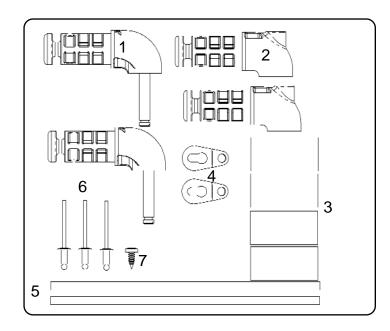
# **Tiller End Cap Replacement Instructions**

## Kit components

- 1. (2) Tiller End Cap w/ Pin
- 2. (2) Tiller End Cap w/ Through Hole
- 3. (4) Mylar Shim Bearings
- 4. (2) Retainer Clips
- 5. (2) Cut Bungee Cords
- 6. (3) Rivets
- 7. (1) Sheet Metal Screw

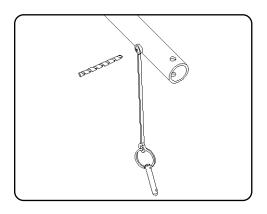
#### **Tools Required**

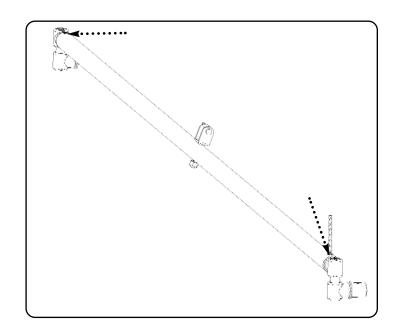
- 1. Phillips Head Screwdriver
- 2. Rivet Gun
- 3. 3/16" Drill Bit
- 4. 5/16" Drill Bit



#### **Part Removal**

- 1. In order to use this kit, you need to remove the tiller end caps that are currently on the rudders and tiller crossbar. Use a power drill to drill out the rivets on the tiller crossbar.
- 2. You also need to remove the rivet and lanyard on the tiller arms that is holding the quick pin.



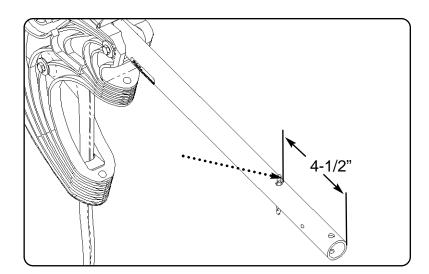


# **Drilling New Holes**

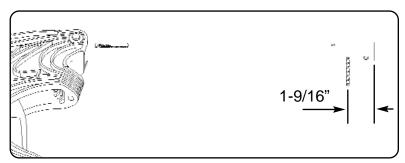
You will need to drill new holes for the new tiller end caps. On the back page of this manual there are drill guides that you can cut and tape to the tiller arms and tiller crossbar to locate the holes.

THE LOCATION OF THE HOLE IS VERY IMPORTANT IN ALLOWING THE TILLER CONNECTORS TO WORK PROPERLY.

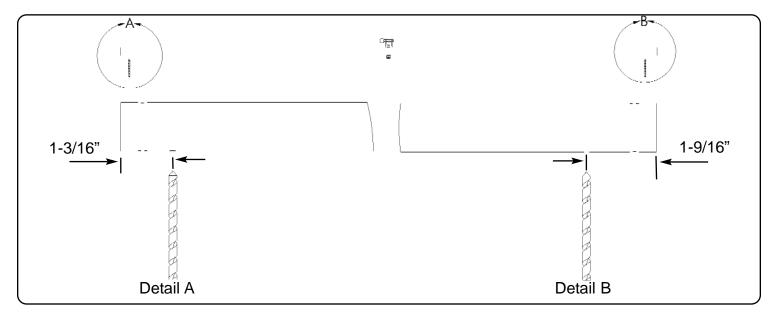
1. To locate the holes for the Bungee cords, measure 4-1/2" from the end of the tiller arm and drill a 5/16" hole all the way through the tubes on the tiller arms. Use a file to de-burr the edges around this hole to eliminate any sharp edges.



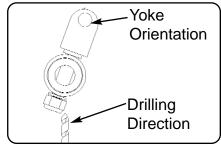
3. Now drill one 3/16" hole on the bottom of each tiller arm using the guide or measuring device to locate the hole. The hole is located 1-9/16" from the end of the tiller arm.



3. Now drill one 3/16" hole on each end of the tiller crossbar using the guide or measuring device to locate the hole. Note that the locations of the holes are different on each side of the tiller crossbar (one side is 1-3/16" from the end and the other is 1-9/16" from the end).

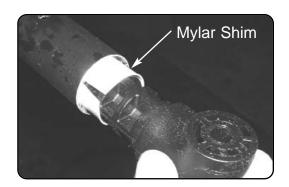


GETAWAY USERS! It is important that when you are drilling the holes on the tiller crossbar that they are on the bottom and that the tiller extension yoke is oriented as shown to the right.



#### **Tiller End Cap Installation**

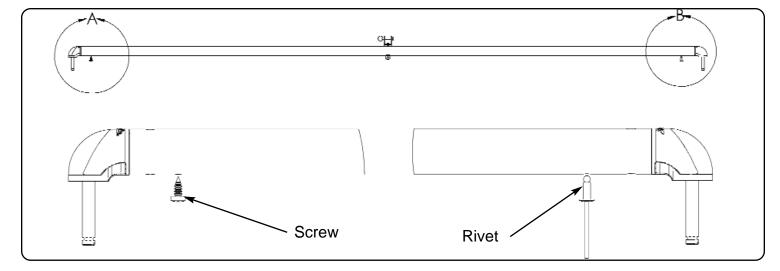
1. The end caps with the holes go on the tiller arms. Start by partially sliding the mylar shim into the aluminum tube. Now install the tiller end cap which will push the mylar sheet in the rest of the way.



2. Put a rivet into the hole and pop it. This rivet pops in the groove on the tiller end cap and allows it to spin while preventing it from falling out.

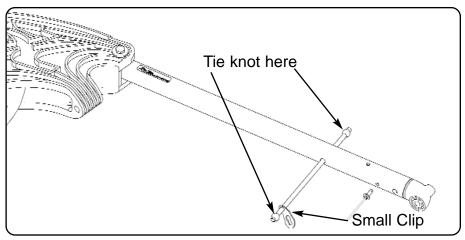


3. With the tiller crossbar, you only install a rivet in one of the holes. On the hole that is 1-3/16" from the end of the tube, turn the tiller end cap so that it is facing down and align the small hole in the plastic part with the hole in the aluminum bar. Thread the small sheet metal screw into the hole and tighten down. This will allow only one side to spin while the other is stationary.



## **Bungee Cord Installation**

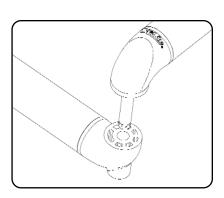
- 1. Pass the Bungee cord through the small 5/16" that you drilled into the tiller arms and tie a knot on the top of the bungee cord.
- 2. Pass the small clip onto the other end of the Bungee cord and tie a knot to hold it on

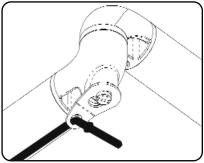


### How to Use the New Till End Cap Setup

- 1. With the rudders installed on the boat, take the pin end of the tiller crossbar and insert it through the hole on the tiller arm. Make sure that the two large surfaces are in contact with one another. The tiller crossbar should always be on top of the tiller arms.
- 2. Stretch the bungee and pass the locking clip over the end of the pin and engage it in the groove.







#### How to Use the Drill Guides

- 1. Cut out each rectangle.
- 2. Line up the end indicated on the piece of paper with the end of the extrusion and tape into place.
- 3. Use the crosshatch to identify the center of the hole that needs to be drilled.



