

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 DODSS SPECIFIED IN THE SOLICITATION: MIL-B-399D

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

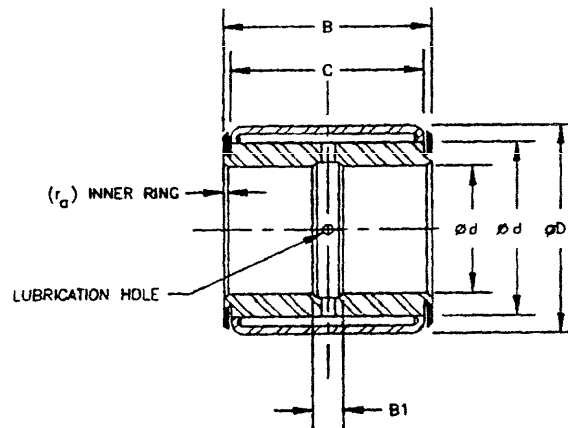


TABLE I Dimensions in inches

Dash	ϕd Bore	ϕD Outer Ring Outside Dia. 2/	B Over- all Width	c Outer Ring Width	ϕd_1 Washer Outside Dia.	B1 Lubri- cation Groove Width	r_a 1/ Fillet Max.	Radial Internal Clearance Max.	Limit Load Rating Lbs 3/	Mass (approx) lb
-3	.1900	.6250	.625	.500	.562	None	.022	.0015	679	.040
-4	.2500	.6250	.562	.500	.562	None	.022	.0015	878	.025
-5	.3125	.6875	.625	.500	.625	None	.022	.0015	988	.050
-6	.3750	.7500	.812	.750	.688	.188	.022	.0015	1920	.060
-7	.4375	.8125	.875	.750	.750	.188	.032	.0015	2110	.090
-8	.5000	1.0000	.875	.750	.938	.188	.032	.0015	2350	.120
-10	.6250	1.1250	.875	.750	1.062	.250	.032	.0015	2690	.150
-12	.7500	1.2500	1.125	1.000	1.188	.250	.032	.0015	4480	.210
-14	.8750	1.3750	1.125	1.000	1.312	.375	.032	.0015	5000	.240
-16	1.0000	1.5000	1.125	1.000	1.438	.375	.032	.0015	5510	.270
-20	1.2500	1.8750	1.375	1.250	1.812	.375	.032	.0017	8180	.300

TABLE II Dimensions in millimeters

Dash NO.	ϕd Bore	ϕD Outer Ring Outside Dia.	B Over- all Width	c Outer Ring Width	ϕd_1 Washer Outside Dia.	B1 Lubri- cation Groove Width	r_a 1/ Fillet Max.	Radial Internal Clearance Max.	Limit Load Rating N	Mass (approx) kg
-3	4.826	15.875	15.88	12.70	14.27	None	.6	.038	3020	.018
-4	6.350	15.875	14.27	12.70	14.27	None	.6	.038	3910	.011
-5	7.938	17.462	15.88	12.70	15.88	None	.6	.038	4390	.023
-6	9.525	19.050	20.62	19.05	17.48	4.78	.6	.038	8540	.027
-7	11.112	20.638	22.22	19.05	19.05	4.78	.8	.038	9390	.041
-8	12.700	25.400	22.22	19.05	23.82	4.78	.8	.038	10500	.055
-10	15.875	28.575	22.22	19.05	26.97	6.35	.8	.038	12000	.068
-12	19.050	31.750	28.58	25.40	30.18	6.35	.8	.038	19900	.095
-14	22.223	34.925	28.58	25.40	33.32	9.52	.8	.038	22200	.109
-16	25.400	38.100	28.58	25.40	36.52	9.52	.8	.038	24500	.123
-20	31.750	47.625	34.92	31.75	46.02	9.52	.8	.043	36400	.136

1/ THE CHAMFER ON BEARINGS MUST CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN THE TABLE. THIS SPECIFICATION DOES NOT CONTROL BEARING CHAMFER CONTOURS.

2/ DO NOT MEASURE O.D. WHEN BEARING IS IN FREE STATE. DIMENSIONS ABOVE ARE FOR BASIC OUTSIDE DIAMETER

INACTIVE FOR NEW DESIGN

(H) DENOTES CHANGES

INCH-POUND

PREPARING ACTIVITY: NAVY-AS

CUSTODIANS: ARMY- AT

NAVY- AS

AIR FORCE- 99

DLA-

REVIEW: AF-B4 DLA-IS

USER

PROJECT NUMBER: 3110-0855

DISTRIBUTION STATEMENT

MILITARY SPECIFICATION SHEET

TITLE

BEARING, ROLLER, NEEDLE-SINGLE ROW,
THIN SHELL, TYPE II, ANTIFRICTION

SPECIFICATION SHEET NUMBER

05 DEC 94

MS24462

REV H

SUPERSEDING

MS24462 C

17 JUN 77

AMSC- N/A

FSC 3110

A. Approved for public release; distribution is unlimited

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DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE

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Form Approved
OMB No 0704-0188

TABLE III - TOLERANCE LIMITS

DIMENSIONS IN INCHES

ϕ D BASIC BORE MEAN		ALLOWABLE DEVIATION FROM ϕ OF SINGLE MEAN ϕ_{Dmp}		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, ϕ_{d_1}		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		ϕ D BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM ϕ OF SINGLE MEAN ϕ_{Dmp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
.1250	1.2500	+ .0000	-.005 -.005	+ .0000	-.005	+ .010	-.010	+ .0000	-.062	.5625	1.8750	+ .0005	-.0005	+ .0000	-.010

TABLE IV

DIMENSIONS IN MILLIMETERS

ϕ D BASIC BORE MEAN		ALLOWABLE DEVIATION FROM ϕ OF SINGLE MEAN ϕ_{Dmp}		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, ϕ_{d_1}		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		ϕ D BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM ϕ OF SINGLE MEAN ϕ_{Dmp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
3.175	31.750	+ .0000	-.013	+ .0000	-.13	+ .25	-.25	+ .0000	-1.60	14.288	47.625	+ .013	-.013	+ .0000	-.25

TABLE V OIL HOLE DATA

BORE-DASH NO.		NUMBER OF HOLES
OVER	INCL	INNER RING
2	5	None
5	10	2
10	20	4

REQUIREMENTS:

1. MATERIAL: STEEL, MIL-S-8690, FED. STD. NO. 66, AISI/SAE STEEL No. 50100, 51100 AND 52100.

(H) 2. FINISH:

A. PLATING: ZINC-NICKEL PLATE, AMS 2417, TYPE 2, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2. TO A MINIMUM THICKNESS OF .0003 to .0006 INCHES.

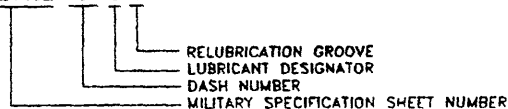
B. MACHINE FINISH: ANSI/ASME B46.1, SEE PROCUREMENT SPECIFICATION.

3. LUBRICANT: MIL-G-81322 OR MIL-G-23827. ALL BEARINGS SHALL BE PREPACKED WITH GREASE CONFORMING TO MIL-G-81322 UNLESS OTHERWISE SPECIFIED. ALL BEARINGS SHALL BE FILLED 80% MINIMUM WITH GREASE. IF MIL-G-23827 IS REQUIRED, ADD THE LETTER "L" AFTER THE MS21439 DASH NUMBER. IF A RELUBRICATION GROOVE IS DESIRED, ADD THE CODE "G" AFTER THE MS21439 DASH NUMBER AND BEFORE THE LUBRICANT DESIGNATOR IF APPLICABLE. MIL-G-23827 SHALL NOT BE USED FOR OPERATIONS WHERE TEMPERATURES EXCEED 250° F.

4. MARKING: THE MARKING SHALL CONSIST OF THE MS PART NUMBER AND THE MANUFACTURER'S IDENTIFICATION IN ACCORDANCE WITH MIL-STD-130.

5. PART NUMBER: THE MS PART NUMBER SHALL CONSIST OF THE MS NUMBER PLUS THE DASH NUMBER.

EXAMPLE: MS24462-106 L G



PREPARING ACTMITY: NAVY-AS
CUSTODIANS: ARMY- AT NAVY- AS
AIR FORCE- 99 DLA-
REVIEW: AF-84 DLA-IS
USER:
PROJECT NUMBER 3110-0855

MILITARY SPECIFICATION SHEET

TITLE

BEARING, ROLLER, NEEDLE-SINGLE ROW,
THIN SHELL, TYPE II, ANTI-FRICTION

SPECIFICATION SHEET NUMBER

MS24462

05 DEC 94
REV H

SUPERSEDING
MS24462 G

17 JUN 77

AMSC- N/A

FSC 3110

DISTRIBUTION STATEMENT

A. Approved for public release, distribution is unlimited.

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6. PACKAGING: BEARINGS SHALL BE INDIVIDUALLY PACKAGED TO THE REQUIREMENTS OF MIL-P-197. PACKAGE MARKED WITH MANUFACTURER'S NAME OR TRADEMARK, AND DATE OF LUBRICATION BY MONTH AND YEAR.
7. DIMENSIONS: ALL DIMENSIONS ARE AFTER PLATING AND ARE IN INCHES.
8. LOAD RATING: THE LIMIT LOAD RATING LISTED CAN BE DEFINED AS THE MAXIMUM RADIAL LOAD WHICH CAN BE APPLIED TO A BEARING WITHOUT IMPAIRING THE SUBSEQUENT FUNCTIONING OF THE BEARING. THE ULTIMATE OR STATIC FRACTURE LOAD RATING IS NOT LESS THAN 1.5 TIMES THE LIMIT LOAD RATING. THE LOAD RATING AS A TRACK ROLLER IS THE LOAD THE BEARING WILL CARRY AS A TRACK ROLLER FOR AN L-10 LIFE OF 20,000 REVOLUTIONS.
9. RADIAL INTERNAL CLEARANCE SHALL BE .0018 MAX.
10. TEMPERATURE: BEARING OPERATING TEMPERATURE RANGE -65° F TO 350° F.

NOTES:

1. REFERENCED DOCUMENTS ARE THE ISSUES IN EFFECT AT THE DATE OF INVITATION FOR BID.
2. FOR DESIGN FEATURE PURPOSES, THIS TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS HEREIN.

PREPARING ACTIVITY: NAVY-AS CUSTODIANS: ARMY- AT NAVY- AS AIR FORCE- 99 DLA- REVIEW: AF-84 DLA-IS USER: PROJECT NUMBER 3110-0855	MILITARY SPECIFICATION SHEET TITLE BEARING, ROLLER, NEEDLE-SINGLE ROW, THIN SHELL, TYPE II, ANTIFRICTION	SPECIFICATION SHEET NUMBER MS24462 05 DEC 94 REV H SUPERSEDING MS24462 G 17 JUN 77 AMSC- N/A FSC 3110
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