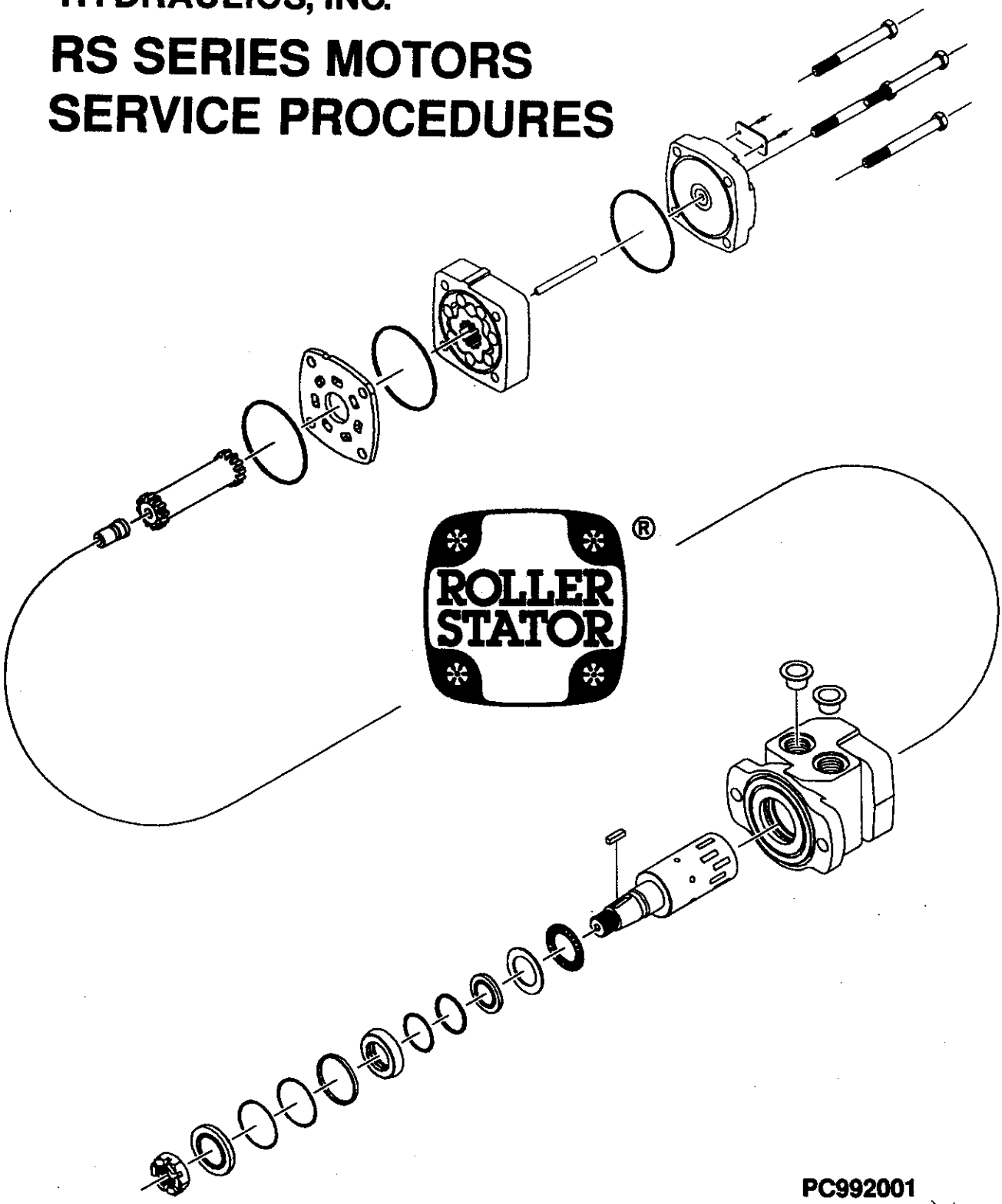
White

HYDRAULICS, INC.

RS SERIES MOTORS SERVICE PROCEDURES



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INTRODUCTION

IMPORTANT: PLEASE READ THIS SECTION BEFORE ATTEMPTING ANY SERVICE PROCEDURES.

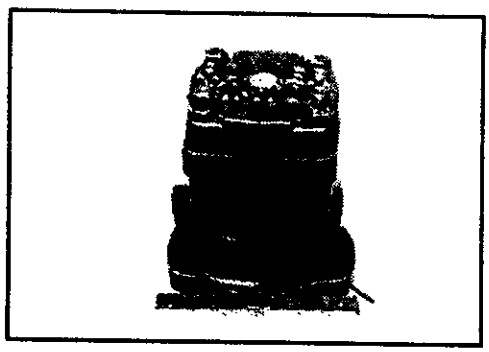
The service procedures given in this section are specifically for all RS Series motors. The procedures given are designed as a guide for the installation of seal kits and are not intended for trouble-shooting purposes. The service procedures given have been presented as clearly and accurately as possible. However, White Hydraulics makes no guarantees that the directions and descriptions are complete or accurate or that following the procedures will result in a properly functioning motor.

All White Hydraulics' motors are of the highest quality and are guaranteed against defects in workmanship and materials for four years from the date of manufacture (a copy of the warranty can be obtained from the distributor or the factory.). However, any disassembly of the motor voids this warranty. If a motor is suspected of having a warranty problem, the motor should not be disassembled, but should be returned to White Hydraulics for analysis and warranty consideration. Before returning motors to the factory, White Hydraulics must be contacted to obtain a Return Authorization number. No returned motors will be accepted at the factory without the RGA number printed on the outside of the box.

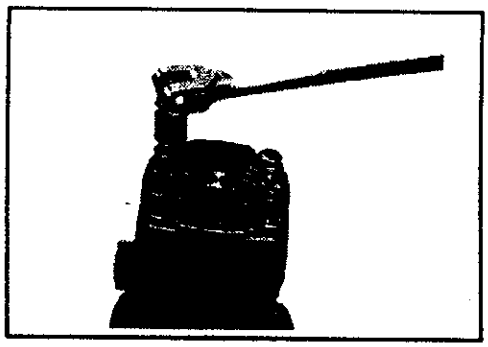
Because of the extremely tight tolerances designed into every White Hydraulics' motor, care should be taken to provide a clean work area when servicing a motor. Before the motor is removed from any machinery, all fittings and the area around the fittings should be thoroughly brushed and cleaned to remove all dirt. Care should be taken to insure that no dirt enters the motor through the ports. Once removed from the machinery, the ports should be plugged and the outside of the motor cleaned in preparation for service. White Hydraulics recommends that a new seal kit be installed anytime that the motor is disassembled. Failure to do so could result in leaks when the motor is returned to service.

SEAL KIT INSTALLATION

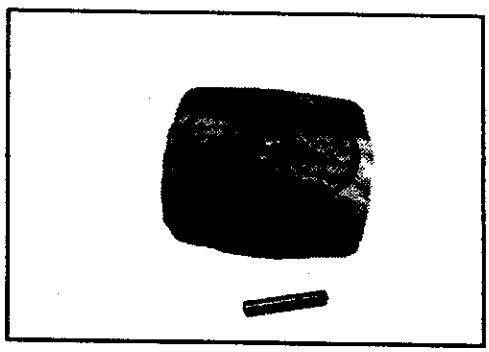
This section contains the service procedures necessary to install a seal kit in all White Hydraulics' RS series motors. White Hydraulics recommends that a new seal kit be installed anytime that the motor is disassembled



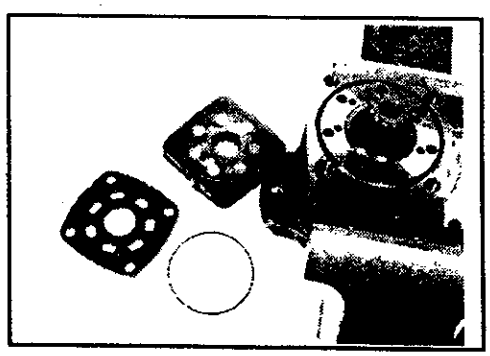
1. Using a marker or paint, make a V-shaped set of lines on the rear assembly of the motor from the housing to the endcover as shown. These lines will aid in part realignment when reassembling the motor. Depending on shaft type, remove any keys or nuts from the shaft.



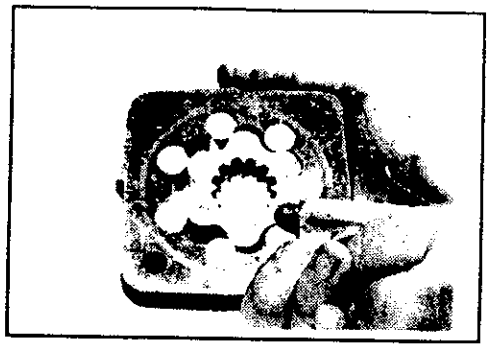
2. With the shaft facing down, securely tighten the motor in a vise by clamping around the ports in the housing. Using a breaker bar and a 9/16" socket, loosen and remove the four bolts attaching the rear assembly to the housing.



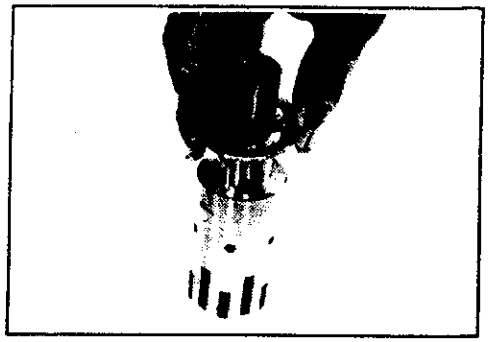
3. Lift the endcover from the motor and remove the seal and discard. Lay the endcover aside. Remove the drive link pin from the drive link and lay aside.



4. Lift the rotor set from the motor and remove and discard the seal from the face of the rotor set. Lay the rotor set aside. Remove the wear plate from the motor and lay aside. Remove the seal from the groove in the rear face of the housing and discard.

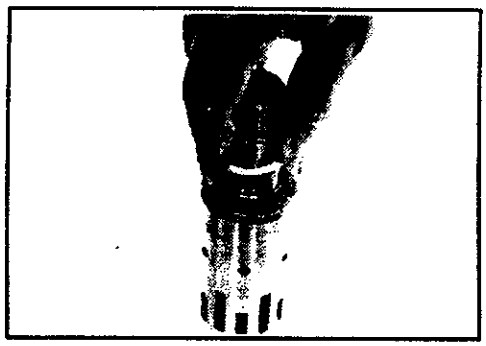


11. At this point, all parts should be cleaned in an oil based solvent. After the parts have been cleaned, use compressed air to carefully dry all parts. Make sure to remove all solvent from the bolt holes in the housing as failure to do so could result in a cracked housing when the bolts are reinstalled.

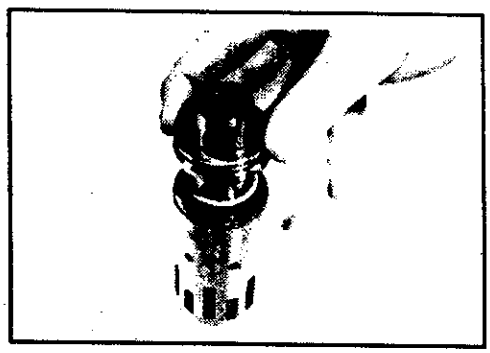


12. Place the shaft on a clean dry surface with the output end of the shaft facing up and apply a light coat of STP® to the seal area of the shaft. Install the thrust bearing and then the thrust washer onto the shaft.

13. Being careful not to cut the new shaft seal on the keyslot or splines on the shaft, push the new seal down onto the shaft. The flat side of the seal should be facing up. (Clear tape may be applied over the keyslot to aid in seal installation.)

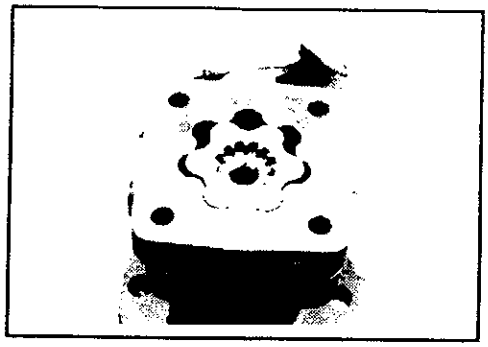


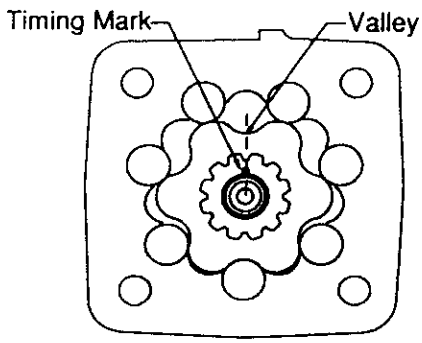
14. Place the new white teflon backup seal onto the shaft making sure that the lip on the inside diameter faces the shaft seal. Next, place the new backup shim onto the shaft over the teflon backup seal.



15. Place the seal carrier over the shaft making sure that the side with the recess faces the shaft seal. Center the seal in the recess in the seal carrier and use a press and a sleeve to gently press the seal carrier down until the seal is seated in the seal carrier. A plastic headed hammer and sleeve may be used if necessary.

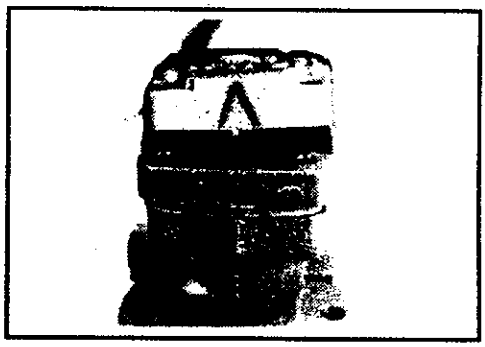
16. Coat the new high pressure seal in STP® and place the seal into the groove in the housing. To install the backup shim, squeeze the shim until it bows in the middle (do not fold the shim in half). While maintaining the bow, install it in the groove next to the high pressure seal in the housing. (Shim installation continued with step 17.)

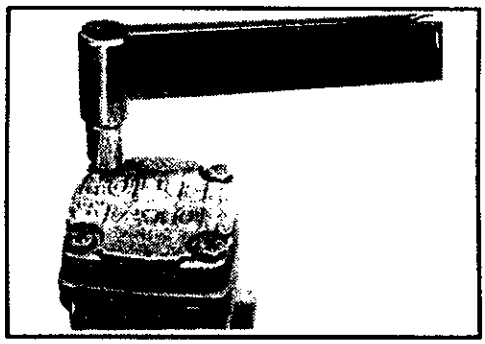




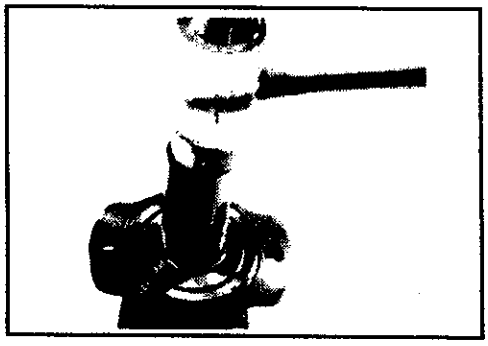
ROTOR SET TO DRIVE LINK ALIGNMENT

22. With the seal side facing down, line up the drive link timing mark with any one of the valleys on the rotor and lower the rotor set onto the motor (See drawing at right). Once the splines are engaged, the rotor set should be rotated until the alignment marks match those on the wear plate. (Check to make sure that all rollers are in the rotor set.)





23. Install the drive link pin into the end of the shaft with the concave end up. Lightly coat a new body seal in STP® and place it in the groove in the face of the endcover. Using the alignment marks as a guide, place the endcover ontc the rotor set making sure that the drive link pin extends into the hole in the center of the endcover.



24. Install the four 3/8-24 bolts and pre-torque to 5-10 ft.lbs. using a 9/16" socket and torque wrench. Using the bolt torque sequence shown at the right, torque all bolts to 50 ft.lbs.

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25. Remove the motor from the vise and set on the work surface with the shaft end facing up. Making sure that the flat side of the dust seal faces up, install the dust seal over the shaft and use a sleeve and plastic headed hammer to tap the seal into the front face of the housing.