

USER ACTIVITIES ARMY-HE

REVIEWER ACTIVITIES ARMY-AR DLA-15

This military standard is approved for use by the US Army Tank-Automotive Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense. ANSC N/A

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OPTIONAL CONSTRUCTION					REQUIREMENT					OPTIONAL CONSTRUCTION				
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FIRST DASH NO (SIZE)	A SHAFT DIA (NOM)	B1 SEAL O.D. (6)	B2 HOUSING BORE (REF)	C WIDTH (8)
1	1/4	.504	.500	3/16
2	5/16	.754	.750	1/4
3	3/8	.754	.750	1/4
4	7/16	1.028	1.024	1/4
5	1/2	1.129	1.125	1/4
6	9/16	1.380	1.375	1/4
7	5/8	1.254	1.250	1/4
8	11/16	1.254	1.250	3/8
9	3/4	1.254	1.250	1/4
10	13/16	1.254	1.250	5/16
11	7/8	1.254	1.250	1/4
12	15/16	1.380	1.375	1/4
13	1	1.504	1.500	1/4
14	1-1/16	1.504	1.500	1/4
15	1-1/8	1.629	1.625	1/4
16	1-3/16	1.629	1.625	1/4
17	1-1/4	1.629	1.625	1/4
18	1-5/16	1.754	1.750	1/4
19	1-3/8	2.066	2.062	1/4
20	1-7/16	2.066	2.062	1/4
21	1-1/2	2.254	2.250	1/4
22	1-9/16	2.097	2.093	1/4
23	1-5/8	2.380	2.375	1/4

FIRST DASH NO (SIZE)	A SHAFT DIA (NOM)	B1 SEAL O.D. (6)	B2 HOUSING BORE (REF)	C WIDTH (8)
24	1-11/16	2.380	2.375	1/4
25	1-3/4	2.380	2.375	1/4
26	1-13/16	2.380	2.375	3/16
27	1-7/8	2.506	2.502	1/4
28	1-15/16	2.380	2.375	3/16
29	2	2.380	2.375	1/4
30	2-1/8	2.504	2.500	5/16
31	2-3/16	2.720	2.716	1/4
32	2-1/4	3.067	3.062	7/16
33	2-3/8	2.879	2.875	5/16
34	2-7/16	2.941	2.937	3/16
35	2-1/2	3.880	3.875	1/4
36	2-3/4	3.505	3.500	1/4
37	2-7/8	3.630	3.625	7/16
38	3	4.130	4.125	1/4
39	3-1/8	5.005	5.000	1/4
40	3-3/8	5.005	5.000	1/4
41	3-1/2	5.010	5.005	1/4
42	3-5/8	4.380	4.375	3/8
43	3-3/4	4.380	4.375	5/16
44	4	5.005	5.000	5/16
45	4-1/4	4.880	4.875	1/4
46	4-13/16	6.005	6.000	1/4

REQUIREMENTS

- THE ABOVE DESIGN IS FOR REFERENCE ONLY. OTHER DESIGNS WHICH MEET THE FUNCTIONAL REQUIREMENTS OF THIS TYPE OF SEAL ARE ACCEPTABLE.
- SEALING MEMBERS SHALL CONFORM TO ONE OF THE FOLLOWING CLASSES:
 - CLASS 1 POLYMER-IMPREGATED LEATHER OR CHROME RETANNED LEATHER IN ACCORDANCE WITH KK-L-164, TANNAGE III, LEATHER MEMBERS SHALL BE MOULD-PROOFED IN ACCORDANCE WITH G-L-164 (FOR NORMAL OPERATING TEMPERATURE)
 - CLASS 2 OIL-RESISTANT SYNTHETIC ELASTOMER (FOR NORMAL OPERATING TEMPERATURE)
 - CLASS 3 OIL-RESISTANT ELASTOMER IN ACCORDANCE WITH HIGH AND LOW TEMPERATURE TESTS OF MIL-S-45005 (FOR EXTREME OPERATING TEMPERATURE)
- MARKING SHALL CONSIST OF THE MS NUMBER AND MANUFACTURER'S IDENTIFICATION IN ACCORDANCE WITH MIL-STD-130.
- THE PART NUMBER CONSISTS OF THE MS NUMBER AND 2 DASH NUMBERS.
 - FIRST DASH NUMBER INDICATES THE SIZE.
 - SECOND DASH NUMBER INDICATES THE CLASS.
 - EXAMPLE: MS51001-2-3 INDICATES SIZE NUMBER 2 WITH CLASS 3 SEALING MEMBER.
- FOR SUPERSESSON DATA, SEE SHEET 2.
 - CLASS 1 SUPERSEDES SUFFIX LETTER A, AND CLASS 3 SUPERSEDES SUFFIX LETTER B.
 - CLASS 2 HAS BEEN ADDED AS AN OPTIONAL MATERIAL. THERE IS NO SUPERSESSON DATA FOR CLASS 2.

(NOTES CONTINUED ON SHEET 2) (F) ENTIRE STANDARD REVISED

P A ARMY-AT	INTERNATIONAL INTEREST	TITLE
Other Cost		SEAL, PLAIN OR SEAL, PLAIN ENCASED, NON-SPRING LOADED, SINGLE SEALING MEMBER
PROCUREMENT SPECIFICATION MIL-S-45005		SUPERSEDES:
		MILITARY STANDARD MS51001
		SHEET 1 OF 2

USER ACTIVITIES ARMY-ME

REVIEWER ACTIVITIES ARMY-AR, DLA-IS

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FED SUP CLASS
5330

- 6 DIMENSIONS ARE IN INCHES TOLERANCES ARE \pm .002 FOR SEAL O D UP TO AND INCLUDING 2.000 INCHES, \pm .003, - .002 FOR SEAL O D UP TO 3.000, AND \pm .004, - .002 FOR SEAL O D UP TO 7.000 RUBBER O D TOLERANCE FOR HOUSING BORE 0-2.499 SHALL BE .006 TO .014 LARGER THAN HOUSING BORE FOR HOUSING BORE 2.500-3.999, RUBBER O D TOLERANCE SHALL BE .007 TO .015 LARGER THAN HOUSING BORE, AND FOR HOUSING BORE 4.000-UP, RUBBER SEAL O D TOLERANCE SHALL BE .008 TO .016 LARGER THAN HOUSING BORE
- 7 MAXIMUM HOUSING FILLET RADIUS .030 FOR SEALS UP TO AND INCLUDING 1-5/8 O D AND .040 FOR SEALS OVER 1-5/8 O D
- 8 WIDTH TOLERANCES FOR SEALS SHALL BE \pm .015 FOR WIDTHS UP TO .400 AND \pm .020 FOR WIDTHS OVER .400

NOTES

- THIS STANDARD IS NOT INTENDED TO LIMIT CONSTRUCTION TO FEATURES OTHER THAN AS SHOWN HEREON BY DIMENSIONS, NOTATIONS OR REFERENCED DOCUMENTS
- FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.
- REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INITIATION FOR BIDS OR REQUEST FOR PROPOSAL, EXCEPT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL CITE THE DATE OF THE ISSUE ADOPTED
- THE USE OF RECYCLED MATERIALS WHICH MEET THE REQUIREMENTS OF THE APPLICABLE MATERIAL SPECIFICATION WITHOUT JEOPARDIZING THE INTENDED USE OF THE ITEM SHALL BE ENCOURAGED

INTERCHANGEABILITY TABLE

THE FOLLOWING MS DASH NUMBERS ARE CANCELLED AFTER 12 JUNE 1968
THE CANCELLED SEALS SHOULD BE USED FOR MAINTENANCE PURPOSES
UNTIL EXISTING STOCK IS EXHAUSTED. USE ONLY THE SUPERSEDING
SEAL DASH NUMBERS FOR NEW DESIGN AND PROCUREMENT.

CANCELLED PART NUMBER-SIZE-CLASS	SUPERSEDING PART NUMBER-SIZE-CLASS	CANCELLED PART NUMBER-SIZE-CLASS	SUPERSEDING PART NUMBER-SIZE-CLASS
MS51001 - 1 - 1A	MS51001 - 1 - 1	MS51001 - 1 - 1B	MS51001 - 1 - 3
- 2 - 1A	- 2 - 1	- 2 - 1B	- 2 - 3
- 3 - 1A	- 3 - 1	- 3 - 1B	- 3 - 3
- 4 - 1A	- 4 - 1	- 4 - 1B	- 4 - 3
- 5 - 1A	- 5 - 1	- 5 - 1B	- 5 - 3
- 6 - 1A	- 6 - 1	- 6 - 1B	- 6 - 3
- 7 - 1A	- 7 - 1	- 7 - 1B	- 7 - 3
- 8 - 1A	- 8 - 1	- 8 - 1B	- 8 - 3
- 9 - 1A	- 9 - 1	- 9 - 1B	- 9 - 3
- 10 - 1A	- 10 - 1	- 10 - 1B	- 10 - 3
- 11 - 1A	- 11 - 1	- 11 - 1B	- 11 - 3
- 12 - 1A	- 12 - 1	- 12 - 1B	- 12 - 3
- 13 - 1A	- 13 - 1	- 13 - 1B	- 13 - 3
- 14 - 1A	- 14 - 1	- 14 - 1B	- 14 - 3
- 15 - 1A	- 15 - 1	- 15 - 1B	- 15 - 3
- 16 - 1A	- 16 - 1	- 16 - 1B	- 16 - 3
- 17 - 1A	- 17 - 1	- 17 - 1B	- 17 - 3
- 18 - 1A	- 18 - 1	- 18 - 1B	- 18 - 3
- 19 - 1A	- 19 - 1	- 19 - 1B	- 19 - 3
- 20 - 1A	- 20 - 1	- 20 - 1B	- 20 - 3
- 21 - 1A	- 21 - 1	- 21 - 1B	- 21 - 3
- 22 - 1A	- 22 - 1	- 22 - 1B	- 22 - 3
- 23 - 1A	- 23 - 1	- 23 - 1B	- 23 - 3
- 24 - 1A	- 24 - 1	- 24 - 1B	- 24 - 3
- 25 - 1A	- 25 - 1	- 25 - 1B	- 25 - 3
- 26 - 1A	- 26 - 1	- 26 - 1B	- 26 - 3
- 27 - 1A	- 27 - 1	- 27 - 1B	- 27 - 3
- 28 - 1A	- 28 - 1	- 28 - 1B	- 28 - 3
- 29 - 1A	- 29 - 1	- 29 - 1B	- 29 - 3
- 30 - 1A	- 30 - 1	- 30 - 1B	- 30 - 3
- 31 - 1A	- 31 - 1	- 31 - 1B	- 31 - 3
- 32 - 1A	- 32 - 1	- 32 - 1B	- 32 - 3
- 33 - 1A	- 33 - 1	- 33 - 1B	- 33 - 3
- 34 - 1A	- 34 - 1	- 34 - 1B	- 34 - 3
- 35 - 1A	- 35 - 1	- 35 - 1B	- 35 - 3
- 36 - 1A	- 36 - 1	- 36 - 1B	- 36 - 3
- 37 - 1A	- 37 - 1	- 37 - 1B	- 37 - 3
- 38 - 1A	- 38 - 1	- 38 - 1B	- 38 - 3
- 39 - 1A	- 39 - 1	- 39 - 1B	- 39 - 3
- 40 - 1A	- 40 - 1	- 40 - 1B	- 40 - 3
- 41 - 1A	- 41 - 1	- 41 - 1B	- 41 - 3
- 42 - 1A	- 42 - 1	- 42 - 1B	- 42 - 3
- 43 - 1A	- 43 - 1	- 43 - 1B	- 43 - 3
- 44 - 1A	- 44 - 1	- 44 - 1B	- 44 - 3
- 45 - 1A	- 45 - 1	- 45 - 1B	- 45 - 3
- 46 - 1A	- 46 - 1	- 46 - 1B	- 46 - 3

(F) ENTIRE STANDARD REVISED

P A ARMY-AT Other Cust	INTERNATIONAL INTEREST	TITLE SEAL, PLAIN OR SEAL, PLAIN ENCASED NON-SPRING LOADED, SINGLE SEALING MEMBER	MILITARY STANDARD MS51001
PROCUREMENT SPECIFICATION MIL-S-45005	SUPERSEDES:	SHEET 2 OF 2	