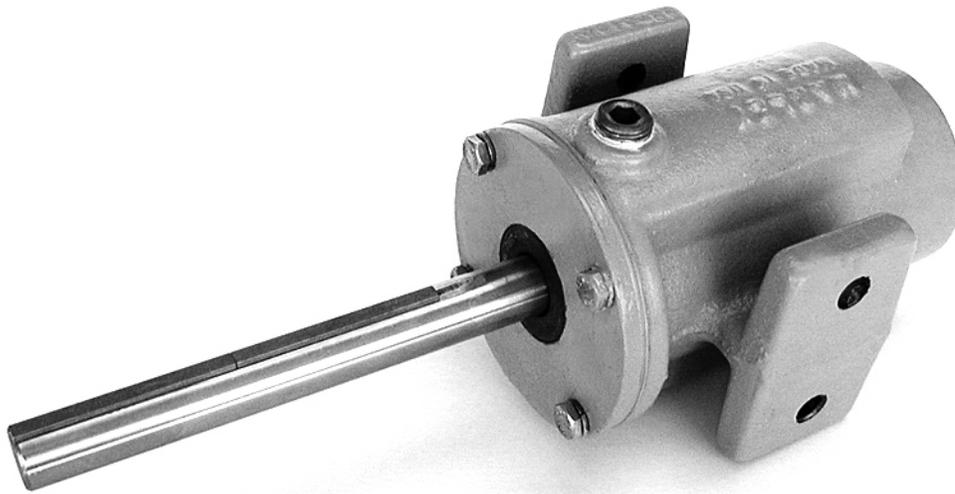


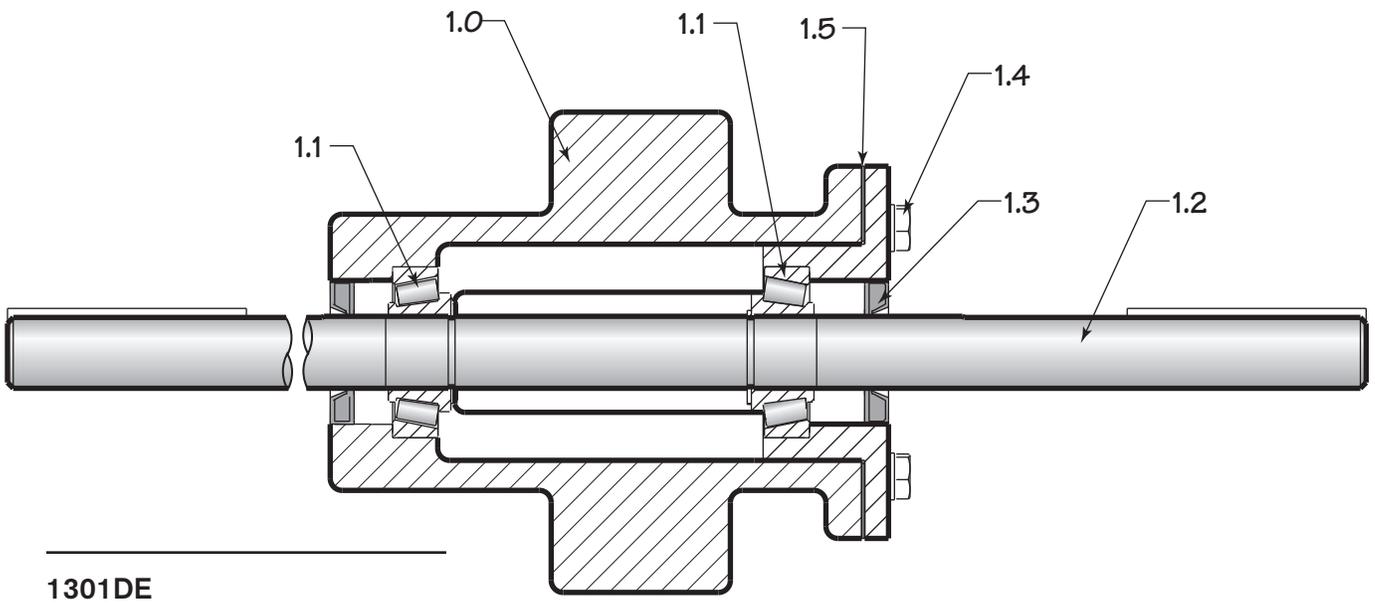
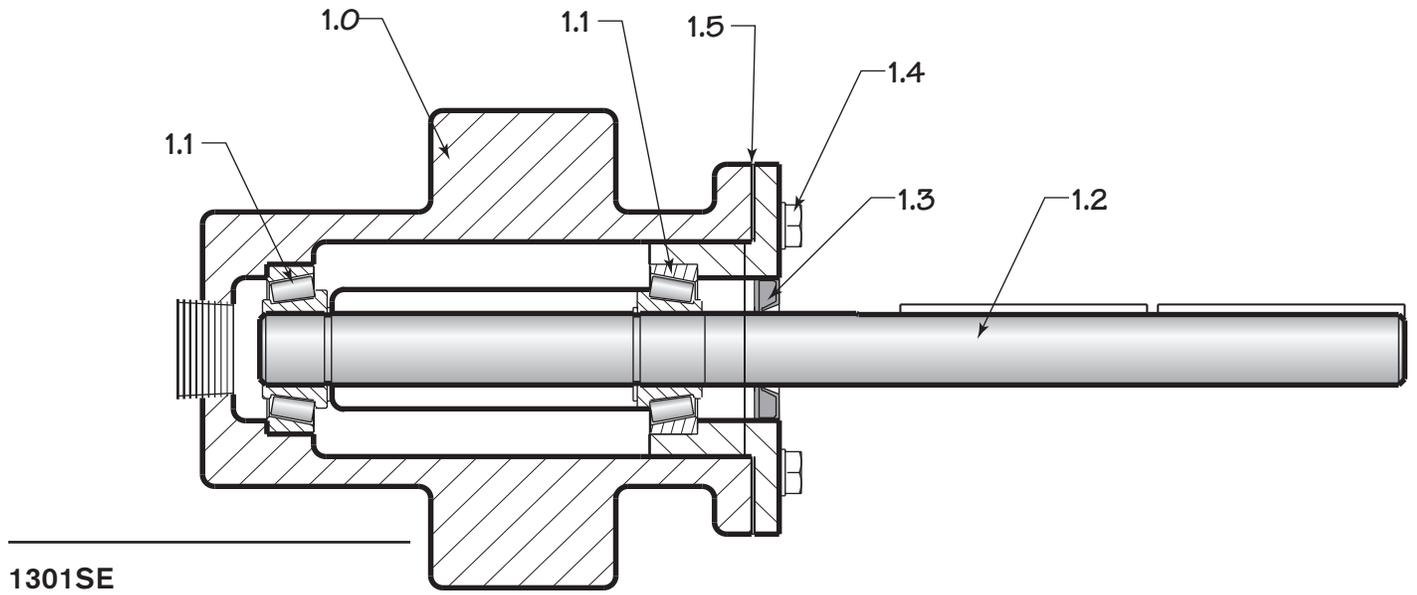
1301 Series bearing housing

INSTALLATION - OPERATION - MAINTENANCE

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





Replacements Parts

- 1.0 Complete Bearing Housing Assembly
- 1.1 Bearing
- 1.2 Shaft with keys and retainer rings
- 1.3 Oil Seal
- 1.4 Retainer hardware
- 1.5 Shim Kit

Installation

Install bearing housing. Apply a rustproofing or anti-seize compound on the bearing shaft to reduce corrosion and make future disassembly easier. Install sheave and fan. Check fan tip clearance.

Lubrication and Maintenance

Bearing housings installed on new cooling towers are filled with oil at the factory. Bearing housings on parts orders must be filled after installation. Fill bearing housing before attaching oil fill line—attach oil line and fill oil line and oil cup to full mark. Do not overfill oil cup. Routine oil level inspections should be made at the oil fill cup. Change the oil every 6 months using SAE 30 (ISO 100) weight oil. The oil used must not be adversely affected by moisture. Check bearing housing for leaks periodically. Before filling with oil, check shaft for excessive end play and bearing roughness. Adjust end play or replace bearings as required.

Repair and Overhaul

Bearings, seals and shims may be purchased from SPX Cooling Technologies. The shaft and castings may also 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 four cap screws from the bearing retainer cap. Remove cap.
3. Remove shaft.
4. Remove bearing cups if bearings are to be replaced.
5. Remove oil seal. Oil seals should be replaced anytime housing is disassembled.
6. Remove bearing cones from shaft if bearings are to be replaced.



Assembly

All parts that are to be reused should be thoroughly cleaned. A press is required to install bearings.

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.
4. Apply tape over the keys to protect the oil seals from damage during installation. Coat surfaces of shaft extensions with oil to provide initial lubrication for oil seal lips.
5. Install the shaft and bearing retainer cap using the original shim pack. Uniformly tighten cap screws to 70 in·lb_f (8 N·m) torque. 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).

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. Install bearing housing.
7. Fill bearing housing with oil. Install oil line and fill oil line and cup to full mark. Do not overfill.
8. Install fan and sheave using rustproofing or anti-seize compound on the shaft to reduce corrosion and make future disassembly easier.

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