

HARKEN®

INSTRUCTIONS

598/669/1896/1994 Stand-Up Toggles

Fits Traveler Cars: 3163/3165/T3200 Series

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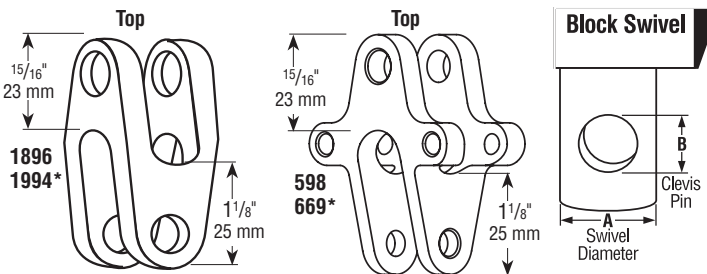
Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury or death. See www.harken.com/manuals for additional safety information.

598, 1896 Big Boat Stand-Up Toggles Fit

Mainsheet Blocks	Swivel Ø (A)	Clevis Pin Ø (B)
Midrange	9/16" (14.5 mm)	5/16" (8 mm)
Cruising ESP 57 mm	9/16" (14.5 mm)	5/16" (8 mm)
Cruising ESP 75 mm	19/32" (15 mm)	5/16" (8 mm)
57 mm Big Boat Double	5/8" (16 mm)	5/16" (8 mm)
57 mm Big Boat Triple	5/8" (16 mm)	5/16" (8 mm)
75 mm Big Boat Single	5/8" (16 mm)	5/16" (8 mm)
75 mm Big Boat Spriddle	5/8" (16 mm)	5/16" (8 mm)

Control Blocks - 598/669	End Controls	Purchase
2650, 2600, 1950, 1951	3168, 3173, E3230, E3230.HL	2:1
2650, 2601, 1951, 1959	3169, 3170, E3240, E3240.HL, E3246	3:1
2638, 2602, 1952, 1960	3169, 3170, 3183, E3250, E3250.HL	4:1
2640, 2604, 1954	3186, 3193	6:1

These are a sample of combinations. Many more combinations are available.



Parts List

No.	Description	Part No.	
		1896	1994*
1	Large cotter pin	HFS181	HFS181
2	5/16" (8 mm) clevis pin	HCP208	H-21164A
3	BB stand-up toggle	H-17343C	H25142C
4	Polyurethane stand-up device	MP-1839	MP-1839
5	Blue Loctite®	833	833
6	Replacement Set Screw (2)	HFS1050	HFS1050



*1994, 669 includes H-30392B adapter post to fit 100 mm blocks and 75 mm double and spriddle.

No.	Description	Part No. 598/669*
1	Large cotter pin	HFS181
2	5/16" (8 mm) clevis pin	H-21164A
3	BB stand-up toggle	H-29133C
4	Polyurethane stand-up device	MP-1839
5	1/4" (6 mm) clevis pin	H-29157A
6	Becket spacer	H-29681A
7	Split ring	MS-011
8	Blue Loctite®	833
9	Replacement set screw	HFS1050



*1994, 669 includes H-30392B adapter post to fit 100 mm blocks and 75 mm double and spriddle.

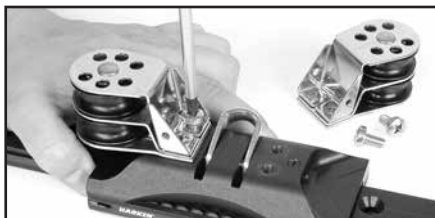
Install Toggle on Car

Tools

- Small slotted screwdriver
- Icepick
- Phillips screwdriver



1. Remove control blocks,



or windward assembly.



2. Remove two (2) plastic set screws located on top of car.
Cars with swivel ears will not have plastic set screws.
3. Use icepick to push pivot pin to one side and remove shackle.



4. Install one (1) plastic set screw so it is flush with top of car.
Cars with swivel ears:
Install one (1) swivel ear and screw using thread locking solution on screw.



5. Insert stand-up device so large flat end of rubber is up. Press down and push pivot pin into place.

6. Secure with set screw or swivel ear screw. Reassemble control blocks using blue Loctite® on screws.

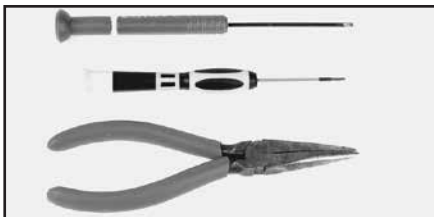
Note: Use Loctite® on stainless screws only. Do not use on plastic set screws.



Install Blocks on Toggle

Tools

- 2 small slotted screwdrivers
- 1/4" (6 mm) clevis pin only
- Needle-nose pliers



5/16" (8 mm) Clevis Pin

1. Remove block shackle. Insert block. Insert 5/16" (8 mm) clevis pin through toggle and secure with cotter pin.



Install Control Blocks on Toggle

1950, 1951, 1952, 1954, 1959 and 1960 blocks attach using shackle and becket spacer.



Install Control Blocks on Toggle (Continued)

2600, 2601, 2602, 2604, 2638, 2640 and 2650 blocks attach using shackle and becket spacer.



Replacing Polyurethane Stand-Up Device

1. Remove stainless toggle from car.

Tip: mark top of toggle to make installation of new stand-up device easier.

2. Use pliers to squeeze circular base of stand-up device; work device up and out the side.



3. Install replacement piece by squeezing circular base of stand-up device and inserting it from side of toggle.

Note: do not use pliers to squeeze new stand up device while installing. This will damage part.

Tip: use soap on circular portion of stand-up device.



Loctite® is a trademark of Henkel AG & Company KGaA.

McLube® is a registered trademark of McGee Industries, Inc.

Inspect

Frequently inspect shackles and control block fittings for signs of fatigue and replace as necessary. Make sure every installation includes Harken track end stops. Arrange control tackle so cars do not hit end stops under load.

Maintenance

Traveler Cars: Clean by frequently flushing with fresh water. Periodically clean car by squirting a detergent/water solution into center openings. Roll car back and forth to distribute evenly then flush bearings with fresh water.

Do not use spray lubricants because ball bearings may skid not roll. Apply one to two drops of McLube® OneDrop to ball contact surfaces of track. Roll car back and forth through OneDrop several times to distribute onto bearings. Wipe remaining OneDrop off track. OneDrop is preferred but you can also use one to two drops of a light machine oil. Too much oil attracts dirt.

Track: Clean with detergent and water.

Important! Exposure to some teak cleaners and other caustic solutions can result in discoloration of part and is not covered under the Harken warranty.

Warranty

For additional safety, maintenance and warranty information see www.harken.com/manuals or the Harken® catalog.