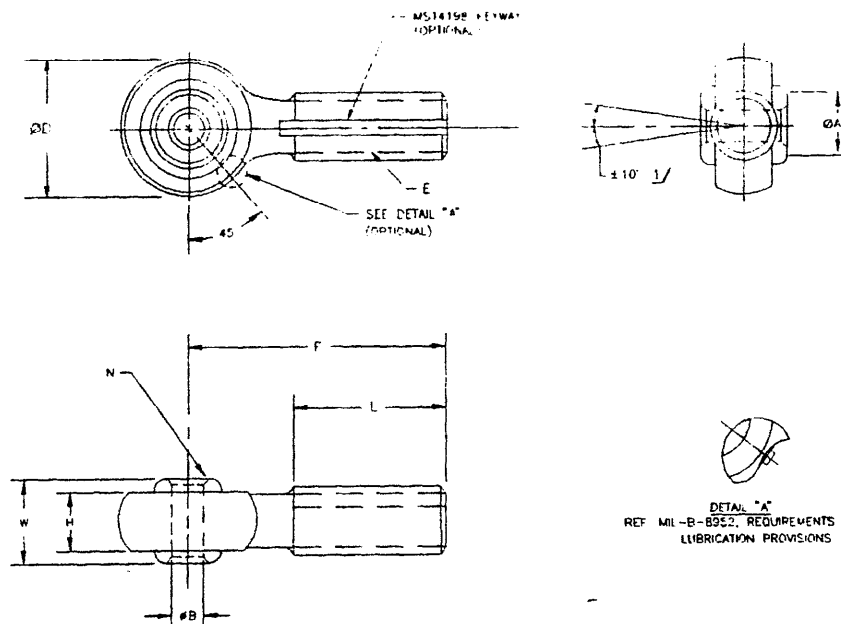


THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL (CONSIST OF) THE SPECIFICATION(S) SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DISTRIBUTION STATEMENT: MIL-B-8952

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



(D) TABLE I. DIMENSIONS AND LOADS

MS DASH NC.	ØA ±.005	ØB +.0000 -.0005	ØD +.000 -.050	E UNJF-3A THREAD	F ±.015	H +.000 -.015	L +.060 -.000	N CORNER CHAMFER ±.005	W +.000 -.005	LIMIT LOAD RATING LBS		RADIAL DYNAMIC LOAD RATING LBS	NET WT LBS
										RADIAL	AXIAL		
-4G	.420	.2500	1.080	.375-24	1.840	.360	1.000	.015	.500	2730	270	2270	.11
-5G	.560	.3125	1.410	.500-20	2.410	.460	1.310		.687	4970	490	4120	.27
-6G	.660	.3750	1.660	.625-18	3.030	.550	1.750		.812	7910	790	6570	.47
-8G	.860	.5000	2.270	.875-14	4.030	.720	2.310		1.062	14000	1400	11700	1.13
-10G	1.050	.6250	2.800	1.000-12	4.660	.850	2.560		1.250	22100	2210	18400	1.94

1/ THESE BEARINGS ARE SELF-ALIGNING FOR 10° IN EITHER DIRECTION.

REQUIREMENTS:

- (D) 1. MATERIAL: INNER RING AND ROLLERS: STEEL, E52100 PER FED-STD-66.  
OUTER RING ROD END: STEEL, AISI-SAE 4620 PER AMS 6294 OR AISI-SAE 8620H PER AMS 6274 OR COMPOSITION III (9310) PER MIL-S-7393 OR E52100 PER FED-STD-66.
- (D) 2. LUBRICANT: MIL-G-81322 OR MIL-G-23827. ALL BEARINGS SHALL BE PACKED 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 "H" AFTER THE MS21221 DASH NUMBER. IF A LUBRICATION FITTING IS NOT DESIRED, DELETE THE CODE "G" AFTER THE MS21221 DASH NUMBER. MIL-G-23827 SHALL NOT BE USED FOR OPERATION WHERE TEMPERATURES EXCEED 250°F.
3. SEALS: POLYTETRAFLUOROETHYLENE PER AMS 3652 OR POLYTETRAFLUOROETHYLENE SHEET, GLASS FABRIC REINFORCED PER AMS 3666.
- (D) 4. INTERNAL CLEARANCE: RADIAL .0001 TO .0015; AXIAL .001 TO .030.
- (D) 5. SURFACE ROUGHNESS: RACEWAYS 8 MICROINCHES  $R_a$  MAXIMUM, ROLLERS 6 MICROINCHES  $R_a$  MAXIMUM, IN ACCORDANCE WITH ANSI/ASME B46.1.
6. BEARING RATINGS ARE FOR OPERATION UP TO 250°F MAX. FOR OPERATION UP TO 350°F, THE RATINGS SHALL BE REDUCED BY 20%.

(D) DENOTES CHANGES

INCH-POUND

PREPARING ACTIVITY: NAVY-AS CUSTODIANS: ARMY-AT NAVY-AS AIR FORCE-99 DLA- REVIEW: ARMY-AV, AF-84, DLA-IS PROJECT NUMBER: 3110-0870 DISTRIBUTION STATEMENT	MILITARY SPECIFICATION SHEET TITLE BEARING, ROLLER, ROD END, EXTERNAL THREAD, SELF-ALIGNING, ANTI-FRICTION, AIRFRAME, HEAVY DUTY, TYPE I, -67° TO 350°F, SEALED	SPECIFICATION SHEET NUMBER MS21221 05 DEC 94 REV D SUPERSEDING MS21221 C 17 JAN 1990 AMSC- N/A FSC 3110
A. Approved for public release; distribution is unlimited.		Page 1 of 2

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PREVIOUS EDITIONS ARE OBSOLETE

7. ADD SUFFIX LETTER "K" WHEN MS14198 KEYWAY IS REQUIRED.  
ADD SUFFIX LETTER "L" WHEN LEFT HAND THREAD IS REQUIRED.

## EXAMPLE OF PART NUMBER:

MS21221 - 4 G K L H = BEARING, ROD END, ROLLER, SELF-ALIGNING, .2500 BORE, LUBRICATOR FITTING WITH MIL-G-23827 LUBRICANT,  
MS14198 KEYWAY, .375-24UNF-3A LEFT HAND EXTERNAL THREAD  
PREPACKED WITH MIL-G-23827 GREASE LUBRICANT (SEE REQUIREMENT 2)  
LEFT HAND THREAD DESIGNATOR  
MS14198 KEYWAY DESIGNATOR  
LUBRICATOR FITTING DESIGNATOR  
DASH NUMBER  
MILITARY SPECIFICATION SHEET NUMBER

WHEN THE DESIGNATOR IS NOT APPLICABLE, IT SHALL BE OMITTED FROM THE PART NUMBER.

8. PLATING: ALL EXTERNAL STEEL SURFACES EXCEPT BORE, SEALS AND SEAL RETAINERS, SHALL BE ZINC-NICKEL PLATED PER AMS 2417 TYPE 2 OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE I, CLASS 2, WITH A THICKNESS OF .0003 TO .0006. EXTERNAL THREADED AREAS SHALL BE .0002 TO .0005 INCHES THICK.

## NOTES:

1. DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS TO BE MET AFTER PLATING.
3. REMOVE BURRS AND SHARP EDGES.
4. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS SPECIFICATION AND REFERENCES CITED HEREIN, THE TEXT OF THIS SPECIFICATION SHALL TAKE PRECEDENCE.
5. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THIS ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DoDISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS SPECIFICATION TO THE EXTENT SPECIFIED HEREIN.

PREPARING ACTIVITY: NAVY-AS	MILITARY SPECIFICATION SHEET	SPECIFICATION SHEET NUMBER
CUSTODIANS: ARMY-AT NAVY-AS	TITLE	MS21221 05 DEC 94 REV D
AIR FORCE-99 DLA-	BEARING, ROLLER, ROD END, EXTERNAL THREAD, SELF-ALIGNING, ANTI-FRICTION, AIRFRAME, HEAVY DUTY, TYPE I, -67° TO 350° F, SEALED	SUPERSEDING MS21221 C 17 JAN 1990
REVIEW: ARMY-AV, AF-84, DLA-IS		AMSC- N/A FSC 3110
PROJECT NUMBER 3110-0870		
DISTRIBUTION STATEMENT	A. Approved for public release; distribution is unlimited	Page 2 of 2

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 DDSS SPECIFIED IN THE SOLICITATION MIL B-8952

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