

BHW

Bushey Hall Winchmaster

www.bhwgroup.com

OPERATING & MAINTENANCE INSTRUCTIONS



WHW MANUAL WORM LIFTING WINCH

Models: WHW0250 (Part No. 10777), **WHW0500** (Part No. 10778),
WHW1000 (Part No. 10780), **WHW1500** (Part No. 10781)

In accordance with CE Directives

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INTRODUCTION

PLEASE READ THIS MANUAL CAREFULLY BEFORE SET UP OR OPERATION OF THE MACHINE

Those responsible for the installation and the operation of this machine must read and understand this manual. The first section deals with the installation requirements and the second section provides information to ensure safe use of the machine.

The WHW range is of the highest quality and has been designed to give a robust and efficient service for many years if care and attention are given at all times to correct installation, operation and maintenance.

IMPORTANT INFORMATION FOR WHW USERS

This operating and maintenance manual must be made available to any user of this equipment and further copies are available on request. Only operators who have been trained to operate the machine in a safe and proper manner should use a WHW winch.

Safe and correct use of the WHW winch can only be achieved after this manual has been read and fully understood and the instructions are carefully followed by the user.

Only a machine in good working order can be used and in particular the following should be checked every time it is used:

Only wire rope of the correct diameter and construction can be used. (See Page 4). The rope should be inspected to ensure it is serviceable (See 'Care of the Wire Rope – Page 11)

Slings, chains or any other securing device applied to the anchor point is subjected to the full load applied and should be at least capable of dealing with the machine's rated load capacity. This equipment should be regularly inspected. If any cuts, breaks or damage are evident it must be replaced before use.

Do not overload the machine and only use the handle provided. Nothing must be added to extend its length.

Ensure the wire rope and machines are kept clean.

WHW machines must not be used for lifting personnel.

PLEASE KEEP THIS MANUAL WITH THE MACHINE.



MACHINE INFORMATION

SPECIFICATIONS

Models

WHW Manual Worm Gear Winches
WHW0250/WHW0500/
WHW1000/WHW1500
Compliant with Machinery Directive 2006/42/EC

Construction & Operation

Heavy duty pressed galvanised finish provides ease of handling and a high level of corrosion resistance. The flat base of the housing provides additional stability in surface mounting applications.

Wire Rope is fed around the drum and clamped to the drum side wall to provide parallel clamping system with large surface area to minimise wire rope wear.

Operating Handle

For use on either IN or OUT manual operating rotation

Lubrication

Lightweight open gear grease for regular maintenance
 Calcium based grease for annual maintenance.
 DO NOT oil or grease wire rope. Use a suitable aerosol rope dressing.

CAPACITIES & MEASUREMENTS	WHW0250	WHW0500	WHW1000	WHW1500
Rated Load 1st Layer	250kg	500kg	1000kg	1500kg
Working Load 3rd Layer	187kg	357kg	737kg	1044kg
Maximum Rope Storage	44m	44m	48m	30m
Gear Ratio	12:1	17:1	26:1	26:1
Drum Ø	60mm	70mm	101mm	101mm
Wire Rope Ø	5mm	7mm	9mm	11mm
Net Weight approx...	10.5kg	14kg	26kg	28kg

Typical Applications

WHW winch is a range of lifting machines for use with wire ropes. They can be used for lifting and positioning heavy and large awkward loads, positioning structural steelwork, general public works, heavy mechanical and electrical engineering. Other uses include agricultural.

Also widely used for tensioning wire fences, garden landscaping and maintenance - and general construction of all kinds.

Useable at horizontal, vertical and angled working positions.

WINCH INFORMATION

WHW LABEL



USES FOR A WHW MACHINE

WHW machines provide the user with enormous lifting capacity from a compact, manually operated machine and can be used for many different applications.

The use of the LETTING OUT handle allows the wire rope to be let out under control to lower or release tension on the load.

WHW machines can also be used for tensioning wire fences, positioning heavy machinery and many common applications in Civil Engineering.

With additional attachments such as fixed or movable pulley blocks the direction of lift can be changed and several machines can be used in parallel to enable applied forces to be multiplied.

The manual force applied through the adjustable handle is transferred into the wire rope by hardened worm drive and wheel that drives the drum and there for the wire rope in proportion to the force it is applying.

Attachments such as straps, chains or shackles to be attached should be fit for this purpose and be of a suitable rated capacity to at least match that of the machine and capable of safely handling the load to be moved.

Wire rope is supplied as standard with a safety hook. The other end of the cable is fused and tapered. Other wire rope lengths are available from BHW Group sales (01482 223 663).

SAFETY PRECAUTIONS

PLEASE READ THIS CAREFULLY BEFORE OPERATING THE MACHINE

The WHW is of the highest quality and has been designed to provide a robust and efficient service for many years if care and attention are given at all times to correct, safe operation and maintenance.

Respect for the WHW lifting machine – and common sense in its operation, will ensure complete safety and reliability.

BEFORE USE

- Make sure all mount bolts are secured.
- Firmly secure the winch in to position
- Place the adjustable operating handle on the IN and Out levers to ensure they move freely and are functioning correctly.
- Make sure the rope always has 5 wraps of rope on the drum at all times..
- Inspect the rope for possible damage and ensure any mud or dirt are removed.
- Ensure the rope inlet and outlet on the drum is not obstructed.
- Check you have enough room around the machine to operate it efficiently.
- Make sure it has enough capacity to with stand the force applied by the machine

DURING USE

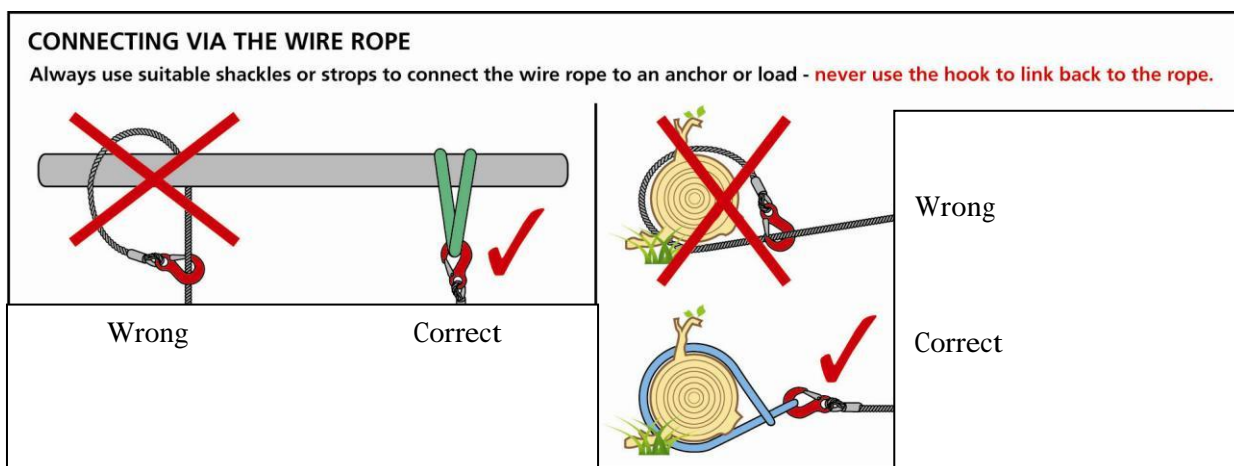
- Keep yourself and others at a safe distance and to the side of the wire rope when lifting under load.
- Never stand near or guide the wire rope under tension.
- Always use heavy-duty gloves when handling the wire rope to protect against cuts or possible burns.
- Always wear suitable protective clothing and footwear.
- Never exceed the rated capacity.
- Operate from a side position and do not stand over the machine or the wire rope.

NOTE: If it is necessary to calculate the forces applied, always have these checked by a competent engineer with particular reference to anchor points and fixture connections.

SAFETY PRECAUTIONS Continued

TAKE CARE OF THE WIRE ROPE

- Check regularly for signs of wear in the form of broken strands or severe kinks along its length. If more than 10 strands are broken in any 25mm of the ropes length it should be replaced.
- Do not allow the load to 'snatch' during a lift as this can momentarily double or even treble the load applied.
- When attaching the hook to the load, always use a suitable load bearing sling, straps or chains with adequate capacity to withstand the loads applied.
- Check that the hook is secure and the safety hook closed. Remember if the hook breaks away under tension it will travel through the air at speed.
- Never wrap the rope around a load, or around an anchor point and reconnect the rope on to the hook.
- Ensure that when 'letting out', sufficient rope is available. If the end of the rope is allowed to pass into the machine housing, the rope will be disconnected from the machine and the load will be released.



Colours of straps and straps are for illustrative purposes only

SAFETY PRECAUTIONS Continued

OPERATING A WHW MACHINE MACHINE COMPONENTS

Familiarise yourself with the machine and all of its components.



WIRE ROPE INSTALLATION

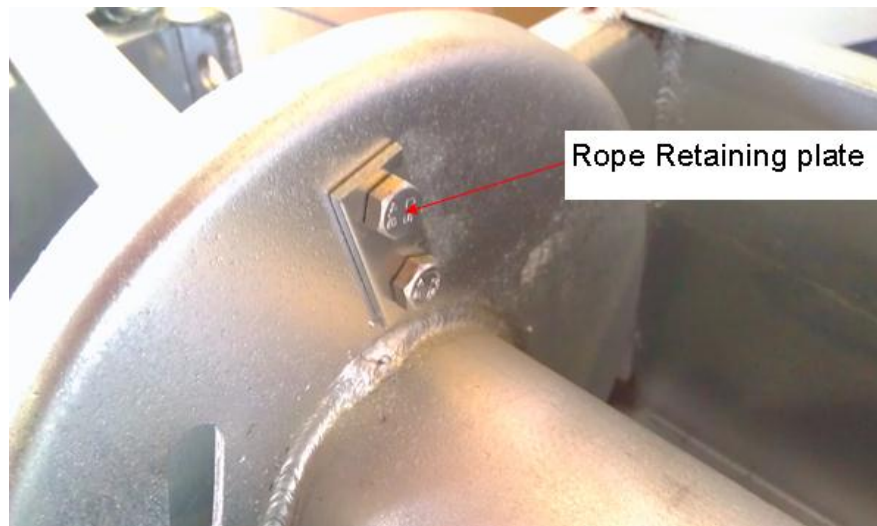
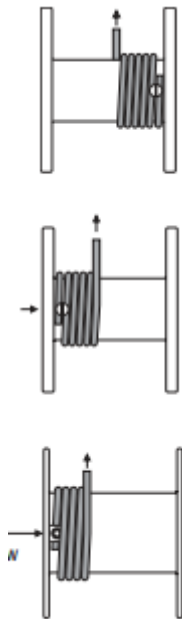
Unwind the new wire rope by rolling it out along the ground to prevent kinking.

Position the cable drum so the large retaining plate or U bolt in the drum flange is approximately on the top.

Slacken both nut on the retaining plate or U bolt (model dependant) .

Run the rope under the drum, around and up between the plate and drum wall (flange).

Tighten nuts to secure rope end into drum flange. Keeping tension on end of rope, wind the winch in the 'reel in' direction and spool all the rope onto the rope drum, taking care to form neat layers.



PREPARING TO USE THE MACHINE

As with all machinery, you are advised to carry out a risk and surrounding environment assessment before commencing any lifting operation.

Lock the Operating Handle on to the handle lock at required length as required, checking that it is fully locked and tightened.

Observing all necessary safety procedures, turn the handle IN or OUT direction according to the application.

When letting out or lowering NEVER allow the rope to completely run out. Always keep 5 wraps of rope on the drum.

Always operate winch with the handle fully tightened. **Do not** add anything to the handle that will make it longer. Excessive leverage will alter the performance of the WHW and result in possible injury or damage.

Under no circumstances wrap the wire rope around the load and then attach the hook back on to the rope. Use straps or slings of a suitable breaking strain from the hook to the load and ensure that the safety hook catch is fully closed.

MAINTENANCE

REGULAR MONTHLY MAINTENANCE

Check all mounting bolts are tight and not damaged

The machine should be kept clean in order to prevent any build-up of material on external working parts.

Check your WHW for any external damage.

All external-moving parts should be lubricated with lightweight oil.

Remove any dirt or debris from wire rope and apply a suitable aerosol dressing to protect.

REGULAR YEARLY MAINTENANCE

Clean and lubricate with good quality open gear grease.

Check all parts and accessories for any wear or damage. Replace as necessary.

WIRE ROPE INSTALLATION

CARE OF THE WIRE ROPE

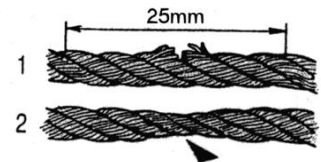
NOTE: ISO 4309:2004/2010 – WIRE ROPES DIRECTIVE

ISO 4309:2004/2010 details guidelines for the care, installation, maintenance and examination of wire rope in service on winches, hoists and cranes, and enumerates the discard criteria to be applied to promote the safe use of the machinery. It is important that these guidelines for safe care, installation and ultimately disposal of wire ropes is strictly adhered to according to this directive.

It is most important that the wire rope is inspected on a regular basis, for kinks, flat spots, broken strands and Other damage, and if necessary the damaged sections should be cut away and the rope re-attached or completely Replaced.

Check both the rope and the hook and replace under any of the following circumstances:

- 10 strands of rope or more broken within a space of 25mm or more (Fig. 1).
- Rope shows visible signs of wasting (Fig. 2).
- Deformed or excessively corroded rope.
- Twisted rope.
- Bent rope.
- Faulty or damaged hook or safety catch.
- The wire rope is 10% less than original diameter as specified, due to stretch during use.



Wire ropes and safety hooks must be replaced if damaged or worn.

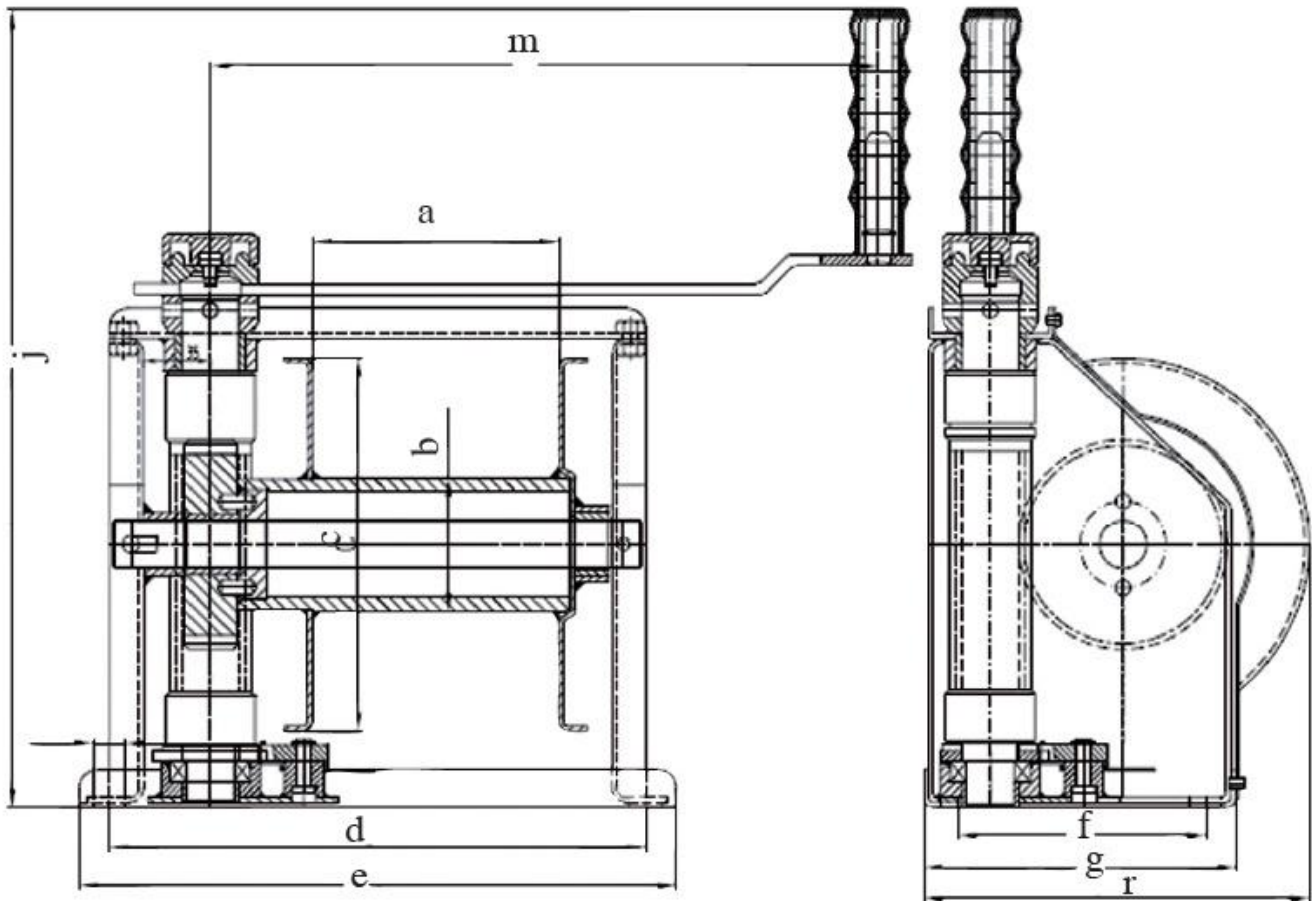
WIRE ROPES ARE NOT COVERED BY WARRANTY.

SPARES

If it becomes necessary to obtain replacement parts, ensure that you refer to the correct model, as parts are different for each model.

Please contact BHW Group sales on +44 (0)1482 223 663, quoting serial number of the machine if possible and model number. BHW Group Limited reserve the right to change

WINCH DIMENSIONS



Type/ Model	Capaciteit/ Capacity (kg)	Afmetingen/ Dimension (mm)											
		a	b	c	d	e	f	g	h	j	m	r	φ
HW-250	250	115	60	150	261	287	82	140	17	366	350	166	5x44
HW-500	500	129	70	195	285	313	106	164	17	417	350	202	7x42
HW-1000	1000	158	101	242	318	348	140	200	17	463	350	274	9x25
HW-1500	1500	185	101	242	346	378	178	238	17	490	350	274	12x24

WARRANTY

BHW GROUP LIMITED warrants each new WHW Winch and ancillary equipment supplied as part of the customer order against factory defects in materials and workmanship for one year from date of purchase.

The responsibility for decommission of the machine or ancillary equipment is the owner's, together with its return and transportation – prepaid - to BHW Group Limited.

BHW Group Limited will, under this warranty, without charge, repair or replace at its option, parts which on inspection are deemed to be defective. The loss of use of associated machinery, staff or contractors time, inconvenience, commercial loss or consequential damages are not covered.

Warranty does not apply where the product has been tampered with or altered in any way, or where the serial number or date stamp has been defaced, altered or removed, or if in the view of BHW Group Limited the damage or failure occurred from misuse, negligence or accident.

THIS WARRANTY EXCLUDES THE WIRE ROPE

BHW Group Limited reserve the right to change the design of any product without assuming any obligation to modify any product previously supplied.

Machines or equipment returned under warranty should be despatched to BHW Group Limited service department at the address shown below, with full name and address of sender, a statement detailing the defect and proof of purchase.



Service Department
Bushey Hall Winchmaster
6 South Orbital Trading Park
Hedon Road, Hull, HU9 1NJ

Telephone: +44 (0)1482 223 663
Fax: +44 (0)1482 218 285
Email: sales@bhwgroup.com
Website: www.bhwgroup.com

WINCH - Model.....

SERIAL NUMBER.....

DATE OF PURCHASE.....