UNITED TECHNOLOGIES CARRIER	Commercial Division Carrier Corporation	BULLETIN: CA-SB-19-C-72-62 DATE: 3/3/72 PAGE: 1 OF: 7
SERVICE BULLETIN		SUPERSEDE BULLETIN: DATE: PAGE: OF:
SUBJECT: **19C TILTING SHOE THRUST BEARING**		

PURPOSE: To advise of the following:

1. The tilting shoe thrust bearing being installed on 19C, CB & 17CA, CB R-114 machines.
2. The procedure for replacing the old style bearing with a new tilting shoe bearing.

MACHINES AFFECTED: R-114 ONLY

19C - Machine serial numbers 14,743 - 14,813 - 14,814 and compressor serial number 42,224 and higher.
All 17CB and 19CB
17CA - Machines shipped after January 1971

BACKGROUND: A higher load carrying capacity bearing has been designed for the 19C, CB and 17CA, CB, R-114 machines. The bearing (Fig. 1 & 2) has tilting shoes and a relocated oil supply. The oil passage in the bearing pedestal now tees directly to the back of the bearing housing, item 3. Oil then follows the path shown in Section CC of Figure 2. In conjunction with this bearing change, the oil notches on the main journal and end bearings were removed.

FIELD MODIFICATION: The new bearing assembly can be installed on an R-114 machine by making the following changes:

1. Install a new design thrust ring.
2. Drill new oil supply hole in bearing supply cap.
3. Rework the bearing to provide an oil passage that lines up with the new supply hole.

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PARTS REQUIRED in addition to normal gaskets, o-rings, etc., See FIG.1.

1. Thrust bearing assembly — 19CB712-504

   Includes:
   Bearing assembly — No assembly part number
   Brass shim half ring, 2 required. — 19CB712-1222

2. Thrust Ring
   19C -------- 19CB712-1023
   17CA -------- 17CA63-1153

1. Disassemble compressor and pull rotor back so that new thrust ring can be installed. On 17CA thrust ring is removed thru drive end.

2. Install new ring and move shaft back to its journal bearings.

3. Drill a new oil supply hole as shown in Figure 3. This new hole supplies the oil between the thrust and journal bearings rather than to the journal first.

4. Machine a slot in the back of the thrust bearing housing, shim, and backing ring as shown in Figure 4. This will be a passage for supply oil. It must line up with the new hole in the bearing cap drilled per step 3. Fasten the short piece of shim and backing ring to the bearing housing with two screws as shown in Figure 4.

5. Install the thrust bearing with the backing half rings but without the shims.

   Note: To install bearing, roll in the half without the anti-rotation pin first, than fit the other half over the shaft and roll the assembly around until the pin is in its recess. The bearing may have to be wiggled to get the leveling pads interlocked properly.

6. Be certain that there is clearance between the outside of the thrust ring and the bearing housing and between the journal bearing and the back of the thrust bearing housing.

7. Install the bearing cap.

8. Measure shaft float to determine the required shim thickness. Design float is .010-.014.

9. Remove the bearing and install the shim peeled to the proper thickness.

10. Install the bearing, inspect for any possible interference and than install the bearing cap.

11. Recheck thrust float.

12. Disconnect oil supply line from bottom half of bearing housing and connect it to the new feed in the bearing cap.

13. Plug original oil supply hole in lower half of bearing housing.

14. Rebuild compressor.

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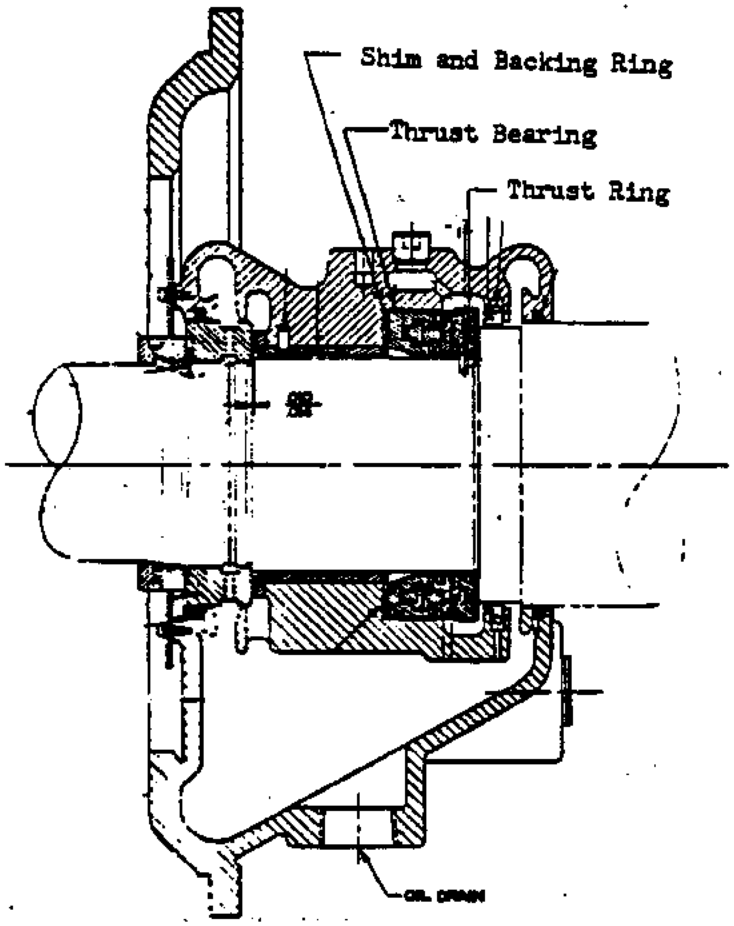

MAIN BEARING ASSEMBLY

FIGURE 1

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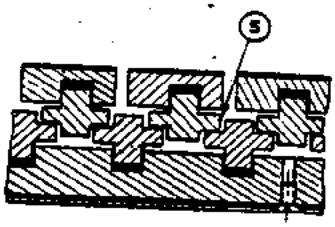
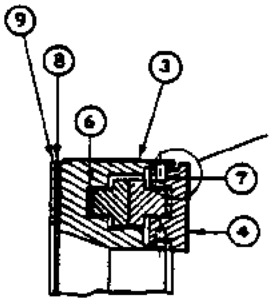
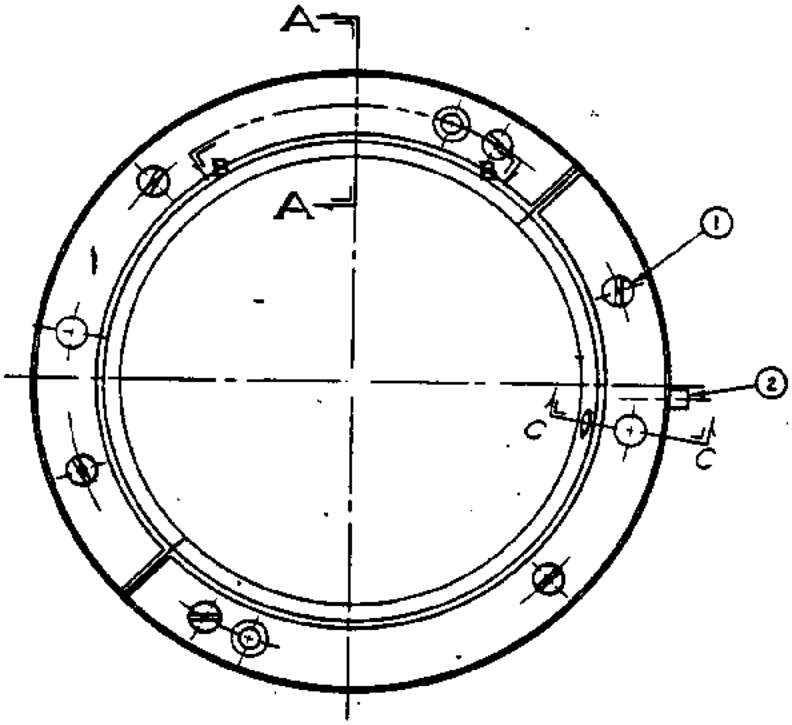


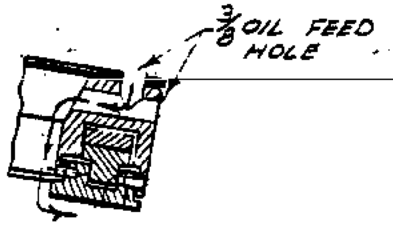
SECTION B-B



SECTION A-A



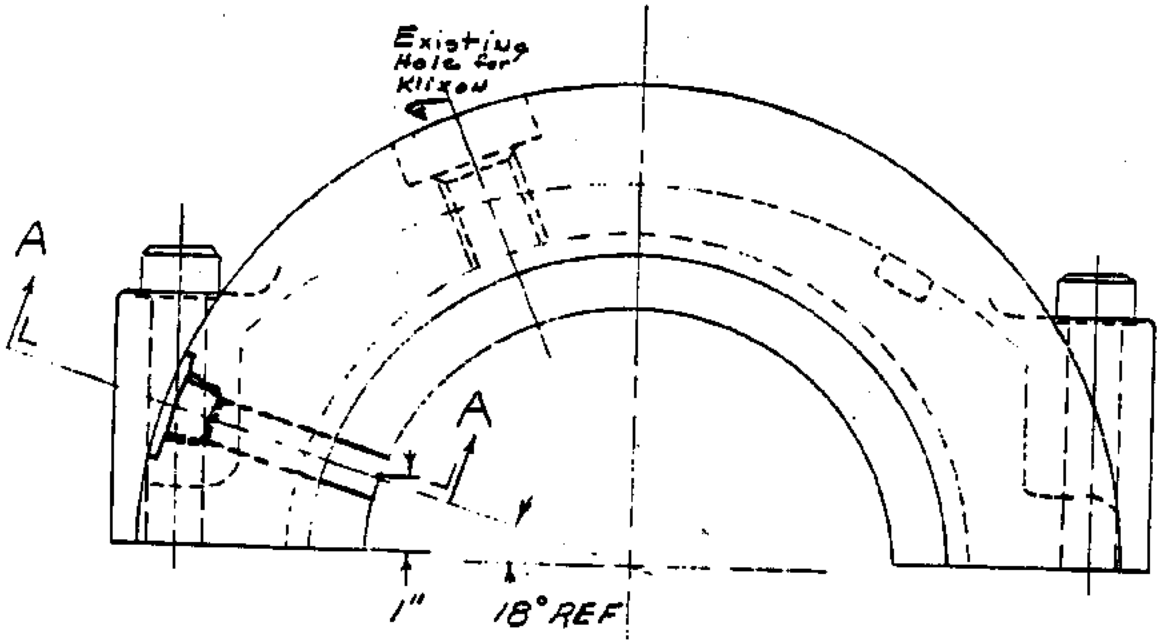
ITEM	REQ.	DESCRIPTION
1	6	FLAT C'SINK SCR #10-32 × ⅜ LG.
2	1	DRIVE PIN, ¼ DIA. × ⅝ LG.
3	1	BEARING HOUSING
4	1	THRUST SHOE ASS'Y.
5	32	LEVELING PAD
6	16	PAD
7	16	PIN, SPIRAL WRAPPED
8	2	BRASS SHIM HALF RING
9	2	BACKING HALF RING



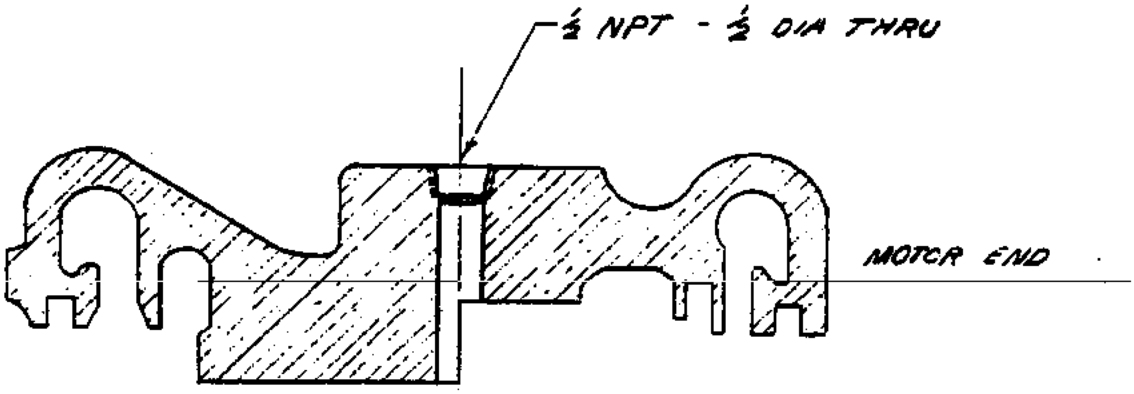
SECTION C-C

THRUST BEARING ASSEMBLY

FIGURE 2



BEARING CAP
From motor end



SECTION A-A

BEARING CAP

FIGURE 3

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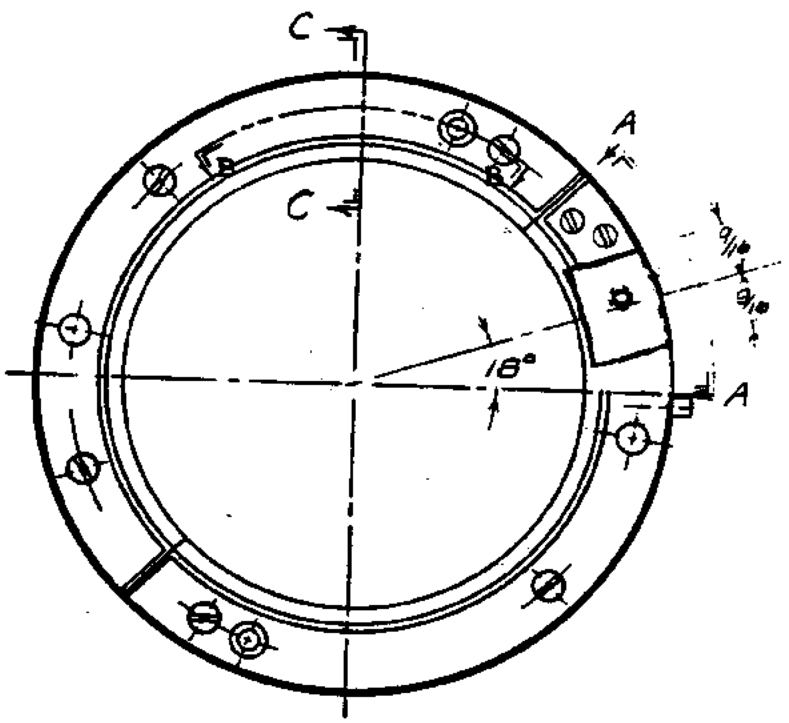

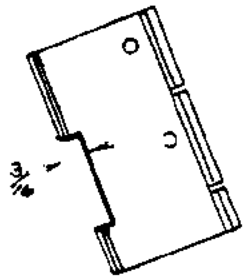

SECTION A-A

THRUST BEARING ASSEMBLY

FIGURE 4