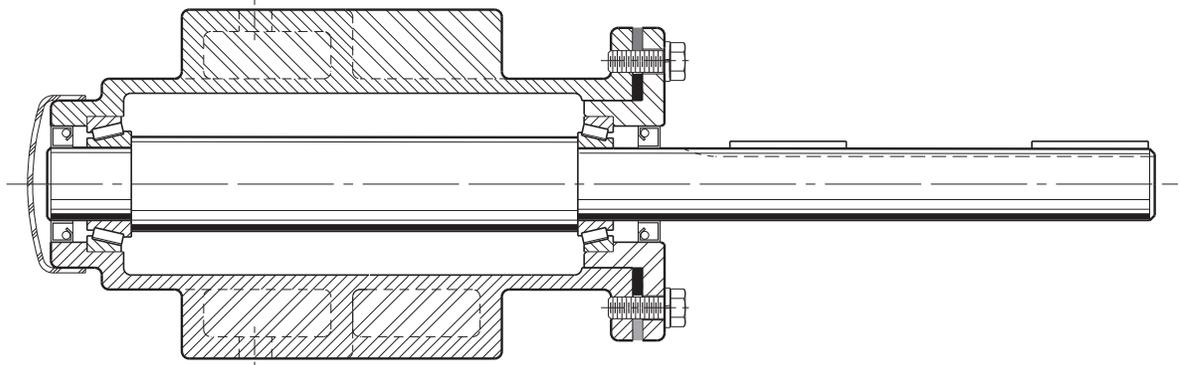


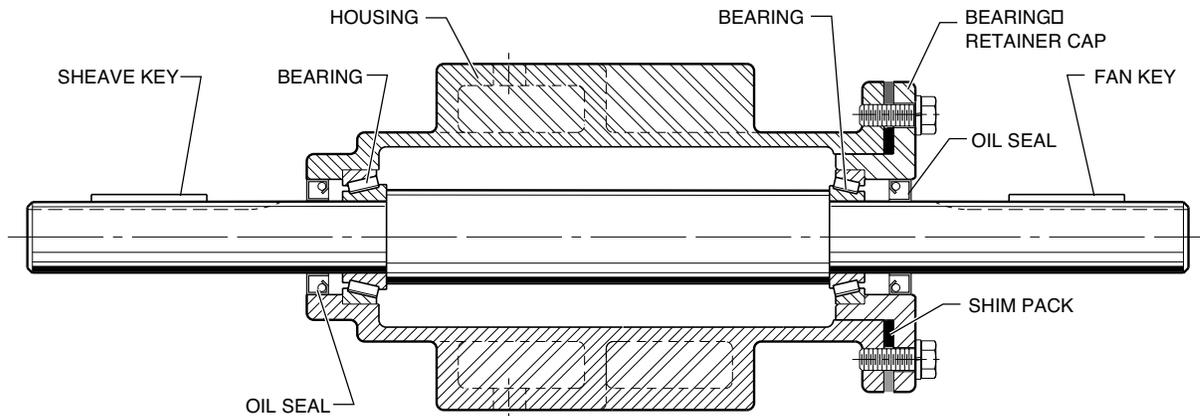
118 – 118SE Series bearing housing

INSTALLATION - OPERATION - MAINTENANCE

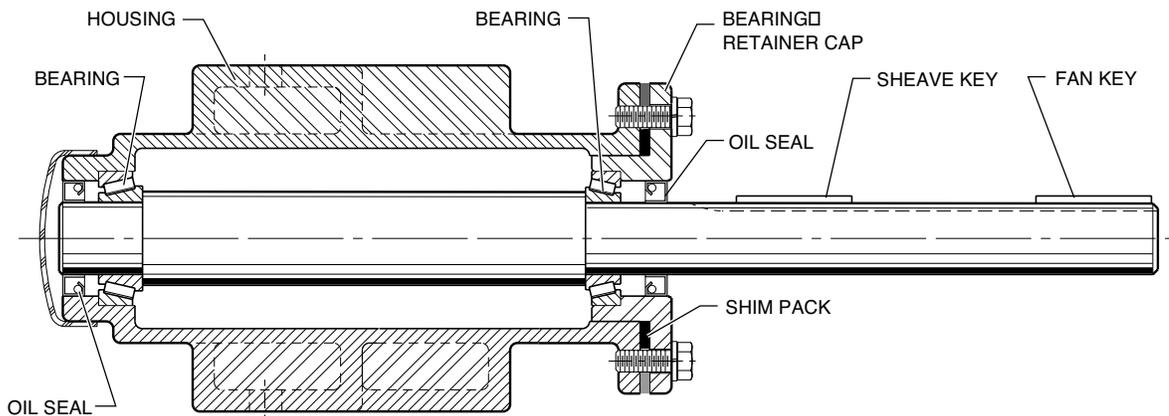
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READ AND UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR SERVICING THIS PRODUCT.





Series 118



Series 118SE

Installation

Install the bearing housing in the tower support, positioned as shown. Use a rustproofing compound on the bearing shaft to reduce corrosion and make future disassembly easier. Install sheave and fan. Check fan tip clearance before operating fan.

Lubrication and Maintenance

Bearing housings installed on new towers are filled with oil at the factory. Bearing housings on parts orders must be filled after installation. Fill the bearing housing before attaching the oil fill line—attach the oil line and fill the oil cup to full mark. Do not overfill the oil cup, thermal expansion during operation may cause the oil to overflow. Routine oil level checks should be made at the oil fill cup. Drain and replace the oil every 6 months using ISO 100 grade turbine type mineral oil. The oil used must not be adversely affected by moisture. Check the bearing housing for leaks periodically. While changing oil, check shaft for excessive end play and bearing roughness. Adjust end play or replace bearings as required. Clean and repaint the housing as necessary .

Repair and Overhaul

Replacement parts, bearings, seals and shims may be purchased locally, or from SPX Cooling Technologies. The shaft and castings may be purchased, however, if these items are required a complete replacement assembly is recommended. If the bearing housing is repaired, the following procedure is recommended.

Disassembly

1. Remove fan and sheave from bearing housing shaft and remove bearing housing from the tower.
2. Remove the three cap screws that secure the bearing retainer cap.
3. Remove shaft from housing.
4. Remove plastic dust cap—Series 118SE only.
5. Remove bearing cups if bearings are to be replaced.
6. Oil seals should be replaced anytime housing is disassembled.
7. Remove bearing cones from shaft if bearings are to be replaced.

Assembly

All parts that are to be reused should be thoroughly cleaned with kerosene. If a press is not available to install bearing cones, they may be heated as long as the temperature does not exceed 275° to 300°F. If the bearings get hotter than this, they begin to draw and soften. Bearings may be heated with infrared lamps or with an oil bath. If an oil bath is used, the bearing should be supported above the bottom of the pan to prevent local overheating.

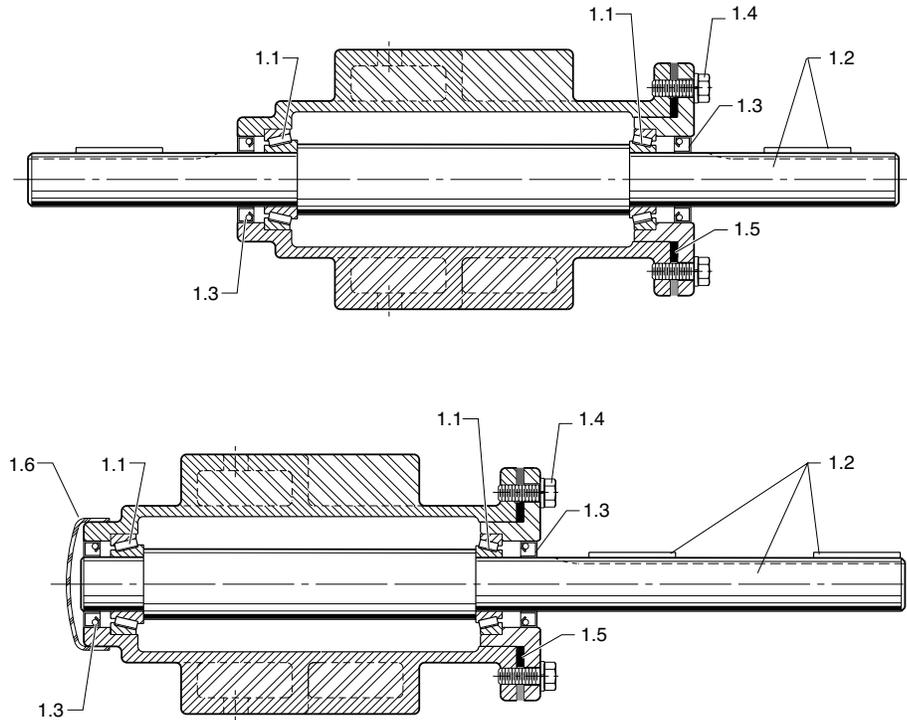
1. Install bearing cones on shaft.
2. Install bearing cups in housing and retainer cap.
3. Apply gasket sealer around outside mating surface of oil seals and install in housing and retainer cap. Install plastic dust cap—Series 118SE only.
4. Apply strips of tape over the keys to protect the oil seals from damage during installation. Coat surfaces of shaft extensions with mineral oil to provide initial lubrication for oil seal lips.
5. Install the shaft and bearing retainer cap using original shim pack. Measure bearing end play and adjust shim pack thickness using new shims to obtain bearing end play adjustment of .002" to .005" (.05 to .13mm) when cap screws are uniformly tightened to 15-20 ft·lb_f (20-27 N·m) torque.

Bearing end play is measured along the axis of the shaft with a dial indicator as the shaft is rotated slowly and loaded in one direction, axially, and then the other. Rotation is necessary in order to align and seat the bearing rollers.

6. Clean and coat outside metal face of oil seals with paint or other suitable material to protect against corrosion.
7. Install the bearing housing in the cooling tower.
8. Fill the bearing housing assembly with oil. Install oil line and fill the oil cup to full mark. Do not fill overflow oil cup, thermal expansion during operation may cause oil to overflow.
9. Install fan and sheave using rustproofing compound on the shaft to reduce corrosion and make future disassembly easier.

118 - 118SE Series bearing housing

USER MANUAL



Replacements Parts

- 1.0 Complete Bearing Housing Assembly—ready for installation
- 1.1 Shaft Bearings
- 1.2 Shaft with keys
- 1.3 Oil Seals
- 1.4 Retainer hardware
- 1.5 Shim Kit
- 1.6 Plastic Cap—118SE only

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