

FED. SUP CLASS  
53GP

REVIEW: AV, IS, MI, MU, NSA  
USER: AT, EL, GL, MC

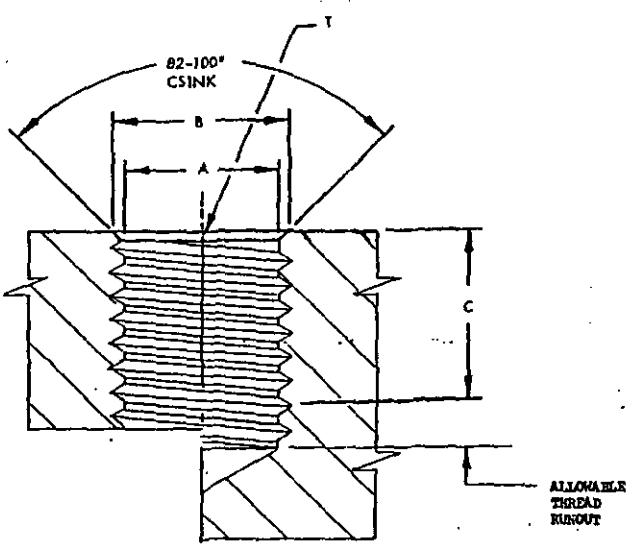


FIGURE 1 - CONFIGURATION FOR TABLES I, II AND III

NOTES

1. AXIS OF HOLE TO BE NORMAL TO ENTRY SURFACE OR PROVIDE SPOTFACE WHEN REQUIRED.
2. UNIFIED NATIONAL CLASS 2B OR 3B THREADS.
3. SURFACE ROUGHNESS: UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES IN ACCORDANCE WITH AMS2 346.1
4. NOMINAL USE: FOR INSTALLATION OF KEY-LOCKED INSERTS AND STUDS CONFORMING TO MS51830, MS51831, MS51832, MS51833, AND MS51834, AS APPLICABLE.
5. INSTALLATION: PROCEDURE AND INSTALLATION OF KEY-LOCKED INSERTS AND STUDS, SEE MS51835, FIGURE II.
6. REMOVE ALL BURRS AND SHARP EDGES.
7. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES, LINEAR DIMENSIONS  $\pm .005$
8. ILLUSTRATION IS FOR IDENTIFICATION AND IS NOT INTENDED TO RESTRICT DESIGNS AND SHAPES OF INSERTS AND STUDS WHICH OTHERWISE CONFORM TO REQUIREMENTS.

THIS IS A DESIGN STANDARD AND SHALL NOT BE USED AS A PART NUMBER.

(A) ENTIRE STANDARD REVISED

This military standard is mandatory for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

P.A.	WC	TITLE INSERTS AND STUDS, LOCKED IN - KEY LOCKED, HOLE DIMENSIONS FOR AND ASSEMBLY OF	MILITARY STANDARD <b>MS 51835</b>
Other Cont	AS 82		
PERFORMANCE SPECIFICATION: NOT APPLICABLE	SUPERSEDES:	SHEET	1 OF 4

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TABLE I -- INSTALLATION HOLE DIMENSIONS FOR MS 51830 AND MS 51833

NOMINAL EXTERNAL THD SIZE FOR INSERT AND STUD	MS 51830 INSERT DASH NUMBER (REF)	MS 51833 STUD DASH NUMBER (REF)	A DIAMETER	B CSINK DIAMETER +.010 -.000	T THREAD UNIFIED NATIONAL CLASS 2B	C MIN FULL THREAD
.164-32	-101	--	.137 .135	.166	.164-32UNC	.140
.190-32	-102	--	.164 .160	.194	.190-32UNF	.160
.216-28	-103	--	.191 .186	.220	.216-28UNF	.160
.250-28	-104	--	.231 .227	.255	.250-28UNF	.210
.3125-18	-105 -201	-101 -201	.276 .271	.323	.3125-18UNC	.370
.375-16	-106 -202	-102 -202	.336 .331	.385	.375-16UNC	.430
.4375-14	-107 -203	-103 -203	.401 .396	.447	.4375-14UNC	.500
.500-13	-108 -204	-104 -204	.457 .452	.510	.500-13UNC	.560
.5625-12	-109 -205	-105 -205	.521 .515	.572	.5625-12UNC	.620
.625-11	-110 -206	-106 -206	.583 .577	.635	.625-11UNC	.680

TABLE II - INSTALLATION HOLE DIMENSIONS FOR MS 51831 AND MS 51834

NOMINAL EXTERNAL THD SIZE FOR INSERT AND STUD	MS 51831 INSERT DASH NUMBER (REF)	MS 51834 STUD DASH NUMBER (REF)	A DIAMETER	B CSINK DIAMETER +.010 -.000	T THREAD UNIFIED NATIONAL CLASS 2A	C MIN FULL THREAD
.3125-18	--	-101 -201	.276 .271	.323	.3125-18UNC	.370
.375-16	-101 -201	-102 -202	.336 .331	.385	.375-16UNC	.370
.4375-14	-102 -202	-103 -203	.401 .396	.447	.4375-14UNC	.430
.500-13	-103 -203	-104 -204	.457 .452	.510	.500-13UNC	.500
.5625-12	-104 -204	-105 -205	.521 .515	.572	.5625-12UNC	.560
.625-11	-105 -205	-106 -206	.583 .577	.635	.625-11UNC	.680
.6875-11	-106 -206	-107 -207	.644 .640	.700	.6875-11NS	.750
.8125-16	-107 -207	-108 -208	.771 .765	.822	.8125-16UN	.940
.875-14	-108 -208	-109 -209	.833 .827	.885	.875-14UNF	1.000
1.125-12	-109(L) -209(L)	-110 -201	1.067 1.061	1.145	1.125-12UNF	1.310 (L) 1.440
1.250-12	-110(L) -210(L)	-111 -211	1.192 1.186	1.270	1.250-12UNF	1.440 (L) 1.560
1.375-12	-111(L) -211(L)	-112 -212	1.317 1.311	1.395	1.375-12UNF	1.560 (L) 1.680

REVIEW: AV, IS, MI, MU, NSA  
USER: AT, EL, GL, MC

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P.A. WC  
Other Cust AS  
82  
PROCUREMENT SPECIFICATION NOT APPLICABLE

TITLE  
INSERTS AND STUDS, LOCKED IN -  
KEY LOCKED, HOLE DIMENSIONS FOR AND ASSEMBLY OF  
SUPERSEDES:

MILITARY STANDARD  
**MS 51835**  
SHEET 2 OF 4

APPROVED 1 DEC 1967 REVISED FOR CHANGES SEE SHEET 1

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TABLE III - INSTALLATION HOLE DIMENSIONS FOR MS 51832

NOMINAL EXTERNAL THREAD SIZE FOR INSERT	MS 51832 INSERT DASH NUMBER (REF)	A DIAMETER	B CSINK DIAMETER +.010 -.000	T THREAD UNIFIED NATIONAL CLASS 2B	C MIN FULL THREAD
.4375-14	-101 -201	.401 .396	.447	.4375-14UNC	.370
.500-13	-102 -202	.457 .452	.510	.500-13UNC	.440
.5625-12	-103 -203	.521 .515	.572	.5625-12UNC	.500
.625-11	-104 -204	.583 .577	.635	.625-11UNC	.560
.6875-11	-105 -205	.646 .640	.700	.6875-11NS	.680
.8125-16	-106 -206	.771 .765	.822	.8125-16UN	.750
.875-14	-107 -207	.833 .827	.885	.875-14UNC	.940
1.000-12	-108 -208	.942 .936	1.020	1.000-12UNF	1.000
1.250-12	-109(L) -209(L)	1.192 1.186	1.270	1.250-12UNF	1.310 (L) 1.440
1.375-12	-110(L) -210(L)	1.317 1.311	1.395	1.375-12UNF	1.440 (L) 1.560
1.500-12	-111(L) -211(L)	1.442 1.437	1.520	1.500-12UNF	1.560 (L) 1.680

REVISION: AY, IS, MI, MU, NSA  
USBR: AT, RL, CL, MC

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P.A. Other Cost	WC AS 82	TITLE INSERTS AND STUDS, LOCKED IN - KEY LOCKED, HOLE DIMENSIONS FOR AND ASSEMBLY OF	MILITARY STANDARD <b>MS 51835</b>
PROCUREMENT SPECIFICATION NOT APPLICABLE	SUPERSEDES:	SHEET 3 OF 4	

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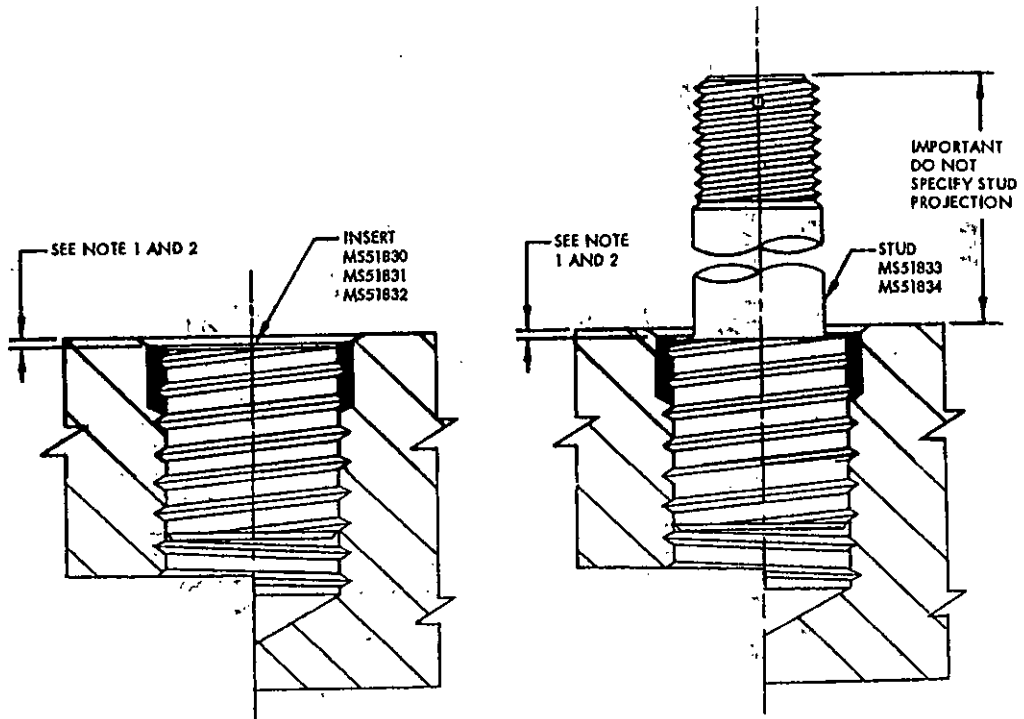


FIGURE II - ASSEMBLY OF INSERTS AND STUDS

HOLE PREPARATION IN ACCORDANCE WITH TABLES I, II AND III PER APPLICABLE EXTERNAL THREAD SIZE OF PART AND CORRESPONDING DASH NUMBER.

1. INSTALL INSERT OR STUD AS SHOWN. (KEYS LOCATE CORRECT DEPTH.)
2. DRIVE KEYS AS SHOWN.
3. TYPICAL DRAWING CALLOUT TO BE LOCATED IN VICINITY OF PART IDENTIFICATION.

FOR INSERT

INSTALL INSERT IN ACCORDANCE WITH MS51835

INSERT VIEW

FOR STUD

INSTALL STUD IN ACCORDANCE WITH MS51835

STUD VIEW

4. REPLACEMENT OF INSERTS AND STUDS IS MADE WITH SAME SIZE PARTS AS THOSE REMOVED AND IN SAME MANNER AS ORIGINALLY INSTALLED.
5. IN MATERIALS HARDER THAN 150 BRINNELL, KEY SLOTS, BROACHED PRIOR TO INSERT INSTALLATION, MAY BE REQUIRED.
6. ILLUSTRATION IS FOR IDENTIFICATION AND IS NOT INTENDED TO RESTRICT DESIGNS AND SHAPES OF INSERTS AND STUDS WHICH OTHERWISE CONFORM TO REQUIREMENTS.

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PROCUREMENT SPECIFICATION NOT APPLICABLE	SUPERSEDES:	SHEET 4 OF 4

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

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