



**UNITED  
TECHNOLOGIES  
CARRIER**

Commercial Division  
Carrier Corporation

BULLETIN: CA-SB-19-D-67-35  
DATE: 4/6/67  
PAGE: 1 OF 4

## SERVICE BULLETIN

SUBJECT:

**THRUST BEARING ASSEMBLY SPACER RING , 19D**

SUPERSEDE

BULLETIN:

DATE:

PAGE: OF:

Installation, repair and service and equipment referenced in this Service Bulletin should be undertaken only by qualified persons. Carrier Corporation (1) makes no representations or warranties, expressed or implied, concerning the accuracy, completeness or right to use the information contained herein, and (2) disclaims all liability for injuries, damages, infringements and other losses which may arise on account of, or which may result from, the use or application of any information, method or apparatus disclosed herein.

### PURPOSE

To transmit procedures for replacing a thrust bearing assembly spacer ring.

### MACHINES AFFECTED

All 19D machines.

### PROCEDURES

#### A. General

Whenever the spacer ring (Fig. 1) is replaced on a 19D thrust bearing assembly, the clearance between the oil dam and the thrust disc (Dim. "X", Fig. 2) must be checked. For example, check this clearance when installing a Klixon thrust bearing thermostat (Reference 19SB-66-5D).

The "X" clearance must be 0.005" minimum when the shaft is in the full counterthrust position (toward the splined end).

The oil slinger ring must be held tightly against its corresponding shaft shoulder (Fig. 2) when making this clearance check. To accomplish this, install a pipe sleeve (see Table 1 for sizes) in place of the impeller and secure it with the impeller nose piece as illustrated in Fig. 2.

Compressor Size	Nominal Pipe Size (in.)	Length (in.)
11	1-1/4	4-1/4
21	2	5-1/2
31	2-1/2	6-1/2

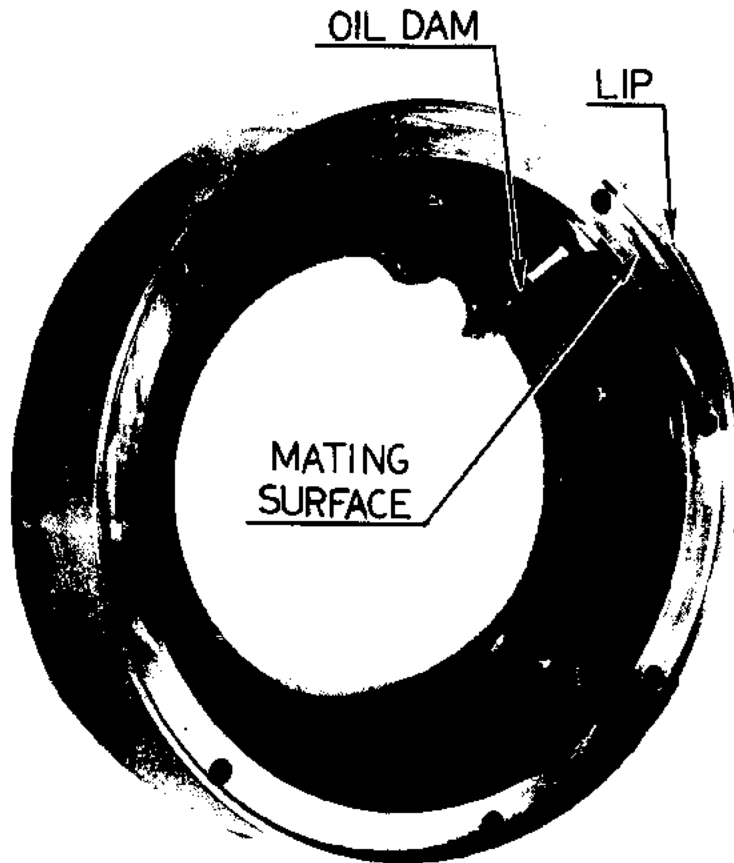
A Plastigage\* type thickness measuring material is suggested as the easiest way to measure the "X" clearance.

#### B. Measuring Clearance Between Oil Dam and Thrust Disc

1. Install the pipe sleeve spacer as illustrated in Fig. 2.
2. Remove the spacer ring from the thrust assembly.
3. Moisten a strip of Plastigage type thickness measuring material just enough to make it stick, and lay it on the face of the oil

**SERVICE BULLETIN**

SUPERSEDE  
BULLETIN:  
DATE:  
PAGE: OF:



SPACER RING

FIGURE 1



**UNITED  
TECHNOLOGIES  
CARRIER**

Commercial Division  
Carrier Corporation

BULLETIN: CA-SB-19-D-67-35  
DATE: 4/6/67  
PAGE: 3 OF: 4

## SERVICE BULLETIN

SUPERSEDE  
BULLETIN:  
DATE:  
PAGE: OF:

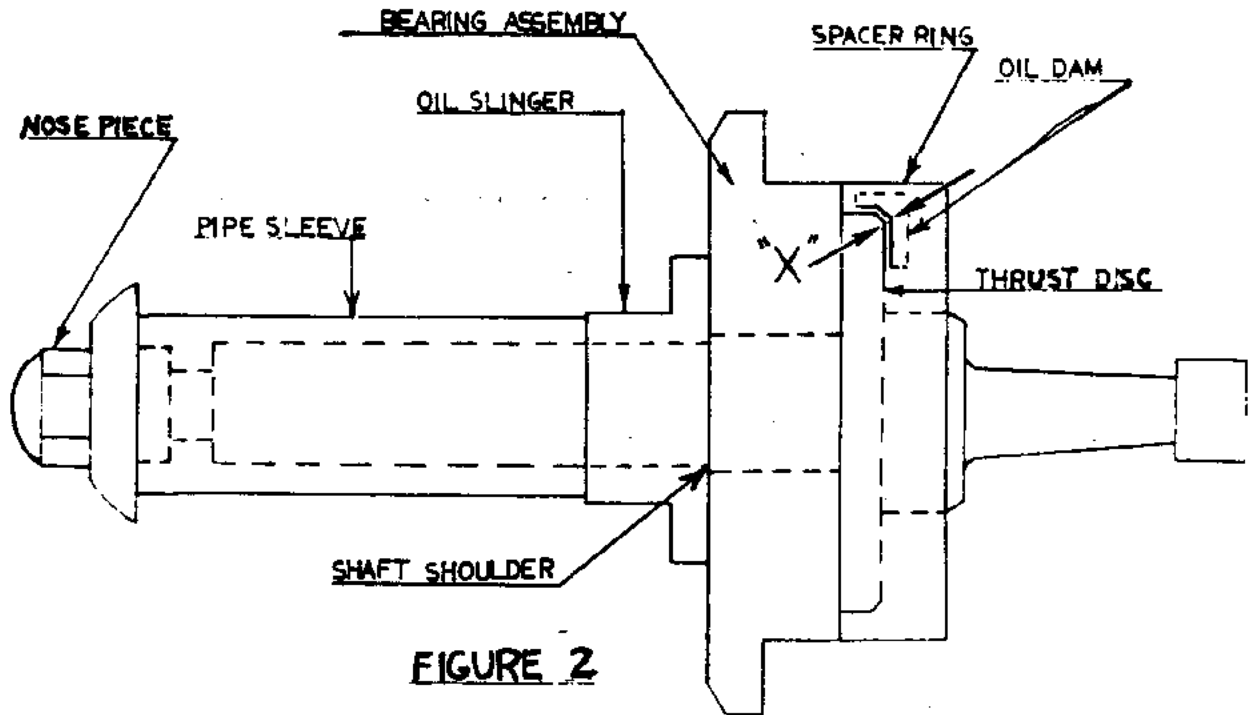


FIGURE 2



**UNITED  
TECHNOLOGIES  
CARRIER**

Commercial Division  
Carrier Corporation

BULLETIN: CA-SB-19-D-67-35  
DATE: 4/6/67  
PAGE: 4 OF: 4

## SERVICE BULLETIN

SUPERSEDE  
BULLETIN:  
DATE:  
PAGE: OF:

dam (see Fig. 1). Use Plastigage size for measuring 0.003 to 0.005" thicknesses.

4. Carefully re-install the spacer ring on the thrust assembly, and hold it in place with two or three screws.
5. Position the thrust bearing and shaft assembly horizontally as shown in Fig. 2, and move the shaft to the counterthrust position (toward the splined end). Hold the bearing assembly firmly, and tap the nose piece lightly to compress the Plastigage between the thrust disc and the oil dam.
6. Carefully remove the spacer ring and check the thickness of the Plastigage.
7. Clearance "X" greater than 0.005" is acceptable.
8. If clearance "X" is less than 0.005", hand file the oil dam and recheck.

### C. Machining Alignment Lip

Spacer rings supplied from ~~PTD~~ will include an alignment lip as shown in Fig. 1.

When replacing the spacer ring on the following machines, it will be necessary to machine off the alignment lip.

**CAUTION:** MACHINE THE ALIGNMENT LIP SO THAT IT IS FLUSH WITH THE MATING SURFACE. DO NOT REMOVE ANY METAL FROM THE MATING SURFACE, ITSELF.

Table 2

<u>Compressor Size</u>	<u>Compressor Serial No.</u>
11	20661 and Lower
21	20519 and Lower
31	20483 and Lower