FEDERAL SUPPLY CLASS
3110

RATIONALE

AS24466 REV B CHANGES INCLUDE ADDING AISI 1074 WASHER MATERIAL THAT WAS INCORRECTLY REMOVED IN REV A. UPDATED FIGURE 1. CORRECTED TABLE 2 TOLERANCE LIMITS. UPDATED TABLE 3 TITLE. UPDATED SUPERSEDED MATERIAL TO ASTM A295/A295M.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39901.

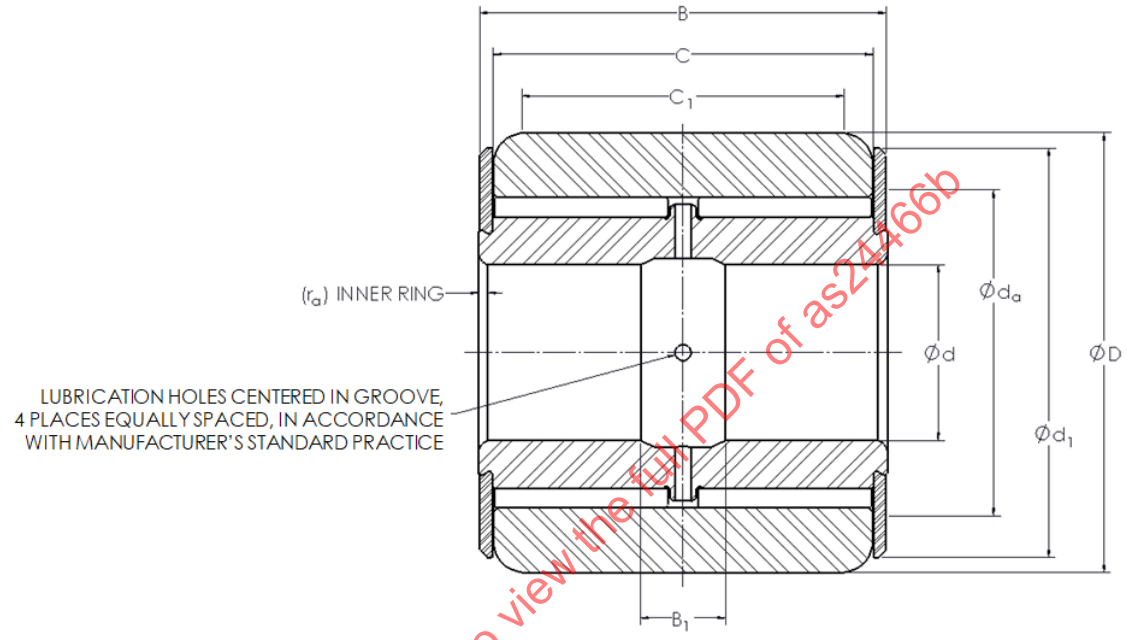
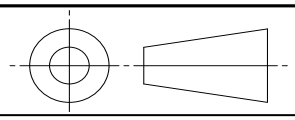


FIGURE 1 - BEARING SECTION

REFER TO AS21439 AS A SUGGESTED REPLACEMENT FOR AS24466 AT THE POINT OF DESIGN. DESIGNERS ARE CAUTIONED TO EVALUATE AS21439 FOR THEIR PARTICULAR APPLICATION.

For more information on this standard, visit
https://www.sae.org/standards/content/AS24466B/

THIRD ANGLE PROJECTION



ISSUED 2002-11 REVISED 2020-07

CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS39901

SAE INTERNATIONAL

AEROSPACE STANDARD

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

TABLE 1 - BEARING PROPERTIES

DASH NO.	Ød BORE	ØD OUTER RING OUTSIDE DIA	B OVER ALL WIDTH	C OUTER RING WIDTH	C_1 TRACK CONTACT WIDTH	$Ød_1$ WASH OUTSIDE DIA	B_1 LUBE GROOVE WIDTH	r_a 1/FILLET MAX	TOTAL RAD. CLEARANCE MAX	$Ød_A$ CLAMP DIA MIN	2/ LIMIT LOAD RATING (LBF)	3/ LOAD RATING AS A TRACK ROLLER (LBF)	TRACK CAP 40 HRC (LBF)	WGT (LB)
-6	.3750	1.1250	1.000	.875	.750	1.000	.188	.022	.0014	.672	7130	5370	2600	.228
-8	.5000	1.3750	1.250	1.125	1.000	1.250	.250	.032	.0014	.891	12500	9370	4250	.416
-10	.6250	1.6250	1.500	1.375	1.125	1.500	.375	.032	.0014	1.109	19900	15000	5650	.693
-12	.7500	1.8750	1.750	1.625	1.375	1.750	.375	.032	.0014	1.281	28500	21400	7950	1.08
-14	.8750	2.1250	2.000	1.875	1.625	2.000	.375	.032	.0015	1.469	38500	28900	10650	1.55
-16	1.0000	2.3750	2.250	2.049	1.794	2.215	.375	.032	.0015	1.578	44900	33600	13200	2.20
-20	1.2500	2.7500	2.500	2.299	2.044	2.500	.375	.032	.0015	1.844	59500	44600	17300	3.10
-24	1.5000	3.0000	2.750	2.549	2.294	2.750	.375	.032	.0015	1.984	71300	35600	21200	4.12
-28	1.7500	3.4375	3.000	2.792	2.544	3.187	.375	.032	.0015	2.281	92000	69000	27000	5.80
-32	2.0000	3.8750	3.000	2.799	2.544	3.625	.375	.032	.0015	2.562	102000	76600	30400	7.00

1/ THE CHAMFER ON THE BEARING SHALL CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN THE TABLE. HOWEVER, 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 SHALL NOT BE 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 20000 REVOLUTIONS.

TABLE 2 - 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 LUBRICATION GROOVE WIDTH B_1		ØD 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
.2500	2.0000	+0	-.0007	+0	-.005	+.010	-.010	+0	-.062	1.000	3.875	+0	-.001	+0	-.005

TABLE 3 - LUBRICATION HOLE

NUMBER OF HOLES INNER RING
4

REQUIREMENTS:

1. MATERIAL:

   a. INNER RING, OUTER RING, AND NEEDLES: 52100 STEEL PER AMS6440, AMS6444, AMS6447, OR ASTM A295/A295M.

   b. ENDWASHERS: 52100 STEEL PER AMS6440, AMS6444, AMS6447, OR ASTM A295/A295M. 8620 STEEL PER AMS6274, OR AISI 1074 STEEL PER ASTM A684/A684M.

   c. RETAINING RINGS (OPTIONAL): BRASS.

2. HEAT TREAT:

   a. OUTER RING: HARDEN AND TEMPER TO 58 TO 62 HRC.

   b. INNER RING: HARDEN AND TEMPER TO 60 TO 64 HRC OR INDUCTION HARDEN TO 60 TO 64 HRC FOR .015 INCH MINIMUM DEPTH AND 50 HRC AT .030 MINIMUM DEPTH.

   c. NEEDLES: HARDEN AND TEMPER TO 60 TO 64 HRC.

   d. ENDWASHERS: HARDEN AND TEMPER TO 51 TO 56 HRC.