BHW
Bushey Hall Winchmaster
www.bhwgroup.com

OPERATING & MAINTENANCE INSTRUCTIONS

BHW MANUAL WINCHES

BHW1200G Galvanised (#2044), **BHW1200S** Stainless Steel (#10912),
BHW1800G Galvanised (#2046), **BHW1800S** Stainless Steel (#2045),
BHW2600G Galvanised (#2048), **BHW2600S** Stainless Steel (#2049).

Part No. 17719 / 25.04.25

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CONTENTS

INTRODUCTION

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

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.

BHW winches are of the highest quality and have 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 BHW WINCH USERS

This operating and maintenance manual must be made available to any user of this equipment and further copies are available by visiting www.bhwgroup.com or by contacting BHW Group Ltd on +44 (0)1482 223 663. Only operators who have been trained to operate the winch in a safe and proper manner should be allowed to use the BHW winch.

Safe and correct use of the BHW winch can only be achieved after this manual has been read and fully understood and the user carefully follows the instructions.

It is important that the winch is kept in good working order. The following should be checked every time it is used:

Make sure the wire rope is of the correct diameter and construction. (See Page 4).
The rope should be inspected regularly to ensure it is serviceable.
(See 'Care of the Wire Rope' – Page 10).

Slings, chains or any other securing device applied to an anchor point or the winch itself should be at least capable of dealing with the winch's rated load capacity. All ancillary equipment should be regularly inspected.
If there are any cuts, breaks or damage on ancillary equipment, it must be replaced before use.

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

Ensure the wire rope and machine are kept clean.

BHW winches must NOT be used for lifting personnel.

PLEASE KEEP THIS MANUAL WITH THE MACHINE AND ENSURE THAT THE SERIAL NUMBER AND DATE OF PURCHASE IS ACCURATELY RECORDED IN THE BACK OF THIS MANUAL.

MACHINE INFORMATION

SPECIFICATIONS

Models

BHW1200G Galvanised (Part #2044)
BHW1200S Stainless Steel (Part #10912)

BHW1800G Galvanised (Part #2046)
BHW1800S Stainless Steel (Part #2045)

BHW2600G Galvanised (Part #2048)
BHW2600S Stainless Steel (Part #2049)

For capacities, see chart below.

Construction & Operation

Heavy duty pressed galvanised steel or stainless steel construction providing a high level of corrosion resistance. The flat base of a BHW winch provides suitable stability for surface mounting application.

The wire rope is fed around the drum and secured using the locking screw and bolt provided.
(Please see page 7 for installation information).

Operating Handle

Detachable handle to fit on to ratchet spindle.
For use on either IN or OUT manual operation (See page 7).

Lubrication

Lightweight oil for regular maintenance
Grease for annual maintenance.
DO NOT oil or grease wire rope.
Use a suitable aerosol rope dressing.
See notes on Maintenance – page 10.

SPECIFICATIONS	1200G	1200S	1800G	1800S	2600G	2600S
Rated Load 1st Layer	*550Kg*	*440Kg*	*825Kg*	*660Kg*	*1200Kg*	*960Kg*
Working Load 3rd Layer	*392kg*	*314kg*	*562kg*	*450kg*	*844kg*	*675kg*
Max Rope Storage with free board	*20m at recommended ø*				*13m at recommended ø*	
Gear Ratio	*4.1:1*		*5:1*		*9.8:1*	
Drum ø	*50mm*		*60mm*		*76mm*	
Wire Rope ø recommended	*5mm*		*7mm*		*8mm*	
Net Weight approx.	*3.3kg*		*8kg*		*11.5kg*	

Use the affixes (G) or (S) to specify galvanised or stainless steel finish

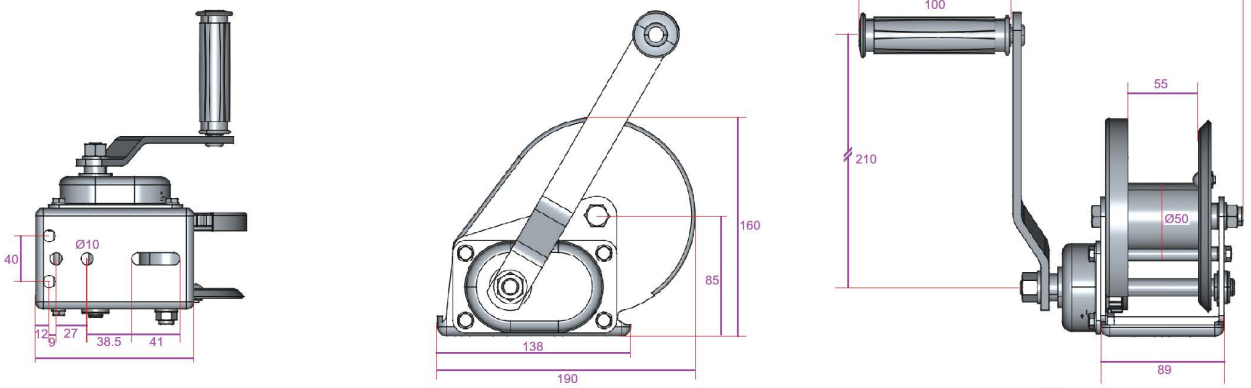
Typical Applications

BHW winches are a range of lifting and pulling machines for use with wire ropes to specifications shown above. Care must be taken to ensure that the winch being used has a suitable rated load capable of safe operation.

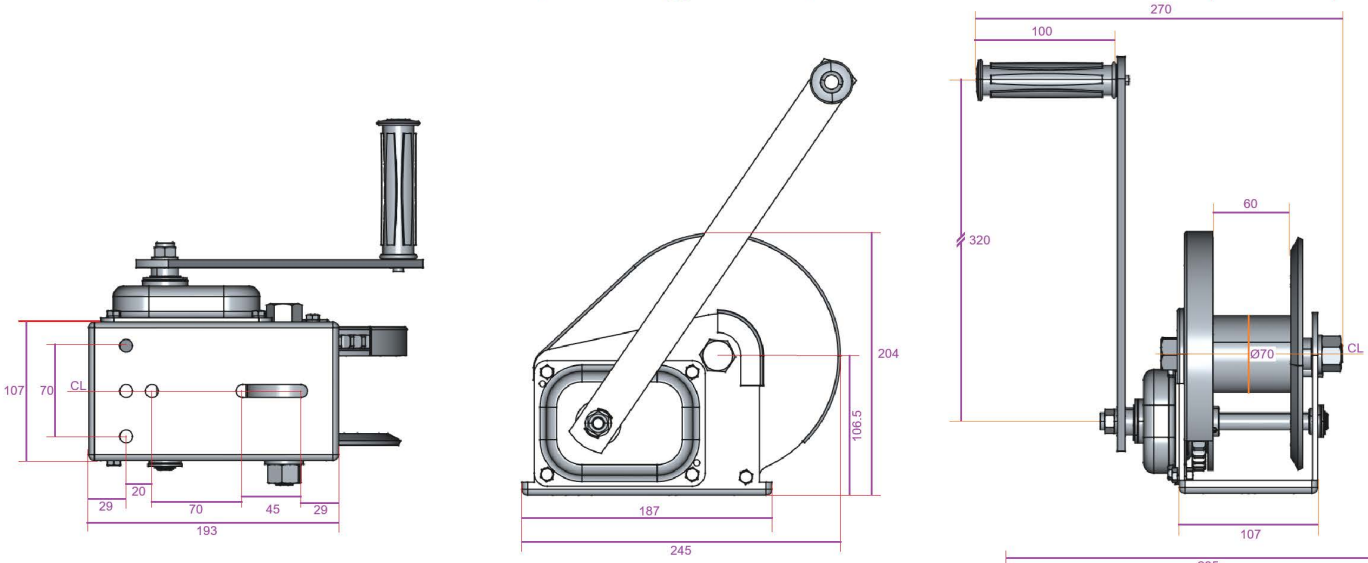
WINCH INFORMATION

DIMENSIONS

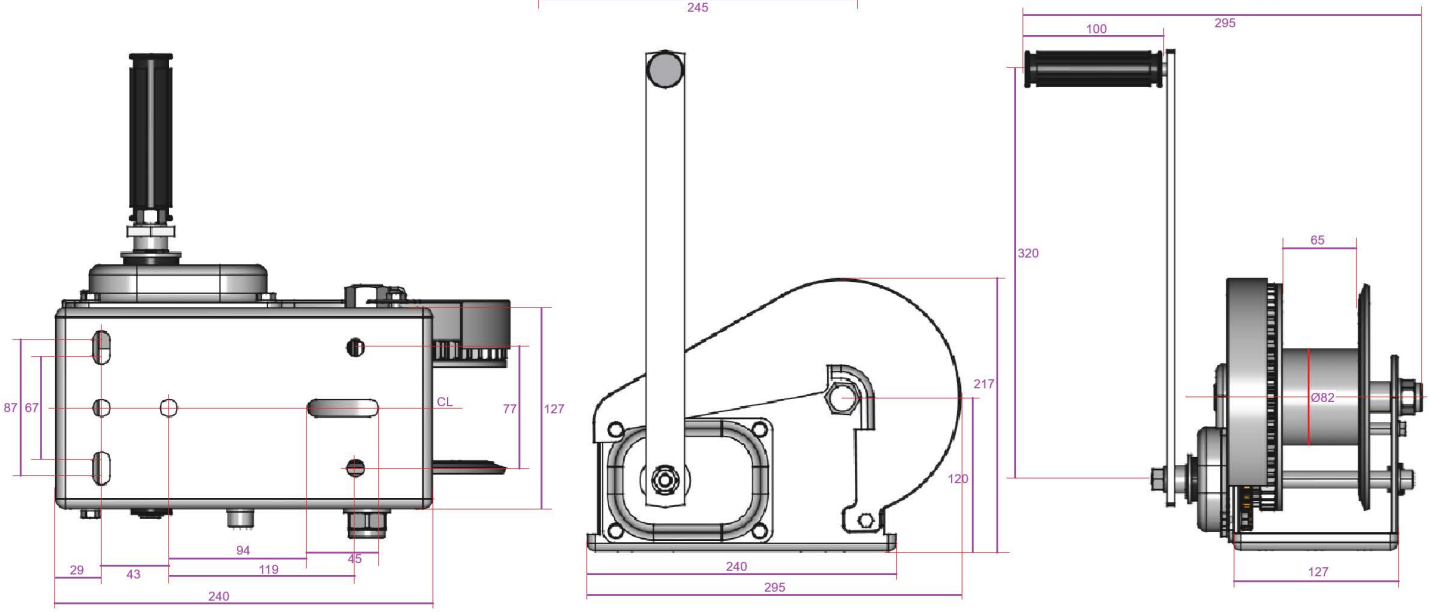
BHW1200



BHW1800



BHW2600



Not to scale

WINCH INFORMATION

LABELS

ASSEMBLING & OPERATION OF A BHW WINCH

BHW winches are manually operated machines supplied with a detachable handle. When handle is attached, make sure it is fully secure and locked on to the spindle.

The manual force applied through the operating handle is transferred into the wire rope by a hardened ratchet drive that drives the drum and therefore the wire rope in proportion to the force applied.

Accessories such as straps, chains or shackles should be fit for purpose and be of a suitable rated capacity that at least matches the load rating of the winch and capable of safely handling the load to be moved.

Wire ropes are supplied as standard to the correct diameter, with a safety hook. The other end of the cable is fused and tapered, suitable for securing to the winch drum. The winch is supplied with a locking nut and screw for attaching the wire rope (See following page for instructions on wire rope installation).

Replacement wire ropes or wire ropes of alternative lengths are available from BHW Group Ltd sales on +44 (0)1482 223 663.

SECURING THE WINCH TO A SUITABLE ANCHOR POINT

It is easier to install the wire rope if the winch body is first mounted to the selected anchor point.

The anchor point should be of a suitable strength to at least withstand the working load limits of the winch, and directly in line with the load to be applied.

The winch should be bolted to the anchor point, ensuring that the handle can freely travel through 360º when in use. 10mm bolts of a suitable length should be used to secure the mounting plate of the winch to the anchor point. 'Nylock' nuts or locking washers should be used to fix bolts securely. Nuts and bolts for this purpose are not supplied with the winch. Please refer to dimensional drawings on page 5 for a reference to mounting holes detail.

WIRE ROPE INSTALLATION

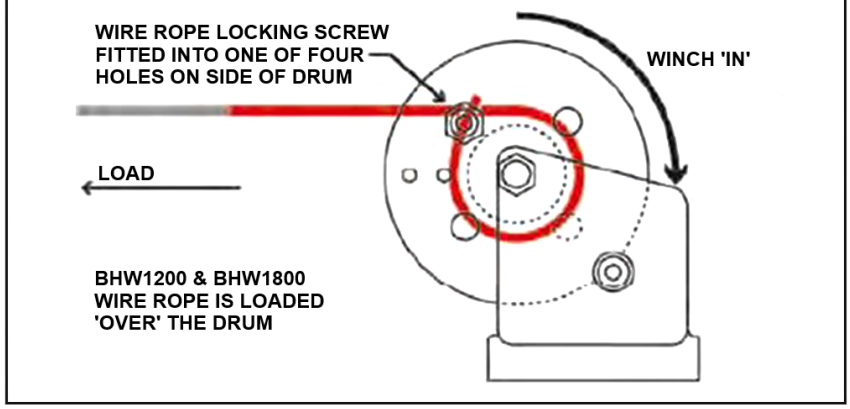
WEAR GLOVES AT ALL TIMES WHEN HANDLING WIRE ROPES.

A locking nut and screw is provided with every BHW winch.
The wire rope at the opposite end of the safety hook is tapered for insertion into the locking screw.

The locking screw is then inserted into one of the holes in the side wall of the drum and secured with the locking nut, pulling the wire rope firmly against the side of the drum.

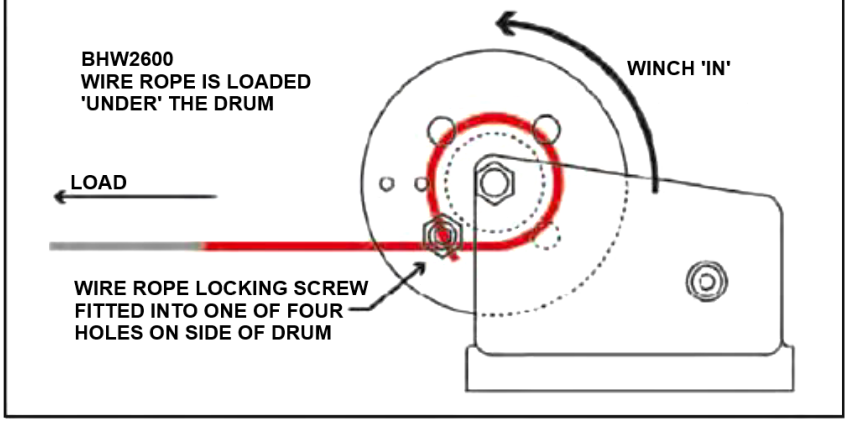
With BHW1200 and BHW1800 winches, the wire rope is loaded 'overwound' on to the drum:

BHW1200 & BHW1800 WIRE ROPE ORIENTATION



The BHW2600 winches are 'underwound' on to the drum:

BHW2600 WIRE ROPE ORIENTATION



The pictures above show the locking nut and screw supplied with BHW winches to secure the tapered end of the wire rope to the side of the drum.

Choices of four holes in the side of the drum are provided for this purpose.

Regular inspection of the locking nut and wire rope installation is recommended to ensure that fittings are tight.

When the tapered end is secured to the drum in the correct orientation, tension should be applied to the wire rope to commence loading on to the drum by 'Winching in' ('Handle up'). You are advised to fully unwind the wire rope in a straight line in front of the winch to avoid any kinks when loading the rope on to the drum.

PREPARING TO USE THE WINCH

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

Assessments should be checked by a competent engineer, with particular reference to the load capacity of the winch, suitable anchor points, fixture connections and any ancillary equipment used.

Wear suitable protective clothing. You should always wear gloves when operating the winch and suitable protection according to site safety. This may include protective boots, site helmets and protective glasses, as well as suitable work clothes.

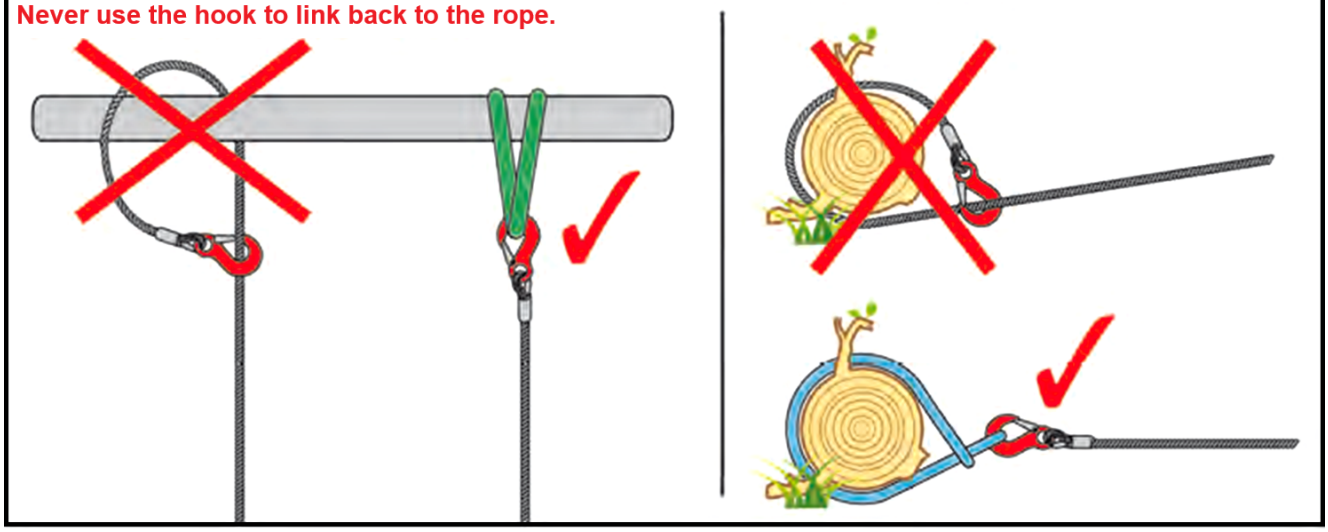
Ensure that the handle is fully tightened on to the spindle of the winch and that it can freely travel through 360º. Do not add anything to the handle to length. This will alter the performance of the winch and may result in damage to the product or even injury to the operator.

TAKING CARE WITH THE WIRE ROPE

- Check regularly for signs of wear in the form of broken stands or severe kinks along its length. If more than 10 strands are broken in any 25mm of the ropes length it should be replaced. (See additional notes in the section on maintenance on page 10).
- Never use the winch or the rope as a towrope.
- Do not allow the load to ‘snatch ‘ during a pull as this can momentarily double or even treble the load applied.
- Never wrap the rope around a load, or around an anchor point and reconnect the rope on to the hook.

CONNECTING VIA THE WIRE ROPE

Always use suitable shackles or strops to connect the wire rope to an anchor or load.
Never use the hook to link back to the rope.

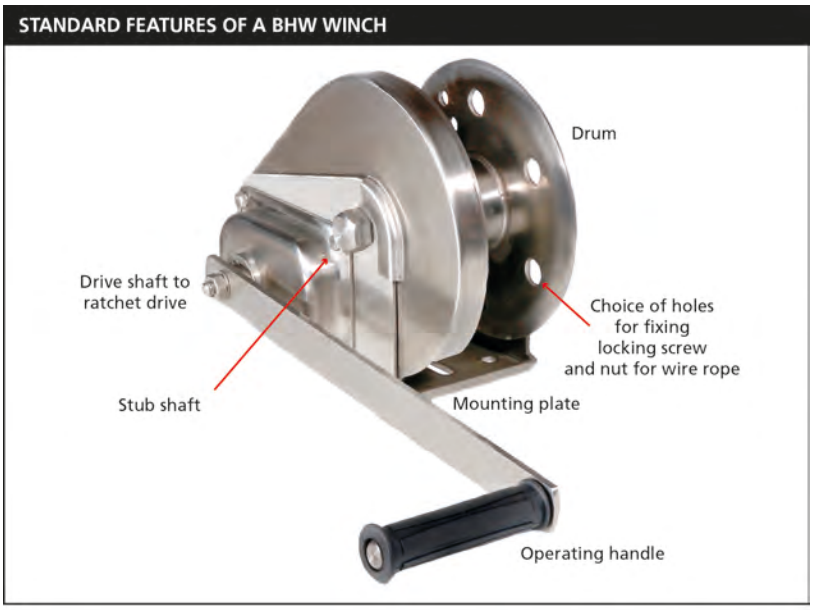


- When attaching the hook to the load, always use a suitable load bearing sling, straps or chains with adequate capacity to withstand the loads applied.
- Check that the hook is secure and the safety hook closed. Remember if the hook or wire rope breaks under tension it will travel through the air at speed.
- Ensure that when ‘Winching out’, there is sufficient wire rope available. If there are less than five wraps around the drum, the wire rope may become be disconnected from the machine and the load will be released. The locking screw and nut for securing the wire rope to the drum are not designed to be load bearing.

PLEASE REFER TO ADDITIONAL SAFETY PRECAUTIONS ON THE FOLLOWING PAGE

SAFETY PRECAUTIONS

FAMILIARISE YOURSELF WITH THE WINCH



BHW winches are of the highest quality and have 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 winch – and common sense in its operation, will ensure safety and reliability.

BEFORE USE

- Make sure mounting is sufficient for the purpose, that all mounting bolts are correctly tightened and the winch is secure in position.
- Ensure that the operating handle can move freely through 360º and functions correctly.
- Make sure the wire rope ALWAYS retains at least five wraps on the drum at all times.
- Inspect the rope for any possible damage and ensure any mud or dirt is removed.
- Ensure the rope inlet / outlet is not obstructed.
- Check you have enough room around the machine to operate it efficiently, without danger to others.
- Make sure the winch and the mounting has enough capacity to withstand the force applied for the task in hand.
- Use a snatch block if necessary to turn corners. A snatch block can also be used to reduce the load applied. **A qualified engineer should advise on this process before implementation.**

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

DURING USE

- Keep yourself and others at a safe distance and to the side of the wire rope and the winch itself.
- Never step over, 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.
- If the BHW winch is working near its maximum capacity, drape a heavy blanket or similar over the rope halfway along its length. In the event of a miscalculation this will reduce the recoil speed caused by a broken hook or broken wire rope.
- Operate from a side position and do not stand over the machine or the wire rope.

MAINTENANCE

WINCH SIEZURE OR 'LOCK UP'

It is not recommended to leave the winch under load for long periods of time or exposed to extreme weather conditions. Under such conditions, the winch may become seized. The handle should be operated at regular intervals to ensure continuous smooth operation of the winch. Protecting the winch if mounted outdoors is also a good idea.

If a 'lock-up' occurs, secure any attached load before attempting any operation of the winch. An attempt to free the winch operation can be attempted by pulling the handle hard in the appropriate direction to 'winch out'. If this fails, then the extreme end of the handle can be tapped using a rubber hammer in the same 'winch out' direction.

Once a 'lock up' has been cleared, the winch must be taken out of service and disassembled. The winch should then be fully inspected and serviced, replacing worn or broken parts as necessary. Failure to do so may cause further damage, or even injury to operators using the winch.

REGULAR MONTHLY MAINTENANCE

Check all mounting bolts are tight and not damaged.
Keep the winch clean and free of dust or dirt in order to prevent any build up of material on external working parts.
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.
CHECK THE WIRE ROPE - See extra notes on wire rope maintenance below.

REGULAR YEARLY MAINTENANCE

Disassemble, clean and lubricate with good quality open gear grease.
Check all parts and accessories for any wear or damage. Replace as necessary.

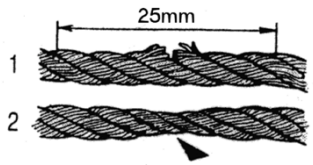
CARE OF THE WIRE ROPE- ISO 4309:2004/2010 – WIRE ROPES DIRECTIVE

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 are 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) – for example, if the wire rope is 10% less than original diameter as specified, due to stretch during use.
- Deformed or excessively corroded rope.
- Twisted rope.
- Bent or broken rope.
- Faulty or damaged hook or safety catch.
- Badly damaged or faulty connections from hook to wire rope.



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

WIRE ROPES ARE NOT COVERED BY WARRANTY.

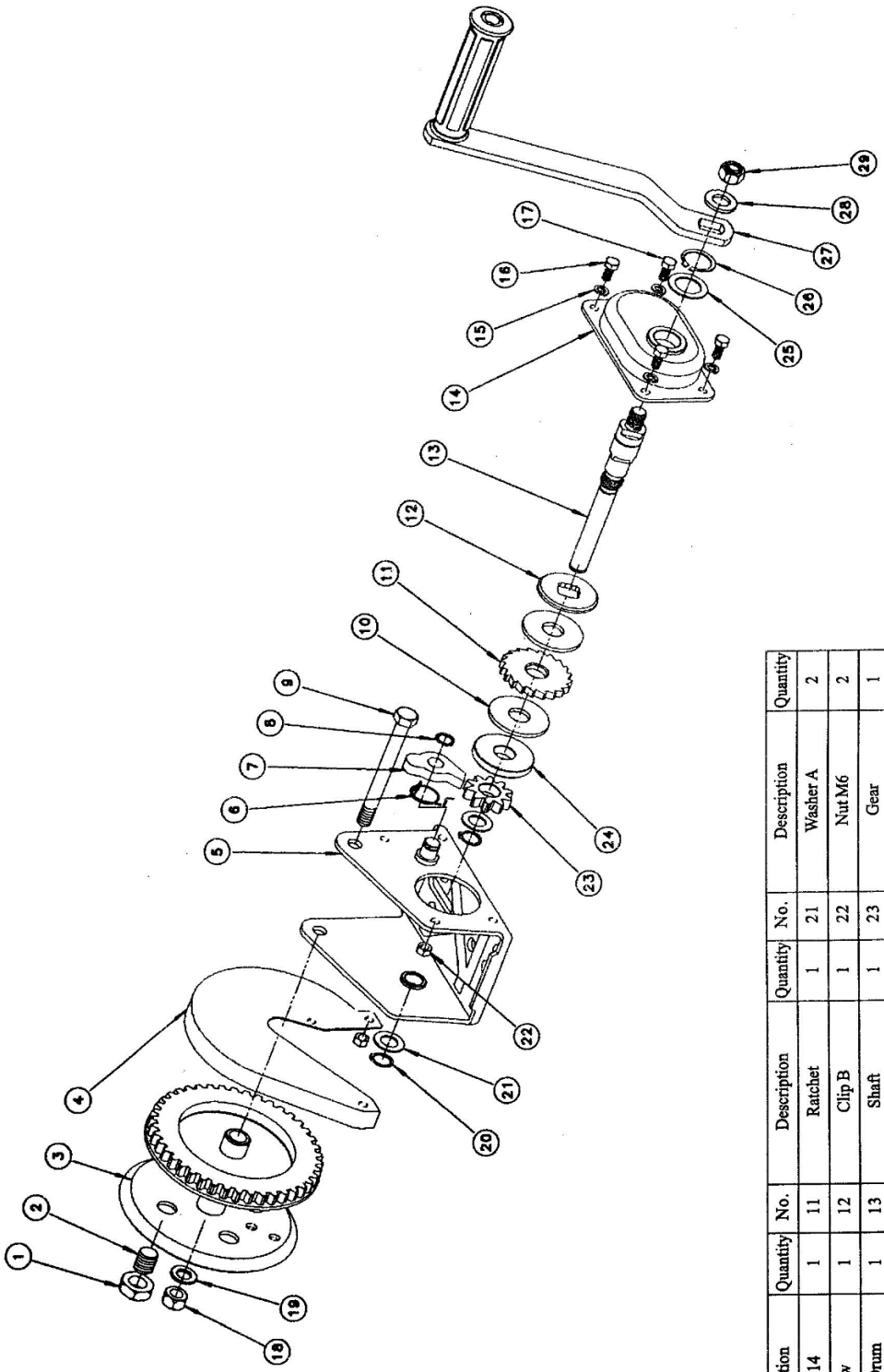
SPARES

If it becomes necessary to obtain replacement parts, refer to parts diagrams and lists shown in the back of this manual. Ensure that you refer to the correct model, as parts are different for each BHW winch model.
You also need to specify if the winch concerned is either galvanized or stainless steel.
Please contact BHW Group Ltd sales on +44 (0)1482 223 663, quoting serial number of the machine if possible and model number. BHW Group Ltd reserves the right to change specifications without notice.

You are advised to ensure that a record of the serial number and date of purchase is recorded in the back of this manual.

PARTS – BHW1200

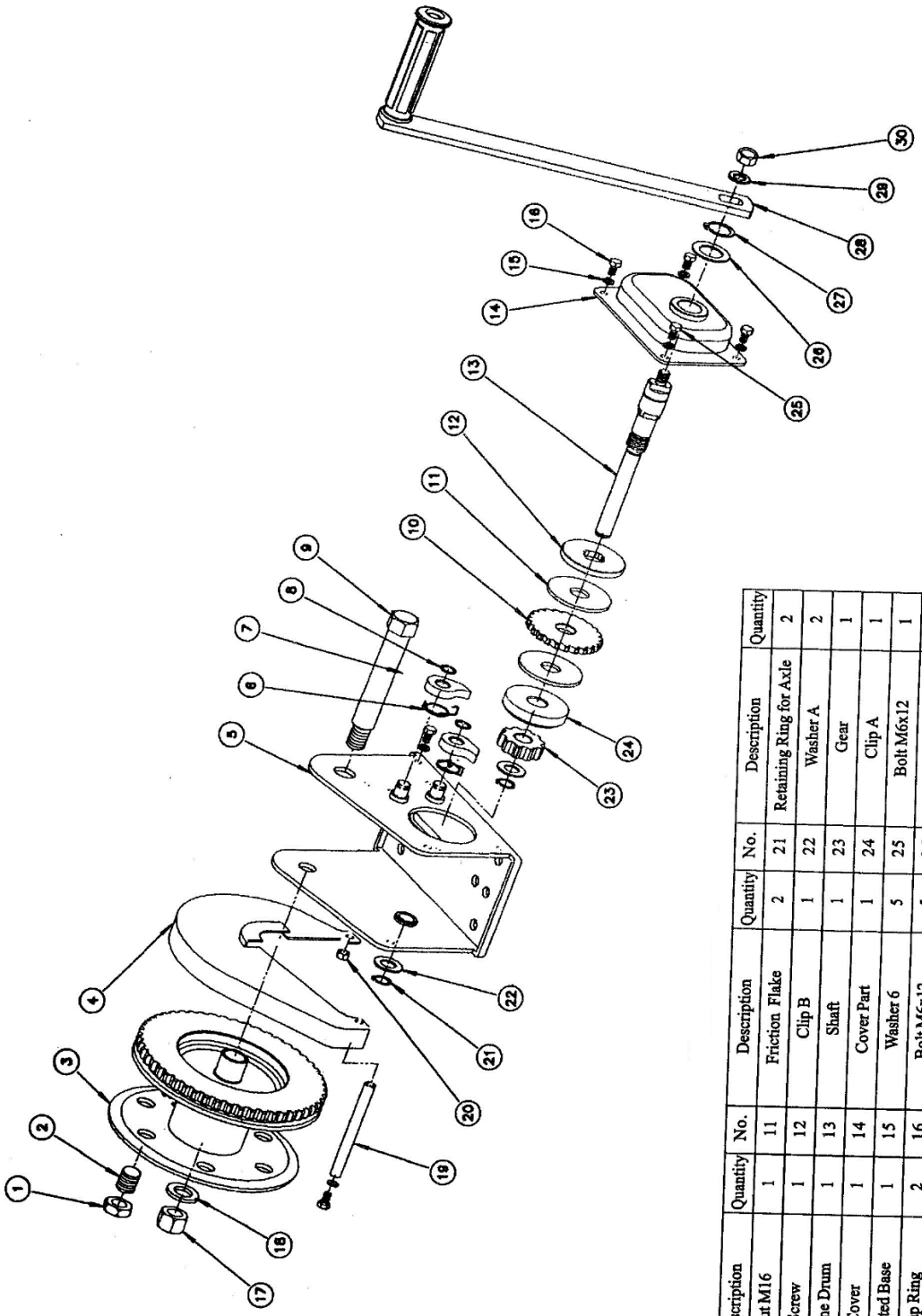
When ordering spares, please specify whether winch is galvanised or stainless steel.



No.	Description	Quantity	No.	Description	Quantity	No.	Description	Quantity
1	Nut M14	1	11	Ratchet	1	21	Washer A	2
2	Screw	1	12	Clip B	1	22	Nut M6	2
3	Twine Drum	1	13	Shaft	1	23	Gear	1
4	Cover	1	14	Cover Part	1	24	Clip A	1
5	Monted Base	1	15	Washer 6	4	25	Washer B	1
6	Snap Ring	1	16	Bolt M6x16	2	26	Retaining Ring for Axle 20	1
7	Ratchet Claw	1	17	Bolt M6x10	2	27	Rocher Arm	1
8	Retaining Ring for Axle 12	1	18	Nut M10	1	28	Washer 12	1
9	Bolt M10x100	1	19	Washer 10	1	29	Nut M12	1
10	Friction Flake	2	20	Retaining Ring for Axle 13	2	30		

PARTS – BHW1800

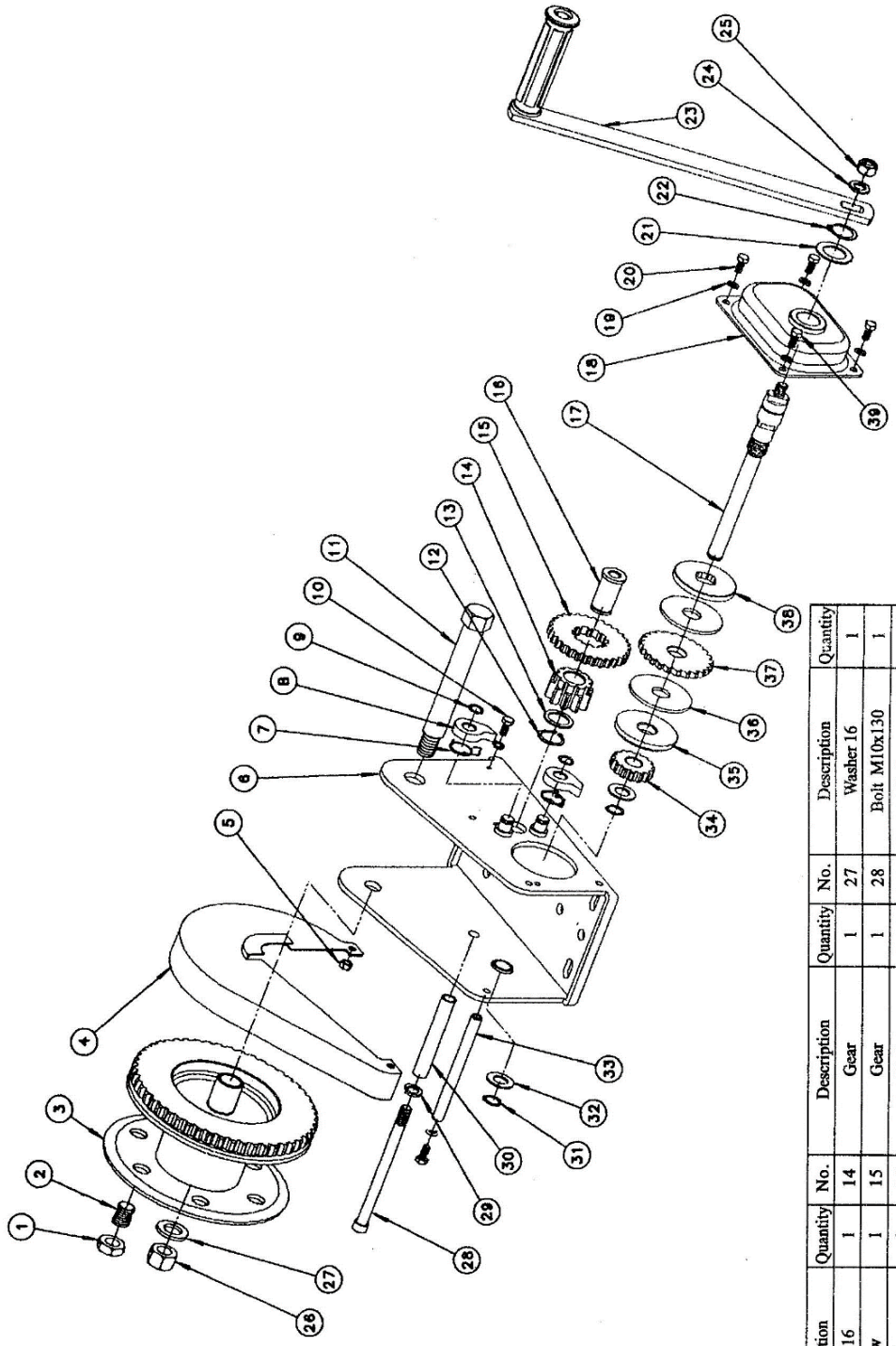
When ordering spares, please specify whether winch is galvanised or stainless steel.



No.	Description	Quantity	No.	Description	Quantity	No.	Description	Quantity
1	Nut M16	1	11	Friction Flake	2	21	Retaining Ring for Axle	2
2	Screw	1	12	Clip B	1	22	Washer A	2
3	Twine Drum	1	13	Shaft	1	23	Gear	1
4	Cover	1	14	Cover Part	1	24	Clip A	1
5	Monted Base	1	15	Washer 6	5	25	Bolt M6x12	1
6	Snap Ring	2	16	Bolt M6x12	5	26	Washer B	1
7	Ratchet Claw	2	17	Nut M16	1	27	Retaining Ring for Axle	1
8	Retaining Ring for Axle 12	2	18	Washer 16	1	28	Rocher Arm	1
9	Shaft	1	19	Support Rod	1	29	Washer 10	1
10	Ratchet	1	20	Nut M6	1	30	Nut M10	1

PARTS – BHW2600

When ordering spares, please specify whether winch is galvanised or stainless steel.



No.	Description	Quantity
1	Nut M16	1
2	Screw	1
3	Twine Drum	1
4	Cover	1
5	Nut M6	1
6	Monted Base	1
7	Snap Ring	2
8	Ratchet Claw	2
9	Retaining Ring for Axle 12	2
10	Bolt M6x116	2
11	Shaft	1
12	Retaining Ring for Axle 20	1
13	Washer B	1
14	Gear	1
15	Gear	1
16	Shaft	1
17	Shaft	1
18	Cover Part	1
19	Washer 6	6
20	Bolt M6x10	3
21	Washer C	1
22	Retaining Ring for Axle 22	1
23	Rocher Arm	1
24	Washer 10	1
25	Nut M10	1
26	Nut M16	1
27	Washer 16	1
28	Bolt M10x130	1
29	Washer 10	1
30	Support Pipe	1
31	Retaining Ring for Axle 15	2
32	Washer A	2
33	Support Rod	1
34	Gear	1
35	Clip A	1
36	Friction Flake	2
37	Ratchet	1
38	Clip B	1
39	Bolt M6x20	1

WARRANTY

BHW Group Ltd warrants each new BHW winch machine 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 that of the owner, together with its return and transportation – prepaid to BHW Group Ltd.

BHW Group Ltd 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 Ltd the damage or failure occurred from misuse, negligence or accident.

THIS WARRANTY EXCLUDES THE WIRE ROPE

BHW Group Ltd 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 Ltd service department at the address shown below, with full name and address of sender, a statement detailing the defect and proof of purchase.

BHW
Bushey Hall Winchmaster
www.bhwgroup.com

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

BHW WINCH - Model…..……..……...

SERIAL NUMBER……..……

DATE OF PURCHASE……..……....