

TIDES MARINE Spare Seal Carrier Installation Overview

Original Installation

1. Determine where the Spare Seal Carrier (the Carrier) will be located on the rudder stock. Be certain there are no nicks, burrs or corrosion in this area of the rudder stock which could damage the lip seal during installation or operation. Disassemble the carrier by removing the screws and separating the two halves.
2. Carefully press the spare lip seal onto the red installation hat - smooth side (with part number imprint) first.
3. Slide the hat and seal onto the stock, seal-side first.
4. Remove the hat and confirm that the spare seal is facing in the same direction (part number up) as the lip seal in the RPB unit.
5. Reassemble the Spare Seal Carrier housing round the lip seal with the shoulder facing upward.
6. Confirm that there is at least $\frac{1}{2}$ " between the Carrier and the Tides RPB. Tighten the assembly screws in the Carrier until it grips the rudder stock securely and rotates with the rudder stock as it turns.

Seal Replacement

1. Thoroughly clean the rudder stock surface between the Spare Seal Carrier and the Tides RPB. Remove any surface imperfections or foreign material which could damage the lip seal during this process.
2. Remove the snap ring or spiral retaining ring from the Tides Marine RPB above the worn lip seal. Remove it from the rudder stock and set aside
3. Disassemble the Carrier and remove the housing halves from the rudder stock. Slide the lip seal away from the RPB until you have removed the old lip seal from the RPB housing.
4. Using a hook or needle-nose pliers, remove the worn lip seal and cut it away from the rudder stock. **DO NOT PRY ON SEAL HOUSING.**
5. Inspect the area on the shaft where the new lip seal will ride. The area must be smooth, clean and free from pitting or scratches for the new lip seal to work properly. If necessary, polish the shaft using 300-grit wet/dry sandpaper working radially around the shaft.
6. Carefully slide the replacement lip seal down the stock until it touches the Tides Marine RPB unit.
7. Reassemble the Carrier on the rudder stock above the lip seal with the shoulder facing down toward the RPB unit. Tighten screws until the housing is closed but can still move on the rudder stock. Move it down the rudder stock until it abuts the spare lip seal.
8. With a mallet or hammer, gently tap the end face of the Carrier to drive the lip seal into position. Be careful not to damage the rudder stock or RPB housing.
9. When the lip seal is seated properly, the retaining ring groove will be fully exposed.
10. Remove the Carrier and reinstall the retaining ring

