Owner's Handbook HW10, HW12, HW14





HYDRAULICALLY POWERED DRUM WINCH

SUPERWINCH.

Owner's Handbook

Kit Nos:

7081

These instructions cover kits from 17/07/2002

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INTRODUCTION

Thank you for purchasing a Superwinch. It has been designed and manufactured to provide years of troublefree 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 specifications without prior notice.

PLEASE KEEP THIS OWNER'S 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, 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.

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. of winch 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 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.

GENERAL DESCRIPTION

The winch is hydraulically driven via a hydraulic motor powered by the vehicle hydraulic system. The motor drives the drum via a worm & wheel reduction system. The winch is reversible with "power in" "power out" via a directional control valve fitted to the vehicle. The standard unit is supplied with anti-clockwise drum rotation on "winch in" when viewed from the gearbox end. The winch can be used in both "overwound" and "underwound" conditions.

Gear reduction - steel centred aluminium bronze wormwheel driven by case hardened ground and polished nickel steel worm running in substantial ball and roller bearing, mounted in a heat treated aluminium housing. Oil lubricated for guaranteed long life.

Braking - self locking action of the worm and wheel assure reliable load security up to the full winch capacity - no brake pads to wear or delicate mechanisms to break. Using a Closed Centre Spool valve will increase braking by locking both motor ports in the off position. Drum - fabricated steel running in plain copolymer maintenance free bearings with spring loaded brakes to prevent over-run when pulling out rope. *Mounting* - fixing positions allow for platform or in-chassis mounting in either under or over winding modes.



WINCH SPECIFICATION

Gear Reduction	Steel centred aluminium bronze wormwheel, case hardened, ground and polished worm.
Gearbox ratio	48 : 1
Drum	Fabricated steel mounted on maintenance - free plain bearings.
Braking	The irreversible action of the worm and wheel provide for substantial braking action.
Drum ø	90 mm (3.5")

Model Designation	H10W
Part No	7081
Weight (Less rope)	55 kg (121 lb)
Freespool Type	Manual

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 I / 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 LLS, 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:
Pressure and flow loss is increased as hose	Pump inlet line :1 1/4" - 1 1/2" Nominal Bore (N.B.).
length increases and/or bore size decreases.	(reservoir to pump)
Pressure and return lines in excess of 3.5	Return line : 1" N.B.
metres should be compensated with an	(control valve to reservoir)
increase in nominal bore size.	Pressure hoses : 1/2" N.B. (0 18 x 2mm)
	(control valve to load control valve)
	Pilot line, pipe : 0 8-10 x 1mm
Control valve	4-way, 3-position with spring centred, open 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	.When being used for heavy, Industrial and / or long periods, it is a
	good idea to have it's case drain line connected back to the
	hydraulic tank.
Oil Suction Strainer rating	. Approx. 250 microns (0.010").
Return Line Filter rating	. 10 - 40 microns (0.0004" - 0.0016").



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 metres (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.



MOUNTING

It is important that the winch is mounted securely so that the motor mounting, drum and wormbox housing are accurately aligned.

The tie bars supplied with the winch must remain attached when the winch is foot mounted, unless a fairlead is used, in which case only one tie bar should be removed.

When foot mounting the winch, the surface must be flat within 0.5mm (.020 ins) and sufficiently stiff to prevent flexing. A minimum of 6.4mm (0.25 ins) thick steel plate should be used. The thicker the plate, the better the alignment between motor mounting, drum and gearbox housing.





ROPE INSTALLATION

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 (1500 lb)) 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

Disengage 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.

Note : The winch is designed such that it cannot be freespooled when the drum is under load.

PNEUMATIC FREESPOOL OPERATION

1. Disengage 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 disengaged when the drum is under load.

5. Operate the winch.



MANUAL FREESPOOL OPERATION

1. To disengage 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 approx 1 Hr at 30% of Max. Oil Pressure.

MAINTENANCE

After the first 10 hours of operation :

Change Gearbox oil. Check tightness of mounting bolts and hydraulic connections.

Monthly :

Check oil level in gearbox. Oil level should be maintained to the lower edge of the level plug hole with the winch in the upright position.

After 50 hours of winching or annually :

Change Gearbox oil. (Approx. 3/4 Litre (0.2 U.S. gal)). Check tightness of mounting bolts and hydraulic 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 approx. 3/4 Litre (0.2 U.S. gal).

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

LUBRICATION

CLIMATE	TEMPERATURE	GEARBOX OIL
Arctic	-13°C to 15°C (8°F to 59°F)	SAE 90
Temperate	-16°C to 29°Ć (3°F to 85°F)	SAE 85/140
Tropical	19°C to 43°C (66°F to 110°F)	SAE 140

NOTE : EP (Extreme Pressure) additives can damage copper based alloys like aluminium 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.

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.



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 approx 1 Hr at 30% of Max. Oil Pressure followed by at least 350m (1200 feet) of pulling, the first 100m (350 feet) with approx. 230 - 450kg (500 - 1000 lbs) 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.

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 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 practice is to rewind the rope under tension after each use.

3. 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.

(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.

5. **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 one half which in turn reduces wear.

6. 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.





Most hydraulic system failures follow the same pattern - a gradual or sudden loss of pressure or flow with a resulting loss of motor power. Any one of the systems' components may be at fault. By following step-by-step procedures, the trouble can be isolated in a short time.

<u>CONDITION</u>	POSSIBLE CAUSE	<u>CORRECTION</u>
SYSTEM INOPERATIVE	No oil in system	Fill system. Check for leaks.
	Insufficient oil in system.	Fill system. Check for leaks.
	Wrong oil in system.	Refer to manufacturers' specifications & change oil.
	Filter dirty or clogged.	Drain oil and replace filter or filter element.
	Oil line restriction. Oil lines dirty or collapsed.	Clean or replace.
	Air leaks in pump suction line.	Repair or replace as necessary.
	Worn or dirty pump.	Clean, repair or replace. Check alignment. Check for contaminated oil. Drain and flush system.
	Badly worn components.	Examine and test for internal or external leak age. Replace faulty components. Check for cause of wear.
	Leakage.	Check all components, particularly the relief valve, for proper settings. Refer to technical manuals.
	Excessive load.	Check unit specifications for load limits.
	Slipping or broken pump drive.	Repair or replace belts, couplings, etc. Check for proper alignment or tension.
SYSTEM OPERATES ERRATICALLY	Air in system.	Check suction side of system for leaks. Repair.
	Cold oil.	Allow ample warm-up period.
	Dirty or damaged components.	Clean or repair as necessary.
	Restriction in filters or lines.	Clean and/or replace elements or lines.
SYSTEM OPERATES SLOWLY	Oil viscosity too high; cold oil.	Allow oil to warm up before operating machine.
	Low pump drive speed.	Increase engine speed (check manual for recommendations).
	Low oil level.	Check reservoir and add oil as necessary.
	Air in system. Badly worn pump, valves, etc.	Check suction side for leaks. Repair. Repair or replace as needed.

SYSTEM OPERATES SLOWLY (Cont.)	Restriction in filters or lines.	Clean and/or replace elements or lines.
()	Improper adjustments. Oil leaks.	Check relief valves, etc. Adjust per manual. Tighten fittings. Replace seals or damaged lines.
OVERHEATING OF OIL IN SYSTEM	Oil passing through relief valve for excessive time.	Return control valve to neutral when not in use.
	Incorrect oil, low oil, dirty oil.	Use recommended oil, fill reservoir, clean oil, replace filter element.
	Engine running too fast.	Reduce engine speed.
	Excessive component internal leakage.	Repair or replace component as necessary.
	Restriction in filters or lines.	Clean and/or replace elements or lines.
	Malfunctioning oil cooler.	Clean or repair.
	Insufficient heat radiation.	Clean dirt and mud from reservoir and components.
	Malfunctioning component.	Repair or replace.
FOAMING OF OIL	Incorrect, low or dirty oil.	Replace, clean or add oil as needed.
	Air leaks.	Check suction line and component seals for suction leaks. Replace.
NOISY PUMP	Low oil level, incorrect oil, foamy oil.	Replace, clean or add oil as required.
	Suction line plugged,	Clean or replace
	inlet screen plugged.	
	inlet screen plugged. Worn or damaged pump.	Repair or replace.
LEAKY PUMP OR MOTOR	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal.	Repair or replace. Replace. Check for misalignment.
LEAKY PUMP OR MOTOR	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts.	Repair or replace. Replace. Check for misalignment. Tighten or replace.
LEAKY PUMP OR MOTOR LOAD MOVES WITH CONTROL VALVE IN NEUTRAL	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts. Control valve not centring when released.	Repair or replace. Replace. Check for misalignment. Tighten or replace. Check for spool binding. Repair.
LEAKY PUMP OR MOTOR LOAD MOVES WITH CONTROL VALVE IN NEUTRAL CONTROL VALVE STICKY (BINDING)	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts. Control valve not centring when released. Valve linkage misaligned.	Repair or replace. Replace. Check for misalignment. Tighten or replace. Check for spool binding. Repair. Repair.
LEAKY PUMP OR MOTOR LOAD MOVES WITH CONTROL VALVE IN NEUTRAL CONTROL VALVE STICKY (BINDING)	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts. Control valve not centring when released. Valve linkage misaligned. Tie-bolts too tight (stack valves).	Repair or replace. Replace. Check for misalignment. Tighten or replace. Check for spool binding. Repair. Repair. Loosen as necessary.
LEAKY PUMP OR MOTOR LOAD MOVES WITH CONTROL VALVE IN NEUTRAL CONTROL VALVE STICKY (BINDING)	inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts. Control valve not centring when released. Valve linkage misaligned. Tie-bolts too tight (stack valves). Valve damaged.	Repair or replace. Replace. Check for misalignment. Tighten or replace. Check for spool binding. Repair. Repair. Loosen as necessary. Repair or replace.
LEAKY PUMP OR MOTOR LOAD MOVES WITH CONTROL VALVE IN NEUTRAL CONTROL VALVE STICKY (BINDING)	 inlet screen plugged. Worn or damaged pump. Damaged or worn shaft seal. Loose or broken parts. Control valve not centring when released. Valve linkage misaligned. Tie-bolts too tight (stack valves). Valve damaged. Tie-bolts too loose (stack valves) 	Repair or replace. Replace. Check for misalignment. Tighten or replace. Check for spool binding. Repair. Repair. Loosen as necessary. Repair or replace. Tighten as necessary.



<u>CONDITION</u>	POSSIBLE CAUSE	<u>CORRECTION</u>
LOW LINE PULL	Pump pressure output insufficient.	Refer to "Hydraulic Installation" section.
	Hydraulic Hose too long or bore sizes 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 FREE-SPOOL	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.

ASSEMBLY DRAWINGS



11-1

ASSEMBLY	
WINCH /	
7081	

11-2

A	SSEMBLY	DRAWINGS
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-	SELECTOR ASSY		-	26	DIL SEAL	4-22-4560083		-
-	SELECTOR SHAFT	70-50162	-	27	BALL BEARING	4-13-040090233	· ~	6
	ΒΟDΥ	70-50190	-	28	SCREW HEX HD	4-32-0802522	8	1
	HEAD	70-25037	-	29	SPRING WASHER	4-51-0823	12	4
	SPRING	4-31-22412023	-	30	TAPER PLUG	4-29-224	2	0
	SCREW BIN HD	4-38-081023	-	31	WORMWHEEL ASSY	70-54007	-	
	SUPPORT WASHER	4-50-1503	-		WORMWHEEL HUB	70-50031	-	4
2	ROLL PIN	4-56-502413	۲		RIM (MACHINING)	8229-A3	٢	-
η	SELECTOR FORK	21052-02	۲		SCREW, SKT SET	4-40-081233	٣	Ŀ
4	CIRCLIP	4-24-4556183	-		ROLL PIN	4-56-803603	ы	n
ψ	CLUTCH HOUSING	70-25049	-	32	gasket (adaptor)	70-60010	-	
ę	LABEL (HANDSAVER BAR)	90-12417	-	33	KEY	12B-A4	-	ú
7	LABEL (DRUN DIRECTION)	4-160-007	۲	34	DRIVE COUPLING	P0009-07	٢	0
8	SCREW, HEX HEAD	4-32-1002512	8	35	OIL SEAL	4-22-3042073	۲	
Ģ	PLAIN WASHER	4-50-1023	۳O	36	"O" RING	4-21-05963	-	
1D	SPRING WASHER	4-51-1023	ß	37	SHIM	4-01-3047133 /	¶∕R	.]
11	TIE BAR - REAR	70-52013	-		SHIM	4-01-3047053 /	A∕R	
12	SCREW SKT SET	4-40-081203	٢	38	WORMSHAFT	70-54006	-	
13	ROPE DRUM ASSY	70-90222	٢	39	RLR THRUST BRG	4-09-3052163	2	
14	TIE BAR - FRONT	70-52012	۲	40	NEEDLE RLR BRG	4-12-30372013	2	
15	SCREW SKT CAP	4-36-1203012	2	41	CORE PLUG	4-149-002	٦	
16	SPRING WASHER	4-51-1223	2	42	KEY	557-A4	2	
16	DRIVE ADAPTOR	70-25011	~	43	THRUST WASHER	4-03-4060103	2	
19	WORMBOX	70-25009	۲	44	DRIVE INPUT SHAFT	70-50032	٦	
20	WORMBOX COVER	70-25010	۱	45	BRAKE SPRING	320-A4	2	
21	"V" SEAL	4-22-180204143	N	46	BRAKE SHOE	317-A4	2	
22	RELIEF VALVE	324A4	۲	47	SCREW SKT CAP	4-36-0802522	4	
23	GASKET (COVER)	70-60011	٢	49	SELECTOR DOG	70-50034	٦	
24	DRUM SPACER	70-60012	-	50	SPHL PLAIN BRG	4-99-0400622B	۲	
25	PLAIN BRG	4-62-4550303	2	51	WASHER	102 9 5—A4	~	ц Ц
				52	DRIVE SCREW	498–A4	4	;
				53	RATING PLATE	4-160-025	۱	
				54	LABEL (LIFT & TURN)	10123-A4	-	
				55	SPACER	70-50081	۱	
				ទួ	SHIM	4-01-8090073	A/R	

ASSEMBLY NOTES



* FROM WINCH SERIAL No. H14W-370 ONWARDS

N/S PDLY BAG

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70-50210 10049

FLANGED BEARING THRUST WASHER

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Superwinch Limited Warranty Valid World Wide

LIMITED WARRANTY. Superwinch ("Seller") warrants to 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 Authorized 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 Authorized Agents may make reasonable charges for parts and labour for repairs 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 herewith; 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 construed 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 PROD-UCT.

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", WITH-OUT 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 HERE-IN, SELLER SHALL NOT BE RESPONSIBLE FOR INCIDENTAL DAMAGES OF ANY KIND, OR FOR CONSEQUENTIAL DAM-AGES TO PROPERTY, LOSS OF PROFITS AND LOSS OF USE WHICH MAY BE CAUSED BY ANY DEFECT IN, OR MALFUNC-TION, OR FAILURE OF ENCLOSED SUPERWINCH. SOME STATES WITHIN THE USA DO NOT ALLOW EXCLUSION OR LIMI-TATION 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 authorized to make modifications to this warranty, or additional warranties binding on the Seller. Accordingly 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 rights 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.

INQUIRES. 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







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