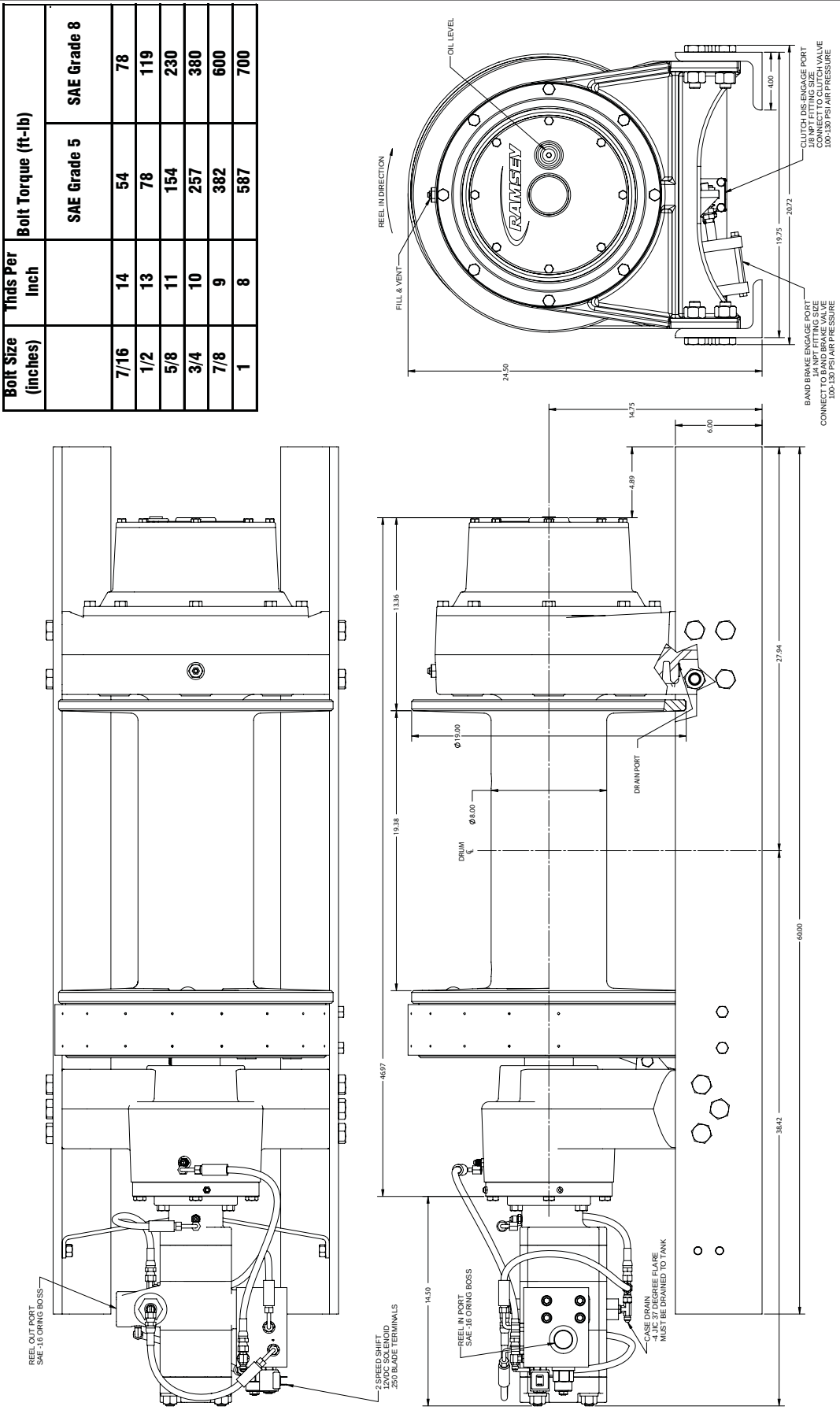
AIR CYLINDER KIT #256131 PARTS LIST



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 WC 65K

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



Limited Warranty

RAMSEY WINCH warrants each new RAMSEY Wildcat Winch to be free from defects in material and workmanship for a period of two (2) years from the date of purchase. Our new two year limited warranty is standard equipment on all Wildcat Winches manufactured after July 4th, 2014, and is also available for all Wildcat series winches currently in inventory at authorized distributors if the model and serial numbers are submitted to Ramsey Winch by August 30, 2014. End users who have purchased a winch since June 1, 2014, are also eligible for the two year warranty with purchase date, serial number, and model number submitted to an approved Wildcat Distributor by August 30, 2014.

Warranty General. 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 repairs or alterations have been made unless authorized by the Manufacturer, or for equipment misused, neglected or which has not been installed correctly.

To the fullest extent permitted by applicable law, the following are hereby excluded and disclaimed: 1.All warranties of fitness for a particular purpose; 2. All warranties of merchantability; 3. All claims for consequential or incidental damages. There are no warranties that extend beyond the description that appears on the face hereof. Some states do not allow the above exclusions or disclaimers in consumer transactions and as such this disclaimer/exclusion may not apply to your particular case. To the extent such warranties of fitness for a particular purpose or merchantability are deemed to apply to this product, they exist for only so long as the express limited warranty elsewhere set forth is in existence.

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 of 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.

This Warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.

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