

EO 75-10-13

ROYAL CANADIAN AIR FORCE



**AIRCRAFT HARDWARE & RUBBER
MATERIALS**

ANTIFRICTION BEARINGS

RADIAL CLEARANCE

CYLINDRICAL ROLLER BEARINGS

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

20 FEB 57

LIST OF RCAF REVISIONS

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AIRCRAFT HARDWARE AND RUBBER MATERIALS

ANTIFRICTION BEARINGS—RADIAL CLEARANCE—CYLINDRICAL ROLLER BEARINGS

1. PURPOSE.

The purpose of this Technical Order is to furnish information relative to the established internal clearances on the roller bearings listed in Table I.

2. GENERAL.

The dimensional information as provided herein will be followed to insure that affected roller bearings possess the correct internal dimensional clearance after processing through the Bearing Branch. Radial clearances listed herein apply only to those roller bearings listed in Table I since clearances for these bearings are considered critical for their particular application.

3. INSPECTION.

2. The following inspection procedure will not alter or eliminate any other inspection requirement now in effect but will be performed in addition thereto on the cylindrical roller bearings listed in Table I being processed in the Bearing Branch:

(1) After final visual inspection, each assembled roller bearing will be measured on gage, part No. TSMVM4-7, or equivalent.

(2) Assembled bearings, not meeting the requirements of Table I, will be disassembled and a selected set of matched rollers will be substituted as outlined in T. O. No. 04-20B-3.

TABLE I

PART NO.	STOCK NO.		RADIAL CLEARANCE	
	CLASS	CLASS	Min	Max
	04-D	02		
155D48	3400-305454	0232-155D48	.0010	.0026
155D53	3400-305459	0232-155D53	.0010	.0031
155D55	3400-305460	0232-155D55	.0030	.0052
155D57	3400-305462	0232-155D57	.0012	.0035
155D58	3400-305463	0232-155D58	.0014	.0028
155D59	3400-305464	0232-155D59	.0008	.0020
155D61	3400-305466	0232-155D61	.0012	.0032
155D66	3400-305471	0232-155D66	.0012	.0032
155D67	3400-305472	0232-155D67	.0030	.0052
24966	3400-305331	0235-24966	.0030	.0045
32829	3400-305332	0235-32829	.0014	.0030
32835	3400-305333	0235-32835	.0014	.0030
34218	3400-305334	0235-34218	.0020	.0030
34219	3400-305335	0235-34219	.0007	.0021
36638	3400-305339	0235-36638	.0024	.0038
36639	3400-305340	0235-36639	.0024	.0038

4. The following equipment is required for the inspection of radial clearance of cylindrical bearings:

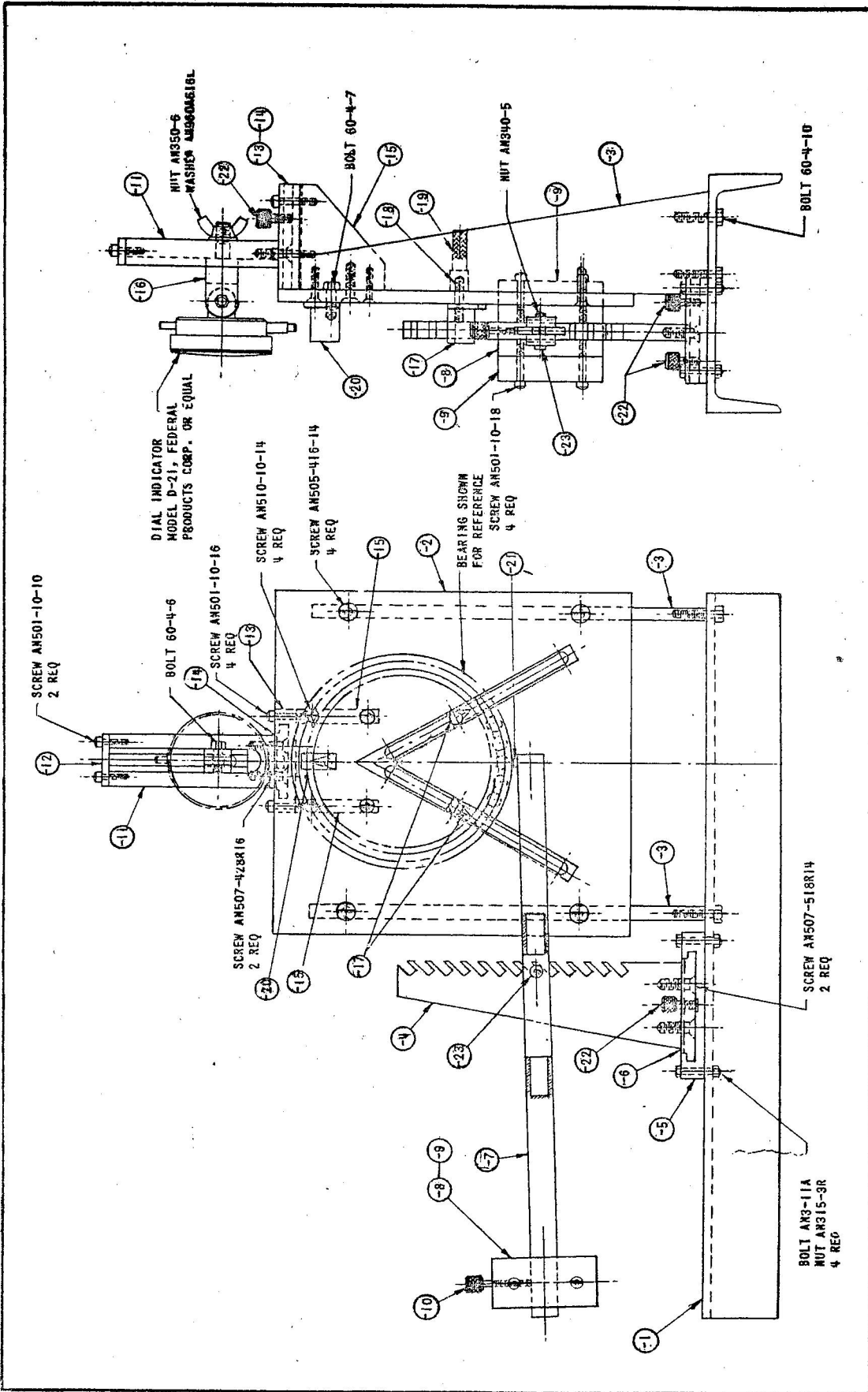


Figure 1 - Assembly - Bearing Radial Clearance Cage Fixture

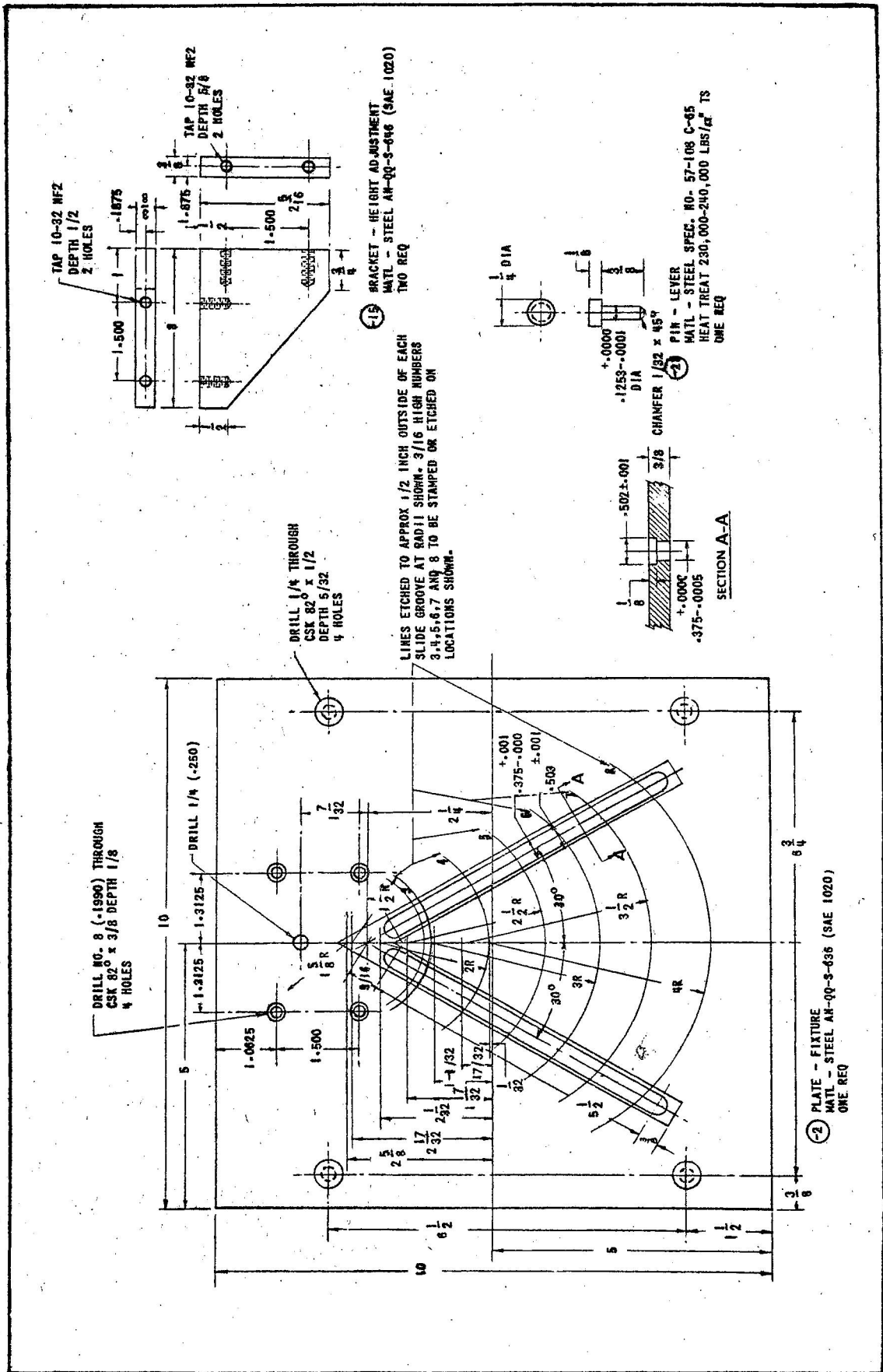


Figure 1C - Details - Bearing Radial Clearance Gage Fixture

QTY	STOCK NO.	PART NO.	NOMENCLATURE	CLASS	SOURCE
1		TSMVM4-7	Gage - Radial clearance bearing fixture assembly Mfr from: (See figure 1.)		Local Mfr
1		TSMVM4-7-1	Base - Fixture Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Channel, class A, Specification No. 57-114, stock No. 6800-NSL	23-A	AF Stock
1		TSMVM4-7-2	Plate - Fixture Mfr from: (See figure 1C.)		Local Mfr
As req			Steel - Low carbon hot rolled sheet, Specification No. QQ-S-636, stock No. 6800-NSL	23-A	AF Stock
2		TSMVM4-7-3	Bracket - Fixture plate Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 3/8 x 3 in., Specification No. AN-QQ-S-646, stock No. 6800-595800	23-A	AF Stock
1		TSMVM4-7-4	Bracket - Lever Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 1/2 x 1-1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-598000	23-A	AF Stock
1		TSMVM4-7-5	Base - Lever bracket slide Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 5/8 x 3-1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-603000	23-A	AF Stock
1		TSMVM4-7-6	Slide - Lever bracket Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 3/8 x 2-1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-595400	23-A	AF Stock
1		TSMVM4-7-7	Lever Mfr from: (See figure 1B.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 3/4 x 1 in., Specification No. AN-QQ-S-646, stock No. 6800-603800	23-A	AF Stock
1		TSMVM4-7-8	Weight - Steel Mfr from: (See figure 1B.)		Local Mfr
As req			Steel - Mild carbon cold rolled square bar, 1-1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-633000	23-A	AF Stock
2		TSMVM4-7-9	Weight - Lead Mfr from: (See figure 1B.)		Local Mfr
As req			Lead - Pig, grade B, Specification No. QQ-L-171, stock No. 6800-352050	23-A	AF Stock
1		TSMVM4-7-10	Screw - Weight set Mfr from: (See figure 1A.)		Local Mfr
As req			Steel - Mild carbon cold rolled flat bar, 1/2 x 2 in., Specification No. AN-QQ-S-646, stock No. 6800-598400	23-A	AF Stock

QTY	STOCK NO.	PART NO.	NOMENCLATURE	CLASS	SOURCE
1 As req		TSMVM4-7-11	Slide - Gage holder Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled flat bar, 3/4 x 1-1/2 in., Specifi- cation No. AN-QQ-S-646, stock No. 6800-604000	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-12	Cap Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled square bar, 3/4 in., Specification No. AN-QQ-S-646, stock No. 6800-630600	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-13	Base - Height adjustment slide Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled flat bar, 5/8 x 3 in., Specifica- tion No. AN-QQ-S-646, stock No. 6800-602800	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-14	Slide - Height adjustment Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled flat bar, 3/8 x 2 in., Specifica- tion No. AN-QQ-S-646, stock No. 6800-594800	23-A	Local Mfr AF Stock
2 As req		TSMVM4-7-15	Bracket - Height adjustment Mfr from: (See figure 1C.) Steel - Mild carbon cold rolled flat bar, 3/8 x 2-1/2 in., Speci- fication No. AN-QQ-S-646, stock No. 6800-595400	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-16	Holder - Gage Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled flat bar, 3/4 x 1 in., Specification No. AN-QQ-S-646, stock No. 6800-603600	23-A	Local Mfr AF Stock
2 As req		TSMVM4-7-17	Holder - Bearing lower Mfr from: (See figure 1B.) Steel - Tool round high carbon, 1-1/4 in., Specification No. 57- 108, stock No. 6800-717680	23-A	Local Mfr AF Stock
2 As req		TSMVM4-7-18	Stud - Bearing lower holder Mfr from: (See figure 1A.) Steel - Mild carbon cold rolled round rod, 1/4 in., Specification No. AN-QQ-S-646, stock No. 6800-616200	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-19	Nut - Bearing lower holder Mfr from: (See figure 1B.) Steel - Mild carbon cold rolled round rod, 1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-617200	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-20	Holder - Bearing upper Mfr from: (See figure 1B.) Steel - Tool round high carbon, 1-1/4 in., Specification No. 57-108, stock No. 6800-717680	23-A	Local Mfr AF Stock
1 As req		TSMVM4-7-21	Pin - Lever Mfr from: (See figure 1C.) Steel - Carbon drill rod, 1/4 in., Specification No. 57-108, stock No. 6800-407000	23-A	Local Mfr AF Stock

QTY	STOCK NO.	PART NO.	NOMENCLATURE	CLASS	SOURCE
3		TSMVM4-7-22	Screw - Slide set		Local Mfr
As req			Mfr from: (See figure 1A.) Steel - Mild carbon cold rolled round rod, 1/2 in., Specification No. AN-QQ-S-646, stock No. 6800-617200	23-A	AF Stock
1		TSMVM4-7-23	Pin - Lever pivot		Local Mfr
As req			Mfr from: (See figure 1A.) Steel - Carbon drill rod, 5/16 in., Specification No. 57-108, stock No. 6800-408500	23-A	AF Stock
1	7900-331695 or equal	D-21	Dial - Indicator (model D-21)	17-B	AF Stock
2	6700-762250	AN501-10-10	Screw - Steel, fillister head, 10-32 x 5/8 in.	29	AF Stock
2	6700-636385-6615	AN507-428R16	Screw - Flathead steel, recessed head 100 degrees, 1/4 28 x 1 in.	29	AF Stock
4	6500-032060	AN3-11A	Bolt - Aircraft, plain, steel, 10-32	04-A	AF Stock
1	6700-048000	60-4-6	Bolt - Hex head, 1/4 28 x 3/4 in.	29	AF Stock
2	6700-636385-718	AN507-518R14	Screw - Flathead, steel, recessed head, 5-16 18 x 3/4 in.	29	AF Stock
4	6700-762450	AN501-10-16	Screw - Steel, fillister head, 10-32 x 1 in.	29	AF Stock
4	6700-692300	AN510-10-14	Screw - Machine steel, flathead, 10-32 x 7-8 in.	29	AF Stock
4	6700-698200	AN505-416-14	Screw - Machine steel, flathead, 1-4 20 x 7-8 in.	29	AF Stock
4	6700-762500	AN501-10-18	Screw - Steel fillister head, 10-32 x 1-1/8 in.	29	AF Stock
1	6700-366800	AN350-6	Nut - Wing, steel 3-8 24	29	AF Stock
1	6500-982355	AN960A616L	Washer - Plain, alum. light	04-A	AF Stock
1	6700-048050	60-4-7	Bolt - Hex head, 1/4 28 x 7/8 in.	29	AF Stock
1	6700-354550	AN340-5	Nut - Machine screw, hex steel, 5 40	29	AF Stock
1	6700-048100	60-4-10	Bolt - Hex head, 1/4 28 x 1 in.	29	AF Stock
4	6500-482200	AN315-3R	Nut - Aircraft plain	04-A	AF Stock