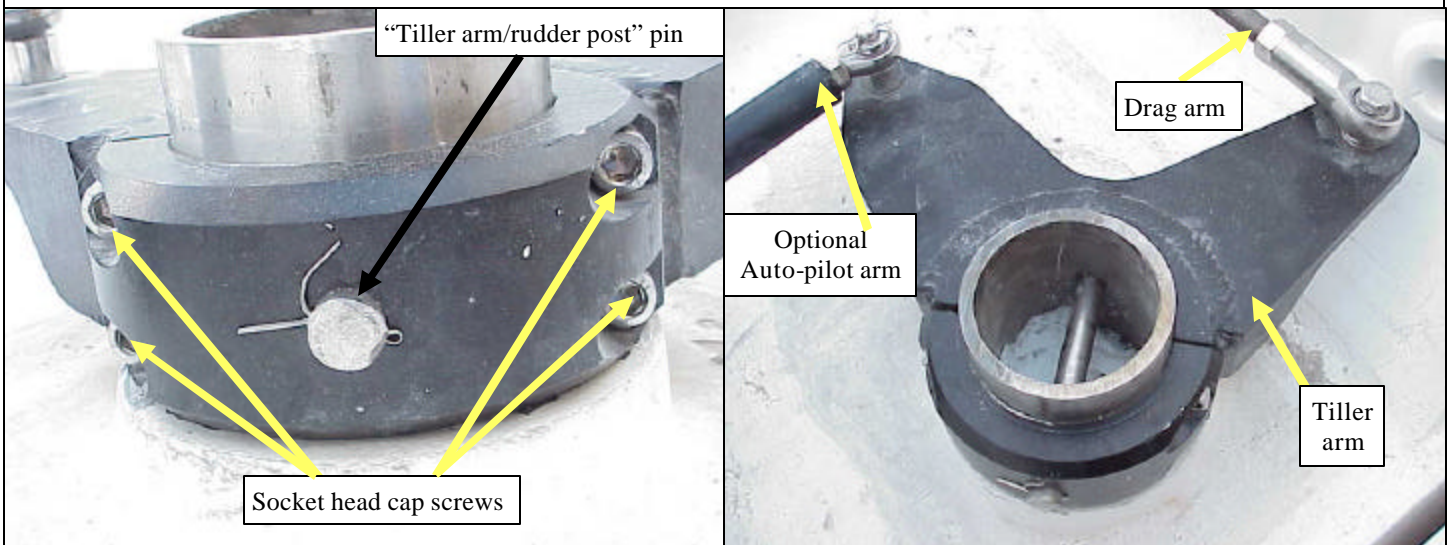


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The following procedures explain how to replace the composite style rudder post rudder with the stainless steel rudder post rudder. This will be broken down to four steps: removing the old rudder, removing the old rudder bearing, installing the new rudder bearings, & installing the new rudder.

RUDDER REMOVAL

CAUTION: The rudder will need to be supported from underneath before continuing these steps. Once the tiller arm is taken off the top of the rudder post the rudder can fall out. Make sure there is nothing that can be damaged under the rudder. Access to the tiller arm can be obtained by removing the quad cover.



1. Remove the "tiller arm/rudder post" pin then loosen the four socket head cap screws clamping the tiller arm to the rudder post. From underneath the boat lower the rudder out of the rudder tube.
2. Place the tiller arm off to the side. Do not loosen the nuts that will change the length of the drag arm, the length has been set so the rudder is centered when the steering wheel is centered.

OLD RUDDER BEARING REMOVAL

The existing bottom bearing will not have to be removed as the bottom bearing for the stainless steel rudder post will slip into the existing bearing. The existing top bearing will need to be removed & may just slide out if you reach in and pull it by hand. If this doesn't work insert a long enough rod through the bottom of the rudder tube so it rest on the bottom of the top rudder bearing then use a hammer to tap the bearing out. **NOTE:** The material the bearings are made of is temperature sensitive, it expands when it gets warmer & shrinks when it cools off. If the bearing is tight you can try to cool it down so it will come out easier.

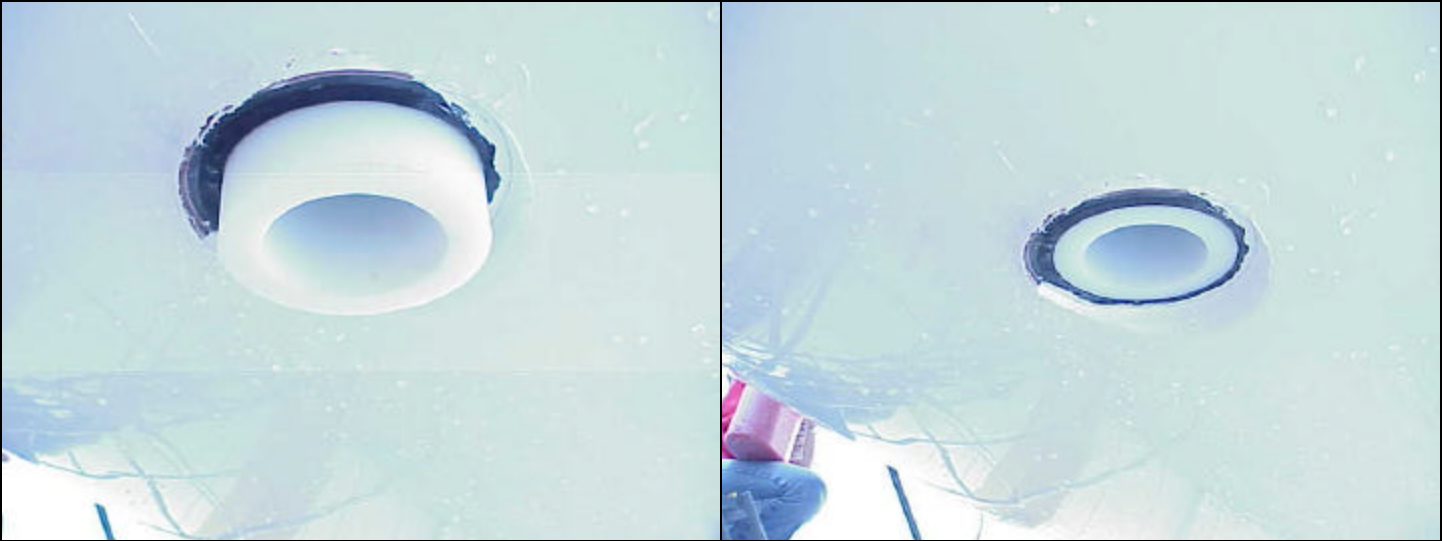


Place the end of a long rod on the bottom of the top bearing and tap it out with a hammer.

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NEW RUDDER BEARING INSTALLATION

Place the new rudder top rudder bearing in the top of the rudder tube and gently tap the bearing down with the end of a hammer until it seats against the top of the rudder tube.



The new bottom bearing will slip into the existing bearing. It should be tapped in until it is flush with the bottom of the rudder tube.

NEW RUDDER INSTALLATION



Place the 3/8"-1/2" UHMW shim over the stainless steel rudder post before inserting the post into the rudder tube.

From under the boat put the rudder post up thru the rudder tube & bearings. The rudder weighs 175 to 200 lbs and will need to be held up tight against the lower bearing with the trailing edge is centered to the boat until the tiller arm can be tightened.

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NEW RUDDER INSTALLATION



Use some form of leverage or jack system to raise the rudder into position. The rudder should be tight against the bottom bearing. The rudder will need to be blocked in position so the trailing edge is centered to the boat.

Center the steering wheel so the keyway on the shaft that holds the wheel faces straight up, the steering wheel should turn two complete revolutions so make sure it is not at one of the two extremes but is in the middle. Lock the steering wheel in this position.

Place the tiller arm over the stainless steel rudder post so it is all the way down against the rudder tube. Tighten the four socket head cap screws to clamp the tiller arm to the rudder post. Double check everything: steering wheel centered, rudder all the way up-no gap between it & the lower bearing and centered, tiller arm all the way down against rudder tube with no gap. Use the holes in the tiller arm to mark where the rudder post will need to be drilled to accept the tiller arm/rudder post pin & mark these locations.



Loosen the four socket head cap screws then remove the rudder and drill the marked locations with a 5/8" drill bit.

Following the same procedures as before place the rudder back into the boat then place the tiller arm onto the rudder post. Insert the "tiller arm/rudder post" pin thru the hole in the tiller arm and secure it in place with the retaining clips. Tighten the four socket head cap screws and attach the drag link from the steering pedestal to the tiller arm. Unblock the rudder and unlock the steering wheel and that completes the rudder replacement.