



(A) TABLE 1

MS DASH NO.	REFERENCE NUMBER	øB +.0000 -.0005	øD +.0000 -.0005	W +.000 -.005	H +.000 -.005	øA +.005 -.005	F	WT LB	LIMIT LOAD, LB		RADIAL DYNAMIC LOAD, LB
									RADIAL	THRUST	
-3	SA3-16A-42	.1900	1.0000	.500	.344	.420	10°	.07	2,720	270	2,260
-4	SA4-16A-42	.2500	1.0000	.500	.344	.420	10°	.06	2,720	270	2,260
-5	SA5-20A-42	.3125	1.2500	.588	.375	.550	10°	.12	4,210	420	3,490
-6	SA6-23A-42	.3750	1.4375	.620	.469	.660	10°	.17	6,160	610	5,120
-7	SA7-24A-42	.4375	1.5000	.812	.625	.660	10°	.30	7,900	790	6,550
-8	SA8-26A-42	.5000	1.6250	.750	.687	.810	2.5°	.37	11,900	1,190	9,940

BASIC (NOMINAL) DIAMETER		BEARING ROUNDNESS LIMITS							
		BORE ACCEPTANCE LIMITS				O.D. ACCEPTANCE LIMITS			
		MEAN DIAMETER				MEAN DIAMETER			
OVER	INCL	d MIN	LOW	HIGH	d MAX	D MIN	LOW	HIGH	D MAX
	2.0000	-.0005	-.005	+.00000	+.0001	-.0005	-.0005	+.0000	+.0003

(A) DENOTES CHANGES

INCH-POUND

PREPARING ACTIVITY: NAVY-AS

CUSTODIANS: ARMY- AT NAVY- AS

AIR FORCE- 99 DLA-IS

REVIEW: AF-84 DLA-IS

USER:

PROJECT NUMBER: 3110-0910

MILITARY SPECIFICATION SHEET

TITLE

BEARING, ROLLER, SELF-ALIGNING SINGLE ROW
ANTI-FRICTION, SEALED -65 TO 350 F, TYPE I

SPECIFICATION SHEET NUMBER

MS21431

05 DEC 94
REV A

SUPERSEDING

MS21431

22 NOV 1976

AMSC- N/A

FSC -3110

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE.

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: MIL-B-8914

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

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REQUIREMENTS:

1. MATERIAL: RINGS: STEEL, FED-STD-66, E52100.
ROLLERS: STEEL, FED-STD-66, E51100 OR E52100.
2. SEALS: POLYTETRAFLUOROETHYLENE PER AMS 3652 OR POLYTETRAFLUOROETHYLENE SHEET, GLASS FABRIC REINFORCED PER AMS 3666.
3. SEAL RETAINERS: STEEL, CORROSION RESISTANT.
- ④ 4. LUBRICANT: MIL-G-81322 OR MIL-G-23827. ALL BEARINGS SHALL BE PACKED WITH GREASE CONFORMING TO MIL-G-81322 UNLESS OTHERWISE SPECIFIED. IF MIL-G-23827 IS REQUIRED, ADD THE LETTER "G" AFTER THE MS21431 DASH NUMBER. MIL-G-23827 SHALL NOT BE USED FOR OPERATION WHERE TEMPERATURES EXCEED 250°F.
5. HARDNESS: HEAT TREAT RINGS AND BALLS TO ROCKWELL "E" 60 TO 66 AND STABILIZE FOR OPERATION AT 250°F.
6. SURFACE ROUGHNESS: RACEWAYS $\frac{8}{\sqrt{}}\text{IN}$ AND ROLLERS $\frac{6}{\sqrt{}}\text{IN}$ IN ACCORDANCE WITH ANSI/ASME B46.1.
7. INTERNAL CLEARANCE: RADIAL .0006 TO .0014.
- ④ 8. PLATING: ALL EXTERNAL STEEL SURFACES EXCEPT BORE, SEALS AND SEAL RETAINERS, ZINC-NICKEL PLATED PER AMS 2417, TYPE I, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE I, CLASS 2, TO A THICKNESS OF .0003 TO .0006 INCHES.
- ④ 9. PART NUMBER: MS NUMBER AND DASH NUMBER WITH SUFFIX AS APPLICABLE.
EXAMPLE OF PART NUMBER:
MS21431 - 4G = BEARING, ROLLER, SELF-ALIGNING SINGLE ROW, .2500 IN BORE, 1.000 OUTER DIAMETER WITH
MIL-G-23887, 250°F MAX
LUBRICANT DESIGNATOR (SEE LUBRICANT REQUIREMENT)
DASH NUMBER (SEE TABLE I)
MILITARY SPECIFICATION

NOTES:

1. DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED.
2. THESE LOAD RATINGS ARE FOR OPERATIONS UP TO 250°F. FOR OPERATIONS UP TO 350°F, THE RATINGS SHALL BE REDUCED BY 20%.
3. DIMENSIONS TO BE MET AFTER PLATING.
4. REMOVE BURRS AND SHARP EDGES.

PREPARING ACTIVITY: NAVY-AS CUSTODIANS: ARMY- AT NAVY- AS AIR FORCE-99 DLA-IS REVIEW: AF-84 DLA-IS USER: PROJECT NUMBER: 3110-0910	MILITARY SPECIFICATION SHEET TITLE BEARING, ROLLER, SELF-ALIGNING SINGLE ROW ANTI-FRICTION, SEALED -65 TO 350 F, TYPE I	SPECIFICATION SHEET NUMBER 05 DEC 94 MS21431 REV A SUPERSEDING MS21431 22 NOV 1976 AMSC- N/A FSC -3110
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