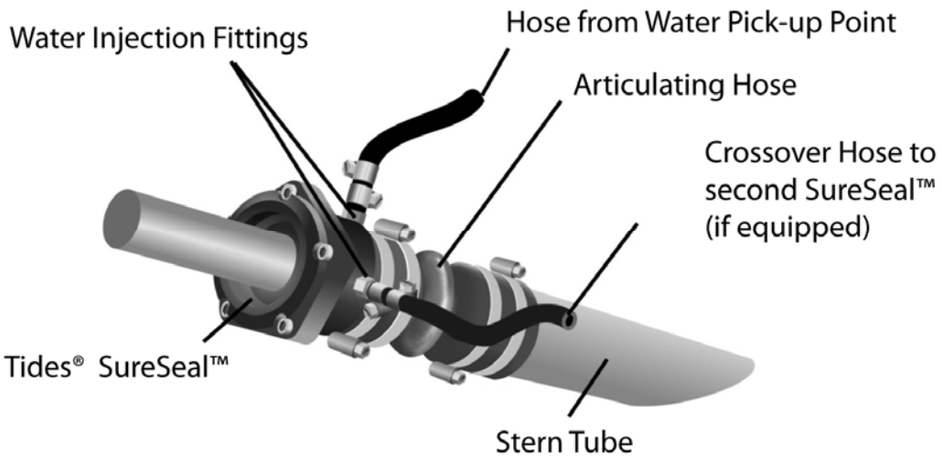
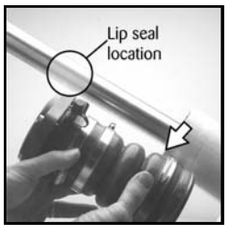
SureSeal™ System
Shaft Seal Installation Instructions

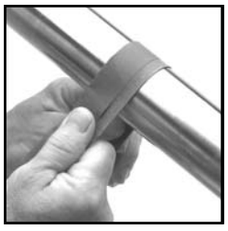


1 Remove shaft from transmission coupling. Disassemble and remove existing shaft sealing system. DO NOT RE-USE THESE COMPONENTS WITH THE SureSeal™.

2 Draw the shaft back up against the coupling. This will expose that portion of the shaft that was located under the old hose and shaft seal system.

3 

Position assembly (as shown) next to stern tube to determine approximately where the lip seal will ride on the shaft.

4 

Examine area carefully. Be sure it is free of pitting, nicks or surface imperfections which could cause leaking. Clean area thoroughly. Polish the shaft using 300 grit wet/dry sandpaper or emery cloth, working around the shaft. Fore and aft actions could put flats or grooves in the shaft. The assembly may be shifted forward on the shaft by adjusting the position of the hose on the stern tube at time of installation.

5

Place two hose clamps over each end of the articulating hose. Insert the SureSeal™ into the hose as far as it will go. Tighten hose clamps around the SureSeal™.

6

Carefully press the red installation hat into the front of the SureSeal™. Make certain it covers the “lip” portion of the seal.

7 Back the shaft away from the coupling to provide enough room to install the assembly.

8

Carefully slide the assembly (hose end first) onto the shaft and onto the stern tube.
DO NOT USE GREASE!

Push the articulating hose over the stern tube as far as it will go. If you are using straightwall hose, no more than two inches. Do not tighten clamps.

9 Reconnect the shaft to the coupling. Make certain the coupling is firmly secured to the transmission. Slide the SureSeal™ forward on the shaft until the hose is clear of the stern tube. Check to make certain the shaft is centered in the stern tube. If it is not centered, it will be necessary to realign the running gear to achieve this end result. If the shaft is not centered in the stern tube, side loads on the SureSeal™ will be created, dramatically reducing bearing/life performance. Then, carefully slide the SureSeal™ assembly onto the stern tube, making sure the articulating hose does not "bend" in any direction.

10

Evenly space the two hose clamps over the stern tube end of the hose. Stagger hose clamp drives on either side of the hose to distribute pressure evenly. Make certain the drives are accessible. Confirm that hose clamps fully engage the SureSeal™ and the stern tube. Tighten clamps.

11

Pull the red installation hat from the SureSeal™. Separate the tabs to split the cone and remove it from the shaft. Retain hat for future use or contact Tides for replacements.

12

Connect the SureSeal™ to a pressurized water supply source (a point in the engine's raw water cooling system) by attaching the water injection hose to the stainless fitting on the SureSeal™ housing. If there is a second injection hose fitting on the SureSeal™, it is used to complete a crossover feed between the port and starboard SureSeals™.

CHECK WATER SUPPLY FROM THE ENGINE TO THE SURESEAL™ BEFORE OPERATING VESSEL.

There should be at least one gallon per minute flowing into the SureSeal™ at engine idle.

CAUTION!

IN MOST SAILBOATS AND THOSE POWERBOATS WITH ENGINE(S) INSTALLED BELOW THE WATERLINE (OR WHERE WATER-LIFT MUFFLERS ARE USED), A VENTED LOOP MAY BE REQUIRED TO PREVENT BACK FLOODING OF WATER THROUGH THE EXHAUST SYSTEM INTO THE ENGINE. ABYC GUIDELINES REGARDING MATERIALS AND INSTALLATION PRACTICES SHOULD BE FOLLOWED.

The water pick-up fitting should be installed in the "pressure side" of the vented loop "T". This vented loop should be as far above the waterline as is practical (a minimum distance of 12" is required). In twin engine applications with water-lift mufflers, a check valve in the water pick-up line is required if a crossover line is used.