

**Service Letter**

Technical Aspects are FAA Approved

**Number: L01-22 A**

**Replaces ServL 101-022**

**Date:** 07/12/2004

**Subject:** Overhaul and repair procedures for Superior Starter Ring Gear Support

**Application:**

SUPPORT ASSEMBLY	RING GEAR P/N	ENGINE APPLICATIONS
SL77579	SL72566	Refer to Superior Service Letter No. L01-021, Latest Revision
SL68867	SL60882	

**Compliance:** At any time the Support Assembly is removed for overhaul or repair.

Support and Ring Gear Assembly:

The Superior Ring Gear Support is precision machined from a high quality AMS 4213 aluminum alloy casting. The ring gears are machined from SAE 1050 steel rings and the teeth are induction hardened for long service life. The finish ring gears are cadmium or zinc plated for corrosion resistance.

Inspection:

The ring gear teeth are to be visually inspected for excessive wear or chipping. Any indication that the starter Bendix gear is not properly engaging with the ring gear is reason to replace the ring gear.

Visually inspect the propeller flange mounting holes in the aluminum support for evidence of wear. Measure the six holes for out-of-roundness. If this exceeds .002, the entire support assembly must be replaced (refer to Figure 1). Also inspect the belt groove for wear or damage. Excessive wear, especially if a step is worn in the sides of the groove, will require replacement of the entire support assembly.

Ring Gear Replacements:

In the event that the ring gear is worn or damaged but the aluminum support is in acceptable condition, the ring gear may be replaced. To remove the defective ring gear, grind through the gear as far as possible, using care not to grind into the aluminum support. Place the assembly on a flat surface and, using a hammer and punch break the remaining gear metal where it has been ground. The gear can then be easily removed.

The new gear must be heated to approximately 450°F using an oven or torch. Assemble the heated gear on the support with the gear tooth level toward the vee-belt groove (refer to Figure 1). Check the clearance between the back face of the gear and the lip on the aluminum support using a .0015 inch feeler gauge. If there is a gap at any point exceeding .0015, place the edge of the assembly on a flat metal surface and tap the gear until all areas where the gap exceeds .0015 are removed.

After the assembly has cooled, metal stamp (light) or vibro-peen “-R” after the support assembly part number.

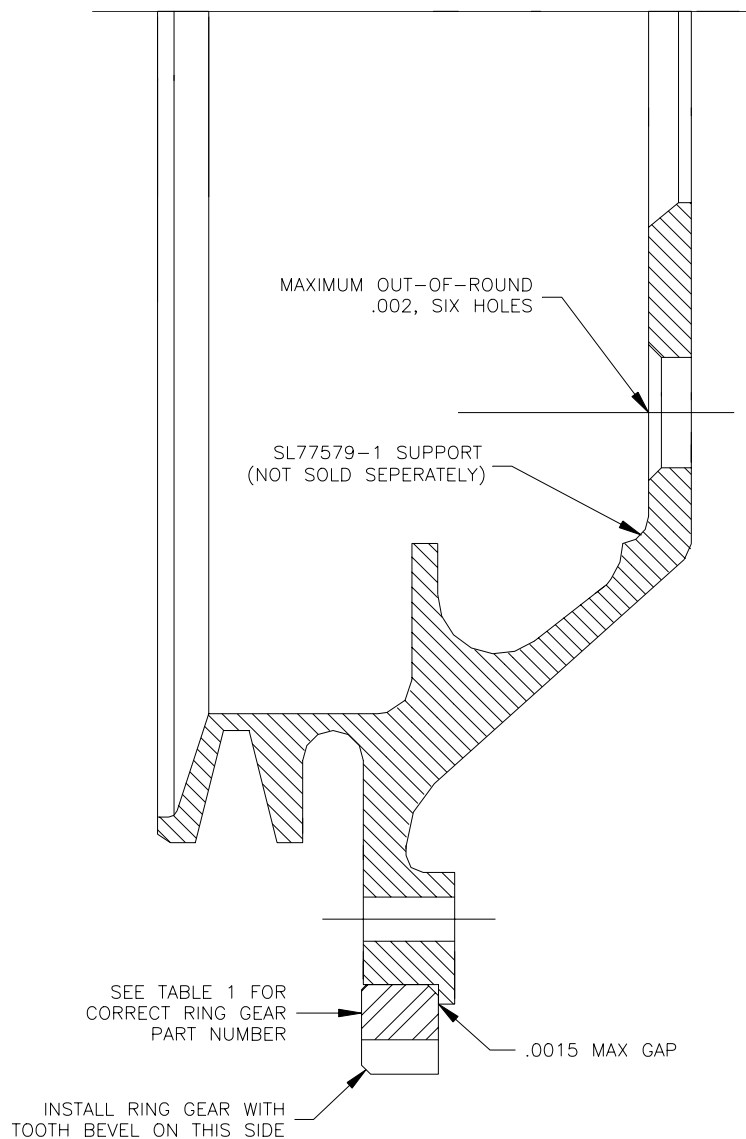


FIGURE 1  
SECTION THROUGH RING  
GEAR SUPPORT