



Operating and Maintenance Manual

Omega 8 Hydraulic Winch

English

OM 914319

Rev A



 **CAUTION**

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

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Congratulations!

You have purchased the finest winch available in its service class. It features a reliable single stage planetary gear set which transmits torque from a geroler type hydraulic motor. A safe positive clutch allows free spooling for quick cable deployment. An automatic load holding brake is designed to hold the full rated capacity of the winch. It was designed and manufactured to provide you with the utmost in utility. As with any device that combines power and movement in its use, there are dangers if improperly used. At the same time, there are easier and faster ways for getting the job done if certain precautions are taken first. Please read this manual carefully. It contains useful ideas in obtaining the most efficient operation from your Ramsey Winch and safety procedures you need to know before beginning use. When you follow our guidelines for operation, your Ramsey Winch will give you many years of satisfying service. Thank you for choosing Ramsey. You will be glad you have one working for you.

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1 Introduction

Please read this manual carefully. This manual contains information to obtain the most efficient operation from your Ramsey Winch and safety procedures you need to know before operating a Ramsey Winch. Do not operate this winch until you have carefully read and understand the entire manual.

Ramsey Winches are designed and built to exacting specifications. Great care and skill go into every winch we make. Refer to the last page for information on the Ramsey Winch limited warranty.

At the time of publishing, this manual is accurate to the best of our knowledge. Ramsey Winch reserves the right to change any or all items, components and parts, necessary for any reason. This right does not obligate Ramsey Winch to immediately update the manual. If in doubt, please call your local Ramsey Winch distributor for the most up-to-date information.

Warnings

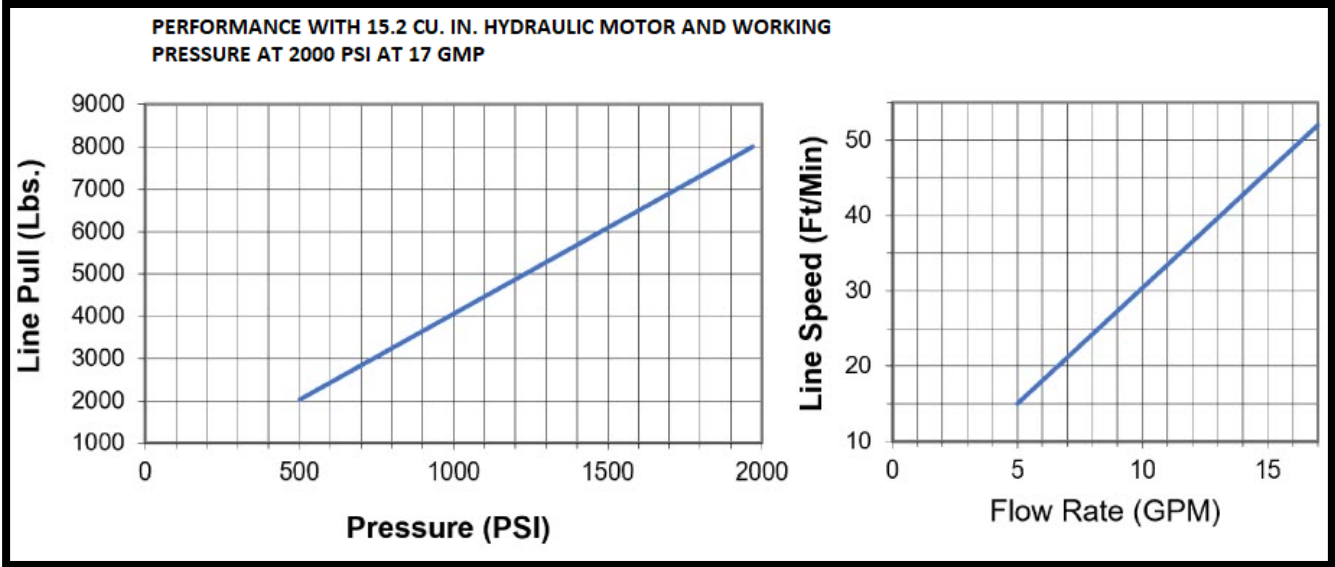
-  **WARNING** Ensure that the clutch is fully engaged before starting the winching operation.
-  **WARNING** Do not start the winch motor before engaging the clutch.
-  **WARNING** Do not disengage the clutch under load.
-  **WARNING** Do not allow personnel under or near the raised load.
-  **WARNING** Do not try to guide the cable during a pull. Stand clear of the cable.
-  **WARNING** Do not exceed the maximum line pull ratings shown in specifications.
-  **WARNING** Do not use the winch to lift, support, or otherwise transport people.
-  **WARNING** Always maintain a minimum of five wraps of cable around the drum. This is necessary to hold the load. The cable anchor is not designed to hold the load.
-  **WARNING** In car carrier applications, after pulling the vehicle onto the carrier, secure the vehicle to the carrier bed. Do not maintain load on winch cable while transporting the vehicle. Do not use the winch as a tie down.
-  **WARNING** When pulling a heavy load, place a blanket, jacket, or tarpaulin over the cable five or six feet from the hook.
-  **WARNING** Do not allow the load to shift or jerk.

Performance Table (Omega 8,000)

Rated Line Pull (lbs.).....		8,000			
(Kgs.).....		3,629			
Gear Reduction.....		5.1:1			
Weight (without cable).....		126 lb. (57.15 Kgs.)			
LAYER OF CABLE		1	2	3	4
*Rated line pull per layer	Lbs.	8,000	6,815	5,936	5,258
	Kg.	3,629	3,091	2,693	2,385
*Cable capacity	Ft.	26	57	93	133
	M.	8.1	17.5	28.4	40.6
*Line speed (at 17 GPM)	FPM	52	60	68	76
	MPM	15.7	18.2	20.6	23.1

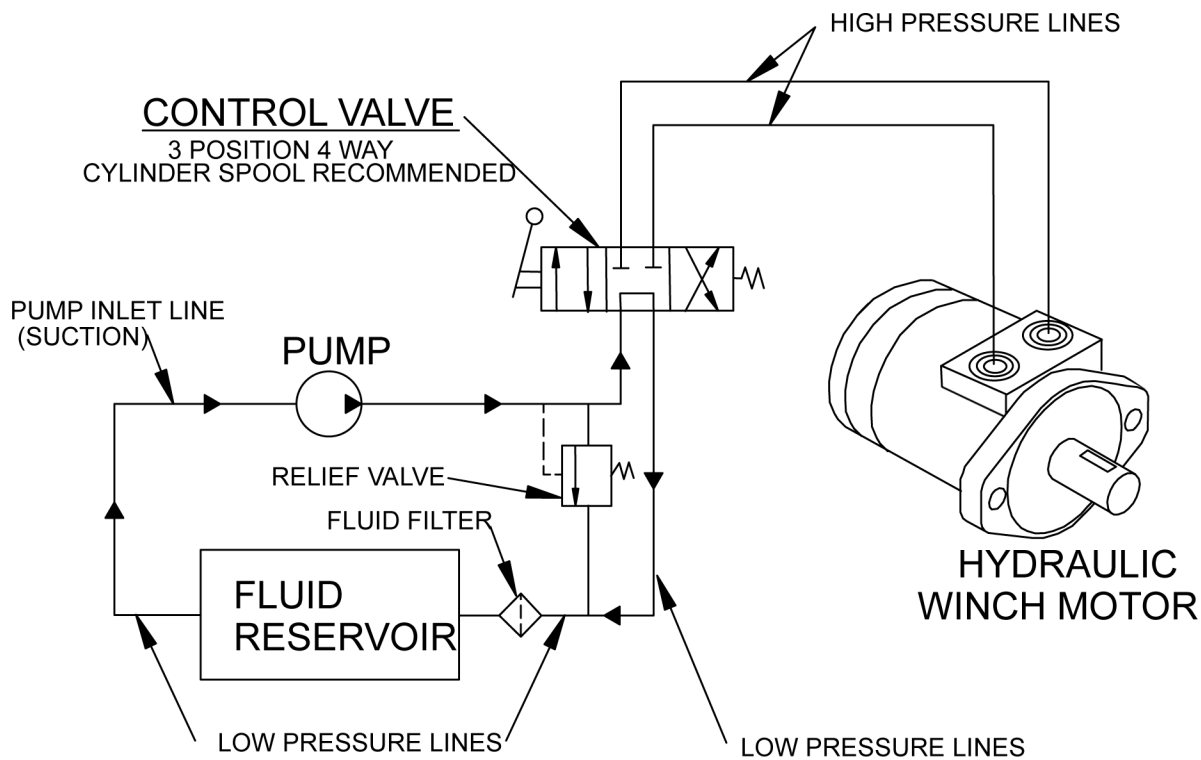
* These specifications are based on recommended 3/8" (10mm) EIPS wire rope & 15.2 cu.in/Rev. motor at 2000 psi working pressure.
 * Directional control valve: 3-position, 4 way cylinder spool.
 * Winch meets SAE J706.

Performance Charts (Omega 8,000)



3 Hydraulic System Layout and Winch Mounting

Hydraulic System Layout



Winch Mounting

It is important to mount the winch securely so the three major sections (the motor end, the cable drum, and the gear housing end) are properly aligned. Excessive bushing wear and difficulty freespooling are usually symptoms of misalignment.

If the winch is mid-mounted, attach at least one tie-plate to the mounting feet at the bottom of the winch to maintain alignment. If the winch is foot mounted, attach at least one tie-plate at the midpoint to maintain alignment. It is always preferred to use both tie-plates in the final installed configuration.

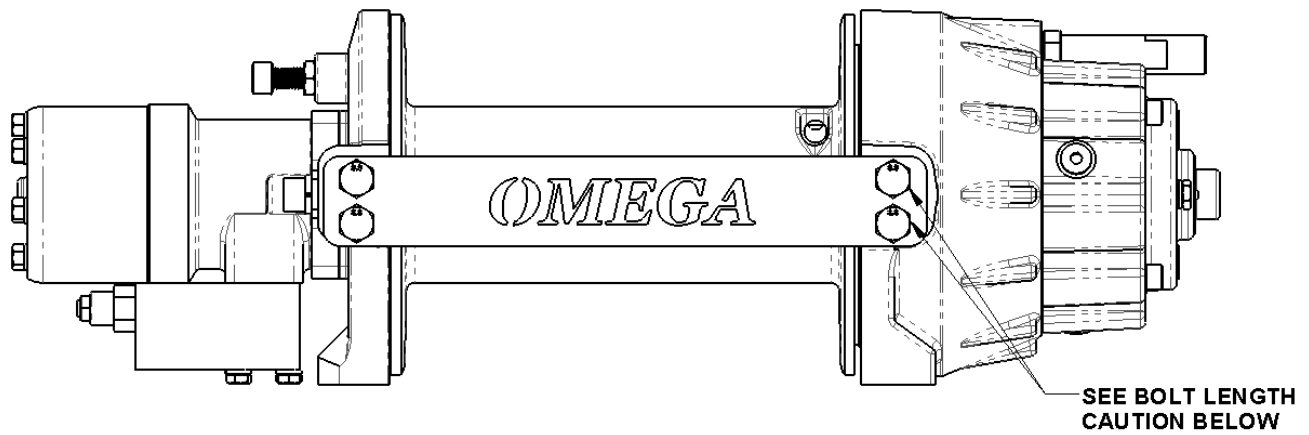
Contact your local RAMSEY WINCH distributor or RAMSEY WINCH customer service for the recommended mounting kit. The mounting kit will allow the winch to be mounted in upright or midmount applications and meets the criteria of serving as a solid and true mounting surface.

If not using the RAMSEY WINCH mounting kit, or a RAMSEY WINCH mounting kit is not available, use the mounting hole patterns described in the Dimensional drawings. The mounting surface must be flat within 0.015 in. and sufficiently stiff to resist flexing.

NOTICE

If angles or a steel plate are used in mounting the winch, attach the provided tie plates to the remaining mounting pads to the either the side or foot.

Bolt Length Warning 4



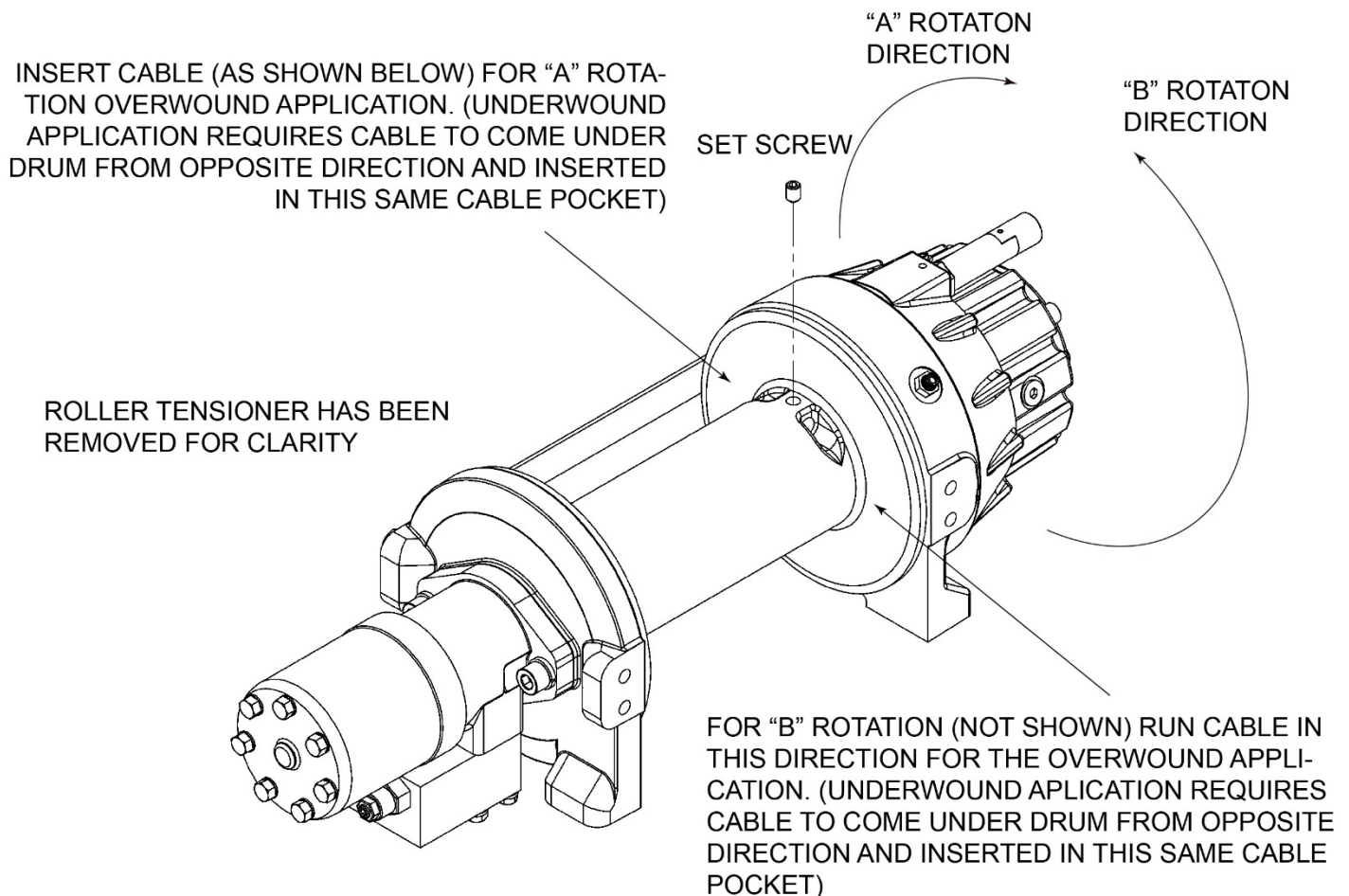
Caution:

If longer bolts (minimum grade 8.8) are substituted to mount winch or to mount a roller guide at side mount pads, bolt length must be such as to allow a maximum of 0.5 inch thread length engagement in the tapped holes in sides of each end bearing. Use of longer bolts will damage the winch and prevent free spool of the drum.

5 Cable Installation – Set Screw

An “A” or “B” decal on the motor end bearing indicates the spooling direction of the cable. If the decal is damaged or unreadable, contact Customer Service for addition information.

1. Unwind the cable by rolling it out along the ground to prevent kinking. Securely wrap the end of the cable opposite of the hook with plastic or similar tape to prevent fraying.
2. Place the taped end of the cable into the hole in cable drum. Use the 3/8-16 NC x 1/2” long hex socket drive setscrew to secure the cable to the drum. The setscrew is included with the drum assembly.
3. Carefully run the winch in the “reel-in” direction. Keeping tension on the end of the cable, spool all the cable onto the cable drum, taking care to form neatly wrapped layers.
4. With the cable installed, check the freespool operation. Disengage the clutch and pull on the cable at a walking speed. If the cable “birdnests,” loosen the jam nut and turn the capscrew clockwise to increase drag on the drum. If the cable pull is excessive, loosen the capscrew by turning counterclockwise. Tighten the jam nut when the proper setting is obtained.



Hydraulic Winch Operation 6

Familiarize yourself with winch by making test runs before the first pull. Plan your test in advance. 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 the drum. If this happens, reverse the winch to relieve the load and move your anchor point closer to the center of the vehicle. After the job is done you can unspool and rewind to neatly lay the cable.



WARNING

Do not disengage clutch under load.
Clutch must be fully engaged before operating under load.

Manual Clutch Operation

To disengage the clutch:

1. Run the winch in the "cable out" direction until the load is off the cable.
2. Pull the handle out and rotate 90°.
3. With the handle in the "DISENGAGED" position the cable can now be free-spooled from the drum.

To engage the clutch:

1. Pull the handle out and rotate 90° and release the handle.
2. Run the winch in reverse until the clutch handle snaps fully into the "ENGAGED" position and the drum begins to rotate.
3. Do not attempt to pull a load unless the handle is fully at the "ENGAGED" position.
4. Do not force the handle or hammer the handle to engage.

Air Clutch Operation

To disengage the clutch:

1. Run the winch in the reverse (reel out) direction until the load is off the cable.
2. Apply air pressure to the 0.125-27 NPT port. 80 PSI (min.) 150 PSI (max.). Pressure must not exceed 150 PSI.

To engage the clutch:

1. Remove air pressure from the cylinder (a return spring engages the plunger).
2. Run the winch in reverse until the clutch engages and the drum begins to rotate. Do not attempt to pull a load with the clutch not engaged.

7 Hydraulic Winch Maintenance

Maintenance

1. Inspect the cable for damage and lubricate frequently. If the cable becomes frayed with broken strands, replace immediately.
2. When respooling cable, avoid letting cable pile up to one side in order to avoid possible damage to tensioner.
3. Check that the clutch is fully engaging. See OPERATION instructions for the appropriate clutch shifter.

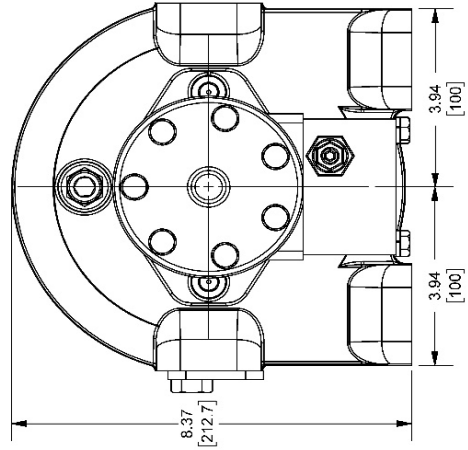
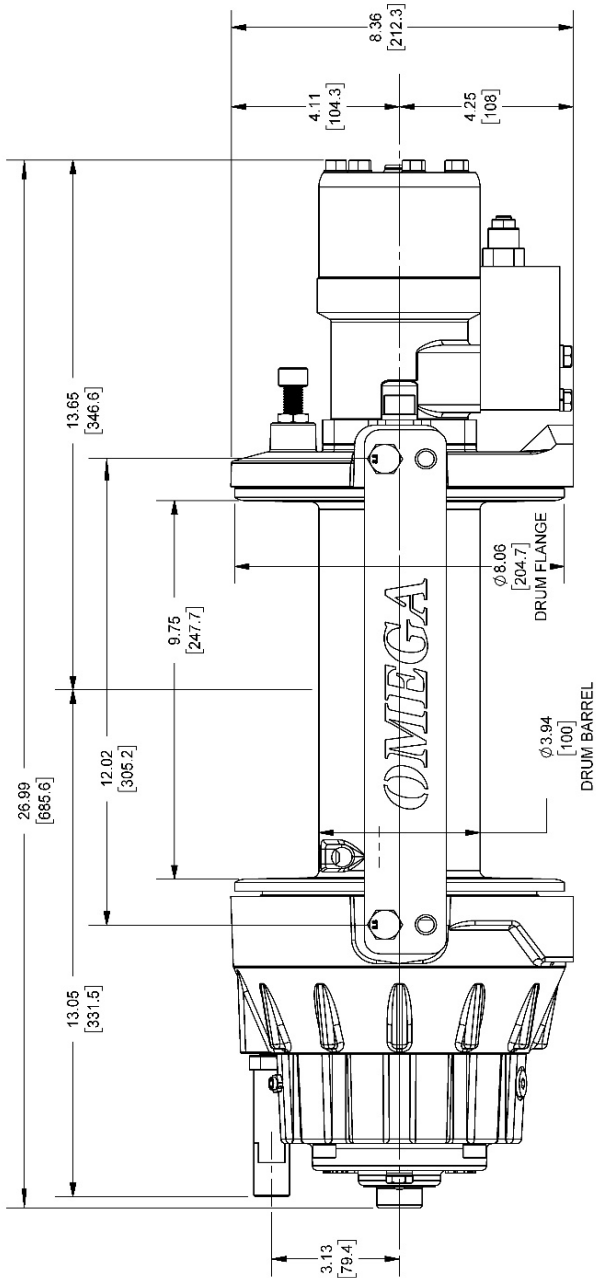
FOR MANUAL CLUTCH ONLY: Monthly, disengage clutch, put several drops of oil on the clutch handle shaft and work clutch handle IN and OUT several times to lubricate inside the shifter assembly.

4. Check to see that the drum cable does not overrun ("birdnest") when freespooling. Contact Ramsey Winch for detailed instructions regarding how to adjust the drag brake.

Troubleshooting Guide 8

CONDITIONS	POSSIBLE CAUSE	CORRECTION
Drum Will Not Rotate With No Load	<ol style="list-style-type: none"> 1. Winch not mounted squarely causing end bearings to bind the drum. 2. Brake damaged. 3. Gears damaged. 	<ol style="list-style-type: none"> 1. Check the mounting. Verify it's square. 2. Inspect and replace brake. 3. Inspect and replace damaged gears.
Drum Will Not Rotate Under Load	<ol style="list-style-type: none"> 1. Load greater than rated capacity of the winch. 2. Low hydraulic system pressure. 3. Winch not mounted squarely causing end bearings to bind the drum. 	<ol style="list-style-type: none"> 1. Reduce load to less than the rated capacity of the winch. 2. Check pressure. 3. Check the mounting. Verify it's square.
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. 2. Replace motor.
Drum Will Not Freespool	<ol style="list-style-type: none"> 1. Clutch not disengaged. 2. Winch not mounted squarely causing end bearings to bind the drum. 	<ol style="list-style-type: none"> 1. Disengage clutch. 2. Check the mounting. Verify it's square.
Brake Will Not Hold	<ol style="list-style-type: none"> 1. Brake damaged. 	<ol style="list-style-type: none"> 1. Inspect and replace brake.
Load Drifts	<ol style="list-style-type: none"> 1. Worn brake. 	<ol style="list-style-type: none"> 1. Overhaul the brake assembly.
Cable Birdnests When The Clutch is Disengaged	<ol style="list-style-type: none"> 1. Drag screw improperly adjusted. 	<ol style="list-style-type: none"> 1. Adjust drag screw.
Excessive Noise	<ol style="list-style-type: none"> 1. Hydraulic system flow too high. 2. Drum in bind, winch not mounted squarely. 	<ol style="list-style-type: none"> 1. Check flow rate. 2. Check the mounting. Verify it's square.
Drum Chatters in "Reel In" Direction	<ol style="list-style-type: none"> 1. Low hydraulic system flow. 2. Low hydraulic system relief pressure setting. 	<ol style="list-style-type: none"> 1. Check flow rate. 2. Check relief valve setting.
Clutch Difficult to Engage	<ol style="list-style-type: none"> 1. Detent screw damaged or improperly adjusted. 	<ol style="list-style-type: none"> 1. Replace or readjust detent screw.
Oil Leakage	<ol style="list-style-type: none"> 1. Damaged brake housing gasket or breather. 2. Damaged brake hub seal. 	<ol style="list-style-type: none"> 1. Replace gasket and check for plugged breather. 2. Replace the seal.
Load Drifts	<ol style="list-style-type: none"> 1. Brake needs adjustment. 	<ol style="list-style-type: none"> 1. Contact factory for detailed brake adjustment instructions.

9 Dimensional Drawing



NOTE: DIMENSIONS FOR REFERENCE ONLY.

WINCH-OMEGA 8000
BSCM, UNDERWOUND

Limited Warranty

RAMSEY WINCH warrants each new RAMSEY WINCH to be free from defects in material and workmanship for a period of one (2) years 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 on 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 on 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 prod-ucts through changes in design or materials as it may deem desirable without being obligated to incorpo-rate 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.



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