How to service your Lewmar winch
1981

LEWMAR
Lewmar winches are known worldwide for their quality, technical innovation and performance. They have been tested to their limits by our engineers in the laboratory and by racing crews in their search for victory. They have given years of outstanding service to many thousands of yachtsmen to whom the ultimate performance of a yacht or its equipment is perhaps not so important as the pure joy of sailing a fine craft equipped with the best yacht hardware.

This booklet tells you how to give your Lewmar winches the care and attention they need to ensure that whether you sail for results, records or just pleasure, your winches will contribute that extra level of performance that is designed into each Lewmar winch.

**Frequency of Servicing**

Lewmar winches, like any other precision engineered product, must be serviced regularly as follows:

1. **MONTHLY**: All Lewmar sheet winches should be lightly oiled and greased as shown.

2. **TWO OR THREE TIMES DURING ACTIVE SAILING SEASON**: All Lewmar winches should be stripped, cleaned and re-lubricated.

**Lewmar Guarantee**

Lewmar winches have been developed over many years by extensive testing aboard the world’s finest ocean racers, long distance cruising yachts and match racing yachts such as 12 metres. They are manufactured to quality standards in excess of those required by Lloyds and only the finest materials are used.

If installed, used and maintained as described in this leaflet, they will give outstanding performance.

Lewmar undertake that any winch which proves defective in materials or workmanship within 1 year of the date of supply will be repaired or replaced FREE OF CHARGE provided that the winch is returned by the registered owner to the nearest Lewmar office or distributor for examination. Lewmar reserve all rights on determining the nature of the alleged fault and their decision is final.

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3. **AT THE END OF EACH SAILING SEASON AND BEFORE STARTING THE NEW SAILING SEASON**: All Lewmar winches should be completely stripped, cleaned, thoroughly checked for damage and lubricated using the full maintenance manual.

**General External Cleaning of Drum**

Chromed Winches — Wash drum regularly with fresh water and dry with chamois leather.

**OCCASIONALLY** use non abrasive liquid chrome cleaner to remove dirt deposits.

Anodised Aluminium Winches — Wash drum regularly with fresh water and dry with chamois leather. **DO NOT USE POLISHES OR ABRASIVES**.

Stainless Steel Winches — Wash drum regularly with fresh water and dry with chamois leather.

**OCCASIONALLY** use non abrasive liquid cleaner to remove dirt deposits.

This leaflet illustrates the service details of the current range of Lewmar winches.

The overall servicing principles may be used for earlier versions although the detailed construction of the winches may be different.
Single Speed 6, 7, 8, 10

Servicing

1. Remove the circlip with a small screwdriver or knife blade.

2. Lift off the drum.

3. Wash centre stem and drum base with kerosene (paraffin). Dry with a non-fluffy cloth.

4. Wash centre stem, roller bearings and drum bore with kerosene (paraffin). Dry with a non-fluffy cloth.

5. Lightly oil the upper and lower pawls.

6. Remove centre spindle key, slide out spindle and grease lightly.
Reassemble winch in reverse sequence to above. Check for correct operation.

**Two Speed 16, 24, 30, 40, 42 Servicing**

1. **Remove the top circlip with a small screwdriver or knife blade.**
2. **Lift off the drum.**
3. **Wash centre stem, roller bearings and drum bore with kerosene (paraffin). Dry with a non-fluffy cloth.**
4. **Lightly oil top pawls.**
5
Remove centre spindle key and slide out spindle.

6
Clean spindle, grease lightly and oil pawls.

7
Nos. 24, 30
40, 42
Clean and lightly grease spindle.

8
Nos. 24, 30
40, 42
Remove gear, clean and lightly grease.

9
Remove pawl gears and clean. Lightly oil pawls and grease gears.

10
Reassemble spindle and gears.
Lightly grease bearings. Oil pawls in winch base (16 only).

Reassemble winch in reverse sequence to above. Check for correct operation.
Remove the top circlip with a small screwdriver or knife blade.

Lift off the drum.

Remove the top cap assembly.

Wash centre stem, roller bearings, lower gears and drum bore with kerosene (paraffin). Dry with a non-fluffy cloth.

Remove socket head screws from centre stem with a 1/8" AF allen key.

Remove top of centre stem complete with spindle.
Remove spindle, lightly oil pawls and grease gear.

Remove pawl gears and clean. Lightly oil pawls and grease gears.

Reassemble, lightly grease roller bearings, output gear and gear teeth on winch drum.

Wash top cap in fresh water to remove salt deposits. Lightly oil pawls and change mechanism. Check pawls operate freely.

Wash top cap in fresh water to remove salt deposits. Lightly oil pawls and change mechanism. Check pawls operate freely.

Lightly grease the roller bearings, gear teeth. Oil the ratchet assembly.

Reassemble winch in reverse sequence to above. Check for correct operation.
Remove the haliard, releasing the bitter end by unscrewing the $2 \times \frac{1}{4}$" UNC grub screws as shown.

Remove the top circlip with a small screwdriver or knife blade.

Lift off the drum.

Wash centre stem, roller bearings, lower gears and drum bore with kerosene (paraffin). Dry with a non-fluffy cloth.

Lightly oil the pawls.

Lightly grease roller bearings.
Clean brake band and ratchet ring with light abrasive and wash with kerosene (paraffin). Dry with a non-fluffy cloth.

Remove the halliard releasing the bitter end by unscrewing the 2 grub screws (2 x ¼" UNC—No. 2 and 2, 2 x ¼" BSF—No. 3). Turn the drum to locate the screws under the drum cage.

NO OIL OR GREASE MUST BE APPLIED TO THE BRAKE MECHANISM OR ON ANY HALLIARD WINCH.

WINCH NOS. 2, 2 x 2 AND 3 — SERVICING SHOULD BE CARRIED OUT BY A LEWMAR SERVICE ENGINEER.

Warning:
The brake should be tightened firmly before hoisting the sail. When lowering the sail the brake is released as described and the rate of descent controlled with the brake lever.

THE HANDLE MUST NOT BE LEFT IN THE WINCH WHEN THE BRAKE IS RELEASED AS IT WILL REVOLVE. THIS IS DANGEROUS AND CAN CAUSE INJURY.

Primary and secondary drums — The main body of the halliard is stored on the primary drum and the turns should be stacked evenly as shown in the diagram. When the sail is nearly fully hoisted i.e. within 2 or 3 feet of the black band the final turns should be wound on the secondary drum to avoid crushing the wire.

Reassemble winch in reverse sequence to above. Check for correct operation.
1. The rope must be placed in the jaws correctly. The turn leading from the drum must be passed across the stripper mechanism as shown and placed into the jaws.

2. The winch must be mounted so that the loose sheet falls correctly into a secure stowage position.

3. There must be a minimum of 3 turns of rope on the barrel.

To position installation on boat remove drum as above and refit top cap. Place winch so that stripper arm is in correct position and mark off for drilling.
Holdfast Self-Tailing 16ST, 30ST, 34ST

Adjustment

No. 16ST
With white washer in drum top –
rope diameter 8 – 10 mm
With red washer in drum top –
rope diameter 12 – 14 mm.

No. 30ST
With white washer in drum top –
rope diameter 8 – 10 mm
With red washer in drum top –
rope diameter 12 – 14 mm
No. 34ST
With white washer in drum top –
rope diameter 10 – 12 mm
With red washer in drum top –
rope diameter 14 – 16 mm

The winch must be adjusted to deal with different rope sizes.

1
No. 16ST
Remove top cap

2
No. 16ST
Exchange washer in drum top with centre stem washer on top of bearings.

3
Nos. 30ST, 34ST
Remove top cap

4
Nos. 30ST, 34ST
Exchange washer in drum top with centre stem washer below bearings.
Holdfast Self-Tailing 16ST, 30ST, 34ST

Servicing

1. Using a soft faced mallet or wooden block and hammer, loosen the top with a firm tap.

2. Unscrew top cap.

3. Lift off the drum.

4. Wash centre stem, roller bearings and drum bore with kerosene (paraffin). Dry with a non-fluffy cloth.

5. Remove centre spindle key and slide out spindle.

6. Clean spindle, grease lightly and oil pawls.

No. 165T
Clean and lightly grease spindle.

Remove gear, clean and lightly grease.

Remove pawl gears and clean. Lightly oil pawls and grease gears.

Reassemble spindle and gears. Lightly grease top cap thread, bearing and oil pawls in winch base.

Reassemble winch in reverse sequence to above. Check for correct operation.
Wavegrip Self-Tailing
40ST, 42ST, 44ST, 48ST, 55ST, 65ST
Operation and Adjustment

1. The rope must be placed in the jaws correctly. The turn leading
from the drum must be passed across the stripper mechanism as shown and placed into the jaws.

2. The winch must be mounted so that the loose sheet falls correctly into a secure stowage position. The position of the stripper arm can be adjusted to give correct feed off of the sheet.

3. There must be a minimum of 3 turns of rope on the barrel.

4 The jaws are designed to accept a range of rope diameters. The winch should only be used with ropes of the sizes recommended.

Range of Rope Diameters:

<table>
<thead>
<tr>
<th>Cat. Nos.</th>
<th>Circumference (ins)</th>
<th>Diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40ST</td>
<td>1 - 1 ¼</td>
<td>8/14</td>
</tr>
<tr>
<td>42ST</td>
<td>1 ¼ - 2</td>
<td>10/16</td>
</tr>
<tr>
<td>44ST</td>
<td>1 ¼ - 2</td>
<td>10/16</td>
</tr>
<tr>
<td>48ST</td>
<td>1 ¼ - 2</td>
<td>10/16</td>
</tr>
<tr>
<td>55ST</td>
<td>1 ½ - 2 ¼</td>
<td>12/18</td>
</tr>
<tr>
<td>65ST</td>
<td>1 ¾ - 2 ½</td>
<td>14/20</td>
</tr>
</tbody>
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1. To adjust remove the four socket head screws with a 1/4" A/F allen key. Lift off top plate.

2. Remove the two keys securing the stripper arm and lift off the stripper arm from its locating spline.

3. The stripper arm may now be rotated to the required position and relocated on the spline.

4. IMPORTANT When refitting the stripper arm care must be taken to ensure it locates correctly against the stripper tongue which acts as a support.
Wavegrip Self-Tailing
40ST, 42ST, 44ST, 48ST
Servicing

1. Remove the 4 x 1/4" UNC socket head screws and lift off top plate. Remove the two keys securing the stripper arm.

2. Lift off the stripper arm from its locating spline.

3. Lift off drum.

4. Clean centre stem, roller bearings, lower gears and drum bore with a non-fluffy cloth.

5. Remove centre spindle key and slide out spindle.

6. Clean spindle, grease lightly.
Remove pawl gears and clean. Lightly oil pawls and grease gears.

Remove socket head screws from centre stem with a \( \frac{1}{16} \)" A/F allen key.

Remove top of centre stem complete with spindle.

Remove spindle, lightly oil pawls and grease gear.

Remove pawl gears and clean. Lightly oil pawls and grease gears.

Reassemble, lightly grease roller bearings, output gear and gear teeth on winch drum.

Reassemble winch in reverse sequence to above. Check for correct position.
Wavegrip Self-Tailing 55ST, 65ST

1. Remove the 4 x 5/4" UNC socket head screws and lift off top plate. Remove the two keys securing the stripper arm.

2. Lift off the stripper arm from its locating spline.

3. Lift off drum.

4. Clean centre stem, roller bearings, lower gears and drum bore with a non-fluffy cloth.

5. Lightly grease roller bearings, lower drum ring and gear teeth.

Reassemble winch in reverse sequence to above. Check for correct operation.
Service Manual
A full Service Manual is available from your nearest Lewmar Service point. (Price £3.00/ $6.00). Full servicing of any winch should not be undertaken without reference to this manual.

Recommended Lubricants
Grease: Lewmar grease (7010) (Lubriplate Marine Lube 'A', etc)
Oil: Light machine oil (3 in 1 or equivalent)

Tools Required
For routine servicing
Small screwdriver or knife blade
Clean non-fluffy cloth
Cleaning fluid
Lubricants

Models 6, 7, 8, 10, 16, 24, 30, 42, 55, 65, 1H
Models 6, 7, 8, 10, 16, 24, 30, 1H, 40, 42, 44, 48
Models 55, 55ST
Screwdriver
Hammer
1/8" A/F allen key

Models 40ST, 42ST, 44ST, 48ST, 55ST, 65ST
Models 65, 65ST
Hammer
1/8" A/F allen key
Medium screwdriver
1/2" BSF spanner

Winch Spares Kit
Lewmar provide a maintenance kit for each winch in their range. These kits contain parts which owners may damage or mislay. Each kit is complete and parts are not sold separately. Typical parts include
Pawls, springs, circlips, washers, locking caps, etc.

Spares Kits
Ref.
7001 Single speed winches except 5/8" socket No. 8’s.
7002 Two speed and small self tailing winches up to and including 42ST except 5/8" socket No. 16.
7003 Three speed push button winches.
7004 Self tailing winches 44ST and above.
7005 Haliard reel winches.
7006 Three speed Disc type winches.
7007 Sprung loaded 34ST plus 5/8" socket Nos. 8 and 16 winches.
7008 Various circlips (Owners are strongly recommended to carry spare circlips for all winches).
7009 Allen key set.
7010 Grease.

Don’t forget to get your spares kit from your local dealer.