

Title: 17DK/DM/DR CARBON SEAL, COUPLING, AND  
MOTOR BEARING INSPECTION

Number: C8811  
Date: 6/14/88  
Supersedes:  
Date:

Models Affected: 17DK/DM/DR COMPRESSORS AND MOTORS

**PURPOSE:** This bulletin provides information on the inspection requirements for the compressor carbon "double shaft seal", the motor-compressor shaft coupling, and the motor bearings.

**PROCEDURE:**

**CARBON SEAL**

The condition of the seal is best determined by observing the seal leakage rate at least once per year. This can be done by disconnecting the 1/4" OD copper seal leakage line from the seal leakage pot. There should be no more than 20 drops of oil per minute. (Note: It is possible that there will be no leakage at all.) If the leak rate is more than 20 drops per minute, the complete seal with cover plate should be replaced. Refer to Service Bulletin C8710 for replacement procedure.

Engineering recommends that the seal should be replaced at least once every 5 years. Any time the seal is disassembled, the complete seal and cover plate must be replaced.

**COUPLING**

Prior to initial startup the coupling should be checked for grease.

The coupling is packed at the factory with 8 oz of Kop-Flex KHP high performance coupling grease. **NOTE:** Excessive greasing of the coupling may dislodge the O-ring seal resulting in loss of lubricating grease charge and result in coupling overheating.

There will always be some "grease throw-off" through the coupling spacer joint. If the throw-off appears excessive, the spacer gaskets should be changed.

**MAIL KEYS:** 2.33B, 2.33D, 2.40B, 2.45, 2.53, and ISBH

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If coupling lubricating grease charge is in question, remove coupling spacer, clean spacer and shroud/hub gear teeth, then repack the coupling by coating the hub and shroud teeth and the spacer I.D. with Kop-Flex KHP coupling grease to bring the total grease quantity to 8 oz.

The gear teeth in the compressor coupling should be cleaned and inspected for wear every year. (The coupling is geared on the compressor end only.) If the teeth are worn, replace the tapered coupling hub and sleeve. Repack the gear teeth and spacer with 8 oz. (227g) of Kop-Flex KHP high performance coupling grease. (Do not substitute for the Kop-Flex grease.)

Replace the O-ring and spacer gaskets and repack the coupling when the coupling assembly is dismantled, cleaned, or inspected during scheduled maintenance. NOTE: High temperature operating conditions may require more frequent inspections and relubrication.

Attached is a parts list for the 17DK couplings.

Refer to Service Bulletin C8709 for coupling removal instructions.

#### MOTOR BEARINGS

Prior to initial startup the motor bearings should be checked for grease. There is a pipe plug at the top and bottom of each bearing housing. The motor has been lubricated at the time of manufacture and should not need any additional lubrication prior to startup.

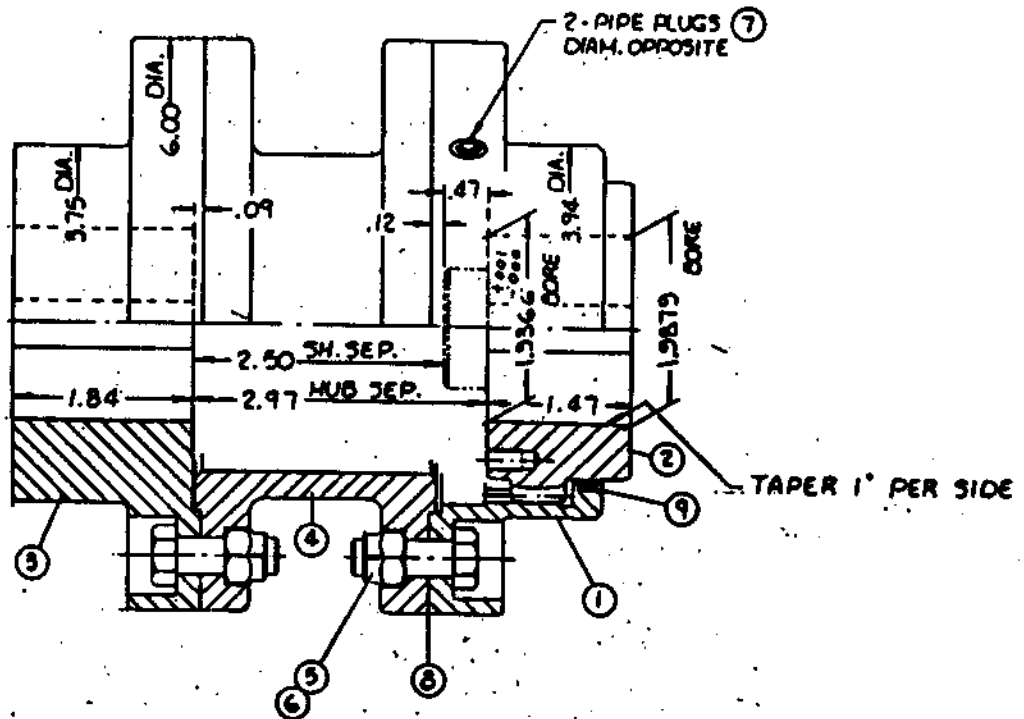
For "standard" operating conditions the bearings should be lubricated every 6 months with of any of the following lubricants:

Chevron SRI No. 2  
Exxon Unirex #2  
Shell Dolium R  
Texaco Premium RB

The pipe plugs at the top and bottom of each bearing housing should be removed. Insert a grease fitting in the lower hole. Grease should be added until grease can be observed coming out of the upper hole.

When operated under severe conditions, for instance, 24-hours per day operation in a dusty environment, 100F to 120F temperature, then the bearings should be lubricated every 3 months.

Attachment



LIST OF MATERIAL AND DRAWINGS FOR ONE COUPLING				
QTY	PART NO.	PART DESCRIPTION	MATERIAL	ITEM
1.	CA47593	SLEEVE	FORGED STEEL	1.
1.	CB66706	HUB	" "	2.
1.	CA65925	RIGID	" "	3.
1.	CB65922	SPACER	" "	4.
16.	WA26638	HEX. HD BOLT 3/8NFx1	STEEL	5.
16.	WA26014	FLEX-LOC NUT 3/8NF	"	6.
2.	WA30223	PIPE PLUG	"	7.
2.	WA26832	GASKET	VELLUMOID	8.
1.	WA26577	O' RING	BUNA-N	9.

CARRIER PART NO.	PURCHASED PART SPEC.	USED WITH MOTOR FRAME	KOP-FLEX CPLG. NO.	MOTOR HUB BORE (ITEM 3)
17DK112-173	KS05BZ250	444, 445 447, 449	CC66705	2.3728 2.3738
17DK112-163	KS05BZ230	404, 405	CC66707	2.1229 2.1239

- NOTE: 1. THE MOTOR FRAME SIZE IS STAMPED ON THE MOTOR NAMEPLATE.
2. THE ONLY DIFFERENCE BETWEEN THE 17DK112-173 AND 17DK112-163 COUPLING IS THE BORE OF THE MOTOR END HUB (ITEM 3). IF THIS HUB IS ORDERED AS A SINGLE ITEM FROM KOP-FLEX THEN THE BORE SIZE MUST BE SPECIFIED.

17DK COUPLING PARTS LIST