



Lifting Your Business to A Higher Level

USER MANUAL

WIRE ROPE WINCH (CREEPER)

WHA Series: 135008, 135016, 135032

WHS Series: 135108, 135116, 135132



1300 100 120

www.austlift.com.au

AUSTRALIAN LIFTING CENTRE PTY LTD

Product Description

The manual wire rope hoist is a hand operated lifting and pulling device. Also the hoist could be used for lowering, tensioning and guying which makes it a versatile, portable and multipurpose tool.

The principle functioning of the wire hoist is that the rope passes through mechanical jaws rather than being reeled on a drum of a hoist or conventional winch. The tension of the rope is applied by means of two pairs of self energized jaws which apply a grip onto the wire rope in sections to the load being lifted or pulled. A telescopic bar fitted to either the forward or the reverse solid lever transmits the effort to the jaw mechanism which gives forward or reverse movement of the wire rope.

The unit is fitted with a hoist hook and anchor pin as standard, so it can be secured quickly to an anchor point ready for operation. Three shear pins will be supplied with all models please note they will be stowed in the carry handle.

Austlift wire puller, intended for lifting and pulling materials are available in two models with three different capacities.

- WHA range in light weight aluminium housing
- WHS range in heavy duty steel housing

Each wire hoist comes with a telescopic operating handle and 20 metres of wire rope fitted with a safety hook and wound on a metal spool as standard. Any length of rope can be supplied to your requirements upon request.

This manual together with a test certificate will be supplied with each unit sold.

NOTE: Austlift wire ropes are recommended for use with wire hoist. The manufacturer does not guarantee the safe operation of machines used with wire rope other than Austlift brand wire rope.

Application

- Building construction sites
- Ship building yards
- Crane production sites
- Mine production sites
- Engineering Workshops

Features

- Quality bush, ball or tapered bearings.
- Identification tag with serial number.
- Proof tested to 2 x WLL with certificate.
- Fitted with shackle or hook head.
- Robust construction & powder coated.

Wire Rope Winch (Creeper)

Austlift wire rope hoist are used for lifting and hauling loads in general hoisting operation such as mining, construction, industrial lifting and domestic applications. Wire rope hoist are also ideally used for 4WD off road recovery.

- Compact lightweight and robust in construction.
- Recommended for portable applications.
- Able to be operated at any angle for ease to handling.
- Hoists come with wire rope, longer lengths available.
- Hoists are individually proof tested and serial numbered.
- All hoists have spare shear pins in handle.
- All components are in box.



Specifications

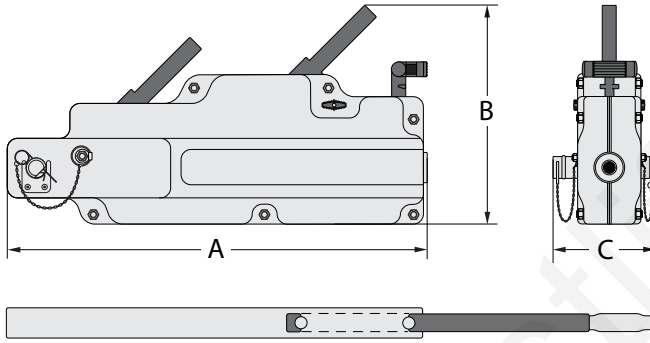
Machine Safety Factor
4-1

Wire Rope Safety Factor
5-1

WIRE ROPE WINCH SPECIFICATIONS

WLL	800kg		1600kg		3200kg	
	135008	135108	135016	135116	135032	135132
CASE	Aluminium	Steel	Aluminium	Steel	Aluminium	Steel
WLL	800kg		1600kg		3200kg	
PULLING CAPACITY	1250kg		2500kg		5000kg	
PULLING EFFORT	341N		438N		438N	
Wt. (Winch)	7.5g		14.5kg		23.5kg	
Wt. (Wire Rope)	8kg		12g		24kg	
WIRE ROPE Ø	8.3mm		11mm		16mm	
WIRE ROPE	6x19S+IWRC		6x25Fi+IWRC		6x25Fi+IWRC	
ADVANCE / PULL	52mm		55mm		28mm	
HANDLE FORCE	343mm		438mm		438mm	
DYNAMIC TESTING	1.5		1.5		1.25	

Dimensions



WLL (kg)	PRODUCT		DIMENSIONS (mm)		
	CODE	CASE	A	B	C
800	135008	Aluminium	426	236	64
	135108	Steel	440	265	63
1,600	135016	Aluminium	545	280	97
	135116	Steel	550	300	77
3,200	135032	Aluminium	660	325	116
	135132	Steel	690	350	91



**WARNING
MUST READ BEFORE USE!**

Inspection Before Use

1. Before using wire rope hoist it is important that this manual be read and fully understood that all instructions are followed to ensure safe and correct operation is adopted for the equipment used.
2. It is advised that the wire rope hoist is used by a trained and or experienced person to operate the unit in a responsible and safe manner.
3. It is recommended that the unit and wire rope be inspected for any damage or wear prior to use. Steps should be taken if repairs need to be done before use. Do not use machine if it is not in good working order.
4. Supplier will not take any responsibility for any consequences if the unit had been dismantled or altered by an unauthorized person especially if original parts were not used to repair the machine.
5. The machine is not to be used under any circumstances to elevate people in any way.
6. The machine is for manual operation only, do not attempt to use a motorized mechanical device to operate machine. Only use bar provided do not extend existing bar or any other pipe etc.
7. Do not attempt to overload the machine as this could cause damage to person or machine.
8. Do not use manual hoist in explosive environment.
9. Always ensure the hoist is used or repaired by a trained person at all times.

Rigging Application

Various methods of rigging are shown for correct method and incorrect method refer to figure 1 & 2. Other methods of rigging will increase capacity of the machine refer to figure 3 & 4.

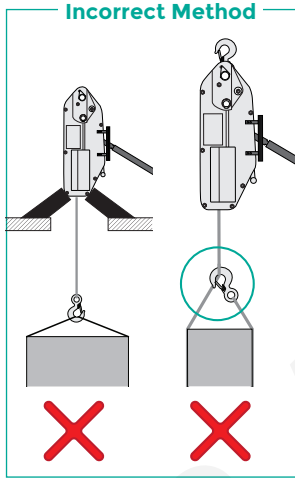


Figure 1.

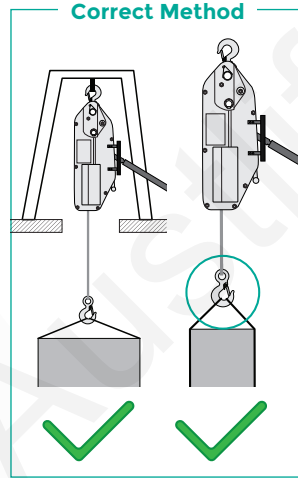


Figure 2.

By using multiple sheave blocks, the lifting and pulling capacity can be greatly increased. Please check the capacity of the block, the fittings & anchor points for suitability of the load.

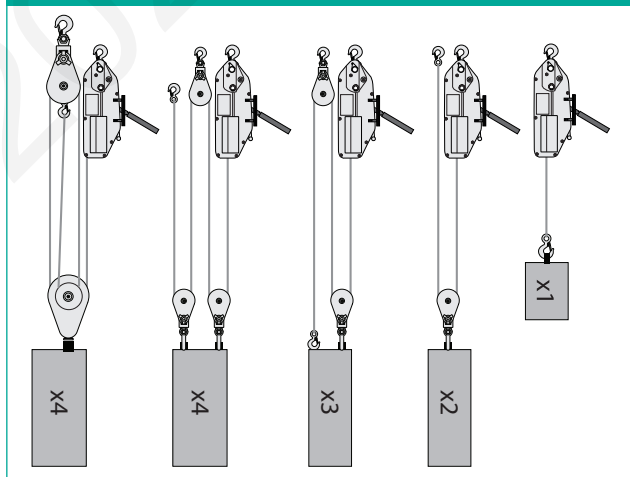


Figure 3.

In example 3 & 4 the maximum work load limit of the pulley and anchor point shall be equal to or greater than two times the work load limit.

Note: Whatever the rigging scenario and the wire rope hoist is anchored directly to a fixed point, ensure that there are no obstructions around the machine which could prevent the wire rope, the hoist and anchor from operating in a straight line. It is recommended to use a sling of similar capacity between the anchor point and the unit.

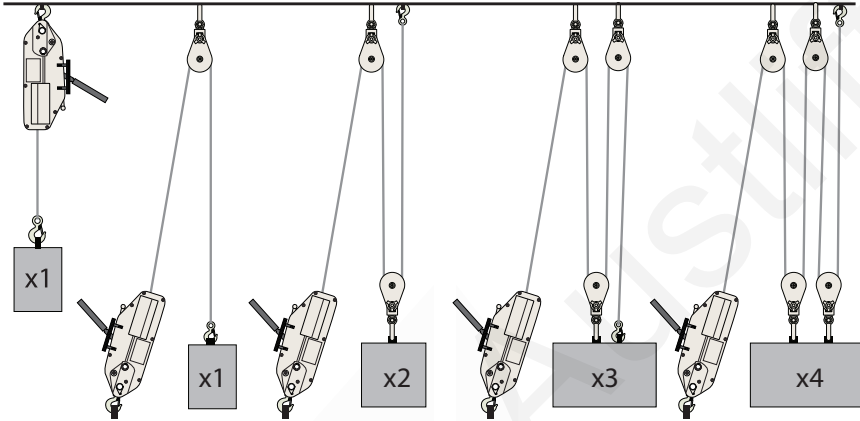


Figure 4.

Warning

Any rigging configuration which requires the calculation of the forces applied should be checked by a competent engineer, with special attention to the strength of the fixed point used. For tree felling work such as guiding the truck, the operator should stand outside the danger area by passing the wire rope around one or more return pulleys.

The capacity of the wire hoist can be increased considerably for the same effort by the user by utilizing multiple sheave blocks (See figure 3 & 4).

The increase in capacity shown is reduced depending on the efficiency of the sheave blocks.

The diameter of the sheave blocks used should be equal to at least 18 times the diameter of the wire rope.

For a rigging setup other than those expressed in this manual, please consult your Austlift distributor or a qualified structural engineer before operating the unit.

Installation of the wire rope

It is recommended to protect your hands by using work gloves when handling the wire rope. If the wire rope is to be anchored to an elevated anchor point, the wire rope should be anchored first before fitting wire to the machine.

1. Uncoil the wire rope in a straight line to ensure there are no loops or kinks in the rope.
2. To release the jaws push lever to B position towards to the anchor pin(see figure 5 & 6).
3. Insert the wire rope tail end through the rope guide at the end opposite to the anchor point.
4. Push the wire rope through the machine, and if necessary aiding it by operating the forward operating lever.
5. When the wire rope appears through the anchor point, pull up the slack wire rope through the wire hoist, to the desired length.
6. To engage the jaws by operating the rope, release mechanism to A position towards the hook end (see figure 5 & 6).
7. Anchor the wire hoist and/or the wire rope to the desired fixed anchor point, take care to ensure that the anchor point is fitted correctly.
8. Extend the telescopic operating handle until the spring pin locks into position. You may have to twist the two sections of the handle to locate the spring pin mechanism into the hole.
9. Place the operating handle on the chosen lever (forward or reverse) and twist the handle about half a turn to ensure it is locked into position.
10. After this procedure, the wire hoist is ready for operation, provided the load is correctly anchored to the hoist or the wire rope.

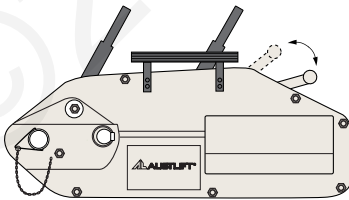


Figure 5.

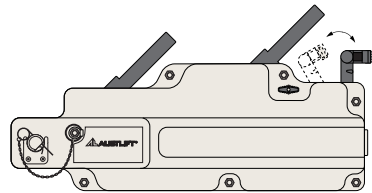


Figure 6.

Releasing and closing the jaws

Each hoist is fitted with a lever (Figure 5 & 6) for releasing the jaw mechanism which should only be operated when the machine is not under load. There are only two positions for the rope release lever (figure 5 & 6) release or engaged.

Note: When the hoist is not in use, it is recommended that the rope release lever should be in the engaged position. The hoist must therefore be released before attempting to free the wire rope.

Releasing for the WHS model

Place the anchor point against a Support.

1. Completely press the rope release safety catch (5) and push the rope release lever (4) towards the anchor point.
2. Release the safety catch and continue to push the rope release lever until it locks into position. The internal mechanism is in the release position.

Engaging

1. Push the rope release lever towards the anchor point.
2. Press and maintain pressure on the rope release safety catch, allowing the release lever to slowly travel back to its original position. Release the safety catch. The release lever locks in position under the effects of its spring.

Releasing for the WHA model

Place the anchor point against a support

1. Turn the rope release safety catch (5) and push the rope release lever (4) towards the anchor pin until it locks into position when raised slightly at its limit. Release the safety catch.

Engaging

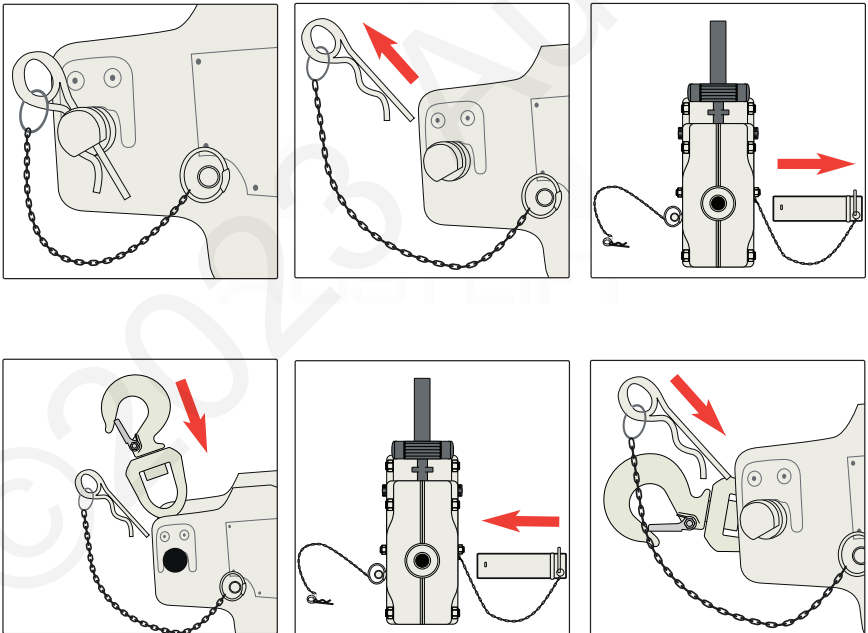
1. Turn the rope release safety catch.
2. Press the rope release lever vertically downwards, allowing the lever to travel back to its original position under the effects of its spring. Release the safety catch.

Anchoring

Failure to anchor the wire rope hoist correctly runs the risk of serious injury. The user must always ensure before operation that the anchor points for the hoist and wire rope are of sufficient strength to hold the load.

It is recommended that the wire hoist should be anchored to a fixed point or to the load using an appropriate capacity sling. It is forbidden to use the unit's wire rope as a sling by passing it around the anchor and hooking it around back onto itself.

In all cases when anchoring the wire hoist the safety catch of the anchor hook should be correctly closed in its position at the tip of the hook, this also applies to the hook fitted to the wire rope. The wire hoist are anchored by means of a removable pin, fitted across the two ends of the side cases and locked in place by a lynch pin.



1. Open the spring clip of the anchor pin.
2. Remove the spring clip from the anchor pin.
3. Slide the anchor pin out of the side cases
4. Fit the anchoring arrangement, such as a sling between the side cases.
5. Refit the anchor pin through the side cases and anchoring situation such as the eyes of the sling.
6. Refit the spring clip to the anchor pin.
7. Close the spring clip ensuring that it is fitted correctly over the end of the anchor pin and cannot be dislodged.



WARNING

It is essential for the safe operation of the wire hoist to ensure that before loading the machine the anchor points, hooks or pins, are correctly secured with the safety catch correctly located on the hook.

Operation

Austlift wire rope hoists are very easy to use, Place the telescopic operating handle on either the forward or reverse operating lever then lock it into position by twisting the handle till it has locked in and move the handle forwards and backwards. The operating arc of the handle is variable for ease of operation.

When operation stops both jaws automatically grip on the wire rope and holds the load which has an equal load on both jaws.

The to and fro operation of the forward or reverse lever gives continuous movement of the load.

Releasing the wire rope & storage

It is essential to take off the load of the hoist before attempting to release the jaws. To do this, operate the reverse operating lever until all tension is off the wire rope.

Remove the telescopic operating handle and return it to the closed position.

Release the wire hoist and follow the instructions for installing the wire rope in reverse order. Re-engage the jaws of the wire hoist before putting it to storage.

Store the wire hoist and wire rope in a dry area away from the effects of the weather. The wire rope should be completely removed from the wire hoist and rewound onto its spool.

Before reeling the wire rope it is recommended to inspect it, clean it with a brush and then grease it lightly.

Safety features

1. All wire hoist incorporates a shear pin system. In case of overloading, one pin is fitted to the forward operating lever and will shear to prevent further forward or lifting operations. Reverse operation is still possible to enable the load to be lowered or wire rope to be slackened.
2. Models WHS & VVHA are fitted with a two handed rope release system which requires deliberate operation by the user to release the machine. (Refer to section 4 "Releasing and engaging the jaws")

Replacing the shear pin

Figures 19 and 20 show the position of the shear pins for both models respectively. Spare shear pins are located in the carry handle of the wire hoist for model WHS and in the rope release lever for model WHA on both models, behind the plastic caps.

Remove the sheared pin with a suitable punch. Then align the holes of the upper and lower sections of the forward operating lever. Position the spare shear pin and drive it in with a hammer.

Warning: It is forbidden to replace sheared pins by anything other than genuine Austlift shear pins of the same model.

Before putting the wire hoist back into operation, ensure that the cause of the overload is removed. If necessary use multiple sheave blocks. Don't forget to reorder replacement shear pins and put them back in the correct place.



Figure 19.

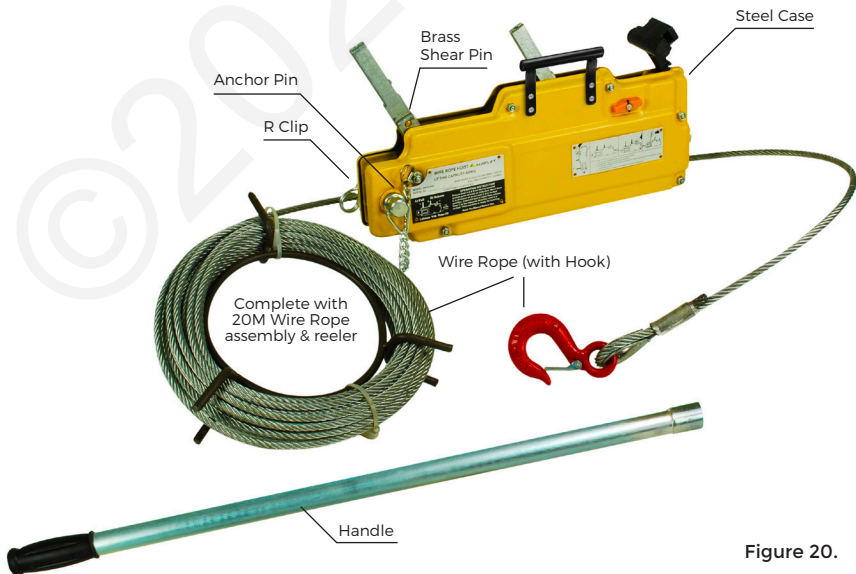


Figure 20.

Wire rope

To guarantee the safe operation of Austlift wire hoist, it is essential to use them exclusively with Austlift wire rope which has been specially designed to meet the requirements of the Austin wire hoist.

Austlift wire ropes for hoists are made from 6x19S and 6x25IWRC in G2070 tensile grade. One end of the rope will have a thimble eye machined splice with an eye hoist hook (Fig: 21). The other end of the wire rope is welded and tapered (Fig: 22).

A wire rope in good condition is a guarantee of safety, as well as the hoist in good condition. It is necessary to continuously inspect the condition of the wire rope, to clean and oil it with a rag soaked with motor oil or grease.

Grease or oil containing graphite additives or molybdenum disulphide must not be used. Visual inspection of the wire rope should be examined daily to detect any signs of wear (damaged or broken wires : see example Fig: 23)

In the case of apparent wear, have the wire rope inspected by a qualified person. Any wire rope with a reduction from the nominal diameter by more than 10% should be replaced. See Fig 24 for the correct method of measuring the diameter of a wire rope.

Important

It is recommended specially for lifting applications to ensure that the length of wire rope is longer than actually required.

Allow an extra meter approximately for the job. When lifting or lowering loads over long lengths of wire rope, operating steps should be taken to stop the load from rotating to prevent the wire rope from unwinding of the lay.

Never allow a tensioned wire rope to rub over sharp edges. The wire rope must only be used with sheaves of a appropriate diameter.

Never expose the wire rope to temperatures to sustain more than 100°C

Never use wire rope that has been subject to damage such as fire, corrosive chemicals or atmosphere, or exposed to electric current.

Maintenance Instructions

The wire hoist should be inspected, cleaned and lubricated at regular intervals, at least once a year, by a qualified repairer. Never use grease containing graphite additives or molybdenum disulphide. To clean the wire hoist, allow the machine to soak in a bath of some proprietary cleansing fluid but not acetone and derivatives or ethylene trichloride and derivatives. Then shake the hoist vigorously to loosen foreign matter and turn it upside down to allow the dirt to come out through the openings of the operating levers. Allow the mechanism to drain and become dry. After this treatment, ensure that the wire hoist is well lubricated by a quantity of oil (type SAE 90-120) onto the internal mechanism through the openings of the operating levers. To carry out this procedure, it is best for the wire hoist

Not to be under load and in the release position.

Alternatively operate the forward and reverse operating levers to allow the lubricant to penetrate all parts of the mechanism.

Note; Excess lubrication cannot cause the hoist or wire rope to slip.

Any wire hoist where the side cases show signs of dents or damage, or of which the hook is

damaged, should be returned to an approved Austlift distributor for repairs.

Warnings against hazardous operations

The use of Austlift wire rope hoist, in accordance with the instructions of this manual, is a guarantee of safe. Also we would like the attention of the users to the following warnings.

- Austlift wire hoist as described in this manual must not be used for lifting people.
- Never attempt to motorize the models of wire hoists as described in this manual.
- Wire hoist must not be used beyond their working load limit.
- Wire hoist must not be used for applications other than those for which they are intended.
- Never attempt to operate the rope release mechanism whilst the hoist is under load.
- Never obstruct the operating levers or rope release lever.
- Never operate the forward and reverse levers at the same time.
- Never use a handle other than the telescopic operating handle provided with the wire hoist to operate the hoist.
- It is forbidden to replace shear pins by anything other than genuine Austlift shear pins of the same model.
- Never anchor the wire hoist other than by its appropriate anchor point.
- Never obstruct the wire hoist which could prevent the machine, the wire rope and the anchor points from operating in a straight line.
- Never use hoists wire rope as a sling.
- Never apply a load to the tail end part of the wire rope from the anchor point of the wire hoist.
- Never subject the controls to sharp knocks.
- Never attempt to reverse the wire rope completely through the hoist whilst under load.
- Do not operate the hoist when the ropes ferrule gets to within 10cm of the machine, otherwise the ferrule is likely to push through the rope guide inside the machine.

Troubleshooting

1. The forward operating lever moves freely and does not operate the mechanism. The wire hoist has been overloaded and the shear pin has sheared. See section 9 for replacing the shear pin.

2. Pumping:

A lack of lubricant in a wire hoist sometimes brings a condition known as pumping which is not at all dangerous however which is inconvenient. This situation occurs when the jaw which is gripping the rope becomes locked onto it preventing the other jaw from taking over the load. As the operating lever is moved in one direction the hoist travels a few centimetres but when the operating lever travels in the other direction the hoist moves back the same distance in sympathy with the jaw which is locked onto the wire rope. Once the hoist has been thoroughly lubricated it will recommence working normally.

3. Jerkiness:

This is also a sign of lack of lubrication. The hoist should be thoroughly lubricated.

4. Blockage:

If the wire rope becomes blocked in the hoist, generally because a damaged section of the wire rope is stuck within the jaws, it is imperative to stop operating the hoist. The load should be taken up by another hoist on a separate wire rope, or by other means, whilst ensuring that all safety measures are taken place. When the blocked hoist is no longer under load, the damaged rope may be released and removed. Should this not be possible, return the wire hoist and wire rope to an authorized Austlift dealer for repairs and if necessary retesting.

Health & Safety at work

All lifting equipment must be supplied, operated, maintained and tested to the provisions of the relevant occupational health and safety standards at the work place.

It is also the responsibility for every company to ensure that their employees have been fully and properly trained in the safe operation of their equipment.

Wire Rope Winch/Hoist Spare Parts



WIRE ROPE WINCH/HOIST SPARE PARTS								
WLL	SUIT	Aluminium Case	Steel Case	Winch Handle	Winch Rope	Brass Shear Pin	Anchor Pin	R-Clip
500kg	135008	135008A	135008S	135008H	135008W	003401SP	003411SP	003421SP
1600kg	135016	135016A	135016S	135016H	135016W	003402SP	003412SP	003421SP
3200kg	135032	135032A	135032S	135032H	135032W	003402SP	003413SP	003421SP

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