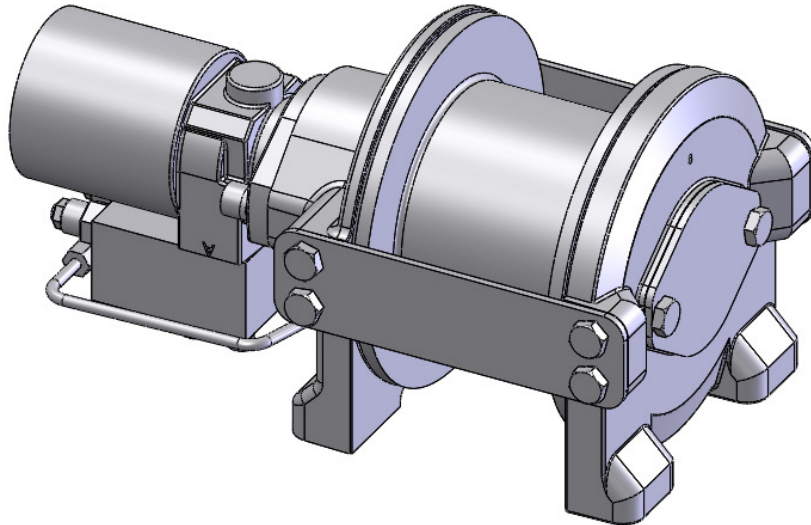


RCH SERIES

BY



First Layer Line Pull	1,000 LB			
Weight (without rope)	83 LB			
LAYER OF ROPE	1	2	3	4

* Line Pull Per Layer	lb	1,000	919	850	790
	kg	453	416	385	358

* Cable Capacity Per Layer	ft	22	47	73	102
	m	6.7	14.3	22.2	31

* Line Speed at 4 GPM					
11.9 cu.in motor	fpm	102	111	121	130
	mpm	31	33	36	39
15.4 cu. In. motor	fpm	76	83	90	97
	mpm	23	25	27	29

* These specifications are based on recommended 1/4" EPS wire rope.

Note: The Rated Line Pull shown is for the Hoist only. Consult the wire rope manufacturer for wire rope ratings.

RCH 1000 HOIST



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

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WARNING

Do not operate this hoist until you have carefully read and understood the "**WARNINGS**" and "**OPERATION**" sections of this manual. Failure to follow the "**WARNINGS**" and "**OPERATION**" sections in this manual may result in serious injury or death.

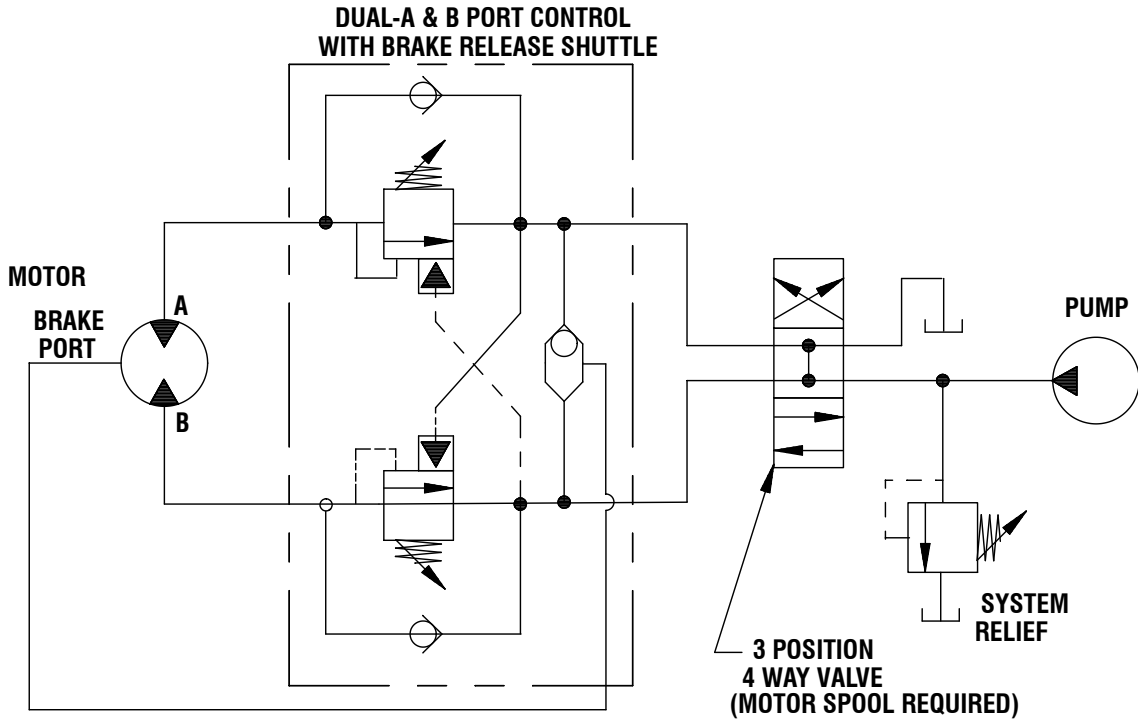
WARNINGS

- **OPERATORS MUST BE TRAINED IN THE PROPER OPERATION OF THE HOIST.**
- **STAY OUT FROM UNDER AND AWAY FROM RAISED LOADS. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.**
- **STAY AWAY FROM CABLES IN TENSION. A BROKEN CABLE MAY RESULT IN SERIOUS INJURY OR DEATH.**
- **DO NOT EXCEED MAXIMUM LINE PULL RATINGS SHOWN IN SPECIFICATION TABLES.**
- **DO NOT USE HOIST 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.**
- **AVOID SHOCK LOADS. THIS TYPE OF LOAD PUTS A STRAIN ON THE HOIST MANY TIMES THE ACTUAL WEIGHT RATED FOR THE HOIST.**
- **HOIST MUST BE PROPERLY MAINTAINED.**

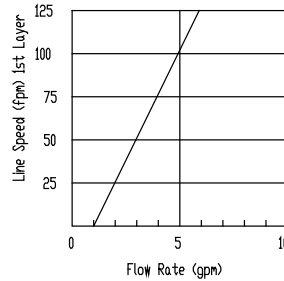
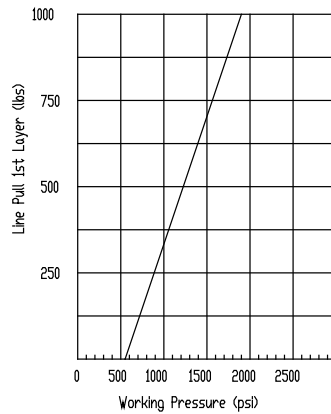
SYSTEM REQUIREMENTS / PERFORMANCE

HYDRAULIC SYSTEM REQUIREMENTS

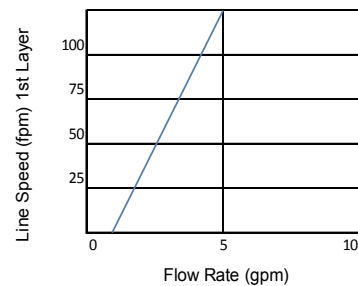
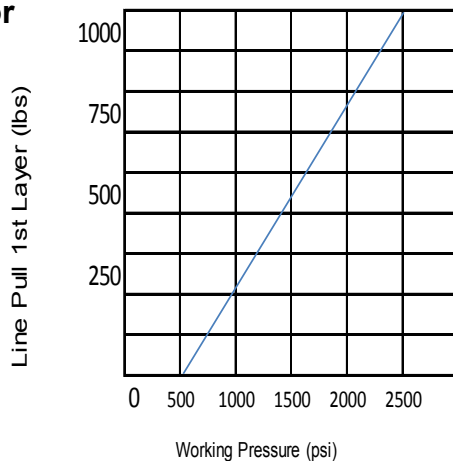
Refer to the performance charts, above, to properly match your hydraulic system to hoist performance



With 15.9 cu. in. Motor



With 11.9 cu. in. Motor



HOIST OPERATION AND MAINTENANCE

HOIST OPERATION

The best way to get acquainted with how your hoist operates is to make test runs before you use it. Plan your test in advance. Remember, you hear your hoist, 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 hoist and its use will become second nature with you.

MAINTENANCE

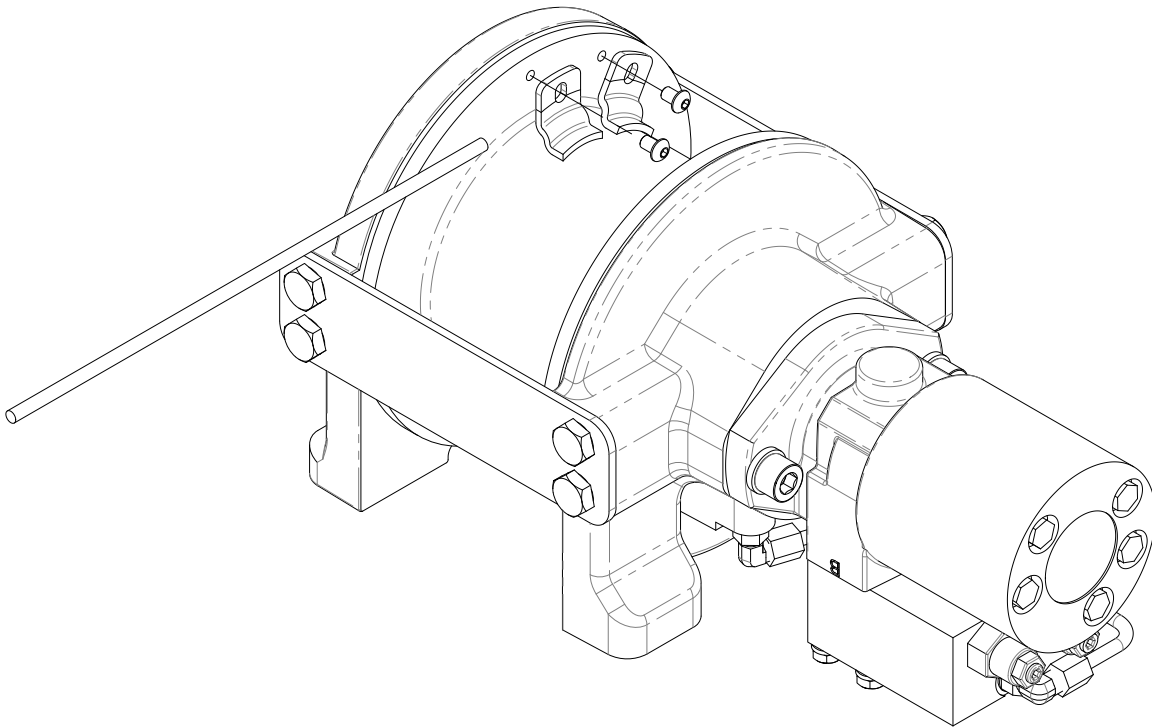
The owner is to ensure proper inspection intervals, in compliance with ANSI B30.5, 5-2.3, and will review hoist usage categories on a periodic basis. A Qualified Inspector should perform all maintenance and inspections.

- For hoist in occasional use less than 10 hours per month it is recommended a pre-use inspection and an annual 12 month inspection based on average use over a quarter.
- For hoist in moderate use, more than 10 but less than 50 hours per month, it is recommended a pre-use inspection, quarterly inspection, and an annual 12-month inspection based on average use over a quarter.
- For hoist in heavy use, more than 50 hours per month it is recommended a pre-use inspection, monthly inspection, quarterly inspection, and an annual 12 months inspection.

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. Insert cable into both clamps and tighten.



TROUBLE SHOOTING GUIDE

CONDITIONS	POSSIBLE CAUSE	CORRECTION/ACTION
DRUM WILL NOT ROTATE UNDER LOAD	Load greater than rated capacity of winch Low hydraulic system pressure	Refer to Specifications page 1 for line pull rating. Check pressure. Refer to Hydraulic Systems performance charts.
WINCH RUNS TOO SLOW	Low hydraulic system flow rate Motor worn out	Check flow rate. Refer to System Requirements and Typical Layout. Replace motor
BRAKE WILL NOT HOLD	Incorrect directional control valve (cylinder spool-closed center)	Use only a motor spool (open center) control valve.
LOAD DRIFTS	Excessive Backpressure (100 PSI Max.)	Check for restrictions in hydraulic system. Refer to System Requirements and Typical Layout
DRUM CHATTERS IN "REEL IN" DIRECTION	Low hydraulic system flow rate Low hydraulic system relief pressure setting	Check flow rate. Refer to Typical Check relief valve setting.
OIL LEAKS FROM BREATHER VENT UNDER MOTOR END BEARING	Damaged brake o-rings, backup rings, or sealing surfaces	Disassemble brake and inspect. See Overhaul Instructions.

OVERHAUL INSTRUCTIONS

INSTRUCTIONS FOR OVERHAUL

Take note of mounting configurations for proper mounting of parts during re-assembly. Replace all gaskets, o-rings, and seals during re-assembly.

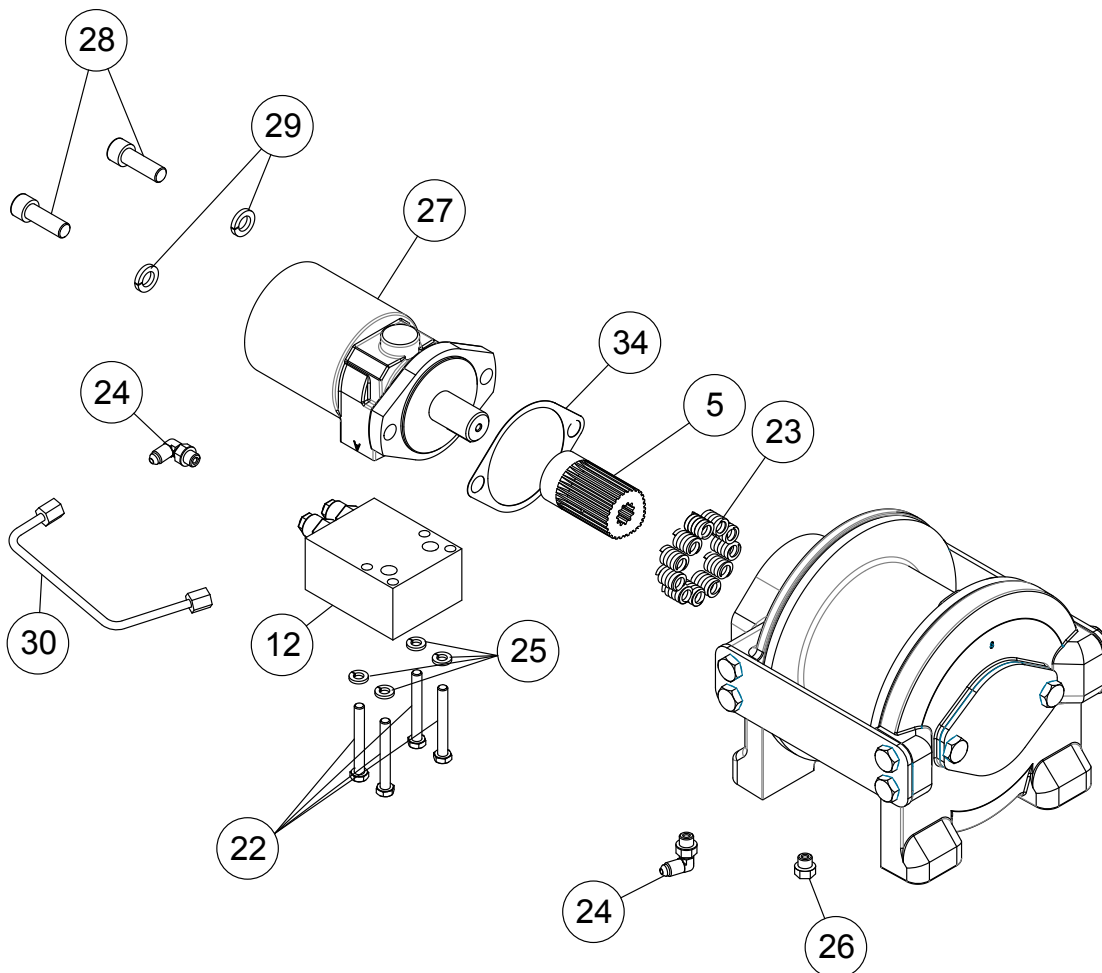
Disconnect tube (item #30) from elbow fittings (items #24) on bottom of end bearing and counterbalance valve (item #12). Remove motor (item #27) from end bearing by slowly unscrewing capscrews (items #28). **CAUTION: MOTOR IS UNDER SPRING PRESSURE.**

Check breather vent (item #26). Make sure it is not clogged. If oil is leaking from vent, check brake o-rings, backup rings, and sealing surfaces.

Remove springs (items #23) from pockets and inspect for damage.

Replace gasket (item #34).

Remove coupling (item #5) from end bearing. Examine coupling for signs of wear, replace if necessary. If necessary, remove counterbalance valve from motor by removing capscrews (items #22).

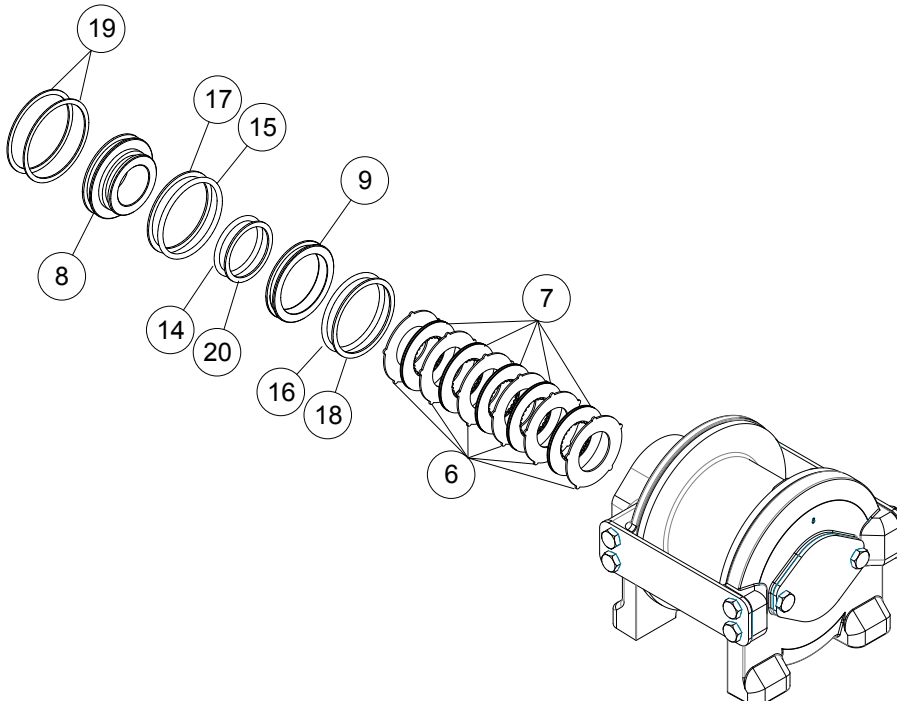


OVERHAUL INSTRUCTIONS (Cont'd)

Remove retaining rings (items #19) with screwdriver.

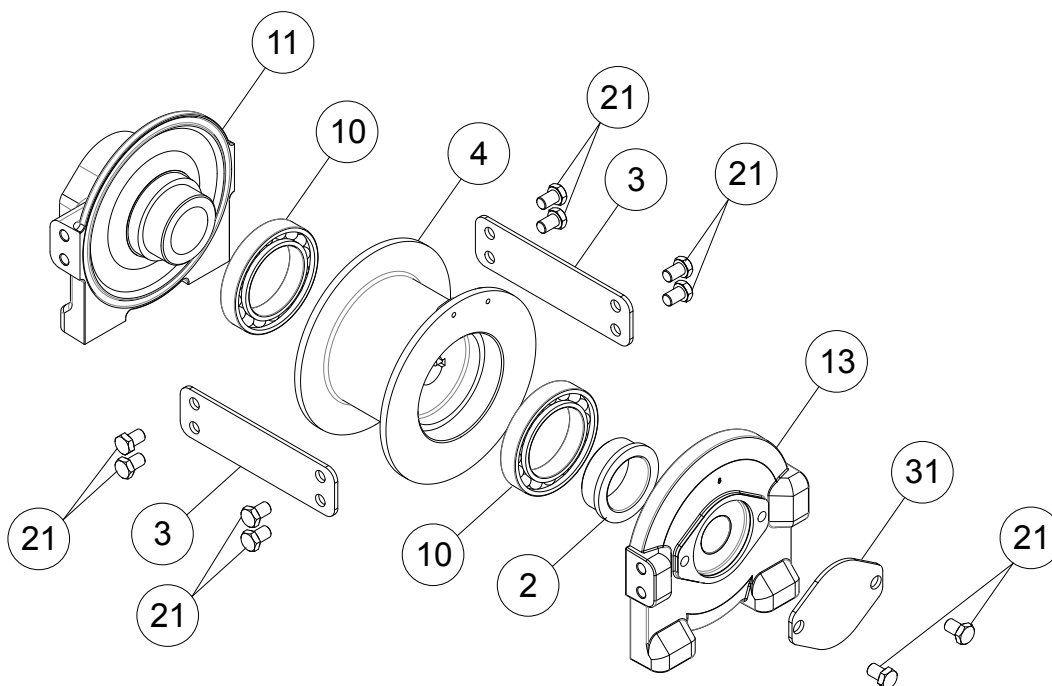
Remove brake parts from end bearing. NOTE POSITION OF O-RINGS AND BACKUP RINGS BEFORE REMOVAL. Examine brake discs (items #7) and stators (items #6) for signs of wear, and replace if necessary.

Examine o-rings (items #14 and 15) and backup rings (items #17 and 20) in brake piston (item #8), as well as o-ring (item #16) and backup ring (item #18) in backup brake piston (item #9) for signs of wear. Remove o-rings and backup rings from grooves in brake piston or backup brake piston and replace if necessary.

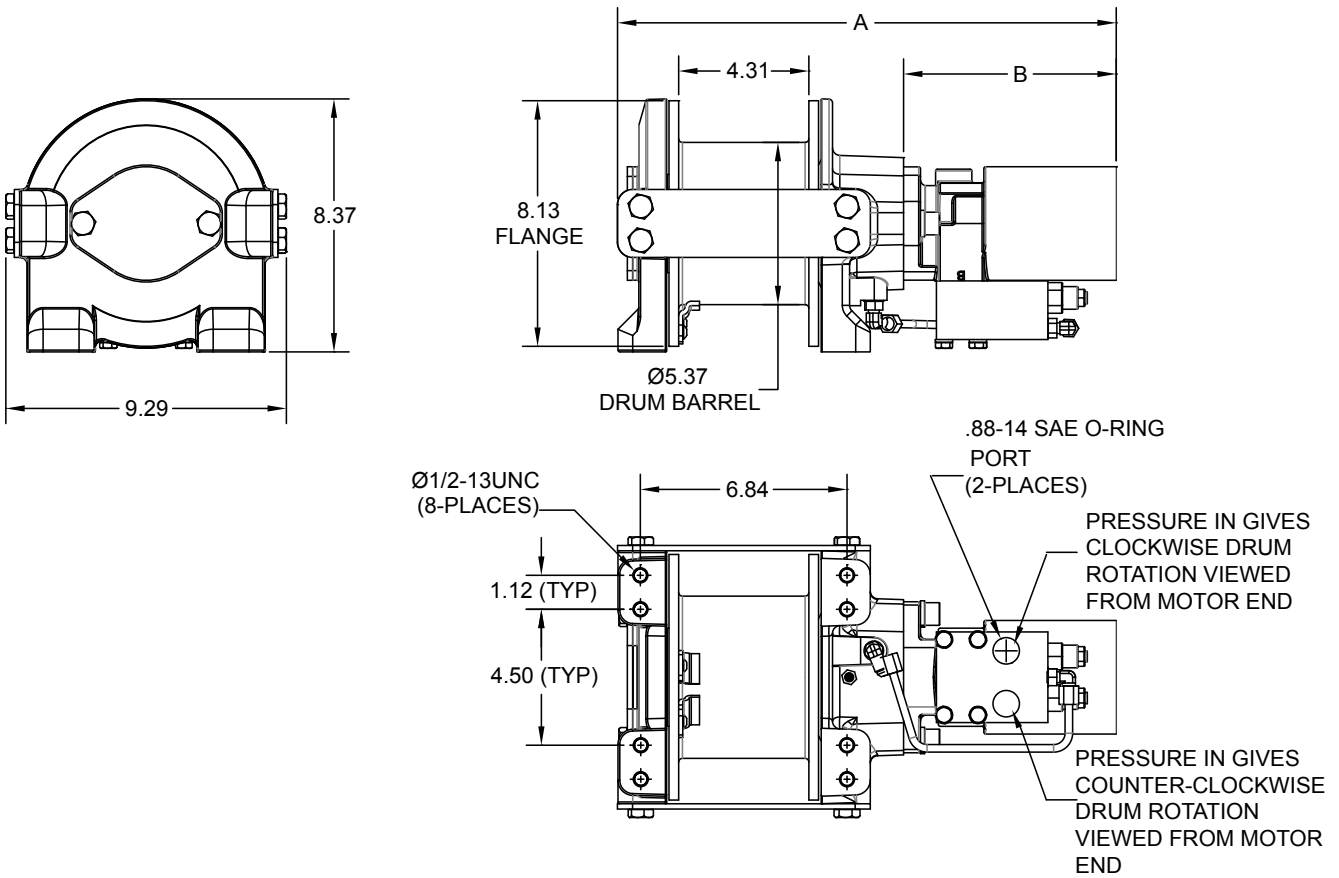


Remove tie plates (items #3) from end bearings by unscrewing capscrews (items #21). Slide motor end bearing (item #11) and drum (item #4) from gear housing end bearing.

Remove ball bearing (item #10) from both end bearings.

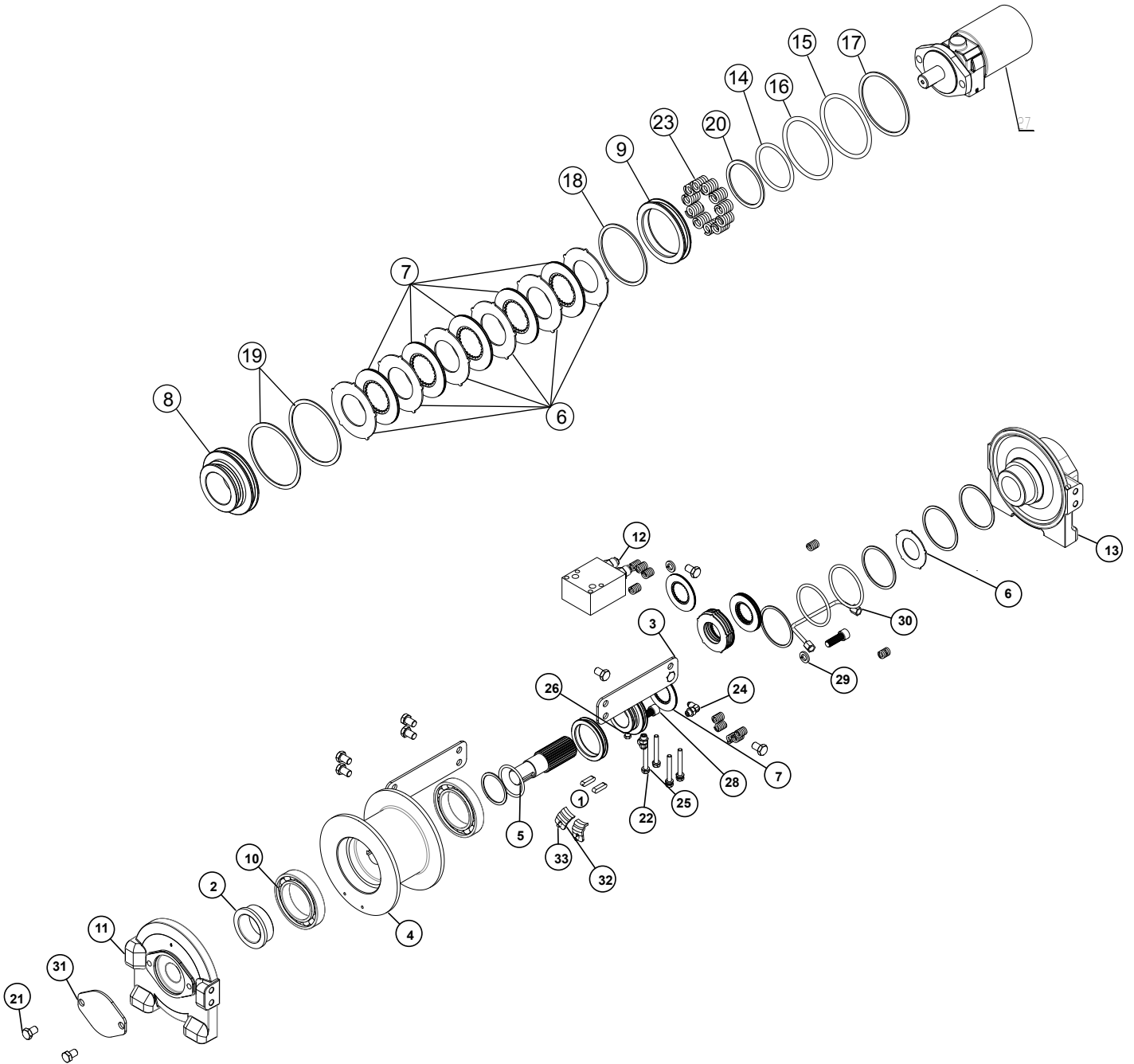


DIMENSIONAL DRAWING



MOTOR	"A" LENGTH	"B" LENGTH
11.9 CU.IN.	15.97	6.54
15.9 CU.IN.	16.51	7.04

EXPLODED VIEW



PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	342080	2	KEY
2	308097	1	BEARING SPACER
3	395437	2	TIE-PLATE SCH1000
4	332262	1	CABLE DRUM SCH1600
5	357540	1	COUPLING INPUT
6	330011	6	STATOR-BRAKE
7	330012	5	DISC-BRAKE FRICTION
8	330013	1	PISTON-BRAKE
9	330014	1	PISTON-BACKUP BRAKE
10	402147	2	BEARING, BALL 6015 W SEALS
11	338326	1	MOTOR END BEARING, RPH8000
12	516013	1	VALVE-MTR CONTROL,SUN#CBCA-LHN-YVN
13	338426	1	END BEARING, MOTOR, RCH1000
14	462067	1	O-RING-2.225 ID X .210 THK, 2-331
15	462068	1	O-RING-3.10 ID X .210 THK, 2-338
16	462069	1	O-RING-2.975 ID X .210 THK, 2-337
17	462070	1	RING-BACKUP, 3.143 ID X .076 THK,
18	462071	1	RING-BACKUP, 3.018 ID X .076 THK,
19	490049	2	RING-INTERNAL RETAINING, SMALLEY #WH-350
20	462072	1	RING-BACKUP, 2.268 ID X .076 THK,
21	414581	10	CAPSCREW-1/2-13NC X 3/4 LG HX
22	414159	4	CAPSCREW-5/16-18NC X 2.50 LG HX HD Z/P NYLON PATCH
23	494124	11	SPRING-BRAKE
24	432018	2	FITTING-90~ ELBOW,
25	418163	4	LOCKWASHER-5/16 MED SECT Z/P
26	456038	1	BREATHER VENT
27	458188	1	MOTOR-HYD, 11.9 CU IN
	458211	1	MOTOR-HYD, 15.9 CU IN
28	414952	2	CAPSCREW
29	418218	2	WASHER-LOCK, 1/2 MED SECT. Z/P
30	509132	1	TUBE-BRAKE RELEASE, BACK SIDE
31	413119	1	COVER PLATE RCH1000
32	448071	2	CABLE ANCHOR-10 GA STL,Z/P,PRO5/6
33	414830	2	CAPSCREW-1/4-20NCX3/8,
34	442223	1	GASKET - MOTOR

**RAMSEY WINCH INDUSTRIAL WINCH
LIMITED WARRANTY**

1.1 Scope of Warranty Coverage. Upon the terms and subject to the conditions set forth in this limited warranty:

- (a) RAMSEY WINCH (referred to herein as “**RAMSEY WINCH**” or the “**Manufacturer**”) warrants to each initial end user customer (a “**Purchaser**”) of a new industrial winch together with any accessories manufactured and sold directly from RAMSEY WINCH (the “**Product**”) that the Product shall be free from defects in material and workmanship, under normal working and service conditions, for a period of eighteen (18) months from the date the Product is shipped from RAMSEY WINCH. (the “**Warranty Term**”). A Purchaser shall be eligible for an additional eighteen (18) months of coverage in addition to the Warranty Term (also referred to as the “**Standard (+) PLUS benefit**”) only if the Purchaser (i) complies with Section 1.2(a) and (ii) registers the Product during the Warranty Term at myproduct.ramseywinch.com.
- (b) Notwithstanding the foregoing, this warranty does not cover components damaged by accident, abuse, misuse, neglect, untrained operators, collision, overloading, modification, disassembly, rework, misapplication, improper installation, lack of lubrication or maintenance, or improper service. This warranty does not cover the paint or material finish, rope (wire or synthetic), removal or reinstallation of the winch, or normal wear and tear and loss of functionality due to aging of the Product (which may include but is not limited to bearings, bushings, seals, O-rings, gaskets, brake material, motor brushes, electrical cables and more).

1.2 Eligibility of Warranty Coverage.

- (a) A Purchaser shall be eligible for warranty coverage under this Limited Warranty during the Warranty Term only if:
 - (i) Prior to placing a Product in service, and throughout use of the Product during the Warranty Term, the Purchaser provides (or causes to be provided) proper storage such that foreign objects (e.g. rain or debris) cannot enter any Product through entry ports which are normally closed during operation.; and
 - (ii) The Purchaser maintains, or causes to be maintained, the Product according to commercially reasonable standards and utilizes the Product for the purposes for which it was created; and
 - (iii) No repairs or alterations have been made by any party other than RAMSEY WINCH, including Purchaser, unless otherwise authorized in writing by RAMSEY WINCH.

1.3 Transferability of Warranty.

- (a) This warranty is transferable only from the Purchaser to the first subsequent transferee (the “**Transferee**”) of the Product from Purchaser upon (i) written notification to RAMSEY WINCH and (ii) registration of the transfer, both within 30 days of such Product transfer.
- (b) Upon satisfaction of transfer requirements set forth in Section 1.3(a), the Transferee shall succeed to all the rights and obligations of the Purchaser set forth in this Limited Warranty.

1.4 Certain Limitations on Scope of Warranty Service.

- (a) Any obligation of RAMSEY WINCH under this warranty, statutory or otherwise, is limited to the repair of the Product, at its factory or Authorized Service Centers. Notwithstanding the foregoing, if field service or repair is performed by RAMSEY WINCH at the request of the Purchaser and no defect is found with material or workmanship of the Product, the Purchaser shall compensate RAMSEY WINCH for its time and expenses within thirty (30) days of delivery of an invoice relating to the same. If repair is determined by RAMSEY WINCH in its sole, absolute and uncontrolled discretion to be impossible or impractical, then RAMSEY WINCH may satisfy this warranty by replacing the Product. RAMSEY WINCH will not provide any cash payment or credits for defective materials or workmanship.

- (b) Purchaser shall be responsible for any and all freight charges for any Product receiving warranty service under this limited warranty. Any travel time, transportation charges, freight charges, or similar costs incurred by RAMSEY WINCH in connection with the replacement or repair of defective parts, shall, be the responsibility of the Purchaser. If applicable, RAMSEY WINCH shall invoice Purchaser for the total amount of such charges within sixty (60) days of fulfilling its duties under this warranty, payable within thirty (30) days of delivery of such invoice. In no event shall RAMSEY WINCH be liable for bills for service, labor or other expenses that have been incurred by the Purchaser without approval or prior authorization by RAMSEY WINCH for inspection, maintenance, or repair of the Product.
- (c) If a Product is found to be operable upon inspection, the Product, at Purchaser's election, may be either (1) returned to the Purchaser with a service charge from RAMSEY WINCH for inspection, cleaning, and routine replacement of all rubber components and any other parts that show wear; or (2) RAMSEY WINCH can dispose of the product safely.

1.5 **Limitations of Liability.** RAMSEY WINCH shall in no event be liable for punitive, special or consequential damages relating to the Product or this Warranty. RAMSEY WINCH makes no warranty in respect to third-party accessories, upgrades, or additions to the Product.

1.6 **Improving Product.** RAMSEY WINCH reserves the right to improve the Product through changes in design or materials as it may deem desirable or necessary without being obligated to incorporate, upgrade, or otherwise modify previously manufactured products.

1.7 **Limitations of Warranty.**

- (a) THE WARRANTY SET FORTH ABOVE IS THE ONLY EXPRESS WARRANTY. RAMSEY WINCH HEREBY DISCLAIMS AND EXCLUDES ANY OTHER EXPRESS, IMPLIED, OR STATUTORY WARRANTIES, ARISING BY OPERATION OF LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE, OF TRADE, OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY.
- (b) ANY IMPLIED WARRANTY WHICH BY LAW MAY NOT BE EXCLUDED IS LIMITED IN DURATION TO ONE (1) YEAR FROM THE DATE OF ORIGINAL RETAIL PURCHASE OF THE PRODUCT.
- (c) This warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.
- (d) This warranty is valid only in the U.S.A. and Canada. For warranty outside the U.S.A. and Canada contact your nearest Ramsey Winch Distributor.

1.8 **No Modifications to Warranty.** No RAMSEY WINCH dealer, distributor, agent or employee is authorized to make any modification, extension or addition to this warranty.

1.9 **How to Apply for Warranty Coverage.**

All claims are handled by contacting your nearest Ramsey Winch Distributor. For questions, please contact customer support: rwcustomersupport@ramseyindustries.com.

Visit [Dealer Locator - Ramsey Winch](#) for Ramsey Winch Distributor locations and contact information.

Additional warranty, service support, product information, and parts information can be found on www.ramseywinch.com.

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