



TRANE[®]

General Service Bulletin

Thrust Bearing Design Change

ATTENTION: Warnings and Cautions appear at appropriate sections throughout this literature. Read these carefully.

⚠ WARNING – Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION – Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE – Indicates a situation that could result in equipment or property-damage only accidents.

Introduction

The purpose of this general service bulletin is to inform the field about a thrust bearing design change implemented in late 1999, updated in 2002, and updated again in 2009.

Background

This new design utilizes a center oil feed (see [Figure 1, p. 2](#)) instead of the axial oil feed used previously (see [Figure 2, p. 2](#)). These new bearings have shallow grooves machined in the face of the outer races on the back side of each bearing (see [Figure 3, p. 3, Detail A](#)). When mounted on the compressor shaft in a back to back arrangement, these grooves allow oil to be fed to the center of the duplex bearing set. No other change to the bearing is incorporated.

If the new center feed bearing bracket is installed (starting with the design sequence specified in [“Units Affected,” p. 3](#)) on the machine, the new center feed thrust bearings **must be used** or catastrophic thrust bearing failure will occur due to lack of lubrication. For non-K4 shaft compressors, it is imperative to use the undersized bore bearings to allow proper interference fit.

Figure 1. Center feed thrust bearing installed

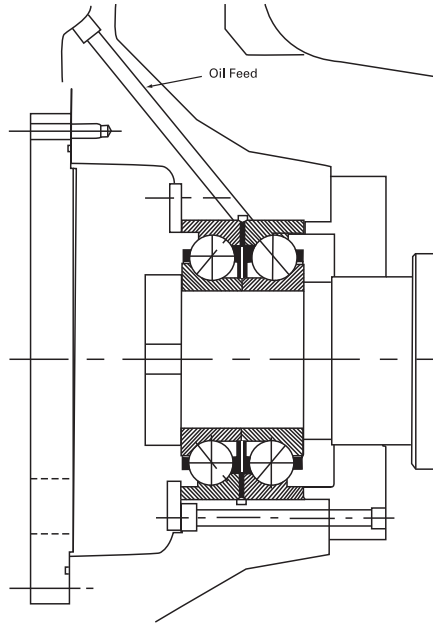


Figure 2. Axial feed thrust bearing installed

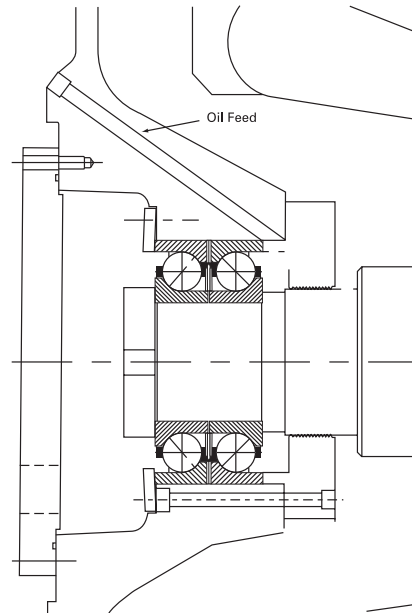
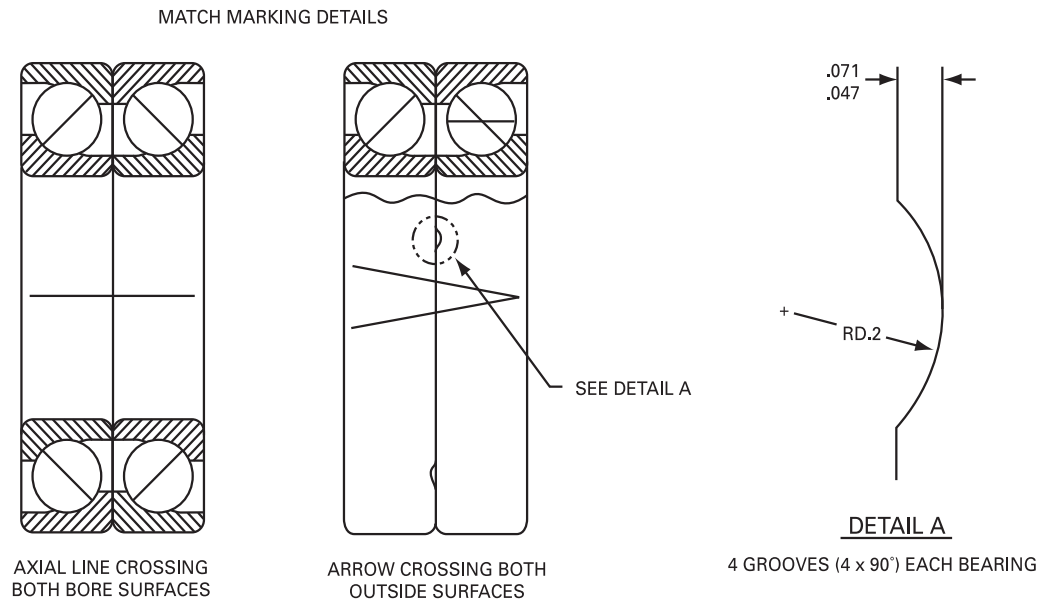


Figure 3. Center feed thrust bearing details



Units Affected

CVHE, CVHF, CVHG, CDHF, and CDHG chillers beginning with the following design sequence designators:

Model	Design Sequence (10 th and 11 th Digits of Model Number)
CVHE	3B
CVHF	1J
CVHG	1B
CDHF (Duplex)	J0
CDHG (Duplex)	H0

Bearing Replacement

WARNING

Rotating Components!

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/ tagout procedures to ensure the power can not be inadvertently energized. Secure drive sheaves to ensure rotor cannot freewheel. Failure to secure drive sheaves or disconnect power before servicing could result in death or serious injury.

Notice:

Equipment Damage!

Failure to install new center feed thrust bearings when a compressor is equipped with the center feed bearing bracket will result in bearing failure due to lack of lubrication.

When changing the duplex ball bearings for the CVHE, CVHF, CVHG, CDHF, and CDHG machines, proper seating of the bearings using a hydraulic assembly nut and torquing of the locknut using a socket tool is imperative to properly pre-load these bearings.

Questions

Contact the CenTraVac Support Team with questions regarding this general service bulletin. To contact them, send a message to techservice@trane.com.



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For more information, contact your local Trane office or e-mail us at comfort@trane.com

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