## INSTRUCTIONS FOR FURLING-LOCK KFH1, KFH2, KFH5, KFH8, KFH12

### **IMPORTANT INFORMATION:**

- 1. KFH lock swivels are designed to lock and furl head sails on sailboats, any other use shall not be guaranteed by Karver.
- 2. Never use the furling lock to climb the mast.
- 3. The locking mechanism must be removed once a year for inspection, if a distortion appears on one of the metallic parts, we advise you to stop using the system and return it to us for servicing.
- 4. The male part of the KFH must be fixed to an attachment point specifically designed to hold the dynamic loads generated by the sail.

### INSTALLATION

In its standard version, the lock is delivered with a lashing end fitting (dog-bone) from KFH5 upward.

The halyard has to go through the female part of the lock. The two are connected by a splice. The dog-bone must be used to hold the halyard in the female part of the lock from KFH5 upward. Either splice or spliced dog bone must sit in the fork side of the female part.

# HOWEVER, IT IS IMPORTANT TO ENSURE THAT THE SPLICE ON THE HALYARD IS NOT BIGGER THAN THE SHEAVE HOLE GOING THROUGH THE MALE PART (ATTACHED TO THE MAST).

Make sure the halyard splice to the female part is done before installing the male part of the KFH to the mast.

The attachment of the male part to the mast must be done with high modulus lashing (Dyneema<sup>®</sup>, Kevlar<sup>®</sup> ...) and must be able to hold at least two times the working load of the KFH.

- Installation of the cable (and the sail):

Steps:

1. Pull the yellow line down at the same time pushing on the stainless steel pin to slide it open.



2. Pull on the other end of the pin (already sticking out slightly) to entirely open the fork.



3. Install the head thimble from the anti torsion cable to lock swivel fork.



4. Push the pin completely back in the fork to lock the thimble in place.



**Note**: If the thimbles being used are not the ones supplied by Karver, they must use the maximum width of the fork. If this is not the case, bending load will be applied on the pin and its mechanical resistance will be weakened.

# **OPERATION:**

The system works with one halyard only, activated twice, it enables to lock and unlock.

 Because the whole system is tensioned from the bottom of the drum, it is necessary to have extra line in this purchase system (several meters) in order to facilitate the locking and unlocking processes. The difference in height between the locked and unlocked positions is only 2 to 3 cm.

Beware: if the luff is too tight (and therefore the cable is already loaded) when being locked the additional load needed to lock the halyard is much greater. This could result in damage to the internal mechanism of the KFH.

2. <u>**To lock:**</u> Hoist the system the whole way (until the lock reaches the first end stop), the system locks.

It is a good idea to have a mark on the halyard, this mark enables to see when the furling lock is hoisted far enough; though it is always important to check it hasbenn locked properly by

applying pressure on the sail by hand (not enough tension can result in faulty locking and then pose problems when unlocking)

3. **To unlock:** release the purchase system under the drum to have enough slack in the tack line, hoist again to the max halyard mark, the system is unlocked. (If the sail is light, you may need to slightly pull it down to help dropping)

# Service in case of problems:

The furling lock KFH has the advantage of a direct access to the mechanism (compared to an internal lock up the mast); it is very easy when the furling-lock is on the deck to work on it.

The lock is made of 3 circular jaws situated inside the female part that connect together around the male part in the locked position.

Another two stage system - on/off - operates the locked and unlocked position; this mechanism is integrated within the furling lock, behind the 3 bolts in the lock female part.

By removing the black plastic casing, held in place by 3 allen screws, it is possible to take apart and inspect the structural parts.

If the system remains locked at the top of the mast: if the system happens to get stuck, it is possible to access the 3 jaws and remove them manually one by one to unlock the system (it is necessary to keep the halyard under tension to do this).

Before doing this, it is wise to secure the sail with another halyard to prevent it from dropping hard on the deck or landing in the water.

Sailboat length	Staysail	Code 0	Gennaker
5 - 7.5 m	KFH1	KFH1	KFH1
7.5 - 10 m	KFH1	KFH1	KFH1
10 - 13 m	KFH2	KFH2	KFH1
13 - 16 m	KFH5	KFH5	KFH2

CHOICE OF THE KFH HALYARD-LOCK:

16 - 20 m	KFH8	KFH8	KFH5
20 - 25 m	KFH12	KFH12	KFH8

This table is only a guideline. The choice of halyard lock swivel depends on the boat, the type of sail and the weather conditions of use. For more information, please contact your Karver retailer.

#### MAINTENANCE

The Karver furling-locks are made of high quality aluminum alloy, HR Stainless steel (and titanium from KFH8 upward)

It is possible that over time, oxidation marks may appear on the stainless steel parts. These marks can be removed by using a stainless steel cleaner.

Rinse your system with freshwater as often as possible.

More info at www.karver-systems.com

The Karver team wishes you pleasant sailing !