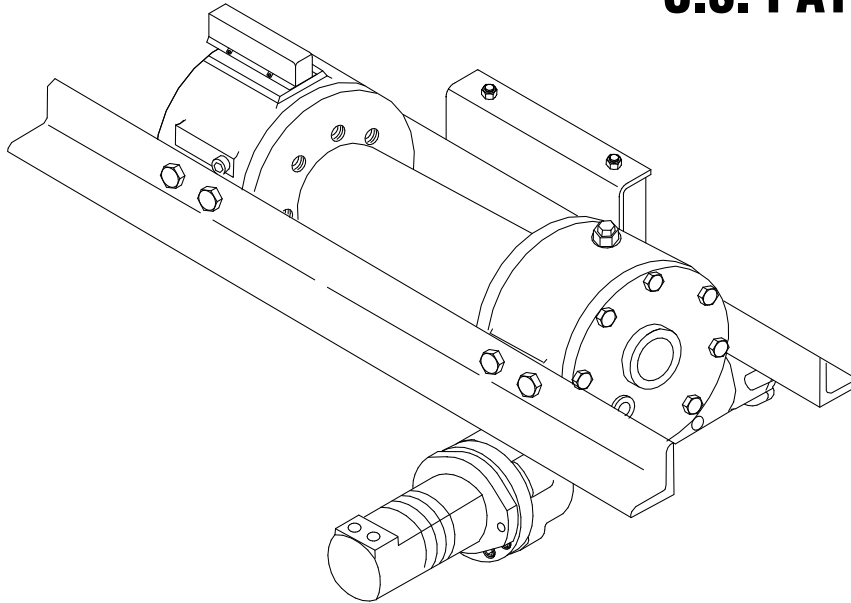




Ramsey Winch Company
OPERATING, SERVICE, AND
MAINTENANCE MANUAL
MODEL H-800 WINCH
(MFG. PER JERR-DAN SPECS.)
U.S. PATENT #4379502



Rated Line Pull (lbs.)	-----	25,000
(kg)	-----	11,340
Gear Reduction	-----	40:1
Shipping Weight: H-800 with cable tensioner	-----	392 lbs. (178 Kg)
Layer of Cable		1 2 3 4 5**
*Rated line pull per layer (lbs.)		25,000 20,800 17,900 15,600 13,900
(kg)		11,349 9,430 8,110 7,070 6,300
Cable Capacity (ft)		35 75 125 185 245
(m)*		10 22 38 56 74
*Line speed FPM		18 22 26 29 33
MPM		5,4 6,6 7,9 8,8 10,0
* These specifications are based on recommended wire rope of .63 inch diameter extra improved plow steel or equivalent		
** Fifth layer does not conform to SAE J706		

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

Congratulations

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.



CAUTION: Read and understand this manual before installation and operation of winch. See Safety Precautions.

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Safety Precautions To Guard Against Possible Injury:

- A. Clutch must be totally engaged before starting the winch operation.
- B. Do not disengage clutch under load.
- C. Stay out from under and away from raised loads.
- D. Stand clear of cable while pulling. Do not try to guide cable.
- E. Do not exceed maximum line pull ratings shown in specifications.
- F. Do not use winch to lift, support, or otherwise transport people.
- G. A minimum of 5 wraps of cable around the drum barrel is necessary to hold load. Cable set screw is not designed to hold load.



TECHNIQUES OF OPERATION

The best way to get acquainted with how your winch operates is to make test runs before you actually use it. Plan your test in advance. Remember, you hear your winch, as well as see it operate. Get 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.

The Dow-Lok® clutch provides free spooling and clutch engagement with the cable drum. With the clutch disengaged, the cable can be freespoiled off the drum. For winching in the load the clutch must be fully engaged with the drum.

TO ENGAGE CLUTCH

There must be a minimum of 1 foot of slack in the cable before attempting to engage the clutch. This will allow the drum to rotate a minimum of 1/4 turn allowing engagement of the clutch before picking up the load.

With this slack in the cable, exhaust air pressure from the air shift cylinder and then run the winch in the "in" direction until the clutch springs into engagement and the drum starts to turn. **Clutch must be fully engaged before starting the winching operation.**

TO DISENGAGE CLUTCH

Run winch in the "out" direction until there is no load on the cable. Apply 70-90 psi to the air shift cylinder to disengage the clutch. **Do not disengage the clutch under load.**

WINCH 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

Check the oil level and maintain it to the oil level plug. If oil is leaking out, determine location and repair.

Check the pressure relief plug in top of the gear housing. Be sure that it is in good operating condition so that hot oil gasses may escape.

Lubricate cable with light oil.

B. MONTHLY

Lubricate the various grease fittings located in the ends of cable drum shaft, end bearing, clutch housing or clutch operating linkage. Any good grade of moly-disulfide containing grease is acceptable.

Check the action of the locking ring, making sure it is spring loaded and free to move fully against the cable drum in the engaged position and that it is pulled fully away from the cable drum and latched when disengaged.

Check the winch mounting bolts. If any are missing, replace them and securely tighten any that are loose. Make sure to use only grade 5 bolts or better.

Check the torque setting of the oil cooled worm brake. Make any adjustments required, following the procedure described in ADJUSTING THE OIL COOLED WORM BRAKE in the Owner's Manual.

Inspect the cable. If the cable has become frayed with broken strands, replace immediately.

C. ANNUALLY

Drain the oil from the winch annually or more often if winch is used frequently. Fill the winch to the oil level plug with clean kerosene. Run the winch a few minutes with no load in the reel in direction.

Drain the kerosene from the winch. Refill the winch to the oil level plug with all purpose E.P. 140 gear oil. Inspect frame and surrounding structure for cracks or deformation. Gear wear can be estimated by **rocking the drum back and forth and if necessary drain oil and remove cover for closer inspection.**

WINCH MOUNTING

It is most important that this winch be mounted securely so that the three major sections (the clutch housing end, the cable drum and the gear-housing end) are properly aligned.

This H-800 Dow-Lok® series winch is furnished with 1/2 x 3-1/2 x 3-1/2 high-strength steel angles.

CABLE INSTALLATION

The Ramsey Model H-800 “Dow-Lok”® winch has two tapered pockets cast into the drum. One pocket is for installations with the wire rope wound over the drum. The other pocket is for an underwound wire rope.

1. Slide the wire rope through narrow end of the pocket against the drum flange.
2. Wrap the wire rope around the anchor “puck” and pull the wire rope and anchor back into the wide end of the pocket.
3. Use a soft hammer to drive the back side of the wire rope, firmly seating the wire rope and anchor, into the pocket.

The wire rope can easily be removed from the drum by driving the anchor out the wide end of the pocket.

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.

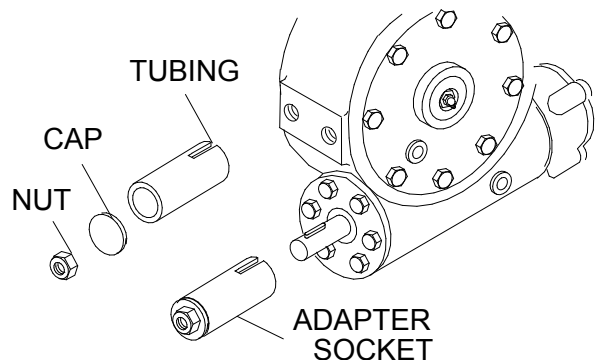
ADJUSTING THE OIL COOLED WORM BRAKE

The oil cooled, fully adjustable, automatic safety brake operates in the worm housing lubricant, all parts being submerged in oil. When the brake wears to the point that the load begins to drift, the brake can be adjusted as follows:

1. Loosen the lock nut on the adjusting screw.

2. Tighten the brake by turning the adjusting screw clockwise. **CAUTION:** Only 1/4 turn is usually required to adjust the brake. Over-tightening can cause over-heating, and damage to the brake parts. Tighten the lock nut after adjustment is completed.

If the brake does not respond to adjustment then a new leaf spring and brake disc is needed.

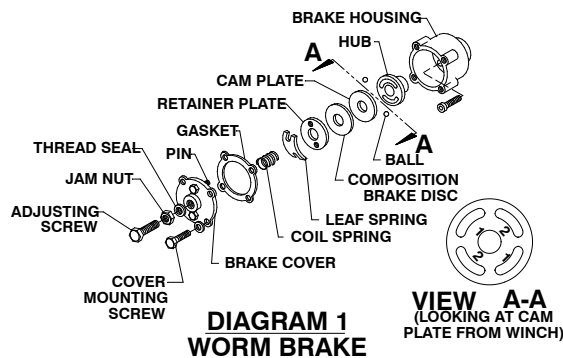


A torque wrench can be equipped with a special adapter to fit the input shaft (worm) of the winch. The adapter can be made by welding a nut to the end of a piece of tubing as shown in the following figure.

After welding the cap and nut to the tubing, slot the tubing, as shown. This will allow the special adapter to slide over the keyway and will then act as a large socket. A torque wrench can be used to apply the proper torque. Turn the torque wrench so that the drum turns in the spool out direction or lowering direction. The torque rating for the brake on the Model H-800 Dow-Lok® should be 50 to 55 ft. lbs. If torque wrench does not show the proper value as it turns, then the worm brake adjusting bolt should be turned clockwise 1/4 turn. Each time the adjusting bolt is turned, check the torque reading. Continue this procedure until the proper torque reading is achieved. Then tighten the lock nut.

SERVICING OF THE OIL COOLED SAFETY BRAKE

1. Remove the drain plug and drain the worm gear oil from the worm housing.
2. Back off the lock nut, then the adjusting screw, both two turns or more by turning them counter-clockwise.
3. Remove the cover mounting screws.
4. Remove the cover along with coil spring and leaf spring.
5. Remove the retainer plate, composition brake disc, cam plate and balls. Note which slots balls are in.
6. Insert parts as follows:
 - a) Composition brake discs are 1/4" thick when new. Replace if thinner than 3/16 or if surfaces are glazed or burnt.
 - b) Insert the flat, ground surface of the cam plate and retainer plate for glazing, warpage, or other damage. Glazing can be removed by scraping carefully.
 - c) Inspect the leaf spring. It should be bowed 1/8".
7. Install brake housing cover, making sure the protruding pins go through the leaf spring and into the holes in the retainer plate.
8. Bolt cover into place with the mounting screws. Install drain plug and add 3-3/4 pints all purpose E.P. 140 oil.
9. Turn winch in the hoisting direction at least one turn of the input shaft.
10. Turn the adjusting screw in until it is finger tight.



RE-ASSEMBLING AND CHECKING THE BRAKE

1. Press brake hub into place over worm shaft and key.
2. Assemble balls in #2 slots of cam. Use stiff grease to hold balls into place and slide cam over end of worm. Be sure that balls

are secure, between cam slots and hub slots. Install brake disc.

3. Install retainer plate, smooth side toward brake disc.
4. Install the gasket on the cover with a small amount of grease or sealer.
5. The coil spring goes over the adjusting screw on the inside of the cover.
6. Install the notches of the leaf spring on the pins protruding through the cover. The hollow side of the leaf spring goes toward the brake.
7. Install brake housing cover, making sure the protruding pins go through the leaf spring and into the holes in the retainer plate.
8. Bolt cover into place with the mounting screws. Install drain plug and add 3-3/4 pints all purpose E.P. 140 oil.
9. Turn winch in the hoisting direction at least one turn of the input shaft.
10. Turn the adjusting screw in until it is finger tight.

TEST FOR PROPER BRAKE ASSEMBLY

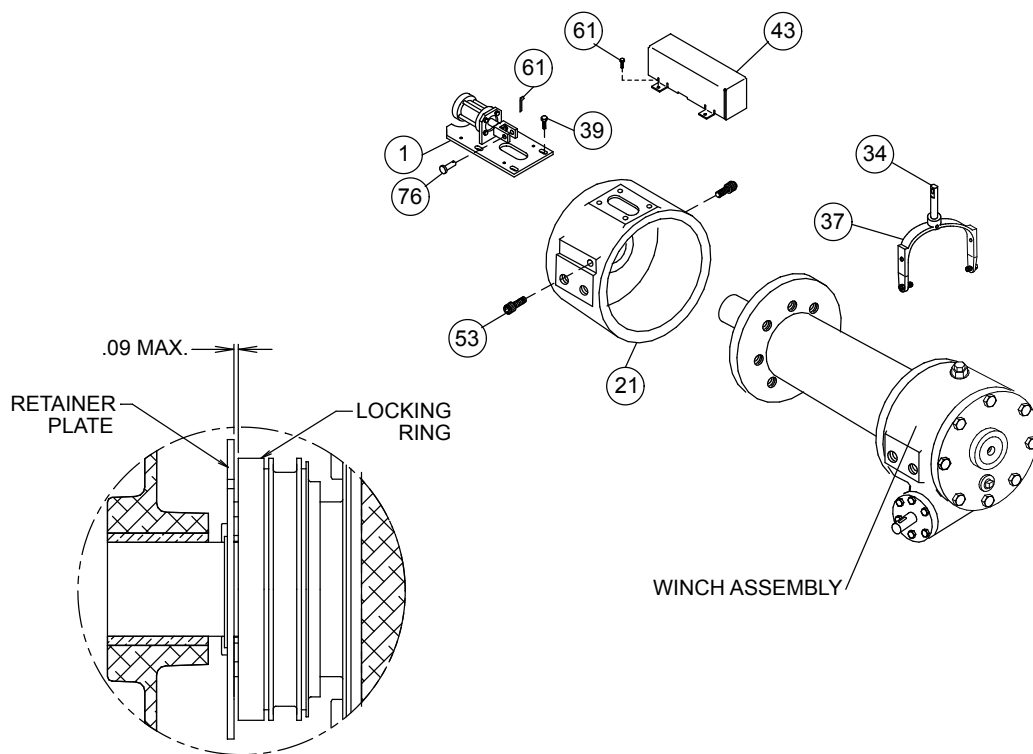
After the brake has been adjusted to the proper torque setting disengage clutch. Start vehicle engine and run winch in the reel in (hoisting direction). Allow winch to run in this direction for one minute.

Place your hand on the safety brake housing. If housing is not hot to the touch then run winch in the reverse direction (cable out) for one minute. Brake housing should begin to heat.

When these conditions exist, proper installation has been made. If heating becomes noticeable when running the winch in forward rotation (hoisting direction), the brake should be again disassembled. When disassembled, place the brake balls in the alternate set of slots in the cam plates, then carefully follow the instructions for re-assembling and checking the brake.

ADJUSTMENT OF CLUTCH AIR SHIFTER

1. Place winch assembly back into mounting frame and reattach using (8) mounting bolts and lockwashers. Torque mounting hardware to 290 ft. lbs. each. Make sure that gear housing and clutch housing are not rubbing against drum flanges.
2. Place air shifter assembly #5 over shifter shaft aligning clevis over flats of shaft. Secure clevis to shaft using clevis pin #76 and cotter pin #75. Place shifter shaft in the "ENGAGED" position. With the air cylinder shaft fully retracted, push shifter assembly toward the drum until all play is taken out of the shifter shaft. Secure shifter assembly to clutch housing using (4) capscrews #46 (flanged hx. hd. serrated). Tighten securely, but do not torque.
3. Hook up air (70 to 90 psi) to inlet port of air cylinder and disengage clutch. Look into the opening in the clutch housing and verify that the locking ring and retainer plate are not making contact. Locking ring and retainer plate must not make contact. There must be a clearance (gap) of .09 inch (max.) between the locking ring and retainer plate when the winch is fully disengaged. If there is contact, the (4) capscrews #46 should be loosened and the plate pulled away from the drum approximately .06 inch. Tighten screws securely and check action to assure needed clearance. Repeat adjustment procedure as needed to acquire needed gap. Shift clutch 2 or 3 times to verify proper shifting of clutch. After final adjustment, torque (4) capscrews #46 to 18 ft. lbs. each. Attach cover #43 using (4) capscrews #61.



TROUBLESHOOTING GUIDE

CONDITIONS	POSSIBLE CAUSE	CORRECTION
CLUTCH INOPERATIVE OR BINDS UP	<ol style="list-style-type: none"> 1. Dry or rusted shaft. 2. Bent yoke or linkage. 3. Debris in clutch. 4. Clutch not disengaging drum does not free-spool. 	<ol style="list-style-type: none"> 1. Clean and lubricate. 2. Replace yoke or shaft assembly. 3. Clean and lubricate. 4. Adjust clutch air shifter (see section under Maintenance).
LOAD DRIFTS DOWN	<ol style="list-style-type: none"> 1. Safety brake has become worn. 2. Safety brake out of adjustment. 	<ol style="list-style-type: none"> 1. Replace brake disc (See <i>Servicing of the Oil Cooled Safety Brake</i>). 2. Turn adjusting bolt clockwise 1/4 turn until load does not drift.
OIL LEAKS FROM WINCH	<ol style="list-style-type: none"> 1. Seals damaged or worn. 2. Too much oil. 3. Damaged gasket. 	<ol style="list-style-type: none"> 1. Replace seal. 2. Drain excess oil. Refer to <i>Winch</i> 3. Replace gasket.
WINCH RUNS TOO SLOW	<ol style="list-style-type: none"> 1. Low flow rate. 2. Hydraulic motor worn out. 	<ol style="list-style-type: none"> 1. Check flow rate. Refer to <i>Hydraulic System Requirements</i>. 2. Replace motor.
CABLE DRUM WILL NOT FREESPOOL	<ol style="list-style-type: none"> 1. Clutch not disengaged. 	<ol style="list-style-type: none"> 1. Check air pressure to clutch cylinder 70 PSI minimum required—Refer to page 15.

HYDRAULIC SYSTEM REQUIREMENTS

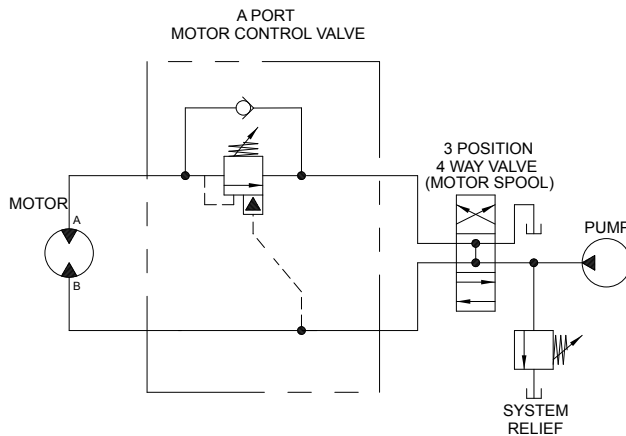
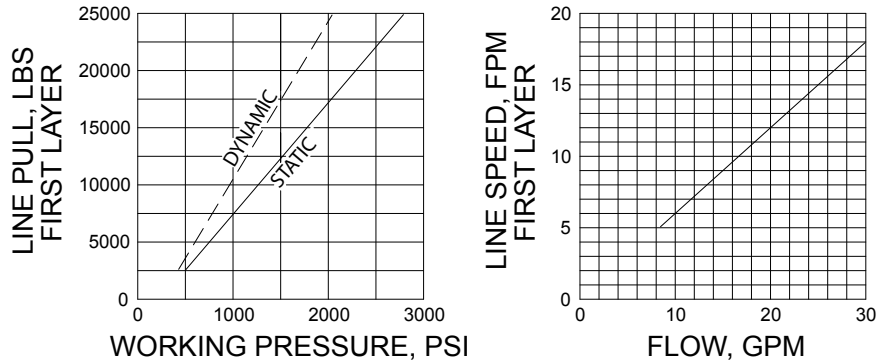
Refer to the performance charts, below, to properly match your hydraulic system to H-800 Dow-Lok® winch performance. The charts consist of :

(1) Line pull (lb.) first layer vs. working pressure (PSI). STATIC (solid line) refers to hoisting a suspended load from rest; DYNAMIC (dotted line) refers to maintaining the motion of a moving load.

(2) Line speed, first layer (FPM) vs. Flow, gallons per minute (GPM).

Performance based on a motor displacement of 14.9 cubic inches with 30 GPM maximum flow rate. See page 15 for motor port size.

H-800 PERFORMANCE 25,000 LB. DUTY RATING TYPICAL HYDRAULIC LAYOUT



HYDRAULIC SYSTEM SCHEMATIC

INSTRUCTIONS FOR OVERHAUL OF RAMSEY MODEL H-800 DOW-LOK® DIS-ASSEMBLY

Refer to parts list and parts drawing pages for actual Item numbers and corresponding part numbers.

FIGURE 1

Drain oil from gear housing by removing pipe plug #88 from gear housing.

Remove air shifter cover #43, cotter pin #75, and clevis pin #76. Remove air shifter sub-assembly #5.

Adjust stud assembly #4 to relieve tension on cable tensioner. Remove cable tensioner #1 and frame angles #7 & #8 from winch assembly.

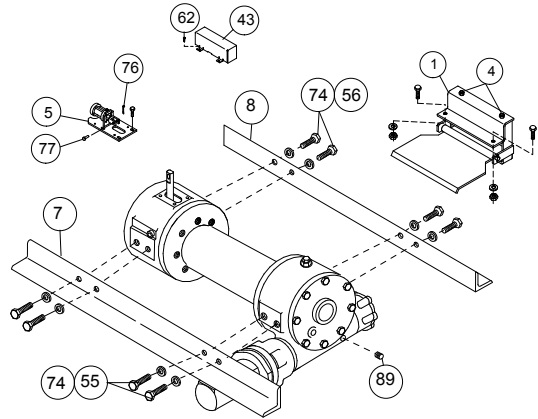


FIGURE 2

Remove two capscrews #53 from clutch housing #21 and unlatch shifter assembly.

Remove clutch housing from end of drum shaft. Press in on retainer plate #93, to relieve the spring tension and remove the retainer ring #96.

Remove four capscrews #44, retainer plate #93, springs #99 and spacer #35.

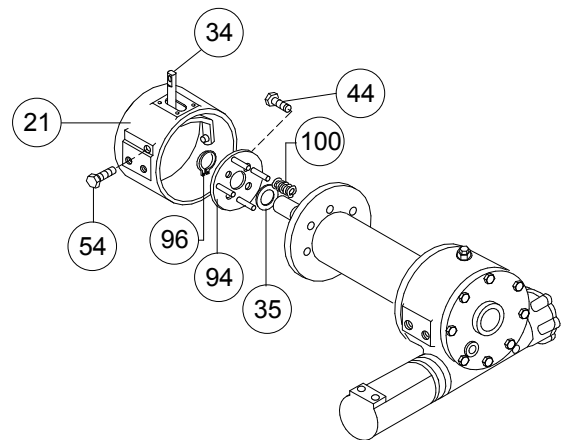


FIGURE 3

Slide the locking ring #14 from the clutch. NOTE: The locking ring cannot be removed unless the clutch is engaged, with dowel pins #90 seated in the shaft keyways.

Rotate the drum so the eight balls #39 and four dowel pins #90 can be removed.

If necessary, the clutch #13 may be disassembled from the drum by removing eight capscrews #50. Slide drum #18 from drum shaft.

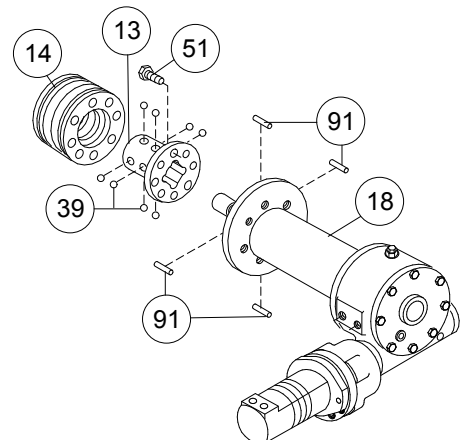


FIGURE 4

Remove motor #85 from adapter plate #29 by removing capscrews #59. Remove adapter plate and coupling #3 from adapter #6 by unscrewing eight capscrews #56.

Remove key #26 from worm shaft. Unscrew six capscrews #58 and remove adapter from gear housing. Replace adapter seal #94 and gasket #78.

Remove drag brake #17, spacer #103 and springs #98. Should be examined and replaced if necessary.

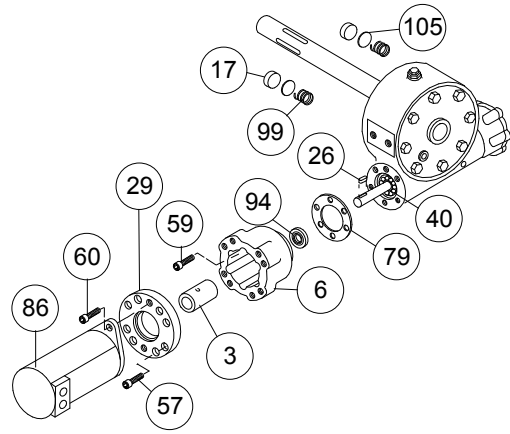


FIGURE 5

Remove brake housing #20 from gear housing by unscrewing six #57 capscrews. Refer to page 6, SERVICING OIL COOLED SAFETY BRAKE.

Remove key #25 from worm. Remove worm #36 and bearings #40 from gear housing. Use a soft hammer to gently tap input end of worm, driving worm and bearing from gear housing. Once worm has been removed from housing, bearing can be pressed from end of worm.

Check for signs of wear or damage to worm #36 and bearings #40. Replace if necessary.

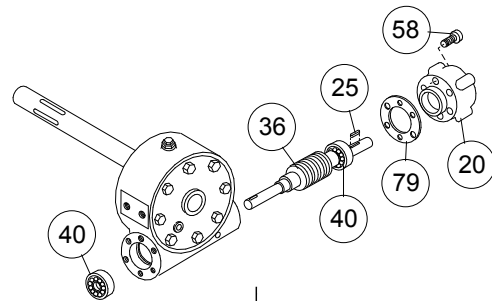


FIGURE 6

Remove gear-housing cover #16 from gear housing #22 by unscrewing eight capscrews #47. Thread two of the capscrews into the two tapped holes of cover and tighten. This will pull the cover loose from gear housing.

Remove cover gasket #80 and pull shaft #32, with gear #19 and spacer #101 attached, from gear housing.

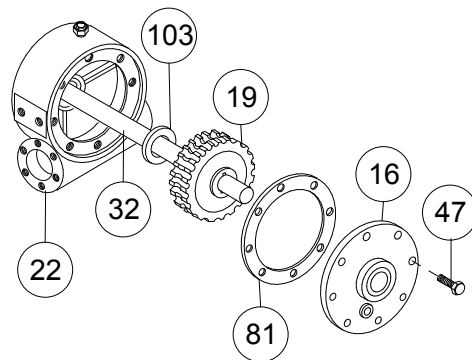


FIGURE 7

If shaft and/or gear hub is damaged, replace as follows:
a. Tap keys #27 into short keyways of drum shaft #32.
b. Press shaft #32 and keys through gear hub #19 until end of keys on long end of shaft are flush with hub of gear.

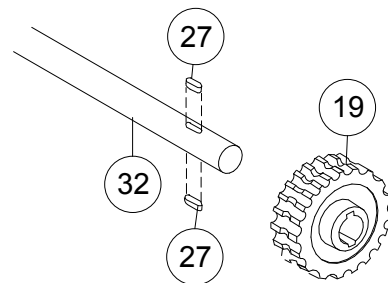


FIGURE 8

Check gear housing bushing #10 and o-ring #86 for signs of wear. Replace if necessary by pressing old bushing from gear housing #22. Press new bushing into place and insert new o-ring #86 into groove inside of bushing.

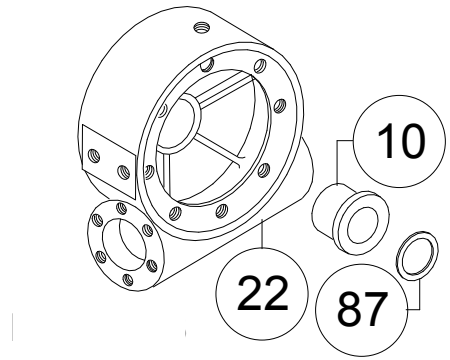


FIGURE 9

Check drum bushings #41 & #42 for signs of wear. Replace if necessary by pressing old bushings from drum #18. Press bushing #41 into bore in drum until flange is seated against bottom of counterbore. Press bushing #42 into opposite bore on drum until end of bushing extends .50" from end of drum.

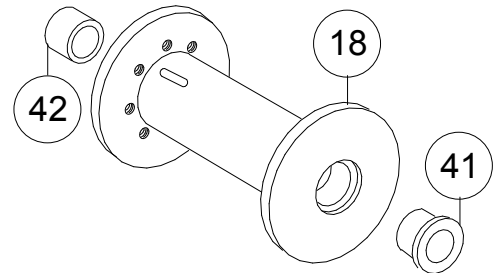


FIGURE 10

Check end bearing bushing #42 for signs of wear. If necessary, remove old bushing and press new bushing into place.

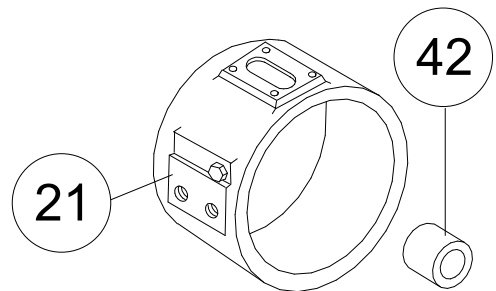


FIGURE 11

Check cover bushing #10 and o-ring #86 for signs of wear. Replace if necessary by pressing old bushing from gear housing cover #16. Press new bushing into place and insert new o-ring #86 into groove inside of bushing.

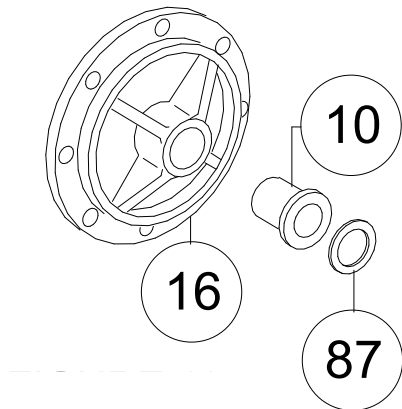


FIGURE 12

Slide spacer #101 over long end of shaft and place against gear hub. Apply grease to end of shaft, opposite gear. Apply grease to bushing in gear housing #22. Place greased end of shaft through bushing in gear housing #22. Place gasket #80 onto gear housing cover #16. Apply grease to gear end of shaft and cover bushing. Place cover onto shaft and secure to housing with eight #47 capscrews. Tighten capscrews to 39 ft. lb. (52 Nm.) each.

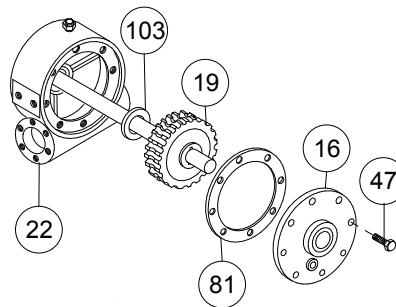


FIGURE 13

Press bearing #40 onto worm #36. NOTE: Be sure that thick shoulder of bearings outer race (side with manufacturer's name and part number) is out, away from worm threads. Press bearing and worm into gear housing. Slip gasket #78 onto brake housing #20. Use six capscrews #57 to secure brake housing to gear housing. Tighten capscrews to 45 ft. lb. (61 Nm.) each. Place key #25 into keyway of worm #36. Refer to page 5 for reassembly and checking of worm brake.

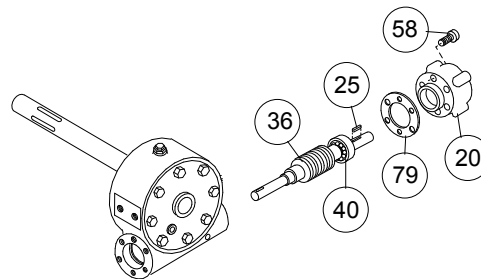


FIGURE 14

Press bearing #40 onto worm and into housing. NOTE: Be sure that thick shoulder of bearings outer race (side with manufacturer's name and part number) is out, away from worm threads. Attach adapter #6 to gear housing using six capscrews #58. Tighten capscrews to 45 ft. lb. (61 Nm.) each. Insert key #26 into keyway of worm shaft. Slide coupling #3 over end of worm shaft. Attach adapter plate #29 to adapter using eight capscrews #56. Tighten capscrews to 21 ft. lb. (28 Nm.) each.

Place motor shaft, with key in keyway, into coupling. Secure motor #85 to adapter, using two capscrews #59. Tighten capscrews to 102 ft. lb. (138 Nm.) each.

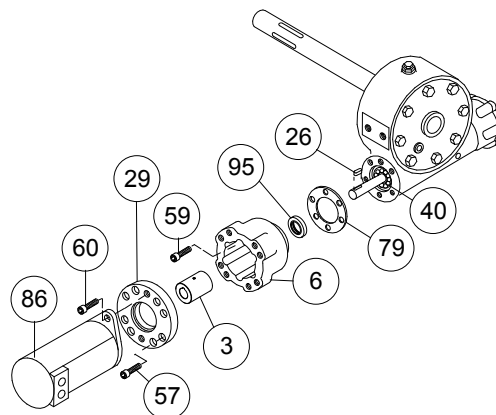
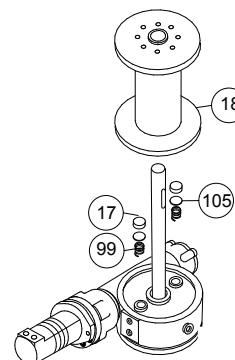
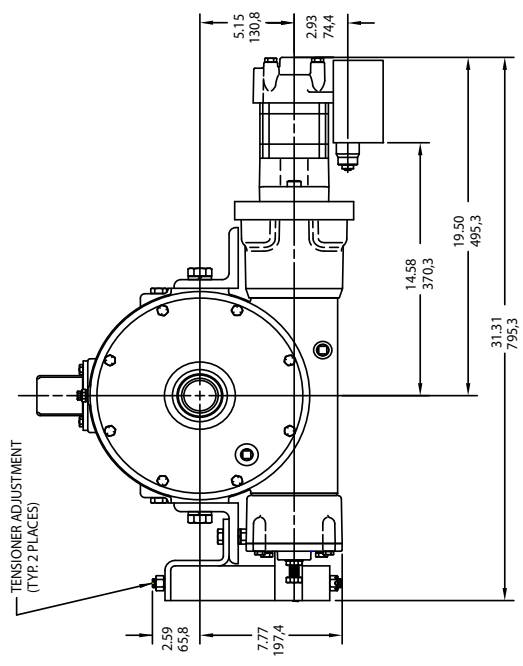
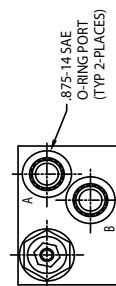
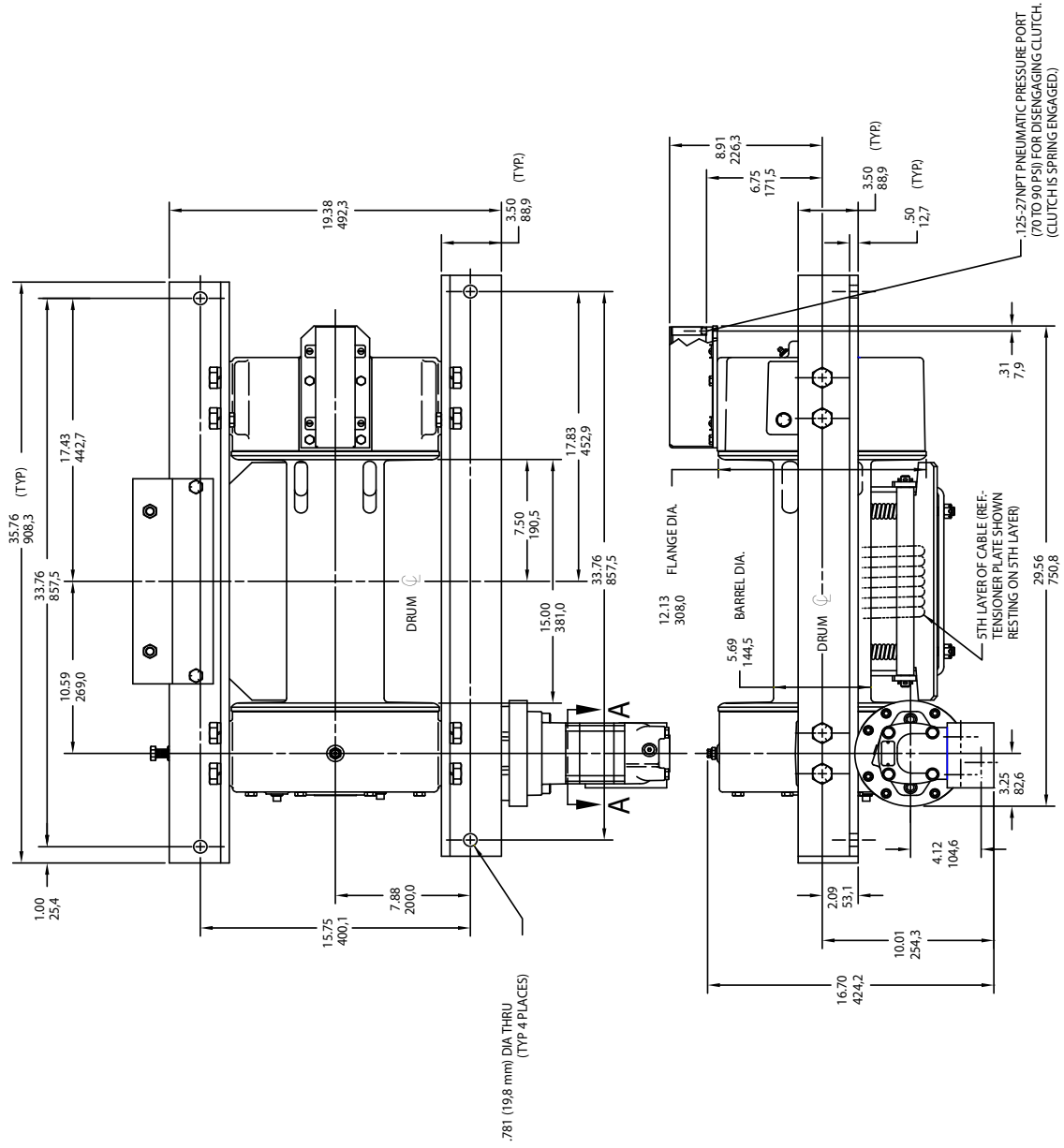


FIGURE 15

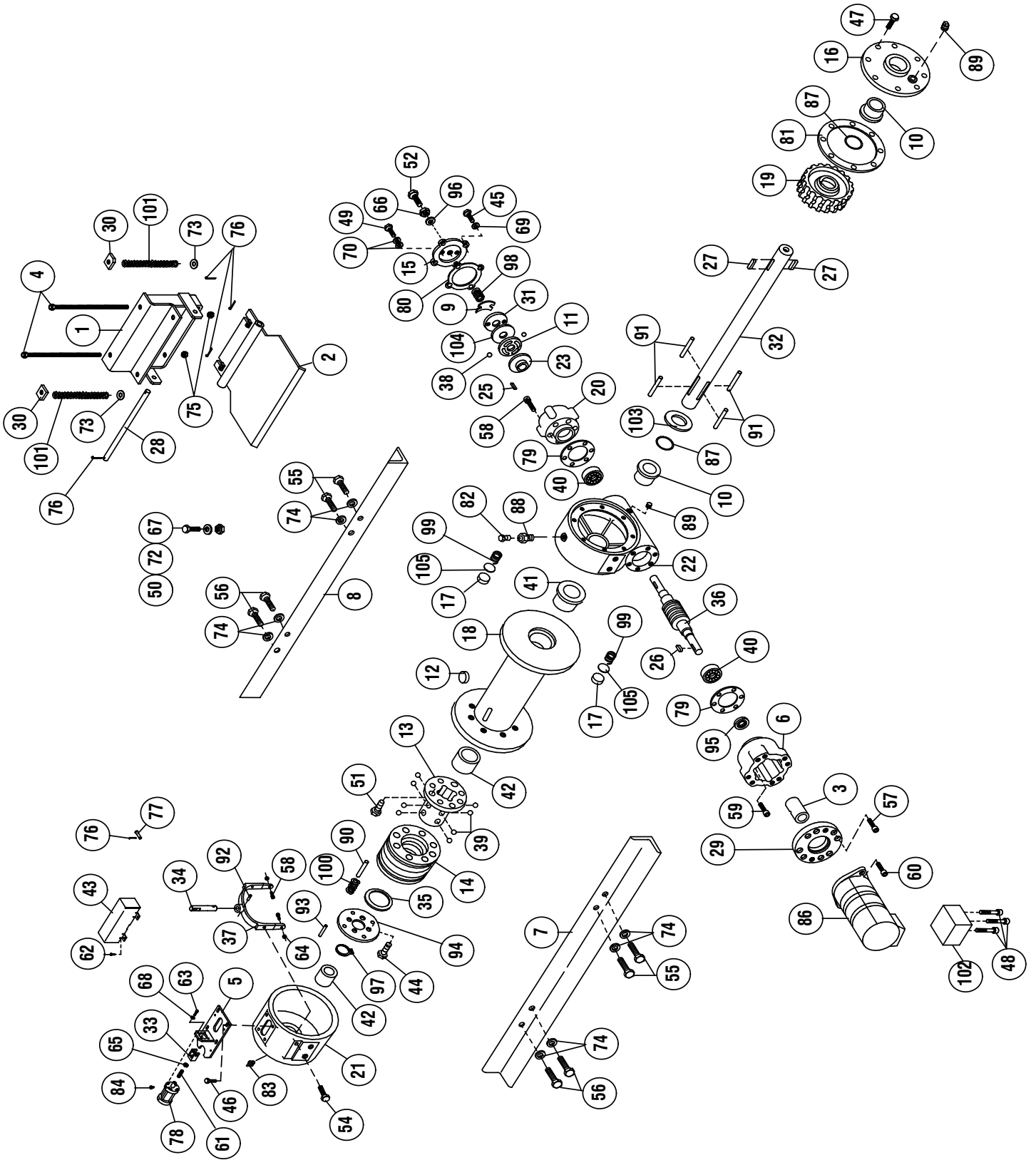
Place winch with gear housing cover down on work bench. Drum shaft should be in vertical position. Set springs #98 into pockets of gear housing with drag brakes #17 on top of disc #103 and springs. Apply grease to shaft and drum bushings. Slide drum assembly #18 onto drum shaft as shown.





DIMENSIONS SHOWN ARE INCHES OVER MILLIMETERS

EXPLODED VIEW



PARTS LIST - MODEL H-800 DOW-LOK

PARTS LIST - MODEL H-800 DOW-LOK

ITEM NO.	QTY	PART NO.	DESCRIPTION	ITEM NO.	QTY	PART NO.	DESCRIPTION	ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	204267	BRACKET ASSEMBLY-TENSIONER	36	1	368082	WORM R.H.				
2	1	265018	PLATE-TENSIONER	37	1	370047	YOKE	72	2	418218	LOCKWASHER 1/2 MED. SECT. ZP
3	1	299733	COUPLING ASSEMBLY	38	2	400007	BALL-BRAKE	73	2	418223	WASHER-1/2 USS FLAT,ZINC PLATED
4	2	299694	STUD ASSEMBLY	39	8	400011	BALL-CLUTCH	74	8	418249	LOCKWASHER-3/4 ID MED SECT,ZINC PLT
5	1	299695	BRACKET ASSEMBLY-AIR CYLINDER	40	2	402045	BEARING-BALL	75	2	418436	NUT-HEX,SLOTTED,1/2-13NC,ZINC PLTD
6	1	300048	ADAPTER	41	1	412051	BUSHING	76	5	424005	COTTER PIN
7	1	303060	ANGLE-INPUT SIDE	42	2	412052	BUSHING	77	1	424029	CLEVIS PIN
8	1	303061	ANGLE-BRAKE SIDE	43	1	413074	COVER-SHIFTER	78	1	433016	AIR CYLINDER
9	1	306035	SPRING-FLAT	44	4	414038	CAPSCREW-1/4-20NCX3/4,HXHD,GR-5,Z/P	79	2	442192	GASKET
10	2	308083	BUSHING	45	4	414111	CAPSCREW-5/16-18NCX1LG,HEX HD,GR-5	80	1	442194	GASKET
11	1	314007	CAM PLATE	46	4	414126	BOLT-5/16-18NC X3/4,HEX FL,ZP,G5,WL	81	1	442195	GASKET
12	1	314010	CABLE ANCHOR	47	8	414277	BOLT-3/8-16NCX1,HXHD,GR5,HVY/P NYLK,XYLAN COATED	82	1	456008	FITTING-RELIEF
13	1	324151	CLUTCH	48	3	414305	CAPSCREW-3/8-16NCX3 1/4,HXHD,Z/P,G5	83	1	456031	FITTING-LUBE
14	1	324318	LOCKING RING	49	2	414399	BOLT-3/8-NFX1.25,HX,G5,ALL-T,360 NY	84	1	456038	VENT-BREATHER
15	1	328027	COVER-BRAKE	50	2	414548	CAPSCREW-1/2-13NCX1 1/2,HXHD,Z/P,G5				
16	1	328122	COVER-GEAR HOUSING	51	8	414571	CAPSCREW-1/2-20NFX1 LG,HXHD GRADE 5	86	1	458106	MOTOR-HYD.
17	2	330010	SHOE-DRAG BRAKE	52	1	414603	CAPSCREW-1/2-20NFX1 3/4,ALL-THD,GR5	87	2	462013	QUAD-RING
18	1	332167	DRUM					88	1	468002	REDUCER
19	1	334188	GEAR-R.H.	54	2	414619	BOLT-1/2-13NCX2.5,HXHD,ALL-THD,GR-5	89	2	468011	PIPE PLUG
20	1	338221	HOUSING-BRAKE	55	4	414751	BOLT-3/4-10NCX1.75,HXD,G5,HVY/P NYL	90	4	470042	PIN-ROLL
21	1	338235	HOUSING-CLUTCH	56	4	414777	CAPSCREW-3/4-10NCX1 3/4LG,HXHD,GR-5	91	4	470044	PIN-DOWEL
22	1	338242	HOUSING-GEAR	57	8	414871	SCREW-5/16-18NCX1-1/4,HXSOC,ND STRP	92	1	470045	ROLL PIN
23	1	340011	HUB-BRAKE	58	8	414897	CAPSCREW-3/8-16NCX 1LG, SOCKET HEAD	93	4	470056	PIN-ROLL
				59	6	414909	SCREW-3/8-16NCX1-3/4,HXSOC,ND STRIP	94	1	474030	PLATE-RETAINER
25	1	342053	KEY	60	2	414950	SCREW-1/2-13NCX1-3/4,HXSOC ND STRIP	95	1	486068	SEAL-OIL
26	1	342092	KEY	61	1	416061	SS-3/8-24NF X1 1/4HXSOC,HDLESS,CUP P	96	1	486076	THREAD SEAL
27	2	342153	KEY	62	4	416214	SCREW-#10-32NFX1/4LG,RD HD SLOT Z/P	97	1	490025	RING-RETAINER
28	1	346044	PIN-PIVOT	63	4	416262	SCREW-#10-32NF X3/4,HXSOC,ZINC PLTD	98	1	494010	SPRING
29	1	350535	PLATE-HYD. ADAPTER	64	2	418035	NUT-3/8-16NC HEX REG ZINC PLATED	99	2	494022	SPRING-DISC
30	2	350617	PLATE-SPRING	65	1	418041	NUT-3/8-24NF, HEX JAM,ZINC PLTD.	100	4	494069	SPRING
31	1	352021	PLATE RETAINER	66	1	418067	NUT-1/2-20NF HEX JAM	101	2	494109	SPRING-TENSIONER
32	1	357498	SHAFT-DRUM	67	2	418069	NUT-1/2-13NC HEX REG,ZINC PLATED	102	1	516031	COUNTER-BALANCE VALVE
33	1	358067	CLEVIS	68	4	418141	LOCKWASHER-#10 MED SECTION,PLATED	103	1	518016	THRUST WASHER
34	1	358069	SHIFTER SHAFT	69	4	418163	LOCKWASHER-5/16 MED SECT,ZINC PLATE	104	1	530007	DISC-BRAKE
35	1	362224	SPACER	70	4	418184	WASHER-3/8ID X5/8 ODX1/16,FLAT ALUM	105	2	530094	SPACER-BRAKE

NOTES

NOTES

Warranty Information

Ramsey Winches are designed and built to exacting specifications. 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.

Limited Lifetime 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.



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