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AS21432

FEDERAL SUPPLY CLASS
3110

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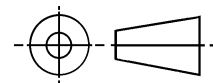
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THIRD ANGLE PROJECTION



ISSUED 2002-11

CUSTODIAN: ACBG/ROLLING ELEMENT SUBCOMMITTEE

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AEROSPACE STANDARD

BEARING, ROLLER, NEEDLE, TRACK ROLLER,
INTEGRAL STUD, TYPE VII,
ANTIFRICTION, INCH

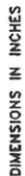
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SHEET 1 OF 5

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	BEARING, ROLLER, NEEDLE, TRACK ROLLER, INTEGRAL STUD, TYPE VII, ANTIFRICTION, INCH		

BEARING, ROLLER, NEEDLE, TRACK ROLLER,
INTEGRAL STUD, TYPE VII,
ANTIFRICTION, INCH

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

2/ INSTALLATION TORQUE LUBRICATED THREADS.



FIRST DASH NO.	Ød STUD	Ød OUTER RING OUTSIDE DIA	C OUTER RING WIDTH	C1 TRACK CONTACT WIDTH MIN	THREAD SIZE UNJF-3A	B1 THREAD LENGTH REF.	Ød g WASHER BACK-UP MIN.	B2 MIN.	Ø d1 COTTER PIN MALE	r a 1/ FILLET MAX	TOTAL RADIAL PLAY MAX	LIMIT LOAD RATING lbf	2/ lb-in MAX	TRACK CAPACITY 40 lbf	LOAD RATING A g TRACK ROLLER lbf	MASS (APPROX) lb
-3	.1900	.5000	.281	.230	.1900-32	.344	.297	.211	.070	.010	.0017	790	8	385	395	.014 + (GRIPLENGTH NO. X .0005)
-4	.2500	.6875	.281	.230	.2500-28	.344	.359	.224	.078	.010	.0017	940	20	525	470	.031 + (GRIPLENGTH NO. X .0009)
-5	.3125	.7500	.344	.290	.3125-24	.359	.422	.234	.076	.010	.0017	1660	30	725	830	.043 + (GRIPLENGTH NO. X .0014)
-6	.3750	.8750	.469	.380	.3750-24	.359	.500	.265	.106	.025	.0017	2720	55	1100	1360	.10 + (GRIPLENGTH NO. X .0020)
-7	.4375	1.0000	.531	.430	.4375-20	.422	.562	.283	.106	.025	.0017	3660	150	1425	1930	.125 + (GRIPLENGTH NO. X .0026)
-8	.5000	1.1250	.656	.530	.5000-20	.422	.625	.314	.106	.040	.0017	6040	205	1925	3040	.190 + (GRIPLENGTH NO. X .0035)

DIMENSIONS IN MILLIMETERS

FIRST DASH NO.	#d STUD	#d OUTER RING OUTSIDE DIA	C OUTER RING WIDTH	C ₁ TRACK CONTACT WIDTH MIN	THREAD SIZE UNJF-3A	B ₁ THREAD LENGTH REF.	#d ₀ WASHER BACK-UP MIN.	B ₂ MIN.	Ø d ₁ COTTER PIN MALE	r ₀ 1/ FILLET MAX	r	TOTAL RADIAL PLAY MAX	LIMIT LOAD BATING MAX	2/ MAX	TRACK CAPACITY C 40 N	LOAD RATING A ₀ TRACK ROLLER	MASS (APPROX) kg
-3	4.828	12.700	7.14	5.4	.1900-32	8.7	7.54	5.4	1.8	.2	.8	.043	3510	1.1	1710	1760	.006 (+GRIPLENGTH NO. X .0002)
-4	6.350	17.462	7.14	5.4	.2500-28	8.7	9.12	5.7	1.9	.25	.8	.043	4100	2.3	2340	2090	.014 (+GRIPLENGTH NO. X .0004)
-5	7.925	19.050	8.74	7.37	.3125-24	9.1	10.72	5.9	1.9	.25	1.2	.043	7300	3.4	3220	3680	.020 (+GRIPLENGTH NO. X .0008)
-6	9.525	22.225	11.91	9.65	.3750-24	9.1	12.70	6.7	2.7	.64	1.2	.043	12100	6.0	4890	6050	.037 (+GRIPLENGTH NO. X .0009)
-7	11.000	25.400	13.49	10.92	.4375-20	10.7	14.27	7.2	2.7	.64	1.2	.043	17200	7.0	6340	8500	.057 (+GRIPLENGTH NO. X .0012)
-8	12.700	28.575	16.86	13.46	.5000-20	10.7	15.5	8.0	2.7	.02	1.2	.043	27000	23.0	870	13500	.085 (+GRIPLENGTH NO. X .0016)

TABLE I. TOLERANCE VALUE

Ød BASIC BORE		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN DIA., d _{mp}		ALLOWABLE DEVIATION FROM COTTER PIN DIA., d	
OVER	INCL	HIGH	LOW	HIGH	LOW
.1250	.50000	+0	-.0015	+.010	-0

DIMENSIONS IN INCHES					
ØD BASIC OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIA., D _{mp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH C	
OVER	INCL	HIGH	LOW	HIGH	LOW
.4375	1.1250	+.0010	-.0005	+0	-.005

Ød BASIC BORE		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN DIA., d _{mp}		ALLOWABLE DEVIATION FROM COTTER PIN DIA., d	
OVER	INCL	HIGH	LOW	HIGH	LOW
3.175	12.700	+0	-.0038	+.25	-0

DIMENSIONS IN MILLIMETERS					
ØD BASIC OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIA., D _{mp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH C	
OVER	INCL	HIGH	LOW	HIGH	LOW
11.112	28.575	+.025	-.013	+0	-.13

REQUIREMENTS:

MATERIAL: STEEL, MIL-S-8690, QQ-S-624, QQ-S-633, FED-STD NO. 66 STEEL NO. 50100, 51100 AND 52100. SEALS, ACETAL RESIN, NYLON, OR EQUIVALENT, CONSTRUCTION OPTIONAL.

FINISH: ROLLER OD AND SIDES CHROME PLATED IN ACCORDANCE WITH QQ-C-320, CLASS 2, EXCEPT THICKNESS TO BE .010-.018 mm (.0004-.0007 INCHES). EXPOSED SURFACES OF OTHER PARTS AS MOUNTED, ZINC-NICKEL IN ACCORDANCE WITH AMS 2417, TYPE 2, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE I, CLASS 2, .0003 TO .0006 INCHES THICK.

EXAMPLE OF PART NUMBER:

SEE 20 A G = CAM FOLLOWER NEEDLE BEARING .500 STUD, SEALED BEARING, LUBRICATOR IN FLANGED END OF STUD, 1.250 GRIP LENGTH, 1.672 STUD LENGTH WITHOUT COTTER PIN HOLE, WITH MIL-G-81322 GREASE.
 G = MIL-G-81322 GREASE: NO CODE = MIL-G-23827 GREASE
 A = NO COTTER PIN HOLE (NOT REQUIRED FOR TYPES T OR TEE) OMIT FOR COTTER PIN HOLE
 GRIP LENGTH IN .0625 INCH INCREMENTS
 F = UNSEALED WITH LUBRICATOR IN FLANGED END OF STUD
 T = UNSEALED WITH LUBRICATOR IN THREADED END OF STUD, NO COTTER PIN HOLE
 BEARING * = UNSEALED WITHOUT LUBRICATOR
 FEE = SEALED WITH LUBRICATOR IN FLANGED END OF STUD
 TEE = SEALED WITH LUBRICATOR IN THREADED END OF STUD, NO COTTER PIN HOLE
 R = SEALED BEARING WITHOUT LUBRICATOR
 STUD DIAMETER IN .0625 INCH INCREMENTS