

Karver: the locking device specialist!



KMH

INTERNAL HALYARD LOCK



KHL

HALYARD LOCK



KFH

FURLING LOCK



KMS

HEADBOARD CAR LOCK



KHR

REEF LOCK

KARVER: THE LOCKING SPECIALIST

KARVERPEDIA

Choosing the right sailing hardware can improve your boat's performance. The latest equipment is lighter, takes less room and is more efficient – it is now able to block and hook heavy loads.

Every lock mechanism aims to incorporate these benefits by replacing ropes with mechanical devices.

Today's fabrics are more and more advanced (3DL, Titanium, Laminated...) to help reduce the overall weight of the sail and maintain its shape thus minimising power loss due to its distortion. To benefit from the power of this type of sail, it is important to minimize the possible stretch of the lines. Installing a lock, regardless of the brand and technology, makes it possible to avoid a halyard stretch thus releasing the full power of the sails.

Besides this mechanical concept, the diameter of the halyard can be reduced as it no longer carries the load of the sail when sailing. For example, a 12mm halyard in Dyneema® could be replaced by a 6mm halyard.

The difference from a standard KF drum is the addition of an independent swivel on the top which helps keep the system light. For a 50 ft boat featuring a 65 ft mast, a weight aloft of 15kg would need to be balanced by several hundred kilos in the keel to ensure the same stability!

The installation of a halyard lock reduces the compression in the mast, as the halyard is no longer strained. For high performance sailing yachts, locks may help reduce the weight aloft as rigs can be designed to bear minimal compression.

It would be a mistake to think that these advantages are only for the racing scene. A gain in weight aloft results in better boat stability by decreasing the pitching and rolling in heavy weather conditions in all types of boats. Wouldn't you appreciate getting ashore a few hours or days earlier, without worrying about damage to the halyards?

Our locking solutions:



100% of the Imoca fleet use at least one of our locking devices.
78% use our KFH and furlers.



INTERNAL HALYARD LOCK FOR HEADSAILS REMOVABLE LOCKING MECHANISM

Easy maintenance.



+KARVER

ADVANTAGES

- Reliability : Same lock as our proven at sea KFH.
- Security : Easy access. The locking mechanism can be removed from the bracket without tools.
- No trip line.
- No lock stop bullet.
- Choose the cap color !



NEW



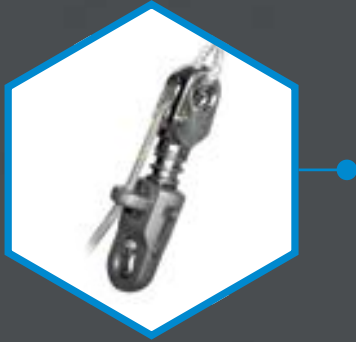
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The KMH internal halyard lock is a locking device for headsails installed by mast manufacturers.

This mechanism is integrated into the mast and allows maximum luff length

MODEL	PART NUMBER	SWL (T)	WEIGHT (kg)	MAX SPACE* (mm)	BEST LINE** (mm)	MAST CUT (mm)
YACHTS						
KMH2	PF370002	2	0.370	6.4	6	83 x 26
KMH5	PF370005	5	1.230	9.5	6	44 x 125
KMH8	PF370008	8	2.070	10.5	8	56 x 156
KMH10	PF370010	10	2.800	10.5	8	75 x 175
SUPER YACHTS						
KMH15	PF370015	15	3.670	14.5	10	83 x 204
KMH20	PF370020	20	4.750	14.5	10	215 x 94
KMH30	PF370030	30	-	-	-	-
KMH40	PF370040	40	-	-	-	-
KMH50	PF370050	50	-	-	-	-

* Maximum available space. ** Best halyard diameter before splicing



EXTERNAL HALYARD LOCK (NO SWIVELLING FEATURE) MULTIPLE APPLICATIONS

The KHL external lock is an easy to install lock for headsails.



+KARVER

ADVANTAGES

- Compact & Light.
- Essential for Racing yachts, Super Yachts AND cruising yachts.
- No trip line, no lock strop bullet .
- Perfect to lock a spinnaker snuffer during a long navigation.



No more tension in the halyard, avoids wear and stretch for improved safety, reduced weight and better performance.

MODEL	PART NUMBER	SWL (T)	WEIGHT (Kg)	HEIGHT (mm)	MAX SPACE* (mm)	BEST LINE** (mm)
YACHTS						
KHL2	PF480020 [KHL]	2	0.435	117.7	7.5	6
KHL5	PF470020 [KHL]	5	0.850	172.2	9.5	6
KHL8	PF410020 [KHL]	8	0.620	166.3	9.5	6
KHL10	PF400020 [KHL]	10	2.090	217.7	11.0	8
KHL12	PF400020 [KHL12]	12	1.550	217.7	11.0	8
SUPER YACHTS						
KHL16	PF400020 [KHL16]	16	-	-	-	-
KHL20	PF400020 [KHL20]	20	-	-	-	-
KHL25	PF570020 [KHL25]	25	-	-	-	-
KHL30	PF440030	30	-	-	-	-

* Maximum available space.

** Best halyard diameter before splicing



FURLING LOCKS SWIVEL IMPROVE PERFORMANCE

The KFH halyard locks have been tried and tested for many years in the world's toughest oceans.

KFH

+SAFETY

- Once locked the halyard is no longer under tension. The compression in the mast is halved and halyard wear is minimised.

+LIGHTWEIGHT

- The luff is pulled from the bottom of the drum with a block, eliminating the need for a 2:1 halyard set up. It is also possible to use a smaller and lighter halyard as it carries only the weight of the sail.

+SIMPLICITY

- Once unlocked only the lightest part of the mechanism stays on the top of the mast, the furling-lock is on deck leaving no moving parts aloft, making it easy to maintain.



Halyard stretch is a major factor in the loss of performance in upwind sails.

The KFH eliminates stretch and creep ensuring your halyard is at perfect hoist everytime and also reduces mast compression.

The KFH combines a lock and a swivel to be used with a furling drum.

Application examples

CODE SAILS/LIGHT GENOA:

As most standard sailing yachts do not include a mast equipped with 2:1 halyard purchase for foresails, it is easier to have a powerful code sail or light genoa using an accurate setting.

STAYSAIL:

A better solution than a fixed furler. The sail can be furled and easily stored, leaving the foredeck uncluttered and the genoa free to tack. Upwind performance is unaffected.



? HOW DOES IT WORK?

1 To lock:

pull the halyard to max hoist. The furling-lock becomes a standard top swivel: Just unfurl and enjoy your sail.

2 To unlock:

simply pull on the halyard again to max hoist. The sail can now be lowered.



MODEL	PART NUMBER	SWL (T)	WEIGHT (Kg)	HEIGHT (mm)	MAX SPACE* (mm)	BEST LINE** (mm)
YACHTS						
KFH1 (V.2)***	PF550020 [KFH]	1.5	0.330	108	5	5
KFH2 (V.2)***	PF480020 [KFH]	2.5	0.877	158	7.5	6
KFH5	PF470020	5	0.920	166.8	9.5	6
KFH6	PF410020 [KFH6]	6	0.896	166.2	9.5	6
KFH8	PF410020	8	1.046	172.5	9.5	6
KFH10	PF390020	10	2.230	218.4	11	8
KFH12	PF400020	12	2.230	218.4	11	8

SUPER YACHTS		
KFH14	PF400020 [14]	14
KFH16	PF400020 [16]	16
KFH20	PF440020	20
KFH25	PF1060020 [25]	25
KFH30	PF1060020	30

The **KFH+** or the **KSFH+** packages include a drum
+ a 3:1 friction sheave
+ a **KFH** furling lock despite the standard swivel.

MODEL	Ref KFH+	Ref KSFH+
KFH1	PF550000	PF550000 [KSF]
KFH2	PF480000	PF480000 [KSF]
KFH5	PF470000	PF470000 [KSF]
KFH8	PF410000	PF410000 [KSF]
KFH10	PF400000 [10]	PF400000 [KSF10]
KFH12	PF400000	PF400000 [KSF]



* Maximum available space.
** Best halyard diameter before splicing.
*** New version.



REEF LOCK

NO MORE BREAKING REEF LINES

A complete line of reefing locks for cruising, racing and Super Yachts.

KHR



Originally designed and installed onboard the Orma's, reef locks have become popular in the cruising and Super Yacht scene to solve common problems (overload, many friction points, or slipping jammers).

These locks make it lighter due to a reduction in strapping and avoid reef line stretch.

© Karver Systems

MODEL	PART NUMBER	SWL (T)	WEIGHT (Kg)	MAX SPACE (mm)	BEST LINE (mm)	MAX LOOP* (mm)	MATERIAL
YACHTS							
NEW KHR1	PF0265276	1	0.067	5.5	5	13	ALU
KHR2	PF0263125	2	0.188	6.2	5.50	19	ALU
KHR4	PF0263440	4	0.299	9	7	20	ALU
KHR5	PF0263414	5	0.488	10	6	24	ALU
KHR8	PF0264562	8	0.660	11.2	7	24	ALU
KHR10	PF0263222	10	0.834	10	6	20	ALU
KHR6+	PF0263440 [INOX]	6	0.884	9	7	20	STAIN. STEEL
KHR8+	PF0263414 [INOX]	8	1.442	10	8	24	STAIN. STEEL
KHR12+	PF0264022 [INOX]	12	2.200	10	8	28	STAIN. STEEL
SUPER YACHTS							
KHR15+	PF0263388	18	3.800	12	10	34	STAIN. STEEL
KHR20+	PF0264856 [INOX]	20	-	-	-	-	STAIN. STEEL
KHR25+	PF0264857 [INOX]	25	-	-	-	-	STAIN. STEEL
KHR30+	PF0264858 [INOX]	30	-	-	-	-	STAIN. STEEL



KMS MAINSAIL LOCKING HEADBOARD CAR USED BY RACERS FOR OVER FIFTEEN YEARS



+KARVER

ADVANTAGES

- Compact & Light.
- External and /or internal remote.

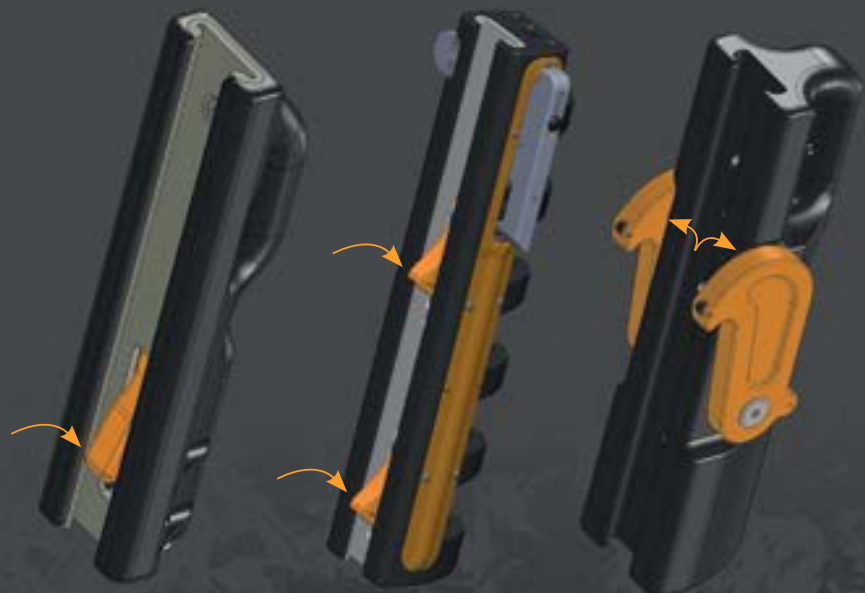


Locking a mainsail is a common solution on many racing yachts, Super Yachts, and cruising yachts.

LOCKING TECNOLOGIES

We supply a headboard car featuring a lock for the whole KMS product line (except KMS30). Depending on the load requirements and the yacht size, the "locking system" would be activated with one or two inserts (in red) into the track or with two hooks on the side for the bigger units.

References and characteristics available in the KMS section (p44/54).



▶ One lock

▶ Two vertical locks
(autolock option)

▶ Two horizontal locks