INCH-POUND

MIL-DTL-45932/1D w/AMENDMENT 2 7 June 2016 SUPERSEDING MIL-DTL-45932/1D w/AMENDMENT 1 22 February 2016

DETAIL SPECIFICATION SHEET INSERT, SCREW THREAD – THIN WALL, LOCKED IN

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and procurement specification MIL-DTL-45932.

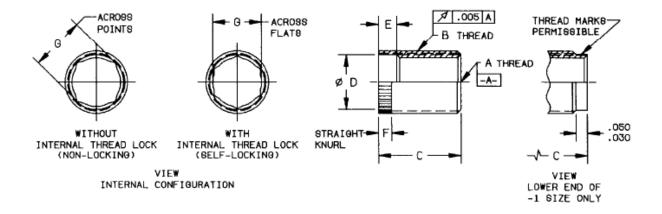


FIGURE 1. INSERT, SCREW THREAD.

AMSC N/A FSC 5325

TABLE I. <u>Dash Numbers and Characteristics</u>.

17-4PH Alloy Alloy Steel Silver Solid Flame Class 3B Flated Flame Class 3B Flated Flame Class 3B Thread Size T	2/ 3/ Dash Numbers (Reg. 7)			A B External Thread		C	ØD	Е	F	G	Min Shear		
Cres Steel Film Plated Film Lube Cres Cres Film Lube Cres Cres Film Lube Cres								טט	_	'	U		
1		,				Altered Willion				,			Area So In
1	0103	Otoci			Oldoo OB	Thread Size			+ 008	+ 015			7110a 0q. 111.
1	1/	1/	1 lateu		(Reg. 4)	Tillead Size		±.010			(Ref)	(Ref)	(Note 2)
2		_	1 CI								,		,
3 L 3 AL 3 CL 3 DL 4 A A 4 C 4 D 5 L 5 AL 5 CL 5 DL 6					0.0860-56 UNC	0.1380-40 UNF	.1073		.086	.042	.032		.0189
4						0.1640-32 UNC			.116	.060	.050		0.400
5 L 5 AL 5 CL 5 DL 6 DL 0.1380-32 UNC 0.1900-32 UNF .1620 .210 .142 .080 .055 .113 .120 .0542 7 L 7 AL 7 CL 7 DL 8 8 A 8 C 8 D 0.1640-32 UNC 0.2160-28 UNF .1890 .250 .169 .080 .055 .138 .150 9 L 9 AL 9 CL 9 DL 0.100 .100 .1900-32 UNF .1890 .250 .169 .080 .055 .138 .150 10 I 10 A 10 C 10 D .1900-32 UNF .02500-28 UNF .2170 .290 .192 .080 .055 .138 .160 11 L 11 AL 11 CL 11 DL .11 DL					0.1120-40 UNC		.1380						
6 6 A 6 C 6 D 0.1380-32 UNC 0.1900-32 UNF 1.620 2.10 1.42 0.95 1.20 .0942 7 L 7 AL 7 CL 7 DL 0.1640-32 UNC 0.2160-28 UNF 1.890 .250 .169 .080 .055 .130 .0823 9 L 9 AL 9 CL 9 DL 0.1900-32 UNF .180 .250 .169 .080 .055 .150 10 10 A 10 C 10 D 0.1900-32 UNF .11L .11L .11 L .11 LL .11 DL													
T					0.1380-32 UNC	0.1900-32 UNF	.1620	.210	.142	.080	.055	120	.0542
8 8 A 8 C 8 D 0.1640-32 UNC 0.2160-28 UNF .1890 .250 .169 .080 .155 .0823 9 L 9 AL 9 CL 9 DL 0.1900-32 UNF 0.1900-32 UNF 0.2500-28 UNF .2170 .290 .192 .080 .075 .157 .1098 11 L 11 AL 11 CL 11 DL 11 DL .11 DL .12 DL .22 DL <td></td>													
9 L 9 AL 9 CL 9 DL 0.1900-32 UNF 10 10 A 10 C 10 D 0.1900-32 UNF 11 L 11 AL 11 CL 11 DL 0.1900-24 UNC 12 C 12 D 0.1900-24 UNC 13 L 13 AL 13 CL 13 DL 0.2500-28 UNF 12 L 13 AL 13 AL 13 CL 13 DL 0.2500-20 UNC 13 L 13 AL 13 CL 13 DL 0.2500-20 UNC 13 L 13 AL 13 CL 13 DL 0.2500-20 UNF 12 L 14 AL 14 CL 14 DL 14 DL 15 CL 15 DL 16 AL 16 AL 16 C 16 D 0.2500-20 UNC 18 BL 18 AL 18 C BL 18 DL 0.3125-24 UNF 18 BL 18 AL 18 C BL 19 DL 0.3125-24 UNF 18 BL 18 AL 18 C BL 19 DL 0.3125-24 UNF 18 BL 18 AL 18 C BL 19 DL 0.3125-18 UNC 19 DL 0.3					0.1640-32 UNC	0.2160-28 UNF	.1890	.250	.169	.080	.055	150	.0823
10													
11 L					0.1900-32 UNF	0.2500-28 UNF	.2170	.290	.192	.080	.075		.1098
12													
13 L 13 AL 13 CL 14 DL 14 DL 14 DL 15 CL 15 DL 0.2500-28 UNF 15 LL 15 AL 15 CL 15 DL 0.2500-20 UNC 16 16 AL 16 CL 15 DL 0.2500-20 UNC 17 LL 17 CL 17 DL 17 DL 18 18 AL 18 CL 18 DL 19 DL 1					0.1900-24 UNC								
14													
15 L 15 AL 15 CL 15 DL 16 DL 16 DL 16 DL 16 DL 17 AL 17 CL 17 DL 17 AL 17 CL 17 DL 18 DL 19					0.2500-28 UNF				.252	.095	.075		.2037
16						0.3125-24 UNF	.2785	.380					
17 L					0.2500-20 UNC							.240	
18													
19 L 19 AL 19 CL 19 DL 0.3125-18 UNC 20 D 0.3125-18 UNC 21 L 21 AL 21 CL 21 DL 22 Z2 A 22 C 22 D 0.3750-24 UNF 23 L 23 AL 23 CL 23 DL 24 D 0.3750-16 UNC 25 L 25 AL 25 CL 25 DL 26 A 26 C 26 D 0.4375-20 UNF 26 26 A 26 C 26 D 0.4375-14 UNC 29 AL 29 AL 29 CL 29 DL 30 A 30 C 30 D 30 A 30 C 30 D 30 A 30 C 30 D 31 L 31 AL 31 CL 31 DL 32 DL 32 DL 32 DL 33 AL 33 AL 33 AL 33 AL 33 CL 33 DL 34 A 34 C 34 D 34 A 34 C 34 D 35 DL 36 A 36 C 36 D 37 AL 37 CL 37 DL 38 A 38 A 38 C 38 D 39 AL 39 CL 39 DL 40 A 40 C 40 D 40 A 40 C 40 D 40 A 40 C 40 D 41 L 41 CL 41 DL 41 CL 41 DL 42 A 42 C 42 D 43 DL 34 A 43 AL 43 CL 43 DL 34 CL 43 DL 34 AL 43 CL 43 DL 34 CL 43 DL 34 AL 43 CL 43 DL 34 AL 43 CL 43 DL 34 CL 43 DL 34 AL 44 CL 44 DL 44 AL 44 AL 44 CL 44 DL 44 AL 44 CL 44 DL 44 AL 44 CL					0.3125-24 UNF	0.3750-24 UNF	.3405	.470	.314	.110	.075		.3306
20		_											
21 L 21 AL 21 CL 21 DL 22 C 22 D 22 D 0.3750-24 UNF 23 L 23 AL 23 CL 23 DL 0.3750-16 UNC 0.4375-20 UNF 0.5000-20					0.3125-18 UNC								
22													
23 L 23 AL 23 CL 23 DL 24 A 24 C 24 D 24 D 0.3750-16 UNC 0.4375-20 UNF .4010 .560 .377 .110 .105 .322 .4577 .370 .25 L 25 AL 25 CL 25 DL 26 A 26 C 26 DL 27 DL 27 AL 27 CL 27 DL 28 28 A 28 C 28 D 0.4375-14 UNC 29 L 29 AL 29 CL 29 DL 31 L 31 AL 31 CL 31 DL 32 D 32 A 32 C 32 D 33 AL 33 AL 33 CL 33 DL 34 A 34 A 34 C 34 D 35 L 35 AL 35 CL 35 DL 36 A 36 C 36 D 37 AL 37 AL 37 CL 37 DL 38 A 38 C 38 D 39 L 39 AL 39 CL 39 DL 40 40 A 40 C 40 D 40 A 40 C 40 D 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 42 A 42 C 43 DL 3750-10 UNE .6100 .6450-10 UNE .6870 .648 .750 .750 .750 .648 2.0543 .750 .750 .648 2.0543 .750 .7					0.3750-24 UNF	0.4375-20 UNF	.4010	.560	.377	.110	.105		.4577
24 24 A 24 C 24 D 0.3750-16 UNC 370 370 370 370 370 370 370 370 370 370 370 377 370 377 378 378 378 378 378 378 378 378 378 378													
25 L 25 AL 25 CL 25 DL 26 A 26 C 26 D 0.4375-20 UNF 26 26 A 26 C 26 D 0.4375-20 UNF 27 L 27 AL 27 CL 27 DL 28 28 A 28 C 28 D 0.4375-14 UNC 29 L 29 AL 29 CL 29 DL 31 L 31 AL 31 CL 31 DL 32 A 32 C 32 D 0.5000-13 UNC 32 32 A 32 C 32 D 0.5000-13 UNC 34 A 34 A 34 C 34 D 0.5625-18 UNF 36 36 A 36 C 36 D 37 L 37 AL 37 CL 37 DL 36 38 A 38 C 38 D 39 L 39 AL 39 CL 39 DL 40 40 A 40 C 40 D 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 40 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 41 AL 41 CL 41 DL 41 AL 41 CL 41 DL 42 A 2 C 42 D 43 AL 43 CL 43 DL 5750 43 A 34 C 34 D 0.7500-16 UNF 43 L 43 AL 43 CL 43 DL 5750 43 AL 37 CL 37 DL 5750 43 AL 43 CL 43 DL 5750-16 UNF 43 L 43 AL 43 CL 43 DL 5750-16 UNF 43 L 43 AL 43 CL 43 DL 5750-16 UNF 43 L 43 AL 43 CL 43 DL 5750-16 UNF 43 L 43 AL 43 CL 43 DL 5750-10 UNEF 5.8240 1.120 .756 .170 .150 .648 2.0543					0.3750-16 UNC								
26 26 A 26 C 26 D 0.4375-20 UNF 0.5000-20 UNF .4630 .660 .439 .135 .105 .377 .6522 28 L 28 A 28 C 28 D 0.4375-14 UNC 0.5000-20 UNF .4630 .660 .439 .135 .105 .377 .430 29 L 29 AL 29 CL 29 DL .30 D 0.5000-20 UNF .5290 .750 .505 .135 .105 .439 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
27 L 27 AL 27 CL 27 DL 0.4375-14 UNC 0.5000-20 UNF .4630 .660 .439 .135 .105 .377 .6522 28 L 28 A 28 C 28 D 0.4375-14 UNC 0.5000-20 UNF .4630 .660 .439 .135 .105 .377 .430 30 JA 30 C 30 D 0.5000-20 UNF 0.5000-20 UNF .5290 .750 .505 .135 .105 .439 .4490 .439 .4490 .439 .4490 </td <td></td> <td></td> <td></td> <td></td> <td>0.4375-20 UNF</td> <td rowspan="3">0.5000-20 UNF</td> <td rowspan="3">.4630</td> <td rowspan="3">.660</td> <td rowspan="3">.439</td> <td rowspan="3">.135</td> <td rowspan="3">.105</td> <td></td> <td rowspan="3">.6522</td>					0.4375-20 UNF	0.5000-20 UNF	.4630	.660	.439	.135	.105		.6522
28 28 A 28 C 28 D 0.4375-14 UNC 430 29 L 29 AL 29 CL 29 DL 0.5000-20 UNF 439 449 30 30 A 30 C 30 D 0.5000-20 UNF 5290 .750 .505 .135 .105 439 31 L 31 AL 31 CL 31 DL 0.5000-13 UNC 0.5625-24 UNEF .5290 .750 .505 .135 .105 .439 32 A 32 C 32 D 0.5000-13 UNC 0.5625-18 UNF 0.5625-18 UNF .6130 .840 .571 .145 .135 .481 .550 35 L 35 AL 35 CL 35 DL 0.5625-12 UNC 0.6625-12 UNC .6130 .840 .571 .145 .135 .481 1.1328 36 A 36 C 36 D 0.6250-18 UNF 0.6250-18 UNF .6870 .940 .634 .145 .135 .534 39 L 39 AL 39 CL 39 DL 0.6250-11 UNC 0.7500-16 UNF .6870 .940 .634 .145 .135 .534 .620 41 L<													
29 L 29 AL 29 CL 29 DL 30 D 30 A 30 C 30 D 30 A 30 C 30 D 31 L 31 AL 31 CL 31 DL 32 A 32 C 32 D 33 AL 33 AL 33 CL 33 DL 34 A 34 A 34 C 34 D 35 L 35 AL 35 CL 35 DL 36 A 36 C 36 D 37 L 37 AL 37 CL 37 DL 38 A 38 A 38 C 38 D 39 AL 39 CL 39 DL 40 A 40 C 40 D 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 42 42 A 42 C 42 D 43 DL 44					0.4375-14 UNC								
30 30 A 30 C 30 D 0.5000-20 UNF 31 L 31 AL 31 CL 31 DL 0.5000-13 UNC 32 32 A 32 C 32 D 0.5000-13 UNC 33 L 33 AL 33 CL 33 DL 34 A 34 A 34 C 34 D 0.5625-18 UNF 35 L 35 AL 35 CL 35 DL 36 A 36 C 36 D 37 L 37 AL 37 CL 37 DL 38 A 38 C 38 D 39 AL 39 AL 39 CL 39 DL 0.6250-11 UNC 0.6250-11 UNC 0.7500-16 UNF 0.8750-20 UNEF 8240 1.120 .756 .170 .150 .648 2.0543 .150 .490 .8690 .490 .8690 .490 .						0.5625-24 UNEF	.5290			.135			
31 L 31 AL 31 CL 31 DL 0.5000-13 UNC 0.5625-24 UNEF .5290 .750 .505 .135 .105 .439 .8690 32 32 A 32 C 32 D 0.5000-13 UNC 0.5625-24 UNEF .5290 .750 .505 .135 .105 .439 .8690 33 L 33 AL 33 CL 33 DL 0.5625-18 UNF 0.5625-18 UNF .6130 .840 .571 .145 .135 .481 1.1328 36 36 A 36 C 36 D 0.5625-12 UNC 0.6625-12 UNC .6130 .840 .571 .145 .135 .481 1.1328 37 L 37 AL 37 CL 37 DL 0.6250-18 UNF 0.6250-18 UNF .6870 .940 .634 .145 .135 .534 .620 39 L 39 AL 39 CL 39 DL 0.6250-11 UNC 0.6250-11 UNC .6870 .940 .634 .145 .135 .534 .534 40 40 A 40 C 40 D 0.7500-16 UNF .8240 1.120 .756 .170 .150 .648 .750 <tr< td=""><td></td><td></td><td></td><td></td><td>0.5000-20 UNF</td><td rowspan="3">.750</td><td rowspan="3">.505</td><td rowspan="3">.105</td><td></td><td></td></tr<>					0.5000-20 UNF			.750	.505		.105		
32													.8690
33 L 33 AL 33 CL 33 DL 34 D 0.5625-18 UNF 34 D 0.5625-18 UNF 35 L 35 AL 35 CL 35 DL 36 D 36 D 37 L 37 AL 37 CL 37 DL 38 DL 39 AL 39 CL 39 DL 40 40 A 40 C 40 D 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 42 42 A 42 C 42 D 0.7500-16 UNF 43 L 43 AL 43 CL 43 DL 5750 1.120 0.8750-20 UNEF 8240 1.120 .756 1.100 1.120 .756 1.170 1.150 .648 2.0543					0.5000-13 UNC								
34 34 A 34 C 34 D 0.5625-18 UNF 35 L 35 AL 35 CL 35 DL 36 36 A 36 C 36 D 37 L 37 AL 37 CL 37 DL 38 38 A 38 C 38 D 39 L 39 AL 39 CL 39 DL 40 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 42 42 A 42 C 42 D 43 L 43 AL 43 AL 43 CL 43 DL 34 D 0.5625-12 UNC 0.6875-12 UN .6130 .840 .571 .145 .135 .550 .620 .534 .620 .634 .145 .135 .534 .620 .620 .620 .750 .648 .750 .750 .750 .170 .150 .648 .750 .750 .750 .750 .170 .150 .648 .750													
35 L 35 AL 35 CL 35 DL 0.5625-12 UNC 0.6875-12 UN .6130 .840 .571 .145 .135 .481 1.1328 36 36 A 36 C 36 D 0.5625-12 UNC 0.6875-12 UN .6130 .840 .571 .145 .135 .481 1.1328 37 L 37 AL 37 CL 37 DL 0.6250-18 UNF 0.6250-18 UNF .620 .620 .620 39 L 39 AL 39 CL 39 DL 0.6250-11 UNC 0.6250-11 UNC .6870 .940 .634 .145 .135 .534 .620 41 L 41 AL 41 CL 41 DL 0.7500-16 UNF .6870 .940 .634 .145 .135 .648 42 42 A 42 C 42 D 0.7500-16 UNF .8240 1.120 .756 .170 .150 .648 43 L 43 AL 43 AL 43 CL 43 DL .7500-16 UNF .8240 1.120 .756 .170 .150 .648					0.5625-18 UNF	0.6875-12 UN	.6130	.840	.571	.145	.135		1.1328
36													
37 L 37 AL 37 CL 37 DL 0.6250-18 UNF 38 S 38 A 38 C 38 D 0.6250-18 UNF 39 L 39 AL 39 CL 39 DL 40 40 A 40 C 40 D 41 L 41 AL 41 CL 41 DL 42 42 A 42 C 42 D 43 L 43 AL 43 CL 43 DL 43 L 43 AL 43 CL 43 DL 45 C 45 C 45 C 45 C 45 C 46 C 45 C 47 C 48 DL 48 C 48 DL					0.5625-12 UNC								
38						0.7500-16 UNF	.6870	.940	.634	.145	.135		1.4014
39 L 39 AL 39 CL 39 DL 0.6250-11 UNC 0.7500-16 UNF 6870 .940 .634 .145 .135 .534 1.4014 .620 .7500 .41 L 41 AL 41 CL 41 DL 42 42 A 42 C 42 D 0.7500-16 UNF 43 L 43 AL 43 CL 43 DL 0.7500 .000 .000 .000 .000 .000 .000 .0					0.6250-18 UNF								
40 40 A 40 C 40 D 0.6250-11 UNC 620 41 L 41 AL 41 CL 41 DL 648 42 42 A 42 C 42 D 0.7500-16 UNF 43 L 43 AL 43 CL 43 DL 0.8750-20 UNEF 8240 1.120 .756 .170 .150 .648 2.0543													
41 L 41 AL 41 CL 41 DL 42 A 42 C 42 D 0.7500-16 UNF 0.8750-20 UNEF 8240 1.120 .756 .170 .150 .648 .750					0.6250-11 UNC								
42													
43 L 43 AL 43 CL 43 DL 0.8750-20 UNEF 8240 1.120 .756 .170 .150 .648 2.0543					0.7500-16 UNF								
				43 DL		0.8750-20 UNEF	.8240	1.120	.756	.170	.150		2.0543
		44 A		44 D	0.7500-10 UNC						, ,	.750	1

^{1/ &}quot;L" Suffix shown indicates self-locking insert.
2/ Dash numbers B & BL, 1 thru 16 inclusive, previously listed in Table I of revision A of this specification are cancelled and have been removed.

^{3/} All dash numbers shown are for aerospace applications. For non-aerospace applications, except silver plated "C" and "CL" inserts, add "M" to the dash number.

REQUIREMENTS:

1. Material:

Steel, alloy, grade 4130 (UNS G41300) per SAE AMS6370 or grade 8740 (UNS G87400) per SAE AMS6322.

Steel, corrosion-resistant, type 17-4 PH (UNS S17400) per SAE AMS5643.

Steel, corrosion-resistant, type A286 (UNS S66286) per SAE AMS5731, SAE AMS5732, SAE AMS5734 or SAE AMS5737.

2. Protective coating or treatment:

Steel, alloy, shall be cadmium plated in accordance with SAE AMS-QQ-P-416, Type III, Class 3 (see Note 6) plus solid film lubricant coating*. As an alternative to cadmium plating, may be ZnNi plated in accordance with ASTM F1941/F1941M Fe/Zn-Ni 8ET alkaline zinc nickel electroplate, 12%-16% mass percent nickel, with chemical conversion coating per MIL-DTL-5541 TYPE II CLASS.

1A plus solid film lubricant coating*.

Steel, corrosion-resistant, type 17-4 PH, shall be solid film lubricant coated*.

Steel, corrosion-resistant, type A286.

Dash C & CL shall be silver plated per SAE AMS2411 grade B, .0002 thick minimum.

Dash D & DL shall be solid film lubricant coated*.

*Inserts for aerospace applications shall be solid film lubricated in accordance with SAE AS5272 Type I (see Note 7). Inserts for non-aerospace applications shall be dry film lubricated in accordance with MIL-PRF-46010 (see Note 8).

3. Surface roughness:

Machined surfaces shall be 125 microinches in accordance with ASME B46.1 except knurling.

4. Threads:

Threads shall be in accordance with SAE AS8879 except as noted in Table I and shall accept external SAE AS8879 threads. All coarse internal threads have an increased minor diameter. Threads are prior to the addition of solid film lubricant.

5. Hardness:

Alloy steel, 25-34 HRC Corrosion-resistant steel, 17-4 PH, 35-42 HRC Corrosion-resistant steel, A286, 32-40 HRC

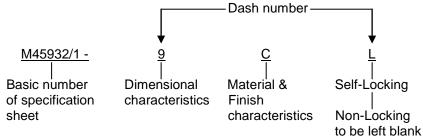
6. Internal thread locking feature:

The centerline of the internal thread locking feature shall be approximately mid-length of internal thread except -1 size is located on a pilot at the bottom of insert.

7. Part Identifying Number (PIN):

Consists of the letter M, the basic number of this specification sheet, and a dash number taken from Table I for aerospace applications. For non-aerospace applications, except silver plated C and CL inserts, add M to the dash number.

Example of PIN:



M45932/1-9CL Insert, Screw Thread - Thin Wall, Locked In,

0.01900-32 UNF-3B Internal Thread, A286 Corrosion Resistant Steel, Silver Plated, Self-Locking, Aerospace and Non-Aerospace Applications

M45932/1-10D Insert, Screw Thread - Thin Wall, Locked In,
0.01900-32 UNF-3B Internal Thread, A286 Corrosion Resistant Steel, Solid Film,
Lubricant Coated, Non-Locking, Aerospace Applications

NOTES: Table I

1. <u>Dimensions</u>:

All dimensions are in inches, to be met after plating and before the addition of solid film lubricant (see requirement 2 herein).

2. Shear engagement area:

Shear engagement area is the assembled dimensional value for the overall engaged area of mating thread members. It does not represent a dimension of either of the members in an unassembled condition.

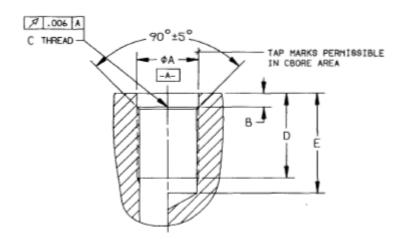


FIGURE 2. HOLE PREPARATION, INSTALLATION & REMOVAL REQUIREMENTS.

TABLE II. <u>Installation & removal criteria</u>.

r.,	1	ØA		Installation & Tellioval		_		
	Nominal		В	C Threa	D	E		
External	Insert Dash	C Bore C Bore		SAE AS88	Medium		Insert	
Thread Size	Number		Depth			Full	Minimum	Removal
of Insert	M45932/1	+.004	(Note 4a)	Class-3B	Controlled	Thread	Drill Depth	Drill Size
		001	±.005	Except Minor Ø	Minor Ø		Blind Hole	
(Ref)	(Ref)	001	±.005	Lxcept willion &	WIIIIOI &	Depth	Бііпа поіе	(Note 5)
0.1380-40	1 2	.138	.045050	0.1380-40 UNJF	.112117	.160	.223	#30
0.1640-32	3 4	.164	.052	0.1640-32 UNJC	.139144	.220	.298	5/32
0.1900-32	5 6	.187	.065	0.1900-32 UNJF	.165170	.240	.318	#17
0.2160-28	7 8	.216	.065	0.2160-28 UNJF	.190195	.280	.369	#5
0.2500-28	9 10 11 12	.250	.082	0.2500-28 UNJF	.220225	.325	.414	15/64
0.3125-24	13 14 15 16	.312	.082	0.3125-24 UNJF	.280285	.415	.519	19/64
0.3750-24	17 18 19 20	.375	.082	0.3750-24 UNJF	.342347	.505	.609	23/64
0.4375-20	21 22 23 24	.437	.113	0.4375-20 UNJF	.403408	.595	.720	27/64
0.5000-20	25 26 27 28	.500	.113	0.5000-20 UNJF	.467472	.695	.820	31/64
0.5625-24	29 30 31 32	.562	.113	0.5625-24 UNJEF	.530535	.785	.889	35/64
0.6875-12	33 34 35 36	.687	.150	0.6875-12 UNJ	.624629	.873	1.081	43/64
0.7500-16	37 38 39 40	.750	.156	0.7500-16 UNJF	.702707	.967	1.123	47/64
0.8750-20	41 42 43 44	.875	.156	0.8750-20 UNJEF	.835840	1.155	1.280	55/64

NOTES:

- 1. Axis of hole shall be normal to entry surface or provide spot face when required.
- 2. Machine surfaces shall be 125 microinches in accordance with ASME B46.1.
- 3. All dimensions are in inches.

4. Install insert:

- (a) These inserts are primarily designed for use in aluminum, magnesium and other non-ferrous materials that do not exceed 187 HB (3000 kg load and 10 mm ball). Use in corrosion-resistant steels, titanium and hardened ferrous materials will require broach serrations in counterbore to accept the insert knurls during swaging operation. Installation in steel will also require counterbore depth "B" in Table II to be increased by .015 inches.
- (b) Install inserts -1 thru -8 into hole until the top of insert is .010-.020 below boss surface and -9 thru -44 inserts .015-.025 below boss surface.
- (c) Place swage tool in insert and apply a downward force sufficient to effect full swageout and External lock setting.

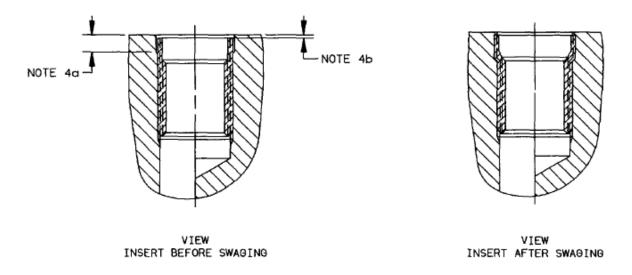


FIGURE 3. INSERT INSTALLATION.

- 5. Replacement of inserts are made with same size inserts as those removed. Using removal drill size shown in Table II, drill to depth "B" + .025 then back-out insert using installation wrench or a square type screw extractor. Remove loose chips, re-inspect hole and then re-install per note 4.
- Cadmium is not recommended. To the users of this document, it is recommended that cadmium plating be used only when other materials and finishes specified in this document cannot meet performance requirements.
- 7. SAE AS5272 Type I lubricant is technically equivalent to MIL-L-46010 Type I lubricant used in previous revisions.
- 8. MIL-PRF-46010 lubricant is lead (Pb) free and is not technically equivalent to MIL-L-46010 Type I lubricant used in previous revisions. Use of MIL-PRF-46010 in aerospace applications should first be validated.
- 9. <u>Changes from previous issue</u>. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTEREST

Custodians:

Army - AR

Navy - AS

Air Force - 99

Preparing activity:

DLA - IS

(Project 5325-2016-006)

Review activities:

Army - AT, AV, CR4

Navy - MC, OS

Air Force - 71

Other - NS

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.