

**Owner's Manual
H8P, H10P**



**HYDRAULICALLY
POWERED DRUM
WINCHES**

SUPERWINCH[®]

Owner's Manual

Kit Nos. 5050, 5055P, 5050S,
5060, 5060S, 5064-1, 5070, 5072H,
5074, 5075, 5082, 5170, 650001 & 650004



**These instructions cover kits from
01/05/2003**

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For all your requirements please contact your Superwinch agent:

INTRODUCTION

Thank you for purchasing a Superwinch. It has been designed and manufactured to provide years of trouble-free operation. Please read and understand this Owner's handbook before using your winch. Your 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 minimize this possibility, however, your safety ultimately depends on your caution when using the product. Correct installation of your winch is a requirement for correct operation. Pay particular attention to the winch installation section in this handbook.

Congratulations on your choice.

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

PLEASE RETAIN THIS HANDBOOK WITH THE WINCH

These instructions are designed to assist skilled technicians in the efficient installation of a Superwinch, using the appropriate trade tools.

WARNINGS, CAUTION 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 * 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.

REPAIRS AND REPLACEMENTS

Before you contact Superwinch or your nearest Dealer please have ready the following information:

* Kit No. * Serial No. * Part No. Required

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 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.

GENERAL DESCRIPTION

The winch is hydraulically driven from a hydraulic system. See Hydraulic Installation section. The drum can be disengaged, to enable the rope to be pulled out easily and quickly. The winch is equipped with an adjustable free-spooling damper to help alleviate the possibility of wire rope over-run on the drum.

The automatic disc brake is housed in the planetary gearbox. The brake will activate automatically to prevent the load from causing the winch to 'back-drive'. The brake itself is self adjusting for wear and is oil immersed for optimum heat dissipation. The brake lining are of high performance non-asbestos material. The brake will hold approximately 1800 kg. N.B. Model 5072H holds 525kg, model 650001 holds 350kg.

The winch is reversible with 'power-in' and 'power-out' via a directional control valve mounted on the vehicle. The standard unit is supplied with, counter-clockwise drum rotation on 'winch-in' when viewed from the gearbox end. The winch can be used in both 'over-wound' and 'under-wound' conditions.

WINCH

Gear Reduction	High efficiency planetary for optimum reliability
Drum	Fabricated steel mounted on maintenance - free plain bearings
Braking	Integral, fail safe and automatically applied
Drum \varnothing	90, 102mm, or 152.4mm
Mounting	Designed to most industry standard dimensions, this winch can be side, foot or angle mounted, flat bed or low mount
Pneumatic Freespool Supply Pressure	5.5 bar

Model Designation	H8P	H10P	H8P	H8P
Part No.	5050, 5050S, 5082	5170	5072H	5074, 5075
Weight (Less Rope)	37 kg	40 kg	40 kg	40 kg
Recommended Rope \varnothing	10 mm	10 mm	11 mm	11 mm
Drum Capacity	30 M	23 M	30 M	30 M
Line Speed (1st Layer, No Load)	15 M/min	10.5 M/min	12 M/min	15 M/min
Line Pull (Bottom Layer)	36 kN	45 kN	35.6 kN	30 kN
Operating Pressure	150 bar	124 bar	140 bar	170 bar
Oil Flow	57 l/min	57 l/min	57 l/min	57 l/min

Model Designation	H8P	H8P	H8P	H8P	H8P
Part No.	5055P	5060, 5060S, 5070,	5064-1	650001	650004
Weight (Less Rope)	37 kg	37 kg	37 kg	56 kg	37 kg
Recommended Rope \varnothing	10 mm	10 mm	8 mm	10 mm	10 mm
Drum Capacity	52 M	40 M	41 M	40 M	30 M
Line Speed (1st Layer, No Load)	15 M/min	15 M/min	17.5 M/min	9M/min	17.3 M/min
Line Pull (Bottom Layer)	36 kN	36 kN	10 kN	7.35 kN	28 kN
Operating Pressure	150 bar	150 bar	150 bar	55 bar	150 bar
Oil Flow	57 l/min	57 l/min	45 l/min	30 l/min	57 l/min

Freespool	Part No.	Type
	5055P, 5064-1	Pneumatic
	5050, 5050S, 5074, 650004	Manual
	5060, 5060S, 5070, 5075, 5082	Manual
	5072H, 5170, 650001	None

HYDRAULIC SYSTEM

System Type	Open system with filtered return line
Relief Valve	Set at winch operating pressure
Pump	With a maximum oil supply of 60 l/min at top motor rpm. The pump must be capable of delivering a pressure of 170 bar
Reservoir	Must be fitted with an oil filter 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: Do not 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.
Hoses	Should have the minimum following dimensions:
<i>Pressure and flow loss is increased as hose length increases and/or bore size decreases. Pressure and return lines in excess of 3.5 meters should be compensated with an increase in nominal bore size.</i>	Pump inlet line: 32 - 38mm (1 1/4" - 1 1/2") Nominal Bore (N.B.) (reservoir to pump) Return line: 25mm (1") N.B. (control valve to reservoir) Pressure hoses: 13mm (1/2") N.B. (control valve to load control valve)
Control Valve	4 - way, 3 - position with spring centred, closed centre (ports A & B closed when in centre position) 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
Load Control Valve	5050S, 5060S, 5070, 5072H, 5074, 5075 and 5170 only - A single overcentre valve is fitted to the winch to give smoothly controlled winch out when under load and to provide full dynamic braking
Oil Suction Strainer Rating	Approximately 250 microns
Return Line Filter Rating	10 - 40 microns

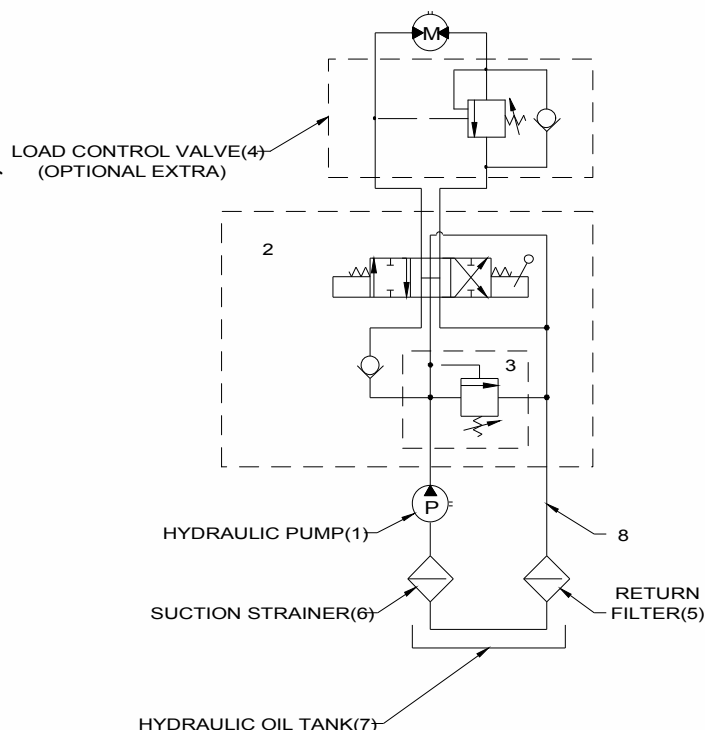
INSTALLATION

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

As a general rule:

Bigger Nominal Bore Hose = Better Winch Performance

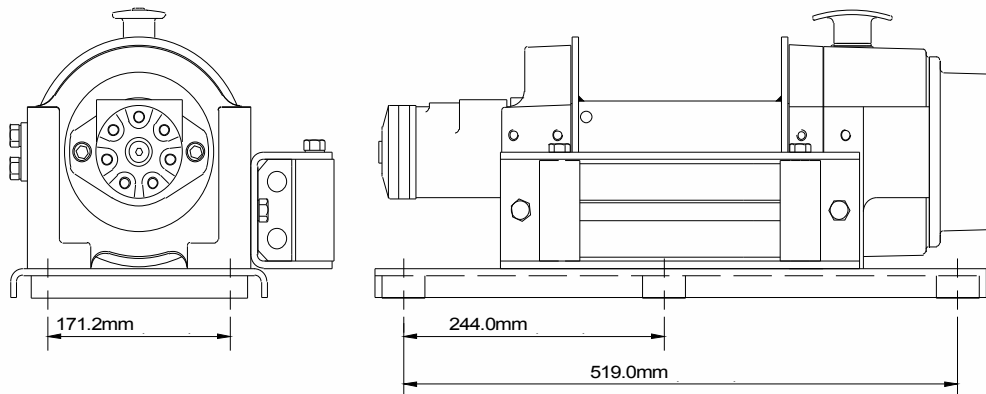
In all installation work on a hydraulic system, cleanliness and accuracy are essential so that the hydraulic system functions properly.



MOUNTING

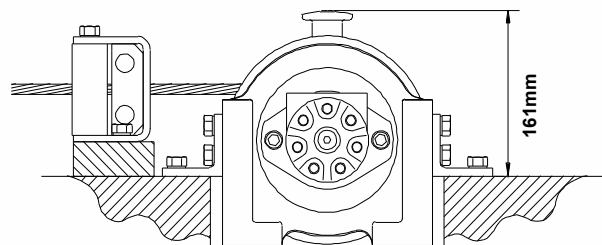
The diagrams on pages 04-2 and 04-3 show the mounting dimensions for the Superwinch H8 and H10P.

The side and feet mounting hole positions are designed to allow the winch to be interchangeable with the most popular 8000 - 10000 lbs units currently available. The diagram below shows the H8P or H10P mounted on a Superwinch flatbed mounting kit (Part No. 5625), shown with Roller Fairlead. If a Superwinch mounting plate is not used, the surface must be flat within 0.5 mm and sufficiently stiff to prevent flexing. A minimum of 6.0 mm thick steel plate should be used. The thicker the plate, the better the alignment between motor mounting, drum and gearbox housing.



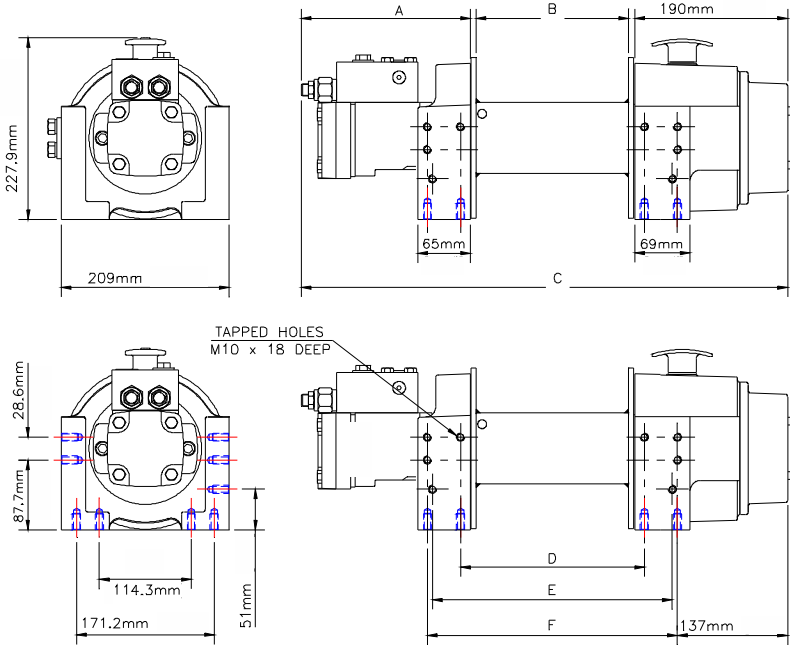
It is important that the winch is mounted securely so that the motor mounting, drum and gearbox housing are accurately aligned. Be sure the winch will not move under load, otherwise you may cause misalignment in the winch, causing the drum to bind up.

The tie bars supplied with the winch must remain attached when the winch is foot mounted. Angle mounting is possible and recommended for maximum flexibility in mounting. These mounts allow the winch to be low-mounted. See the diagram below.



MOUNTING SUGGESTION

INSTALLATION

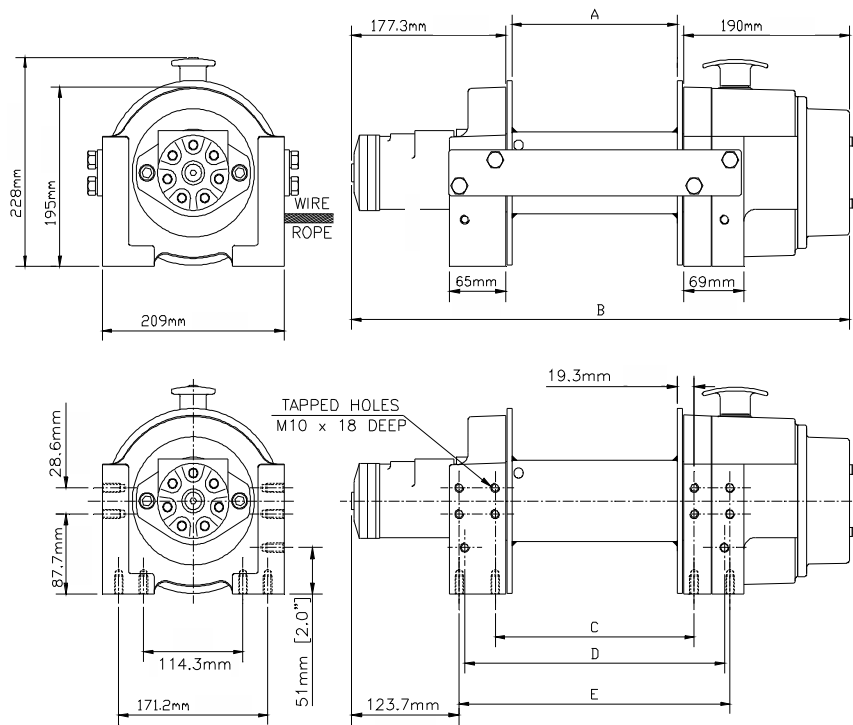


VERSION	A	B	C	D*	E	F*
H8P 190mm DRUM LENGTH	207.0mm	190.0mm	602.0mm	228.5mm	298.5mm	311.0mm
H8P 253mm DRUM LENGTH	207.0mm	253.0mm	665.0mm	291.5mm	361.5mm	374.0mm
H10P 190mm DRUM LENGTH	214.0mm	190.0mm	609.0mm	228.5mm	298.5mm	311.0mm

* These dimensions do not comply to model 5082.

650001 has an oversized drum and tiebar spaced off the winch by 22mm. The winch feet need spacing off a mount plate by 22mm to clear drum flanges.

INSTALLATION



VERSION	A	B	C*	D	E*
150mm DRUM LENGTH	150.0mm	532.0mm	188.5mm	258.5mm	271.0mm
190mm DRUM LENGTH	190.0mm	572.0mm	228.5mm	298.5mm	311.0mm
253mm DRUM LENGTH	253.0mm	635.0mm	291.5mm	361.5mm	374.0mm

* These dimensions do not comply to model 5082.

ROPE INSTALLATION

The rope must be of good quality, have a tensile strength grade and minimum breaking load of that detailed on your winch's rating plate.

Superwinch recommend that the rope is underwound onto the winch, except if angle mounted (see Section 04).

1. Unwind the rope by rolling it out along the ground with the tapered end nearest to the winch. **Never** wind the rope straight onto the drum from a coil.
2. Dis-engage the freespool.
3. Insert the tapered end of the rope into the cross-hole in the end of the drum and secure by tightening the setscrew.
4. Re-engage the freespool.
5. Carefully run the winch in the 'winch-in' direction. Keeping tension on the rope spool 5 or 6 wraps of rope neatly onto the drum.
6. Apply moderate tension (approx. 700 kg) to the rope. Carefully run the winch in the 'winch-in' direction. Ensure the layers are neatly wrapped onto the drum. This will minimize damage to the lower layers of rope when a load is applied.

PULLING OUT THE ROPE

Dis-engage the freespool. With a pair of gloves on, 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 freespool.

GENERAL

Avoid pulling a load at more than a 15 degree angle in relation to the winch. This will reduce wear and tear on the winch and the cable.

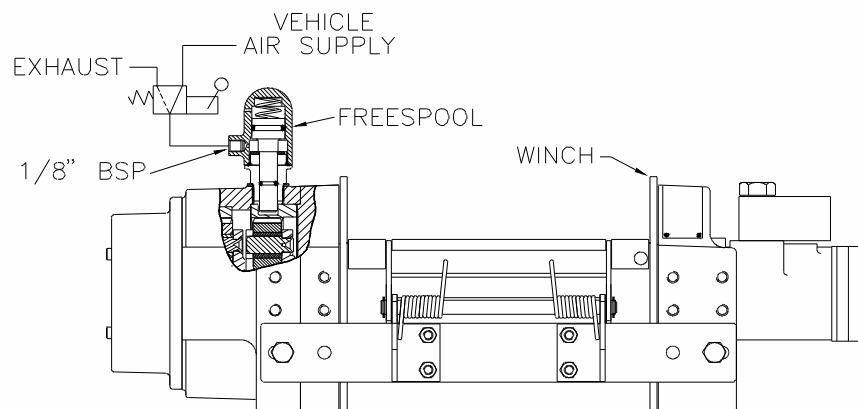
PNEUMATIC FREESPOOL OPERATION

1. Dis-engage the drum by operating the pneumatic control valve.
2. Pull out the cable by hand, but leave at least 5 wraps on the drum.
3. Attach the load.
4. Engage the drum by moving the control valve lever to the appropriate position. The freespool mechanism will spring return but the drum will not engage until it has been rotated a little, by hand.

Do not attempt to pull a load until the drum is properly engaged.

Note: The mechanism is designed such that it cannot be dis-engaged when the drum is underload.

5. Operate the winch.



MANUAL FREESPOOL OPERATION

1. To dis-engage the freespool (if engaged) pull the knob and turn 90° ensuring that the knob stays out.
2. Pull out the cable by hand, but leave at least 5 wraps on the drum.
3. Attach the load.
4. Engage the freespool by turning the knob 90° and then rotating the drum by hand until the knob springs in.

Do not attempt to pull a load until the drum is properly engaged.

5. Operate the winch.

RUNNING IN

For optimum performance all hydraulic motors need running in. Run for approximately 1 hour at 30% of maximum oil pressure.

LUBRICATION

Freespool Handle (manual freespool version) lubricate regularly with light oil.

Drum Bearings - These are self-lubricating but are lubricated with molydisulphide loaded bearing grease when assembled.

Gearbox - The gearbox is prefilled with BP Energol GR-XP 150 or equivalent at the factory, this is suitable for temperature climate use. If the winch is to be used in a different ambient temperature range then please consult the list below and select and use the appropriate grade oil.

MAINTENANCE

After the first hour of operation: Change gearbox oil. Check tightness of mounting bolts and hydraulic connections.

Monthly: Check oil level in gearbox.

After 10 hours of winching or annually: Change gearbox oil (approximately 0.5 litre). Check tightness of mounting bolts and hydraulic connections.

Planetary 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 Energol GR-XP150 or equivalent, using 0.5 litre).

SERVICING

Before you contact Superwinch or your nearest Dealer for parts, please have ready the following information:

	* Kit No.	* Serial No. of Winch	* Part No. Required
Temperature	- 20°c - + 25°c	+ 5°c - + 40°c	+ 13°c - + 65°c
Climate	Arctic	Temperature	Tropical
Viscosity (ISO VG)	100	150	20
AGIP	BLASIA 77	BLASIA 77	BLASIA 77
BP-NACH	Energol GR-XP100	Energol GR-XP150	Energol GR-XP220
Castrol	-	Alpha SP150	Alpha SP220
Cheveron	NL Gear Compond 100	NL Gear Compond 100	NL Gear Compond 220
Esso	Sparton EP100	Sparton EP100	Sparton EP100
Fina	Giran 100	Giran 150	Giran 220
Gulf	EP Lubricant Oil HP100	EP Lubricant Oil HP150	EP Lubricant Oil HP220
IP	Mellana100	Mellana 150	Mellana 220
Mobil	-	GF 639	GF 630
Shell	-	Omala EP150	Omala EP 220
Total	Carter EP 100N	Carter EP 150	Carter EP 200

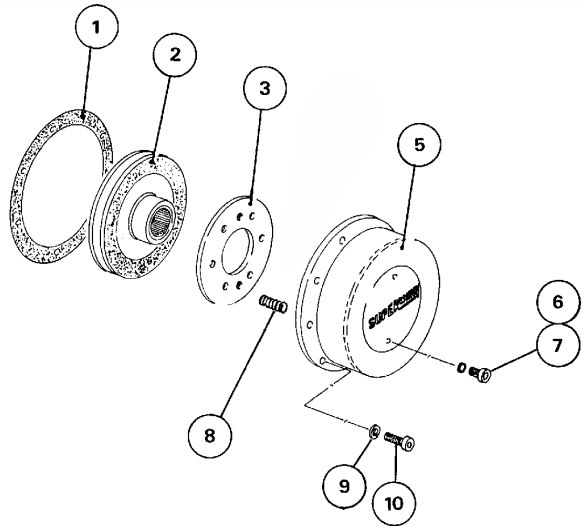
SERVICING

When ordering spare parts from these lists, always quote the winch serial number and the part number **not** item number of the spare part required.

This will ensure the correct part is despatched to you. The serial number of your winch is located on the data plate on the motor support casting.

Item	Qty	PART No.	Description
1	2	10063	Gasket
2	1	10028	Friction Plate Assembly
3	1	10002	Drawn Cup Clutch
5	1	50-90622-01	Clutch Cover Assy
6	2	4-23-063	Thread Seal
7	2	4-36-0601022	Cap Head Screw M6 x 10
8	6*	4-31-1403030403	Spring
9	6	4-51-0623	Spring Washer M6
10	6	4-36-0603022	Cap Head Screw M6 x 30

* Model 5072H = 2 Springs

**FRICTION PLATE ASSEMBLY REPLACEMENT**

1. Drain gearbox oil.
2. Remove two screws, Item 7, in Clutch Cover, Item 5.
3. Replace with two screws, M5 x 0.8 pitch x 40mm long, shortened to 38mm long.
4. Unscrew six screws, Item 10, and remove Clutch Cover, Item 5 complete with Clutch Plate, Item 3.

Do not remove clutch plate from clutch cover

5. Slide Friction Plate Assembly, Item 2, from Input Shaft.
6. Replace Friction Plate Assembly, Item 2, ensuring that boss is facing away from gearbox.

Ensure Roll Pins in Clutch Housing Cover (Item 5), align holes in clutch plate.

7. Replace gasket, Item 1, and Clutch Cover Assembly.
8. Tighten six screws, Item 10.
9. remove two screws securing the Clutch Plate to Clutch Cover, and replace two screws, Item 7, complete with seals.

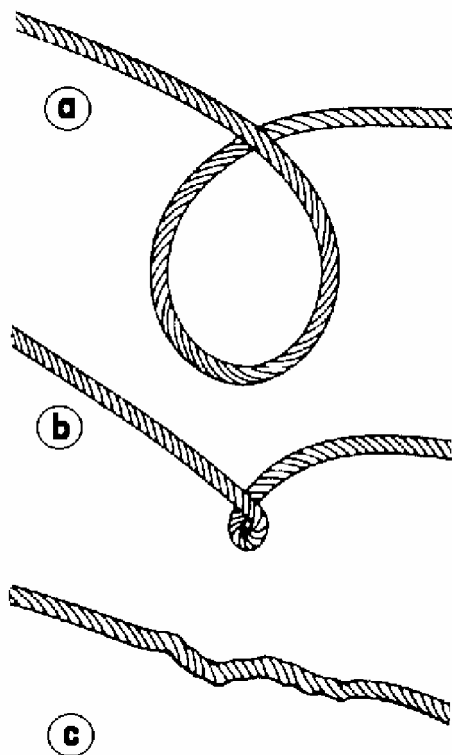
CLUTCH SPRING REPLACEMENT/REMOVAL

1. Follow steps 1 to 4 under the procedure for Friction Plate Assembly Replacement, described above.
2. Slacken the two Clutch Plate holding screws, carefully. Remove the Plate, Item 3, to reveal six springs, Item 8.
3. Replace springs.
4. Replace Clutch Plate, Item 3, ensuring roll pins, Item 4, align with holes in Clutch Plate.
5. Replace the two Clutch Plate holding screws, tighten to draw plate down on the springs, ensuring roll pins align with holes in Clutch Plate.
6. Follow steps 7 to 9 under the procedure for Friction Plate Assembly Replacement, described above.

1. It is **essential** that the winch is run in before use to achieve the performance figures stated in this manual. We recommend running for approximately 1 hour at 30% of maximum oil pressure followed by at least 350 m of pulling, the first 100 m with approximately 230 - 450 kg load, the remainder with the load being progressively increased.

Note:

- a) Installing the wire rope is not included in the running-in period.
 - b) Check tightness of all mounting bolts after running-in period.
2. **Keep a tightly wound rope drum.** Do not allow the windings on the drum to become loosely wound. A loosely wound spool allows a rope under load to work its way down into the layers of the wire rope on the drum. When this happens, the lower layers become damaged and the rope may become wedged within the body of the windings. To prevent this problem, keep tension on the rope at all times. A good practise is to rewind the rope under tension after each use.
 3. **Prevent kinks before they occur.**
 - a) This is a 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.
 - c) The result of kinking is that each strand pulls a different amount causing the strands under greatest tension to break and reduce load capacity of the wire rope.
 4. **Use a snatch block for heavy loads.** To keep wear to a minimum, use a snatch block to double line heavy loads. Double lining reduces the work required of the gears by on ehalf which in turn reduces wear.
 5. The pull required to start a load moving is often much greater than the load to keep it moving. Try to avoid stopping and starting during a pull.



Optional accessories, designed by Superwinch exclusively for the H8 and H10P:

Remote Clutch Control
(Pneumatically Actuated)
(Item 1) Part No. 5603

Cable Tensioner
(190 mm Drum Length)
(Item 3) Part No. 5606

Flatbed Mounting Kit,
with mounting bolts
(Item 5) Part No. 5625

Roller Fairlead
(190 mm Drum Length)
(Item 2) Part No. 5600

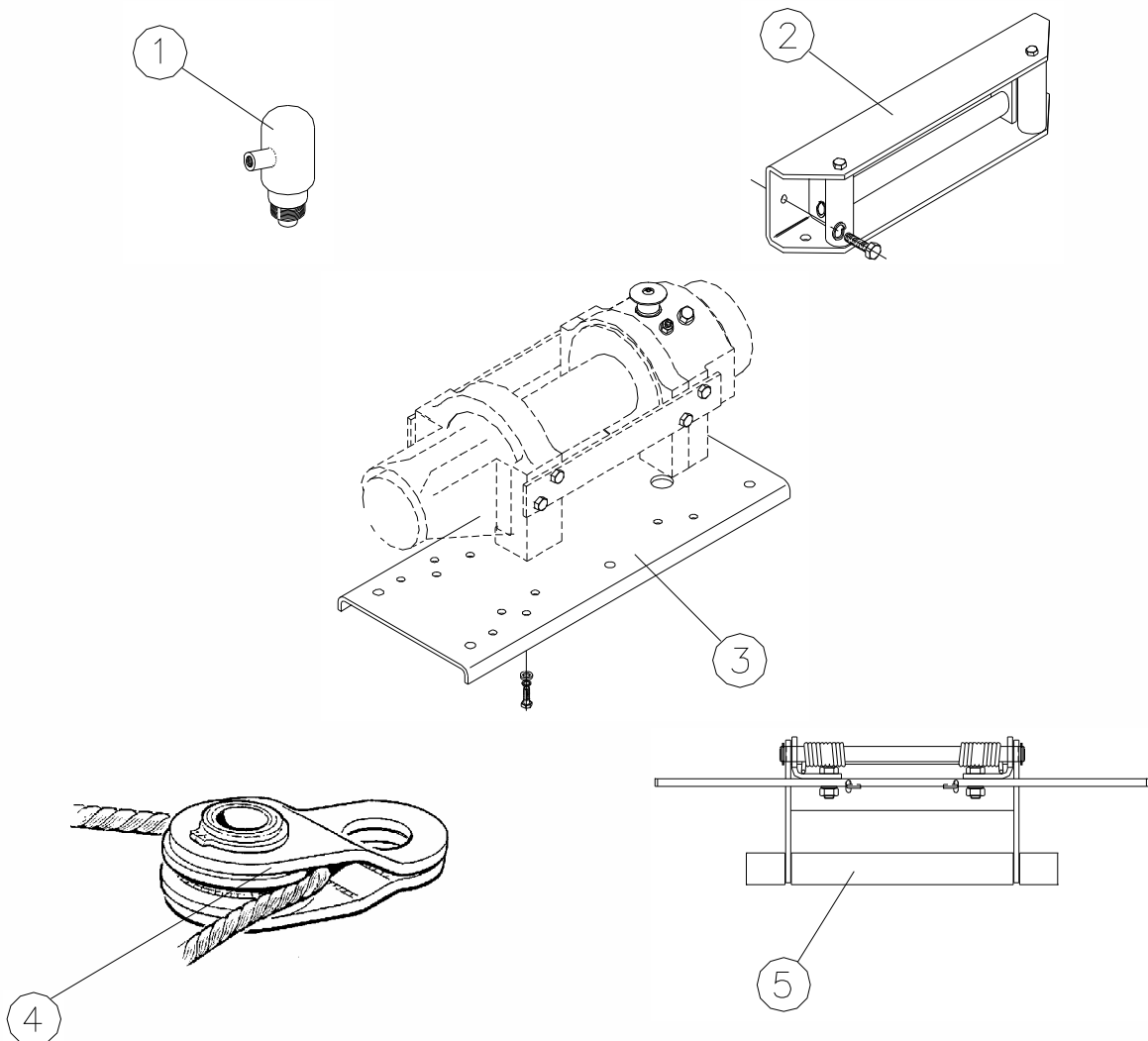
Cable Tensioner
(253 mm Drum Length)
(Item 3) Part No. 5607

Roller Fairlead
(253 mm Drum Length)
(Item 2) Part No. 5610

Pulley Block
(Item 4) Part No. 256009

The Superwinch winch accessory kit (Part No. 0505) is also available as an optional extra, which includes:

- 1 Stowage Bag (nylon)
- 1 Pulley Block
- 1 Nylon Sling
- 2 Bow Shackles
- 1 Pair of Leather Gloves (Heavy Duty)



Limited Warranty. Superwinch (“seller”) warrants the original buyer (“you”) all parts and components except wire rope to be free from defects in materials and workmanship for a period of (one) 1 year from the provable date of purchase. Any Superwinch product which is defective will be repaired or replaced without charge to you, upon compliance with these procedures. The warranties set forth herein are exclusive and in lieu of all other warranties, whether oral or written, express or implied.

Limited Warranty Performance Procedure. Upon discovery of a defective Superwinch product, you shall mail to the seller at his factory or any factory authorised service centre written notice of such defect and mail, ship or otherwise deliver the defective Superwinch, postage or shipping prepaid. Repairs or replacements by seller under this Limited Warranty will normally be accomplished within (fifteen) 15 business days after receipt of the defective Superwinch. Seller or its authorised agents may make reasonable charges for parts and labour not covered by this Limited Warranty.

Warranty and Remedy Limitations and Exclusions. Repair and/or replacement of the defective Superwinch or component thereof as provided herein is the exclusive remedy for the buyer. The following exclusions or limitations of warranties and limitations of remedies shall be expressly applicable:

A. Express Warranties. Seller warrants that the Superwinch is as described in the “Superwinch Owner’s Manual” provided herein; no other express warranty is made in respect to the Superwinch. If any model or sample was shown to the buyer, such model or sample was used for illustrative purposes only, and shall not be constructed as a warranty that the Superwinch will conform to the sample or model. **Seller makes no express warranty with respect to wire rope incorporated in the product.**

B. Implied Warranties. **The implied warranty of merchantability and all other implied warranties shall only extend from the provable date of purchase for (one) 1 year. The wire rope is sold “as is”, without any implied warranties. Some States within the USA do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.**

C. Incidental and Consequential Damages. **Subject to seller’s Limited Warranty obligations set forth herein, seller shall not be responsible for incidental damages of any kind, or the consequential damages to property, loss of profits and loss of use which may be caused by any defect in, or malfunction, or failure of enclosed Superwinch. Some States within the USA do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.**

D. Condition of Warranty. Seller shall not be required to comply with its warranty duties provided herein if the defect, malfunction, or failure of the Superwinch was caused by damage (not resulting from defective or malfunctioning components) or unreasonable use by you. Unreasonable use shall include but is not limited to, installation or use of the Superwinch without compliance with the instructions contained in the Superwinch Owner’s Manual for the particular model number. Seller’s liability under this warranty or for any loss or damage to the Superwinch product shall not exceed the cost of correcting defects in or replacing the Superwinch product, and upon expiration of the warranty period, all such liability shall terminate. The agents, dealers and employees of the seller are not authorised to make modifications to this warranty, or additional warranties binding on the seller. According additional statements, whether oral or written, do not constitute warranties and should not be relied upon.

Legal Remedies of Buyer. This Limited Warranty gives you specific legal rights, and you may also have other right which vary from State to State within the USA and from country to country. You may also have implied warranty rights. In the event of a problem with Limited Warranty service or performance, the buyer may be able to go to small claims court, a state court or a federal district court in the USA or to appropriate jurisdictions outside the USA.

Inquiries. Any enquires regarding compliance with the warranties provided herein may be addressed in writing to:

Superwinch Ltd., Abbey Rise, Whitchurch Road, Tavistock, Devon PL19 9DR UK

or to:

Superwinch Inc., Winch Drive, Putnam, CT 06260 USA



This Manual's Part No. is:
9306

Issue No.
11

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

Superwinch Inc.,
Winch Drive, Putnam, Connecticut 06260
U.S.A.
Tel: +1 (860) 928 7787
Fax: +1 (860) 928 1143
info@superwinch.com
www.superwinch.com