



TRANE®

Service Bulletin

Direct Drive CenTraVac Thrust Bearing Oil Feed Orifice Size Change

Order Number: CTV-SVB11C-EN

DATE: October 8, 2004

Introduction

A production change has been made as a product enhancement to enlarge the oil feed orifice to the thrust bearings. We are asking that this enhancement be incorporated in all CenTraVac direct drive chillers with the center oil feed system to the thrust bearings whenever service work is performed that requires refrigerant removal.

Units Affected

All CVHE/F/G and CDHF/G chillers with center oil feed system to the thrust bearing. The design sequence (digits 10 and 11 of model number) for the units affected by this bulletin are as follows:

- CVHE — 3B through, but not including 3Y
- CVHF — 1J through, but not including 2J
- CVHG — 1B through, but not including 2B
- CDHF — J0 through, but not including 1A
- CDHG — H0 through, but not including Z0

As a note, all units with the refrigerant pump have a center feed system and will require this enhancement for the design sequences listed above.

Discussion

As a product enhancement, a production change has been made to increase the size of the thrust bearing oil feed orifice from 0.082 inches to 0.116 inches (number 32 drill size). The orifice will have a “.116” scribed on one of the flats of the hex if so equipped. This may be covered with paint and be hard to read without removing the

paint. If service work is being performed on a center oil feed machine that requires refrigerant removal and the larger size orifice is not present, then the oil feed orifice should be removed and either drilled out to the new size or replaced with the new orifice (Trane Part Number ORF01388, which consists of the orifice brazed to a 5/8 inch copper tube with a protruding length of tubing of 3 inches).

For field modification, removal of the orifice will require cutting the 5/8 inch oil feed line with a tubing cutter and carefully removing the orifice from the bearing bracket. This pipe joint uses Loctite 242 for sealing and can be removed without the application of heat to the joint. After removing the orifice, drill out the hole to 0.116 inches using a number 32 drill bit. Be sure to check the hole for any burrs or debris after drilling and remove them if present before installation. Also, after drilling the orifice out, stamp or scribe/engrave one of the hex flats of the orifice with the number 116 to indicate the new orifice size.

Before installing the new or reworked orifice, be sure to flow dry nitrogen through the oil line if brazing is used to reconnect the line. If soft soldering with Stay-Bright silver bearing solder or equivalent, be sure not to use excessive flux at the joint. Another option is to use a 5/8 inch compression (such as Swagelock) straight connector to join the tubing, which will only require deburring the copper tubing before installation. This method will allow easy disconnection and reassembly should future work be required where the oil feed line must be disconnected.

When the chiller has been leak checked, evacuated, and charged with refrigerant; run the oil pump and check the differential oil pressure before starting the chiller. Adjust the oil pressure to maintain between 18 and 22 psid. After starting the chiller, check the oil pressure again and adjust as necessary to maintain between 18 and 22 psid.

After completing this enhancement, please be sure and contact Bob Gollnik of the Product Quality Department in La Crosse by either phoning 608-787-4110, faxing 608-787-3024 or e-mailing Bgollnik@Trane.Com with the unit serial number, date of completion and whether or not the unit had a thrust bearing failure or replacement during this service work.

Questions

For general questions contact the CTV Technical Service department in La Crosse at 608-787-3943 or e-mail at TechService@trane.com.



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

Trane has a policy of continuous product data and product improvement and reserves the right to change design and specifications without notice. Only qualified technicians should perform the installation and servicing of equipment referred to in this bulletin.