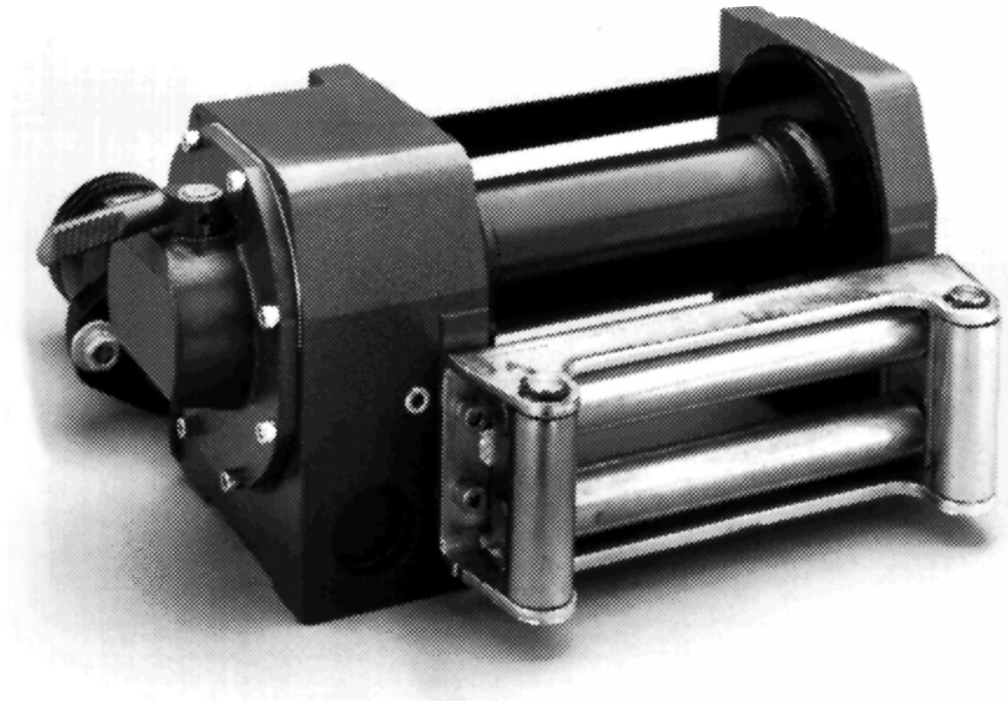


Owner's Manual & Fitting Instructions

Kit Nos. 8569, 8588, 8589



HYDRAULICALLY
POWERED
H9W
WINCH

SUPERWINCH[®]

Owner's Manual & Fitting Instructions

Kit Nos:

8569, 8588, 8589

**These instructions cover kits from
22/08/02**



- 01 INTRODUCTION
- 02 GENERAL SPECIFICATION DATA
- INSTALLATION
- 03 HYDRAULIC SYSTEM
- 04 WINCH
- 05 WIRE ROPE
- COMMISSIONING AND USE
- 06 TIPS FOR EXTENDING THE LIFE OF YOUR WINCH
- 07 FREESPOOL USE
- REMOTE CONTROL OPERATION
- MAINTENANCE
- 08 RUNNING IN, MAINTENANCE AND REPAIRS
- LUBRICATION
- TROUBLESHOOTING
- 09 OPERATION
- MISCELLANEOUS
- 10 ACCESSORIES

Superwinch Ltd.,

Abbey Rise, Whitchurch Road, Tavistock, Devon.
Great Britain.

PL19 9DR

Tel: +44 (0)1822 614101

Fax: +44 (0)1822 615204

britsupport@superwinch.net

Superwinch Inc.,

Winch Drive, Putnam, Connecticut 06260
U.S.A.

Tel: (860) 928 7787

Fax: (860) 928 1143

INTRODUCTION

Please read and understand this owner's manual before installing your H9W winch. Your H9W winch is a very powerful machine. If used unsafely or improperly, there is a possibility that property damage or personal injury can result. We have included several unique features in the winch to minimise this possibility; however, your safety ultimately depends on your caution when using the product.

Correct installation of your H9W winch is a requirement for proper operation.

Please note: The Superwinch H9W winch is designed for total reliability during vehicle recovery operations. This winch is not designed to be used in hoisting applications and Superwinch does not warrant it suitable for such use.

Superwinch reserve the right to alter model specifications without prior notice.

PLEASE KEEP THIS OWNER'S HANDBOOK WITH THE WINCH.

Pay particular attention to the caution noted preceded with the symbols shown here. The notes contain advice for your protection.

WARNINGS, CAUTIONS AND NOTES

These are given through these instructions in the following form :



WARNING : Procedures which must be followed precisely in order to avoid the possibility of personal injury.



CAUTION : This calls attention to procedures which must be followed to avoid damage to components.



NOTE : This calls attention to methods which make a job easier or gives helpful information.

USAGE OF WINCH

This winch is designed for use in applications such as:

Pulling
Hauling
Lifting (Vehicle Recovery ONLY)
and other associated uses.

SUPERWINCH winches are not to be used to lift, support or otherwise transport personnel. Any such use shall be considered to invalidate the warranty and Superwinch shall not be responsible for any claims arising from such use.

POISONOUS SUBSTANCES

Many liquids and other substances used should under no circumstances be consumed, and should be kept away from open wounds. These substances include (among others) hydraulic oil.

SYNTHETIC RUBBER

Many 'O' ring seals, flexible pipes and similar items, when subjected to fire or heat can become highly corrosive. Handle with seamless industrial gloves only. Should skin contact occur, remove contaminated clothing immediately and obtain medical assistance without delay. Meanwhile, wash the affected area with copious amounts of cold water or limewater for 15 to 60 minutes.

RECYCLING AND THE ENVIRONMENT

It is illegal to dispose of used oil in the ground, down sewers or drains or into waterways.

Dispose of used oil through authorised waste disposal contractors. If in doubt contact your local Authority for advice on disposal facilities.

WINCH SPECIFICATION

Type	H9W	
Gear Reduction	Steel centred Phosphor Bronze wormwheel driven by case hardened, ground and polished nickel steel worm running in substantial roller ball bearing, mounted in a heat treated aluminium housing. Oil lubricated for guaranteed long life.	
Gearbox Ratio	54:1	
Drum	Fabricated steel running in copolymer maintenance free bearings with spring loaded brakes to prevent over-run when pulling out the rope.	
Braking.....	The action of the worm and wormgear provides for substantial braking action	
Freespool.....	Multi-splined for low contact pressure. Operated by an easy action lever which disengages the gear box to allow the wire rope to be pulled out without using electric power.	
Mounting	Ficing positions allow for platform or in-chassis mounting in either under or over winding modes.	
Model Designation.....	H9W	H9W
Part No.	8569	8588 & 8589
Rated Line Pull Bottom Layer	40 kN (9000 lbs)	40 kN (9000 lbs)
Line Speed 1st. Layer (No Load)	7.3 M/min (24 ft/min)	7.3 M/min (24 ft/min)
Max. Oil Pressure	124 bar (1800 p.s.i.)	124 bar (1800 p.s.i.)
Max. Oil Flow.....	45 l/min (12 US Gal.min)	45 l/min (12 US Gal.min)
Rope Diameter (Recommended).....	10 mm	10 mm
Rope Length	14 m (45 ft)	28 m (90 ft)
Drum Diameter	76.2 mm (3")	76.2 mm (3")
Weight	28.5 kg (63 lbs)	28.5 kg (63 lbs)

HYDRAULIC SYSTEM SPECIFICATION

System Type	Open system with filtered return line.
Relief Valve	Set at winch operating pressure.
Pump.....	With a max. oil supply of 60 l / min (16 U.S. gal/min) at top motor rpm. The pump must be capable of delivering a pressure of 130 bar (1890 lb / in ²).
Reservoir.....	Must be fitted with an oil filler device comprising strainer and air filter and a dip stick. The capacity of the tank should be at least 60 litres (16 U.S. gal). Note. Don't fill the tank to the top, since there must be space for expansion in the tank. Suitable hydraulic oil is Castrol CRML or equivalent (150 LHM 32-68). Typical viscosity rating of 150-175 cST at 100°C (695-816 SUS at 212°F).
Hoses	Should have the minimum following dimensions: Pump inlet line: 1/2" Nominal Bore (N.B.) (reservoir to pump) Return line : 3/4" N.B. (control valve to reservoir) Pressure hoses : 1/2" N.B. (Pipe; 18 x 2mm - 3/4" SCHED 80) (control valve to load control valve) Pilot line, pipe : 0 8-10 x 1mm - 3/4" SCHED 80 Motor case Drain Line (Optional) 1/4" Min. bore.
<i>Pressure and flow loss is increased as hose length increases and/or bore size decreases. Pressure and return lines n excess of 3.5 metres should be compensated with an increase in i nominal bore size.</i>	
Control valve.....	4-way, 3-position with spring centred, closed centre and built in relief valve. The relief valve must be set at the winch operating pressure. The valve should be mounted as close to the winch as possible.
Hydraulic motor.....	To drain line in necessary. SAE ported and fitted with BSP adaptors.
Oil Suction Strainer rating.....	Approx. 250 microns (0.010").
Return Line Filter rating	10 - 40 microns (0.0004" - 0.0016").

INSTALLATION

Refer to Hydraulic System Specification.

IMPORTANT: It is vital to ensure that all hose lengths are kept to a minimum. Pressure and flowloss is increased as hose length increases and/or bore size decreases. Pressure and return lines in excess of 3.5 meters (11.5') should be compensated with an increase in nominal bore size.

As a general rule;

Bigger Nominal Bore Hose = Better Winch Performance.

In all installation work on a hydraulic system, cleanliness and accuracy are essential so that the hydraulic system functions properly.

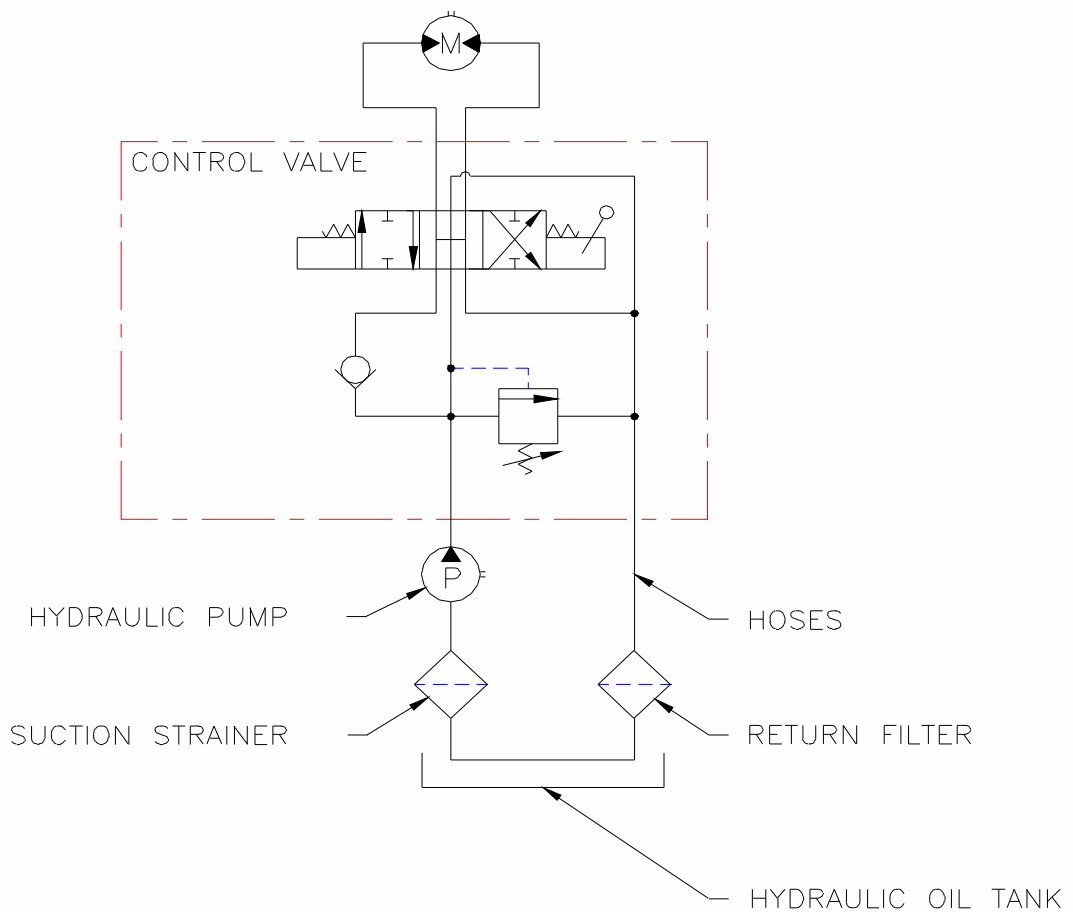


Fig. 2

WINCH INSTALLATION

1. The hydraulic motor should be bolted into position using the m12 bolts and washers supplied.
2. Refer to the mounting diagram (Fig. 3). All dimensions are in mm.
3. Winch mounting can be via a winch mount plate (Part No. 7840, not 8569).
4. The winch (together with it's mounting plate if fitted) must be securely bolted on to a mounting surface that is flat to within 0.5mm and sufficiently stiff to prevent flexing. A minimum of 6.4mm (0.25") thick steel plate should be used. Remember that the winch is only as strong as it's mounting.
5. All four mounting holes marks 'A' must be used.
6. Use the spacers provided.
7. Although the winch may be mounted in either the 'overwound' or 'underwound' positions, 'underwound' is recommended.
8. Mounting bolts must be 8.8 grade High Tensile Steel.

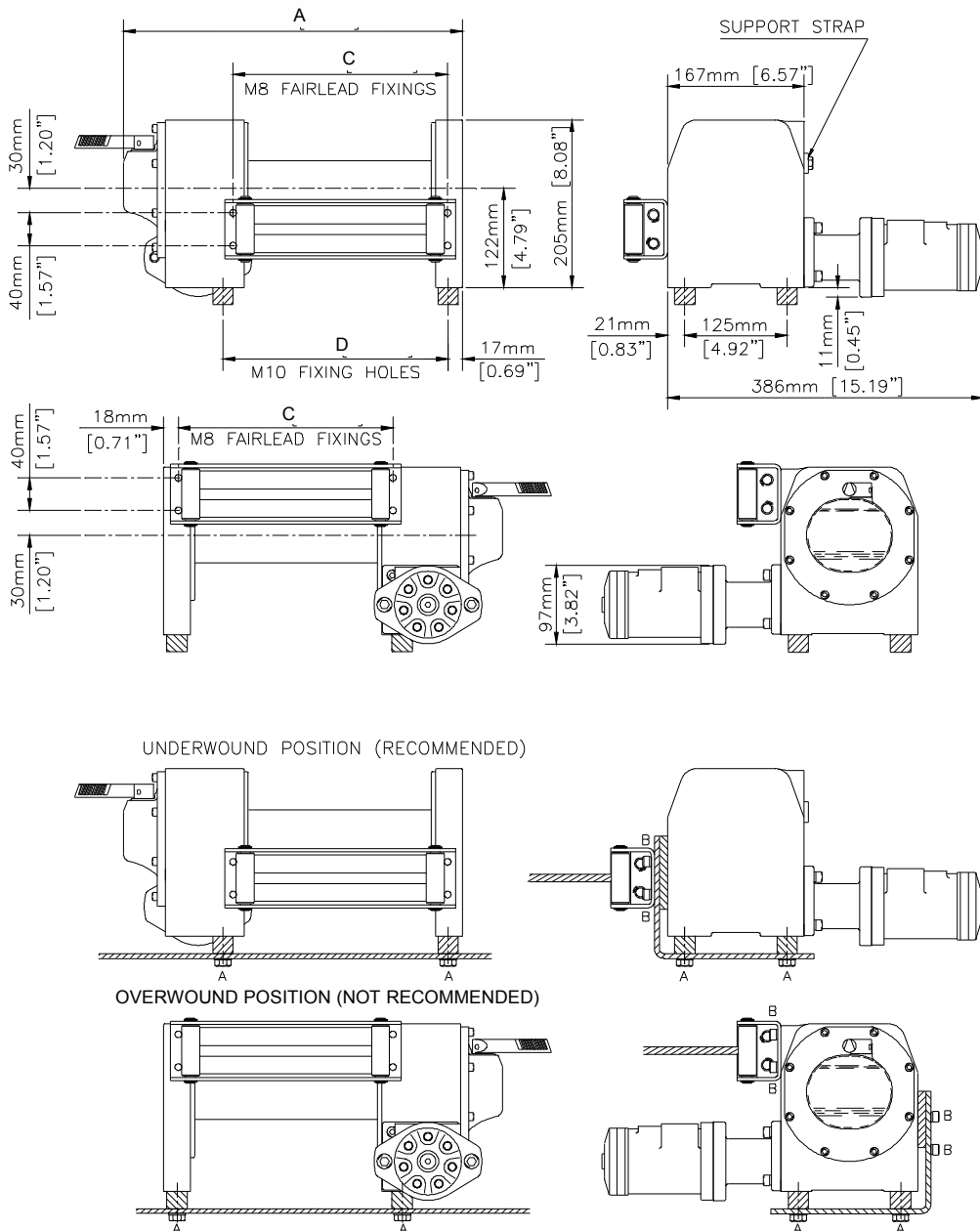


Fig. 3

FIXING A = M10 x 1.5
 FIXING B = M8 x 1.25

NOTE ALWAYS USE A COMBINATION OF
 FIXING POINTS A & B

WINCH	DIMENSION A	DIMENSION C	DIMENSION D
8569	349mm [13.8"]	197mm [7.8"]	210mm [8.3"]
8588	414mm [16.3"]	262mm [10.3"]	275mm [10.8"]
8589	414mm [16.3"]	262mm [10.3"]	275mm [10.8"]

WIRE ROPE SPECIFICATION

The rope must be good quality, have a steel core. Refer to the Certificate of Conformity for full details.

WIRE ROPE INSTALLATION

When the winch is supplied from the factory without wire rope fitted, you should install the rope in the following sequence. The installation of a rope is a simple procedure. It is a good idea to have someone help you with this. First make sure the remote control is unplugged to prevent unauthorised use when your working around the rope storage drum.

1. Unwind the cable by rolling it out along the ground with the tapered end nearest to the winch. **Never** wind the cable straight onto the drum from a coil (Fig. 5).
2. Move the Clutch Handle to the "Disengaged" position as shown in Fig. 4.
3. Insert the tapered end of the rope through the fairlead and onto the drum. In the overwound position, pass the rope straight into the rope fixing hole. In the overwound position, pass the rope under the rope drum and thread the rope into the fixing hole from drum. Fix the end of the rope with the setscrew.
4. Move the Clutch Handle to the "Engage" position (Fig. 4). Connect the remote control. If the lever does not slide easily into engagement, it may be necessary to momentarily operate the control switch then release to the off position.
5. Carefully run the winch in the "Winch In" direction. Keeping tension on the cable spool 5 or 6 wraps of cable neatly onto the drum.
6. Apply moderate tension (approx. 1500 kg) to the rope.

This may be achieved by anchoring the rope hook (with a sling) to a tree and winching the vehicle towards the tree with the brakes applied lightly. Take care to ensure the layers are neatly wrapped. This will minimise damage to the lower layers of rope when a load is applied. Use the handsaver bar to guide the rope the last few feet onto the drum.

NOTE: Where a wire rope is not supplied, or when replacing a wire rope, always use a Superwinch recommended wire rope.

PULLING OUT THE WIRE ROPE

Move the Clutch Handle to the "Disengaged" position. Pull out the rope and secure to anchor or load, check that there are at least 5 turns left on the drum.

Re-engage the Drum by moving the Clutch Handle to the "Engage" position (Fig. 4). If the handle does not slide easily into engagement, it may be necessary to momentarily operate the control switch then release to the off position.

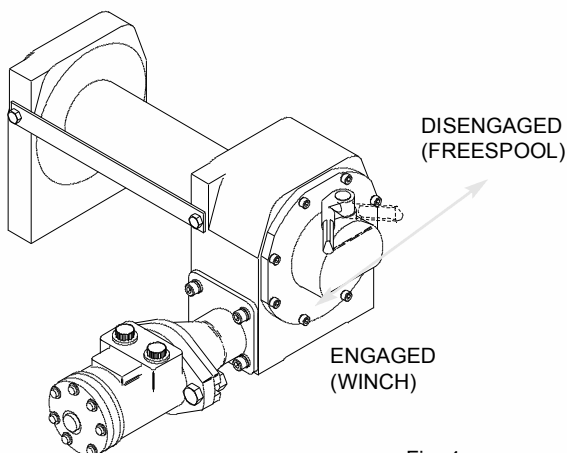


Fig. 4

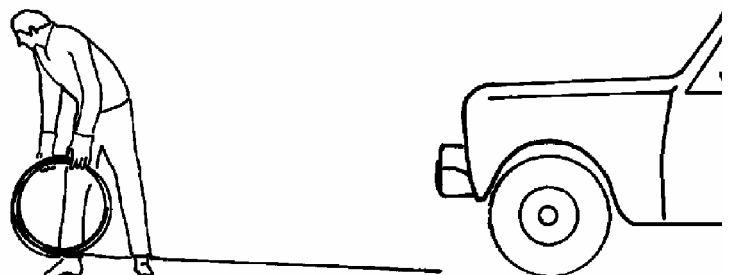


Fig. 5

TIPS FOR EXTENDING THE LIFE OF YOUR WINCH

1. **Keep a tightly wound rope drum.** Do not allow the wire rope to become loosely wound. A loosely-wound spool allows a wire rope under load to work its way down into the layers of wire rope on to the drum. When this happens, the wire rope may become wedged within the body of the windings damaging the wire rope. To prevent this problem, keep the wire rope tightly and evenly wound on the drum at all times. A good practice is to rewind the wire rope under a tension of approx. 500 kg after each use. For example, this can be achieved by attaching the hook to a car and recovering with the winch using the car's brakes to control the load.
2. **Do not allow motor to overheat.** Remember, the winch is for intermittent use only. During long or heavy pulls the motor will get hot. The internal parts will be hotter than the case. To check the motor temperature, stop winching and carefully touch the motor case, if the motor is uncomfortably warm, allow the motor to cool before continuing - keep the engine running to recharge the battery during this break.
3. **Use a pulley block and shackle for heavy loads.** To maximise winch and wire rope life, use a pulley block and shackle to double line heavier loads.
4. The pull required to start a load moving is often much greater than the pull required to keep it moving. **Avoid frequent stopping and starting** during a pull.
5. **Prevent kinks before they occur.**
 - (a) This is the start of a kink. At this time, the rope should be straightened.
 - (b) The rope was pulled and the loop has tightened to a kink. The rope is now permanently damaged and must be replaced.
 - (c) The result of kinking is that each strand pulls a different amount causing the strands under great tension to break and reduce load capacity of the wire rope. The wire rope must be replaced.

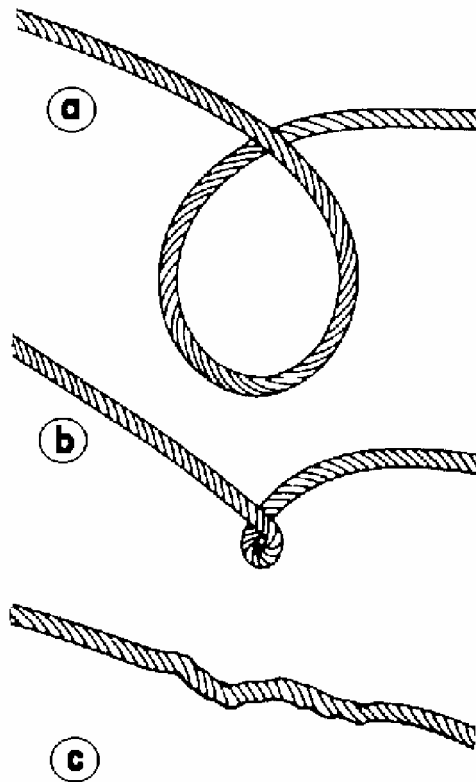


Fig. 6

FREESPOOL OPERATION

When wire rope is removed from the drum, as in bringing the hook to the load, the freespool feature of the winch should be used.

To Engage:

Turn the Freespool Handle to the "Engaged" position. Pull the rope out (wearing a pair of gloves) until the Freespool pin engages (resistance is felt).

To Disengage:

Turn the Freespool Handle to the "Disengaged" position.

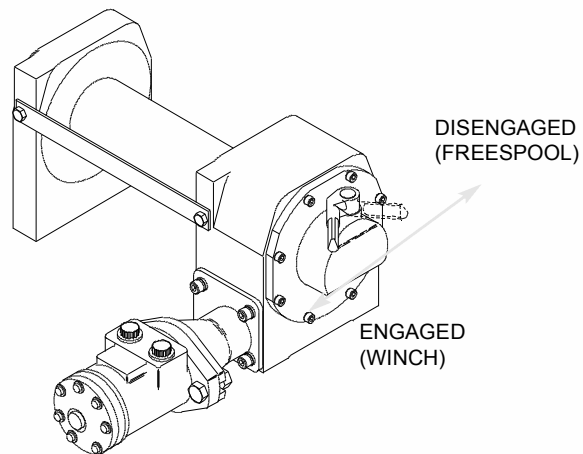


Fig. 7

RUNNING-IN PROCEDURE

IMPORTANT

Ensure your winch wormbox has been filled with oil prior to use.

MAINTENANCE AND REPAIRS

Periodically check tightness of mounting bolts and electrical connections. Remove any dirt or corrosion that may have accumulated on the electrical connections.

Repair should be carried out by Authorised Superwinch Repair Centres only. Do not attempt disassembly of the gearbox. Disassembly will void warranty.

After the first 1 hour of operation: Change the Gearbox oil (See Fig. 8 for location of drain hole and level plug). Check tightness of mounting bolts and electrical connections.

Monthly: Check oil level in worm gear box. Oil level should be maintained to the lower edge of the level plug hole with the winch in the upright position as shown in Fig. 8.

After 10 hours of winching or annually: Change Worm Gearbox oil. Check tightness of mounting bolts and electrical connections.

Wormbox Gearbox: The winch is delivered from the factory filled with the correct type and quantity of oil. Change the oil in the gearbox at least once a year. The oil specification recommended is BP MULTIGEAR FE 85/140 or equivalent, using approximately 3/4 litre (0.2 U.S. gal).

LUBRICATION

The spur and worm gearboxes are self contained and individually lubricated. The spur gearbox is factory filled for life with BP Energrease FGL which is suitable for most climates. In extreme climates, (below 13°C or above 43°C) contact Superwinch for advice.

CLIMATE	TEMPERATURE	GEARBOX OIL
Arctic	-13°C to 15°C (8°F to 59°F)	SAE 90 Oil
Temperate	-16°C to 29°C (3°F to 85°F)	SAE 85/140 Oil
Tropical	19°C to 43°C 66°F to 100°F)	SAE 140 Oil

NOTE : EP (Extreme Pressure) additives can damage copper based alloys like phosphor bronze used for the worm gear and we do not recommend their use in the worm gearbox. If any doubt exists, consult your lubricant supplier’s technical department.

The drum bearings and splined drum clutch are lubricated with molydisulphide loaded bearing grease.

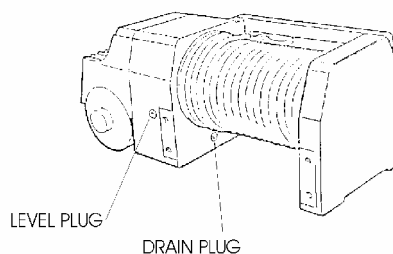
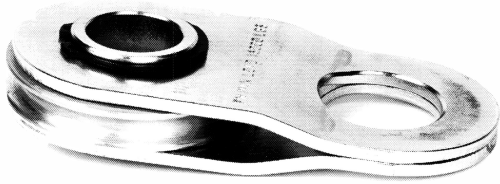


Fig. 8

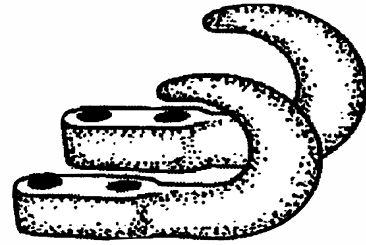
Condition	Possible Cause	Correction
Low line pull	Pump pressure output insufficient	Refer to "Hydraulic Installation" section.
	Hydraulic hose too long or bore size insufficient in size	Refer to "Hydraulic Installation" section.
Drum will not rotate under load	Load greater than rated capacity	Refer to Specifications page for line pull rating.
Winch runs too slow	Motor worn out	Replace motor.
Cable drum will not freespool	Damaged freespool mechanism	See your Superwinch Distributor.
Oil leakage around drum flange	Damaged drum seals	Replace drum seals.
Oil leakage around motor or wormbox	Seals / gaskets damaged	Replace all seals / gaskets.
Excessive noise	Low oil level	Check oil level, add oil if necessary.
Motor runs but drum does not turn	Freespool not engaged	Check engagement of freespool mechanism.

OVERVIEW

Accessories mentioned in this manual and recommended for use with your winch include:



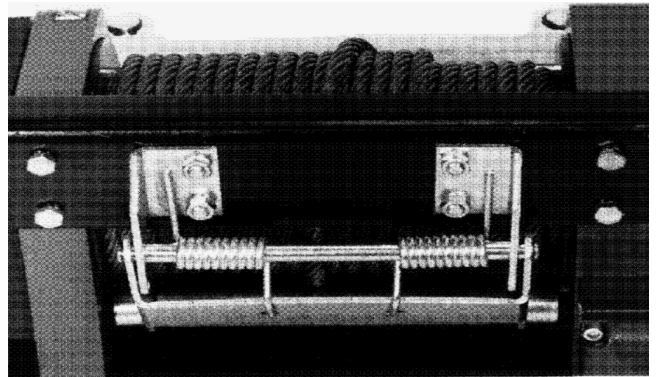
Pulley Block with 4000 kg capacity
Part No. 256009



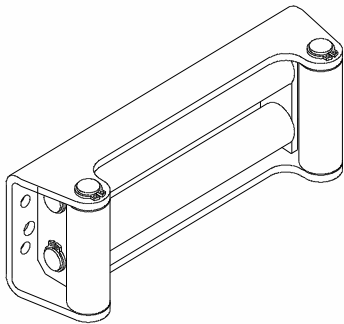
Tow Hooks
Part No. 1510



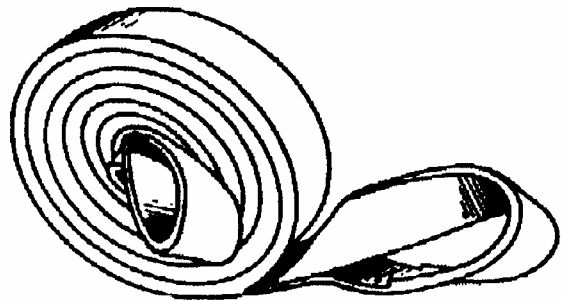
Winch Accessory Kit
Part No. 0505



Cable Tensioner
Part No. 5605 (Not 8569)



Roller Fairlead (Heavy Duty)
Part No. 8584 (Not 8569)



Nylon Sling 3" x 8' with 30,000 lbs rating
Part No. 2531



This Manual's Part No. is:
9332

Issue No.
4

Superwinch Ltd.,
Abbey Rise, Whitchurch Road, Tavistock, Devon.
Great Britain.
PL19 9DR
Tel: +44 (0)1822 614101
Fax: +44 (0)1822 615204
britsupport@superwinch.net

Superwinch Inc.,
Winch Drive, Putnam, Connecticut 06260
U.S.A.
Tel: (860) 928 7787
Fax: (860) 928 1143