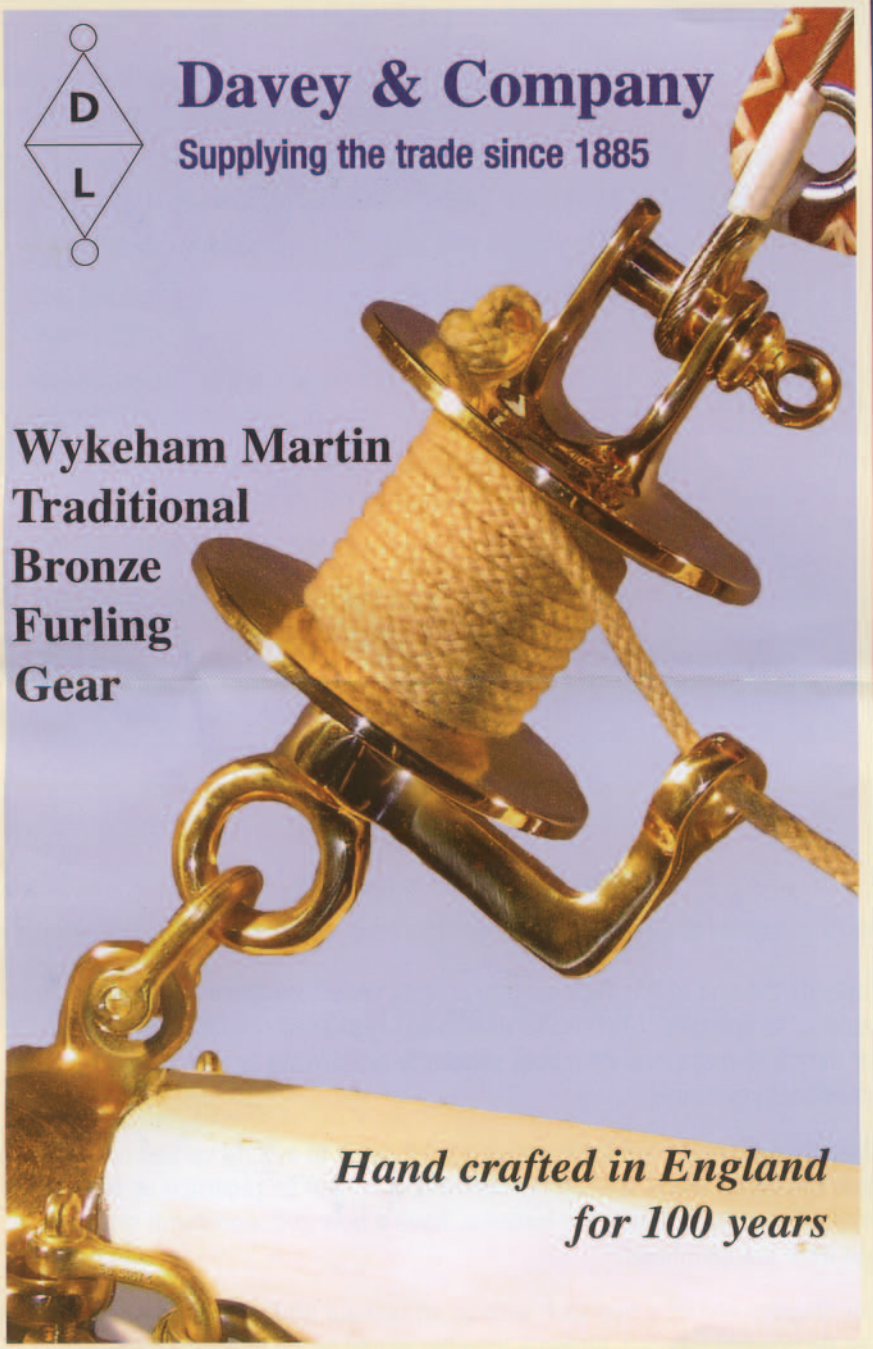
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Traditional
Bronze
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Hand crafted in England
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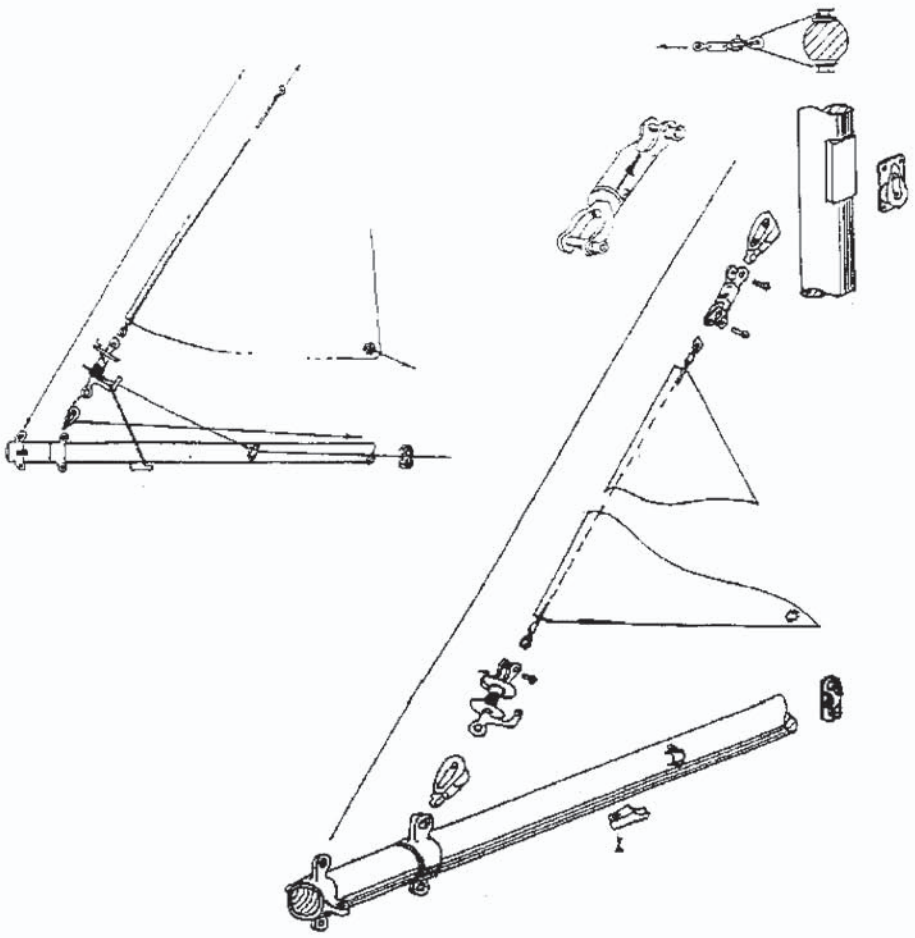

Towards the end of the 19th century colonel Wykeham-Martin created his, now famous, furling gear. His original design has remained substantially unchanged for over 100 years, and its robust simplicity has always been a favourite with traditional yachtsmen.

The following notes are intended as a brief guide to setting up and operating the gear but, as all boats are slightly different, it cannot be regarded as full instructions. Some boats, for instance, have a bowsprit, and some set the fore-sail from the stemhead.

Our diagram shows a bowsprit with an an outhaul fitted so that the lower drum can be brought inboard. Fitting a traveller would be an alternative method.

COMPONENTS & INSTALLATION

The Sail

This must be cut so that it will set correctly without being hanked on at the luff. A wire must be fixed into the luff so that when the drum turns, the sail is carried round and thus furled up. Consult your sailmaker about converting an existing hanked sail.

The Bottom Drum

This has a fixed and a rotating part. The lower part, containing the bailing arm, must be prevented from turning and only the drum allowed to turn. If using a lashing to hold the arm still, as shown in the diagram, be sure to have the sail raised with some tension on the sheet to ensure that the angles of the drum and lashing are correct. The same advice applies to any leads for the furling line. (See 'setting the sail').

The Top Swivel

The top swivel also has two main parts, a body and a swivel fork or eye. To allow for proper operation, the swivel part must be pointing downwards and the body secured above it so that it cannot rotate. Our diagram shows one way of achieving this. If you use a single block and a single halyard, you may find that the lay of the halyard rope will come undone when you furl or unfurl the sail.

The Forestay

Ensure that there is sufficient gap between the forestay and the luff to prevent tangling the two together. This can happen if the tension on the sail has relaxed or you are trying to furl the sail with the wind from aft. It is always better to furl the sail when the boat is just off the wind.

The Furling Line

Recommended sizes:

No. 1 gear : 4mm line.	No. 2 gear : 5mm line.
No. 3 gear : 6mm line.	No. 4 gear : 6mm line.

The above is a guide only as the actual size used will depend on the length of the foot of the sail, the amount of line required to fully furl it and the capacity of the drum. Braided rope is better than laid, as it will run through the leads better on its way back to a jamb-cleat.

SETTING THE SAIL

1. Choose a quiet time of day with little wind.
2. On the ground, roll the sail around the wire luff and lash it so that it cannot unroll. Ensure that any sacrificial strip is correctly positioned and that, when installed, the drum and sail will rotate in a clockwise direction, when viewed from above, when furling. This is to ensure that the twisting of the luff wire will go with the lay rather than against it. If furling against the lay of the wire, there is a tendency to untwist the strands of the wire causing possible fatigue and fraying later, which may damage the sail. Check the lay of your wire before starting.

   Fix the two parts of the gear to the sail and the boat and hoist the sail with a moderate tension in the wire.
3. Fix the sheets to the sail after winding them around the rolled up sail 2 or 3 times.
4. Pass the furling line from the cockpit, via a fairlead and the hole in the arm, to the drum. Pass the line around the drum four or five times and then through the little hole in the top flange of the drum. Use an overhand or figure of eight knot to stop it pulling out. Note that, with the sail raised and some tension on the sheet, the final position of the fairlead should allow for the line to leave the drum at 90 degrees, with the fairlead bisecting the angle of the turn of the line to reduce friction. (see diagram).
5. Untie the lashing on the sail. Keep a little tension on the furling line while you pull on the sheet to unroll the sail. This will pull the furling line onto the drum as the sail is pulled out.
6. When the sail is right out you can find the best position to fix a lashing (if you are using this method) to prevent the arm from turning.

Now check that the sail will furl up correctly. Keep a little tension on the sheet while you pull steadily on the furling line. The sail should roll up neatly, finishing with 2 turns of the sheets around the sail, which will keep the sail secure until you have time to fix a sail-tie. If the set is correct, you should still have 4 or 5 turns of furling line on the drum.

NOTES: **Do not forget to look up at the top swivel to check that it is not twisting the halyard.**

Do not allow the furling line to become slack at any time, as there is a risk that it will fall off the drum. A cam-cleat at the cockpit end of the line is a convenient way of holding it.

When you leave the boat, make sure that the furled sail is tied up with a sail tie. If you have a sacrificial strip on the sail, check that it is on the outside of the rolled up sail.

MAINTENANCE

For optimum performance, the bearings should be lubricated before each season as part of the annual boat maintenance.

The bearings are a stainless steel thrust race with captive balls in a cage. The bearings are retained by a locking nut, which also controls end float.

1. Locate the locking screw in the side of the drum and remove.
2. Grip the collar at the base of the drum and unscrew the bearing/shaft assembly.
3. Without removing the locking nut, wash out the old grease, dry carefully and repack with waterproof grease.
4. Re-assemble the bearing/shaft assembly into the drum and tighten until the locking screw holes align. Insert the screw and tighten.
5. Spin the shaft to check for free rotation.

Do not use oil on these bearings as it will wash the grease out.

Service Kits (Thrust race and locking nut)

For size 1 gear - part number 9444/1/SK
For size 2 gear - part number 9444/2/SK
For size 3 gear - part number 9444/3/SK
For size 4 gear - part number 9444/4/SK

One service kit is required per drum or top swivel assembly.

A new locking nut should be used whenever the bearing is removed from the shaft.

End float should be set at approximately 5 thou. Or 0.012mm.