

# **Anchoring Guide**

#### **HA0297 – Anchoring Attachment Kit**

### Introduction

Freestanding boat lifts can be susceptible to wind loads that can cause rollovers. The risk of a lift rollover varies due to water depth, lift orientation, lift size, and lift configuration. Anchoring a boat lift to the earth can greatly mitigate rollover risk. The intent of this document is to provide guidance for when and how to anchor a ShoreStation lift in place to promote stability during windy conditions.

#### **▲** CAUTION

- Be sure to check with your local authorities regarding any permitting or approval that may be needed prior to installing an anchoring system.
- Do not create an underwater hazard for swimmers or boats when selecting and installing an anchoring system.
- Be sure to disconnect the lift from the anchor(s) prior to removal or adjustment of the lift.
- Lift rollovers due to wind are not covered under warranty regardless of whether the lift was anchored.

## **Application**

ShoreStation recommends applying an anchoring system with 1,000 pounds of pullout force to any ShoreStation boat lift that has a canopy structure installed. This recommendation applies to lifts in the water or on dry land in the off-season.

Due to the variability of lakebed conditions, lift configurations, local weather patterns, and lift orientations relative to prevailing wind directions, the installer should assess the application and determine the best anchoring system for each unique situation.

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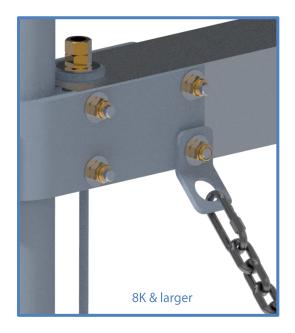
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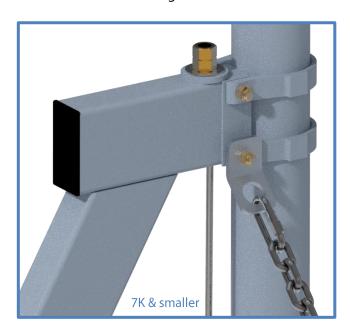


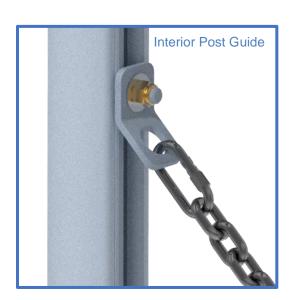
## Lift Attachment

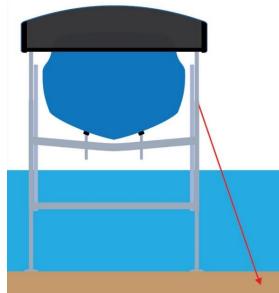
An anchor should be installed on the broad side of the lift most susceptible to the prevailing wind direction in the area. If both sides of the lift are exposed, then an anchor can be installed on both sides.

ShoreStation provides two 5/16'' quick links and two anchoring brackets in the hardware bag of every canopy structure bundle. We recommend attaching the bracket(s) to one of the  $\frac{1}{2}''$  bolts connecting the lift tube (or brace tube) to the lift structure. The bracket(s) can also be attached with a carriage bolt in the slot of an interior post guide. The quick link can then be fastened to the bracket and then to an anchoring chain or cable.









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# Recommended Types of Anchors

ShoreStation has tested a variety of anchors. Your anchor selection is dependent on a few conditions:

- What is the condition of the lakebed?
- Is the placement of the boat lift going to be consistent every season?
- Will the anchor installation be permanent, or will the anchor need to be removed in the offseason?

If you are required to remove the anchor, then a screw style anchor is recommended. Screw style anchors come in a variety of sizes and lengths to provide sufficient anchoring force. Screw style anchors are installed with a large hand wrench or hydraulic or pneumatic power tool using a large hex socket (1" - 2") depending on the size of the screw. The anchor can be removed by simply backing it out with the tool.

Screw anchors work well in mud, gravel, and sand. Screw anchors can be a challenge if there are a lot of underground obstructions like boulders or tree stumps.

If the anchor can be permanently installed, then an 'arrow style' anchor may be a good option. Like screw anchors, arrow anchors are available in a variety of sizes. The anchor is installed using a pipe and a pounder to drive the screw into the soil. After driving to the recommended depth, the anchor is 'set' by pulling up on the anchor line causing the anchor to flatten underground. In the off season, the anchor line is dropped to the bottom. The line is retrieved the next season using a hook or a magnet and reattached to the lift.

Lakes with hard surfaces will require a weighted anchor like the anchors used for swim rafts or floating docks. These are usually concrete blocks tied together with wire rope or poured cement blocks. ShoreStation also offers lower frame weights (HA0270-16) that can be placed on the lower frame of the boat lift. Multiple 50 lbs. weights can be combined to increase the lift stability.

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