

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THE SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE SPECIFICATION SHEET. THE SOLICITATION: MIL-B-3990

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

Form Approved
OMB No 0704-0188

INCH DESIGN

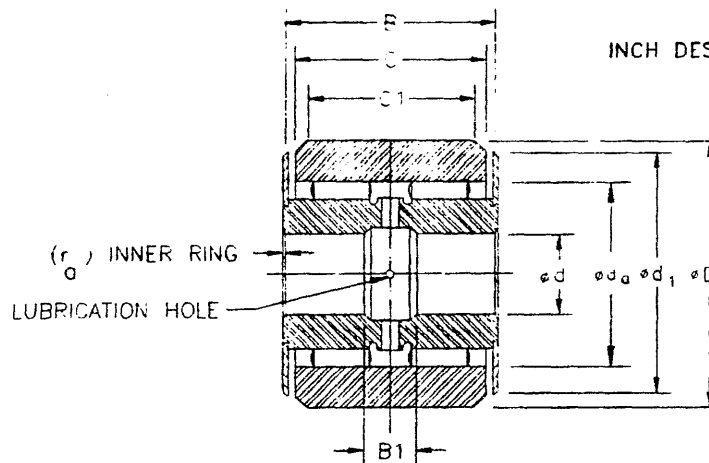


TABLE I

DIMENSIONS IN INCHES

DASH NO.	ϕd BORE	ϕD OUTER RING OUTSIDE DIA.	B OVERALL WIDTH	C OUTER RING WIDTH	C ₁ TRACK CONTACT WIDTH	ϕd_1 WASHER OUTSIDE DIA.	B ₁ LUBRICATION GROOVE WIDTH	r_0 1/ FILLET MAX	TOTAL RADIAL CLEARANCE MAX	ϕda CLAMPING DIA. MIN	LIMIT 2/ LOAD RATING LBF	LOAD 3/ RATING AS A TRACK ROLLER LBF	TRACK CAPACITY 40HRC LBF	MASS (APPROX) LB
-6	0.3750	1.1750	1.000	0.875	0.750	1.000	0.188	0.022	0.0014	0.672	7130	5370	2600	0.228
-8	0.5000	1.3750	1.250	1.125	1.000	1.250	0.250	0.032	0.0014	0.891	12500	9370	4250	0.416
-10	0.6250	1.6250	1.500	1.375	1.125	1.500	0.375	0.032	0.0014	1.109	19900	15000	5650	0.693
-12	0.7500	1.8750	1.750	1.625	1.375	1.750	0.375	0.032	0.0014	1.281	28500	21400	7950	1.08
-14	0.8750	2.1250	2.000	1.875	1.625	2.000	0.375	0.032	0.0015	1.469	38500	28900	10650	1.55
-16	1.0000	2.3750	2.250	2.049	1.794	2.125	0.375	0.032	0.0015	1.578	44900	33600	13200	2.20
-20	1.2500	2.7500	2.500	2.299	2.044	2.500	0.375	0.032	0.0015	1.844	59500	44600	17300	3.10
-24	1.5000	3.0000	2.750	2.549	2.294	2.750	0.375	0.032	0.0015	1.984	71300	55600	21200	4.12
-28	1.7500	3.4375	3.000	2.792	2.544	3.187	0.375	0.032	0.0015	2.281	92000	69000	27000	5.80
-32	2.0000	3.8750	3.000	2.799	2.544	3.625	0.375	0.032	0.0015	2.562	102000	76600	30400	7.00

TABLE II

DIMENSIONS IN MILLIMETERS

DASH NO.	ϕd BORE	ϕD OUTER RING OUTSIDE DIA.	B OVERALL WIDTH	C OUTER RING WIDTH	C ₁ TRACK CONTACT WIDTH	ϕd_1 WASHER OUTSIDE DIA.	B ₁ LUBRICATION GROOVE WIDTH	r_0 1/ FILLET MAX	TOTAL RADIAL CLEARANCE MAX	ϕda CLAMPING DIA. MIN	LIMIT 2/ LOAD RATING M	LOAD 3/ RATING AS A TRACK ROLLER M	TRACK CAPACITY 40HRC M	MASS (APPROX) KG
-6	9.325	28.575	25.40	22.22	19.05	25.40	4.78	0.6	0.036	17.07	31800	23900	11600	0.104
-8	12.700	34.925	31.75	28.58	25.40	31.75	6.35	0.8	0.036	22.63	55500	41700	18900	0.189
-10	15.875	41.275	38.10	34.92	28.58	38.10	9.51	0.8	0.036	28.17	88700	66700	25100	0.315
-12	19.050	47.625	44.45	41.28	34.92	44.45	9.52	0.8	0.036	32.54	127000	95200	35400	0.49
-14	22.250	53.975	50.80	47.62	41.28	50.80	9.52	0.8	0.038	37.31	171000	129000	47400	0.70
-16	25.400	60.325	57.15	52.04	45.57	53.98	9.52	0.6	0.038	40.08	199000	149000	58700	1.00
-20	31.750	69.850	63.50	58.39	51.92	63.50	9.52	0.8	0.038	46.84	265000	198000	77000	1.41
-24	38.100	76.200	69.85	64.74	58.27	69.85	9.52	0.8	0.038	50.39	318000	238000	94300	1.87
-28	44.450	87.312	76.20	71.09	64.62	80.95	9.52	0.8	0.038	57.94	409000	307000	120000	2.64
-32	50.800	98.425	76.20	71.09	64.62	92.08	9.52	0.8	0.038	65.07	453000	341000	135000	3.18

- 1/ THE CHAMFER ON BEARING MUST CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN THE TABLE. THIS SPECIFICATION DOES NOT CONTROL BEARING CHAMFER CONTOURS.
- 2/ 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.
- 3/ THE LOAD RATING AS A TRACK ROLLER IS THE LOAD THE BEARING WILL CARRY AS A TRACK ROLLER FOR A L-10 LIFE OF 20,000 REVOLUTIONS.

INACTIVE FOR NEW DESIGN. USE MS21439

① DENOTES CHANGE

INCH-POUND

PREPARING ACTIVITY: NAVY-AS

CUSTODIANS: ARMY-AT

NAVY-AS

AIR FORCE-99

DLA-

REVIEW: AF-84 DLA-IS

USER:

PROJECT NUMBER: 3110-0890

DISTRIBUTION STATEMENT

MILITARY SPECIFICATION SHEET

TITLE

BEARING, ROLLER, NEEDLE-DOUBLE ROW, HEAVY DUTY, TRACK ROLLER, TYPE VI ANTIFRICTION, INCH

SPECIFICATION SHEET NUMBER

MS24466

05 DEC 94

REV J

SUPERSEDING

MS24466H 21 NOV 80

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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TABLE III - TOLERANCE LIMITS

ød BASIC BORE		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN DIA. ød		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, ød ₁		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		DIMENSIONS IN INCHES					
										ø D BASIC OUTER RING OUTSIDE DIA	ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIA. D		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C		
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
0.2500	2.0000	+0	-0.0007	+0	-0.005	+0.010	-0.010	+0	-0.062	1.0000	3.8750	+0	0.0010	+0	-0.005

TABLE IV - TOLERANCE LIMITS

ød BASIC BORE		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN DIA. ød		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, ød ₁		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		DIMENSIONS IN MILLIMETERS					
										ø D BASIC OUTER RING OUTSIDE DIA	ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIA. D		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C		
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
6.350	50.800	+0	-0.018	+0	-0.13	+0.25	-0.25	+0	-1.06	25.400	94.425	+0	-0.025	+0	-0.13

TABLE V OIL HOLE DATA

BORE-DASH NO.		NUMBER OF HOLES
OVER	INCL	INNER RING
-3	-32	4

REQUIREMENTS:

- (J) 1. MATERIAL: STEEL, MIL-S-8690, ASTM A304, ASTM A576, ASTM A675, QQ-S-700, FED. STD. NO. 66, STEEL NO. AISI/SAE 50100, 51100, 52100.
- (J) 2. PLATING: O. D. AND SIDES OF OUTER RING, CHROMIUM PLATE, QQ-C-320, CLASS 2, THICKNESS: .013-.025 (.0005-.0010 INCHES)
OTHER SURFACES EXCLUDING INNER RING BORE, ZINC-NICKEL PLATE AMS 2417, TYPE 2, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE 1, CLASS 2, WITH A THICKNESS OF .00030 TO .0006 INCHES.
3. MACHINE FINISH: ANSI/ASME B46-1, SEE PRECUREMENT SPECIFICATION
4. LUBRICATION: GREASE CONFORMING TO MIL-G-81322.
5. DIMENSIONS TO BE MET AFTER PLATING. REMOVE ALL BURRS AND SHARP EDGES.

(J) NOTES:

1. THIS STANDARD TAKES PRECEDENCE OVER ANY OTHER DOCUMENTS REFERENCED HEREIN.
2. REFERENCED DOCUMENTS ARE THE ISSUES IN EFFECT AT THE DATE OF INVITATION FOR BID.

PREPARING ACTIVITY: NAVY-AS

CUSTODIANS: ARMY-AT

NAVY-AS

AIR FORCE-99

DLA-

REVIEW: AF-B4 DLA-IS

USER:

PROJECT NUMBER: 3110-0890

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