

SERVICE INFORMATION LETTER

Subject: Possible Shaft OD Oversize on Spur Gear PN 422199-100WE

1. Planning

a. Effectivity

Wencor P/N	NHA P/N	NHA Description	ATA	Aircraft Application
422199-100WE	47145-XXX	Trimmable Horizontal Stabilizer Actuator (THSA)	27-44-51	A318-100 A319-100 A320-100 A320-200 A321-100 A321-200

b. Reason:

The Wencor design for the subject Spur Gear allowed the possibility of a slightly oversize condition to occur on the outer diameter of the smaller OD shaft on the Spur Gear as shown below in Figure 1.

During the reverse engineering process for the Spur Gear, the size tolerance for the noted diameter was set based upon manufacturing tolerance only. This led to the possibility of the oversize condition by as much as 0.0007", which could prevent installation of the NHA bearing that mates with this shaft. The OD feature has been re-sized to ensure the correct fit under all conditions.

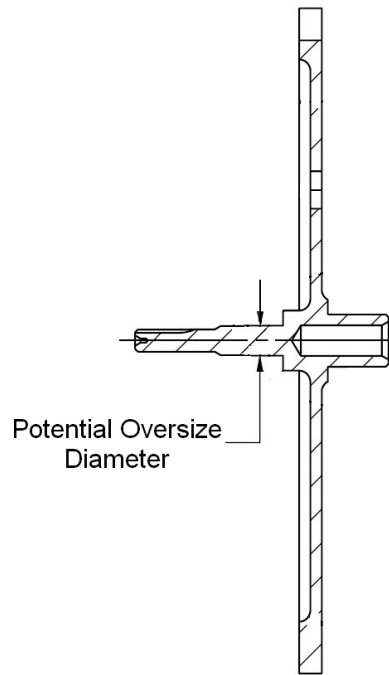


Figure 1, Spur Gear OD Feature

c. Background

The Spur Gear is installed into the gearbox section of the Trimmable Horizontal Stabilizer Actuator as shown in Figure 2 and acts as one of the coupling links between the position transducer unit and the ball screw.

The possibility of the oversize diameter was discovered when a customer attempted to install the NHA bearing onto the shaft of the Spur Gear and discovered that the bearing would not install due to the oversized diameter.

d. Safety

In the event of an oversized shaft on the Spur Gear, and depending upon the actual ID size of the mating bearing, the assembly of the bearing onto the shaft would be prevented if the OD was 0.0003" – 0.0007" oversize. However if the OD was only 0.0001" - 0.0002" oversize, the bearing would still likely be installed and would not result in any noticeable in-service performance of the bearing or the Trimmable Horizontal Stabilizer Actuator.



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2. Recommendations

For any Wencor Spur Gear's that are currently uninstalled that have the oversize condition should be returned to Wencor for replacement because this condition most likely prevents the NHA bearing from being installed.

However, any Wencor Spur Gear that are currently installed, passed the ATP for the Trimmable Horizontal Stabilizer Actuator and are in service may remain in service at the discretion of the end user without any change in aircraft safety.

3. Compliance

There is no required compliance time for implementation of this SIL.

4. Material

Wencor Spur Gear's that require replacement as a result of this Service Information Letter will be covered free of charge under the Wencor material warranty. If there are any questions regarding this Service Information Letter, please contact the applicable Wencor sales representative by calling 801-489-2000 or email: sales@wencor.com. For technical questions please contact Jon Bies at jbies@wencor.com.

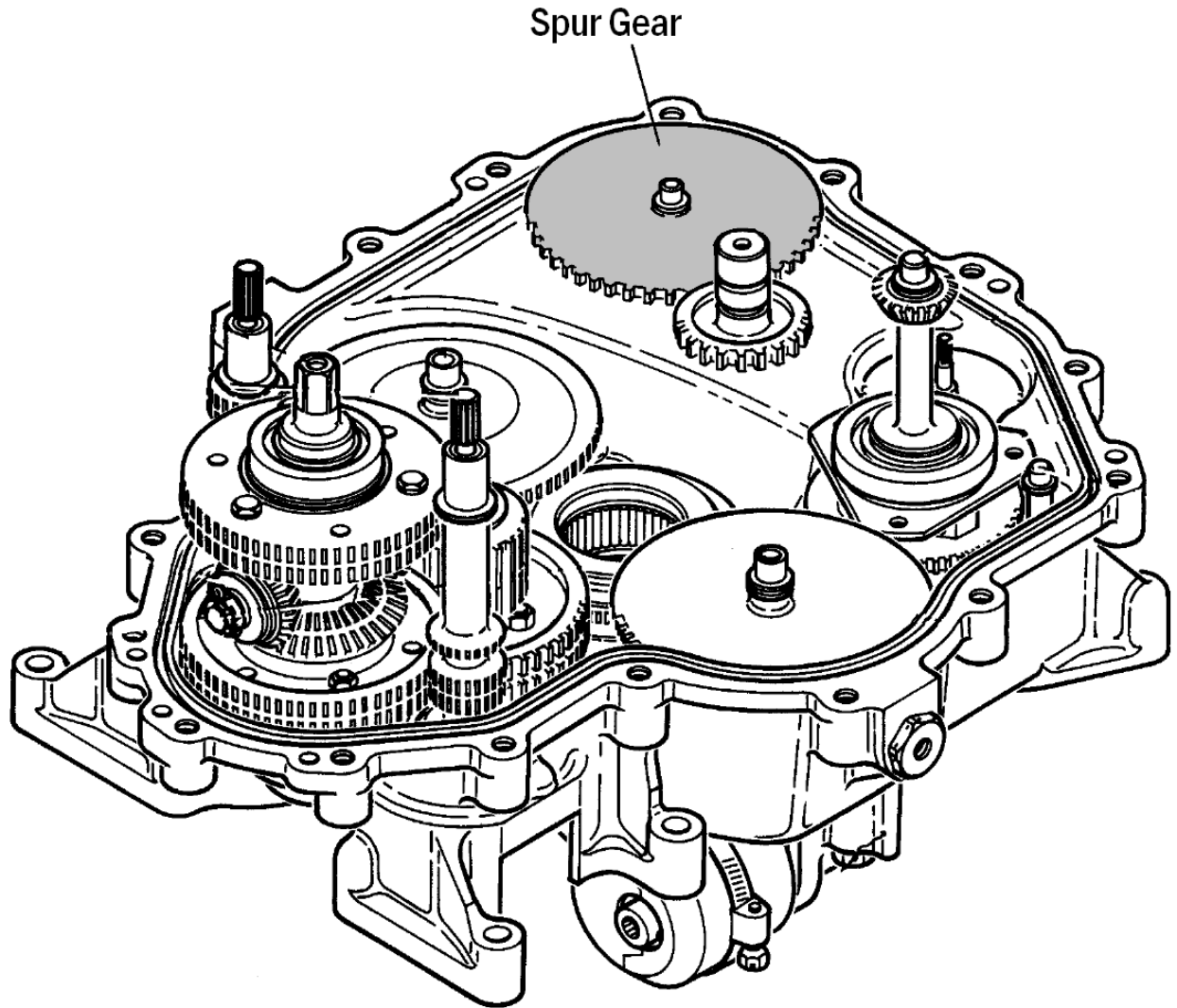


Figure 2, Spur Gear Installed into the THSA Gearbox