Installing Drum Pin Vacuum Seals

Context

☑ ThermoFlex

Background

The drum pin vacuum seals are located inboard of the drum bearings. An o-ring seal on the OD and sliding contact on the ID against the nose of the drum pin provides protection for the drum bearings. The seal is self-energizing when vacuum is applied. An incorrectly installed drum pin seal or failed seal will result in loss of grease in the bearings and subsequent failure of the bearings.

Tools and parts

- Iron; (if available use the end bell heating jig from production for quicker and more even heat application).
- RC609 Bearing retainer compound

Steps

1. Install the seal in the adaptor bushing with the energizing spring facing outwards (visible once installed).
2. Ensure that the seal's outer o-ring does not roll out of position or become damaged during installation.
3. If the seal adaptor bushing is an interference fit (as intended) go to step 7. If the adaptor bushing drops directly into the endbell inner bore without resistance, clean the outer circumference with alcohol.
4. Install the bushing with the seal facing outwards.
5. Apply RC609 bearing retaining compound to the endbell-bushing interface.
6. Allow to dry completely before proceeding.
7. Expand the endbell by applying heat.

   The differential expansion rates of the materials chosen for the endbell, bushing, and bearing allow ease of installation and removal.
8. Install the bushing with the seal facing outwards (if not already installed).
9. Install the drum bearing.

   Both the bushing and bearing should slide easily into their bores. Forcing the parts into the bores will damage the endbell.

   The seal installation is complete.
10. Proceed with sealing the endbell drain holes and drum installation onto the engine casting.

Notes

DO NOT insert a non-ThermoFlex drum pin to the seal inner diameter. Doing so will permanently damage the seal.