

U.S Spars Routine Maintenance for In-Mast Furling System

Although your U.S Spars mainsail furling system needs minimum maintenance there is a need to implement a schedule of preventative service. From the first sail of your boat you will need to start your routine maintenance schedule to keep your furling mast in top working order. These simple steps that follow will keep your system working in the best condition possible, giving you years of service.

1. Once your mast is exposed to the elements, air born particles will start collecting on the ball bearing races in your furling drum and boom car. These particles can compact around the bearing housing and significantly disrupt the smooth operation of your system. We recommend that you flush the bearings in the drum or drive unit located in the aft face of the mast just below the boom. You can see the ball bearings at the lower and upper end of the drum; it is these bearings that you must flush. You will get the best flushing results if you unfurl and furl the sail while you flush the bearings. It is best to carry this out with no or little breeze as possible. All you need to flush is fresh water if you happen to be in a marina then a hose can increase pressure which will help disperse any debris build up. Your ball bearing boom car should receive the same treatment. You should also clean the boom track as regularly as possible.
2. The halyard swivel, which is the unit that the head of your sail attaches to and is then raised with the sail, needs very little maintenance as it is well protected by the mast. As part of your maintenance schedule you should remove your mainsail every year and at this time the halyard swivel will be lowered, you can access this unit from one of the four inspection holes above the boom. You can see the lower bearing set in the swivel, this needs to be flushed as you did for the drum.
3. After flushing you will need to lubricate the bearings of the drum, halyard swivel and boom car. There are many different lubricants on the market, we have found that simply using WD40 on the drum and swivel works well, you should be careful of over spray with this product. For the boom car which has Torlon bearings we have found Mc Lube works well. You should avoid any heavy grease lubricant as this will attract more dirt and debris.
4. Changing the furling inhaul line that wraps around the drum is generally needed every couple of years, but this does depend on the condition of the line. If you notice a deterioration of the line then you should replace it. You will need to identify your system to establish the correct line size. Our small unit used on Beneteau 323, 343, 331, uses a 5/16 line, our larger system used on the Beneteau 393, 423, 473 requires a 3/8" line. Lengths vary for individual boat models. As a general rule if you install 60' of line you will have more than enough for any model. Our office can give you exact line lengths for all the models upon request. To identify your systems you need to look at the center of the drum unit. The larger unit has a large central vertical rod, and two smaller vertical side rods. The smaller unit has a solid cast aluminum body with no vertical rods. To replace the line you will need to part way remove the drum from the mast, this is made easier by removing the mainsail first. With the sail off, the system will spin free and all the line can be pulled off the drum. You will notice four main fixings on the aft face of the drum, with our smaller system these will be either 6mm Allen head bolts or 8mm nuts, the larger system will have 8mm bolts. Remove all four fixings. There will also be two side fixings that hold the rope guard in place. On the smaller system the guard is a cover plate on the port side with a screw fitted top and bottom, the larger system has a vertical rod port and starboard with a tab welded to the center of the rod, the screw goes through the tab, so you have one fixing each side half way up the drum. With all six fixings removed, the drum can be pulled away from the mast. You may need to apply some pressure to the drum to get it moving. Lever the drum away from the mast at the bottom first then the top. The idea is not to completely remove the drum but to allow the bottom of the drum to come clear of the mast which will allow access inside the end of the drum where the line is tied in a knot. Using a pair of long nose pliers you can pull the knot out the end of the drum and untie it; this will allow the line to be pulled totally out of the drum.

5. To re-install a new furling line the procedure is the reverse of the line removal instructions. Push the new line in the drum. Tie the knot, and then replace the drum back in the mast. Install the protection plate or rods, at this point you will need to wind turns of line on the drum, this is done by turning the foil through one of the side inspection holes above the boom. It is advantageous to completely fill the drum with line, if you discover after sailing that you don't need a full drum you can pull some turns off the drum.

6. After a few seasons of sailing you may decide a full service of your furling drum would be of interest. We offer a service whereby you can completely remove the drum and send it to our factory in Florida for a full strip down service. Your drum will be completely stripped down and re-built; the line will be replaced along with any worn parts. The service will take no more than a day, and with UPS air services we can have it back to you the very next day. To completely remove the drum follow the instruction to replace the line, but this time ensure the large tack shackle is removed as this shackle also connects the foil to the drum. As you start to pull the drum away from the mast, keep going, the bottom of the drum will clear the mast, at this point pull the drum towards the deck you will need to support the rod while the drum is being removed, this is best achieved by tying a small line around the foil at one of the inspection windows and then around the mast. Once the drum is all the way out you can lower the foil to the deck, with keel stepped masts it would be best to leave the foil tied. The procedure to replace the drum unit is the reverse of the removal.

7. Your mainsail will need regular inspection for damage. Generally, sail longevity is affected by location, U.V. degradation and use. Having your sail inspected by a qualified sailmaker every two years is a good practice. They can determine if any small items warrant repair and can offer sail cleaning as well.

If you keep your furling system in good order you will have hours of great sailing without effort. The advantage of a furling main comes into its own when you are out on the water, the wind is blowing and your Beneteau wants to be let free and all you have to do is pull that line and hold on.