

HARKEN®

INSTRUCTIONS

1947/1948/1949 Stand-Up Toggles Fits Big Boat Traveler Cars: 3163/3165/T32 Series

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



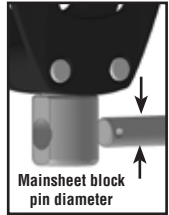
1947



1948



1949



Mainsheet block
pin diameter

1947 - use on cars with car mounted control blocks.

1948 - has ears to attach control blocks to toggle.

1949 - has a single ear and is used on cars with two toggles or on coupled cars.

1947, 1948, 1949 Big Boat stand-up toggles fit these Harken blocks:

Mainsheet Blocks	Size and Configurations	Pin diameter	
Element*	60 mm doubles, triples	8 mm	5/16"
	80 mm singles, fiddles	10 mm	3/8"
Midrange	All configurations	8 mm	5/16"
	57 mm doubles, triples	8 mm	5/16"
Black Magic	75 mm singles, spriddles, doubles	8 mm	5/16"
	100 mm singles	10 mm	3/8"

*1947, 1948 and 1949 toggles have increased spacing to fit Element block swivel posts. Element blocks do not fit toggles supplied before 2019.

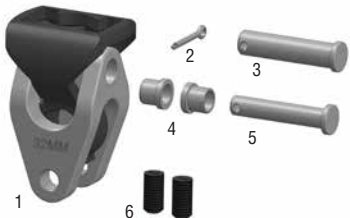
Control Blocks - 1948, 1949	End Controls	Purchase
2600, 6260, 3226,	3168, 3173, E3230, E3230.HL	2:1
2601, 6261, 3216, 3229,	3169, 3170, E3240, E3240.HL, E3246	3:1
2638, 2602, 6269, 3217, 3228,	3169, 3170, 3183, E3250, E3250.HL	4:1
2640, 2604, 6272, 3219	3186, 3193	6:1

These are a sample of combinations. Other combinations are available.

Parts List

1947

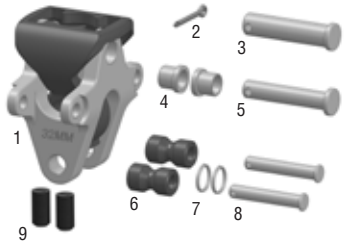
1 Toggle with elastomer stand-up assembled	
2 Large cotter pin	HFS181
3 10 mm (3/8") clevis pin	H-80233
4 Bushings - 8 mm (5/16") (2)	H-80231
5 8 mm (5/16") clevis pin	H-80232
6 Replacement set screws (2)	HFS1050
Elastomer replacement	MP-1839



Parts List (continued)

1948, 1949

1	Toggle with elastomer stand-up assembled	
2	Large cotter pin	HFS181
3	Clevis pin - 10 mm (3/8")	H-80233
4	Bushings - 8 mm (5/16") (2)	H-80231
5	Clevis pin - 8 mm (5/16")	H-80232
6	Becket roller*	H-80276
7	Split ring*	MS-002
8	Clevis pin - 6 mm (1/4")*	H-29157A
9	Replacement set screws (2)	HFS1050
	Elastomer replacement	MP-1839



*1948 quantity two (2). 1949 quantity one (1).

Install Toggle on Car

Tools

- Small slotted screwdriver
- Icepick
- Phillips screwdriver



1. If traveler car is an older style as shown, remove control blocks.



If car has windward assembly, remove.



2. Remove two (2) plastic set screws located on top of car. Very old cars with swivel ears will not have plastic set screws.



3. Use icepick to push pivot pin to one side. Remove shackle.

4. Install one (1) plastic set screw so it is flush with top of car. Older 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.

Note: On old models with stainless screws holding swivel ears, use Loctite® on stainless screws.

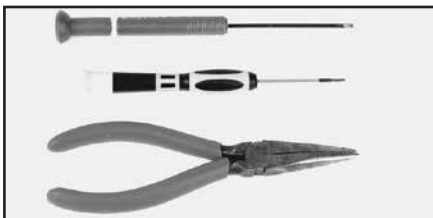
Do not use on plastic set screws.



Install Blocks on Toggle

Tools

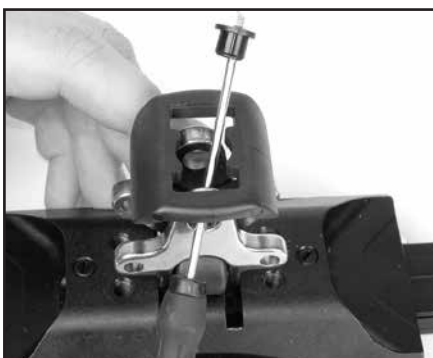
- 2 small slotted screwdrivers (Used only for 8 mm (5/16") clevis pin)
- Needle-nose pliers



8 mm (5/16") clevis pin

Load bushings from inside toggle.

Tip: Slip small screwdriver into hole and use it as a guide to insert SS bushing.



Both pin sizes

Remove block shackle. Insert block's swivel post into stand-up. Slip clevis pin through toggle. For 8 mm (5/16") pin make sure bushings stay in place. Secure with cotter pin.



Install Control Blocks on Toggle

Higher load blocks: Black Magic and Element. Attach using shackle over becket roller. The shackle bears against the black elastomer which helps keep the block lifted.



Install Control Blocks on Toggle (continued)

**2600, 2601, 2602, 2604,
2638, 2640 and 2650**

Attach blocks by running toggle arm pin directly into hole in block post. Do not use becket roller.



Replacing Elastomer Stand-Up Device

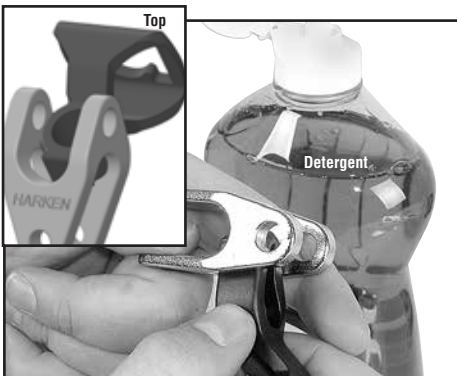
1. Remove stainless toggle from car.
2. Use pliers to squeeze circular base of stand-up device; work device up and out the side.
3. Install replacement piece by squeezing circular base of stand-up device and inserting it from side of toggle.



IMPORTANT! Make sure toggle and elastomer are right side up. Refer to "Harken" on 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 to ease installation.



Inspection

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.

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