

# Quick Service

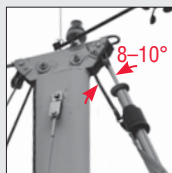
## HEADSAIL HANDLING

## Jib Reefing & Furling Systems

### SERVICE AT REGULAR INTERVALS

Flush unit with soap and fresh water. Occasionally lower sail and flush halyard swivel with soap and fresh water. At least twice a year unit should be cleaned more thoroughly by removing line (first note direction of spool) and flushing bearings with soap and fresh water. See manuals online for detailed troubleshooting tips and procedures at [www.harken.com/manuals](http://www.harken.com/manuals).

#### Inspect carefully for:



**Halyard wrapping:** Correct the halyard angle with a wire pendant or halyard restrainer so halyard is at an 8- to 10-degree angle from foil. Alternatively use a halyard deflector.

**Line jumps above guard on MKIII or MKIV and jams system:** Make sure line is led through one of two enclosed windows in guard.

#### Hard to furl or unfurl:

- **Too little headstay tension.** Increase headstay tension by accessing and adjusting the turnbuckle.
- **Too much halyard tension.** Try easing halyard. Remember, tensioning backstay tightens halyard. Set backstay, then tension halyard.
- **Line scrapes on line guard:** There may be too much line on the spool, or an incorrect lead block angle is spooling line onto the bottom of the spool. Make sure the lead angle is 90-degrees perpendicular to headstay, then if necessary untie and adjust the sheets to reduce the amount of line.
- **Line is wound on spool too loosely or has overrides:** Be sure the last block in lead system is a ratchet block to spool tightly.
- **Leads for furling line creating too much friction:** Use ball bearing blocks.
- **Furling line runs backwards through ratchet block:** Re-rig block in correct direction.
- **Stopper knot is catching:** MKI: Deadend with an overhand knot outside the drum. MKII, MKIII, MKIV: check that it runs through the correct hole, or reduce knot size.
- **Foils are scraping at top or bottom:** Foil may be too high or too low. Make sure foil hasn't dropped into torque tube and started riding on turnbuckle.
- **Tensioning halyard makes it hard to furl:** Missing top bushing, or swivel may be installed upside down.



#### Sail won't furl/unfurl completely:

- **Too much/too little line on the drum:** Untie sheets, turn furled unit to reduce/add line to drum, retie.
- **Line spools on bottom of drum and won't unfurl completely:** Adjust forward lead block so line exits drum at 90 degrees to headstay from middle of spool.

Find specific information including parts list at [www.harken.com/manuals](http://www.harken.com/manuals).

## ACCESSORIES AND REPLACEMENT PARTS

See manual for replacement component part numbers.

Note for ordering parts: Pre-1987 MKI units have different locking collars for swage, Norseman/STA-LOK®, and rod.

Furling unit	Halyard restrainer	Snap shackle	Halyard deflector
00AL	944	884	—
0	944	884	7301
1	944	884	7302
2	945	885	7303
3	945	—	7304
3.25	945	—	—



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## FURLING LEAD BLOCK KITS

Harken recommends equipping every system with Carbo® lead blocks for safe furling from the cockpit. The 7404 lead block kit provides a complete system for most boats. Fits 25 mm (1") stanchions.

- 7402 Ratchet: Maintains tension when spooling for smooth furling.
- 7403 Outboard assembly: Keeps furling line outboard of stanchion.
- 7401 40 mm block: Inboard lead on the bow pulpit.

Part No.	Description	Sheave Ø		Max line Ø		Maximum working load	
		in	mm	in	mm	lb	kg
7401	40 mm Carbo lead block assembly	1 <sup>1</sup> / <sub>16</sub>	40	3/ <sub>8</sub>	10	485	220
7402	57 mm Carbo ratchet lead block assembly	2 <sup>1</sup> / <sub>4</sub>	57	3/ <sub>8</sub>	10	500	227
7403	29 mm Outboard lead block assembly	1 <sup>1</sup> / <sub>8</sub>	29	3/ <sub>8</sub>	10	—	—
7404	Lead block kit*	Includes 3 x 7403/1 x 7401/1 x 7402/1 cleat					
7405	40 mm Carbo double lead block assembly	1 <sup>1</sup> / <sub>16</sub>	40	3/ <sub>8</sub>	10	485	220

\*Max line Ø: 10 mm (3/8")

**HARKEN**<sup>®</sup>  
INNOVATIVE SAILING SOLUTIONS

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### FAMILY IDENTIFICATION

Use to help order replacement parts. Note: Some parts on older furlers may not be available. Find specific information including parts list at [www.harken.com/manuals](http://www.harken.com/manuals).

Family	Line guard	Spool material & color	Torque tube	Screws near torque tube base	Unit Number/Date of manufacture
MKI	Stainless cup, one opening 	Gray-anodized aluminum	Straight cylinder 	Yes 	Size and date stamped on top of spool
MKII	Stainless curved plate secured to gray aluminum single line opening 	Gray plastic	Tapered 	Yes 	No unit size marked. See chart below. Date on hub of halyard swivel and lower unit (must remove split drum)
MKIII	Black aluminum line guard with 4 openings, 2 for line. 	Black plastic	Tapered 	Yes 	No unit size marked. See chart below. Date on hub of halyard swivel and lower unit (must remove split drum)
OOAL	Black aluminum line guard with 4 openings, 2 for line. 	Black plastic	Tapered top 	No 	No unit size marked. See chart below. Date on halyard swivel and lower unit (must remove drum)
MKIV	Black aluminum line guard with 4 openings, 2 for line. 	Black plastic	Tapered top 	No 	Size on label. No date marked. 
Cruising*	Black aluminum line guard with 4 openings, 2 for line. 	Black plastic	Straight cylinder 	No 	Size on label. No date marked. 
ESP*	Stainless steel line guards with 5 openings, 1 for line. 	Black plastic	None 	Hub extension connects to foils using set screws 	Measure drum Ø 

\*Cruising and ESP furler foils have a single sail groove. All other families have two.

### SIZE IDENTIFICATION (MKI, MKII, MKIII, ESP)

MKIV and Cruising furlers have unit size printed on label. For older models use drum diameter (measure across top of drum), clevis pin diameter, and torque tube length.

Unit size	Drum Ø		Clevis pin Ø		Torque tube length	
	in	mm	in	mm	in	mm
OOAL	5 3/4	146	1/4, 5/16, 3/8, 7/16	6, 8, 9.5, 11.1	9 1/2	241
0	5 13/16	147	3/16, 3/8, 7/16	8, 9.5, 11.1	5 7/8	150
1	7 7/16	188	1/2	12.7	7 7/16	189
1.5	7 7/16	188	5/8	15.9	13	330
2	9 1/2	241	5/8	15.9	10 3/16	262
2.5	9 1/2	241	3/4	19.1	17 1/4	438
3	12	305	3/4, 7/8	19.1, 22.2	13	330
3.25	12	305	7/8, 1	22.2, 25.4	15	381
ESP 0	6 1/2	166	5/16, 3/8	8, 9.5	—	—
ESP 1	8	200	7/16, 1/2	11, 12.7	—	—
ESP 2	9 7/8	250	5/8, 3/4	15.9, 19.1	—	—
ESP 3	11 3/4	298	7/8, 1	22.2, 25.4	—	—

