

**MIL-HDBK-131A**

15 September 1966

SUPERSEDING

MIL-HDBK-131

7 November 1958

**MILITARY STANDARDIZATION HANDBOOK**  
**IDENTIFICATION MARKINGS**  
**FOR FASTENERS**

FSC 5300

DEPARTMENT OF DEFENSE  
WASHINGTON, D.C. 20301

MIL-HDBK-131A  
Identification Markings for Fasteners

Date of approval:

1. This standardization handbook was developed by the Department of Defense with the assistance of the Industrial Fasteners Institute in accordance with established procedures.

2. This publication was approved on 15 September 1966 for printing and inclusion in the military standardization handbook series.

3. This document provides a basic means for identifying the material and mechanical properties of fasteners by their respective markings.

4. Every effort has been made to reflect the latest information on head markings for fasteners. It is the intent to review this handbook periodically to insure its completeness and currency. Users of this document are encouraged to report any errors discovered and any recommendations for changes or inclusion to Hq. U.S. Army Weapons Command, Attn: AMSWE-RDT, Rock Island Arsenal, Rock Island, Illinois 61201.

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## 1. GENERAL

1.1 Purpose. The purpose of this handbook is to provide a means for identifying the materials and mechanical properties of fasteners, by their respective markings.

1.2 Scope. This handbook illustrates identification markings for fasteners. Because of the wide use of various identification markings, this military handbook is published to minimize the possibility of introducing duplicate markings.

## 2. APPLICABLE DOCUMENTS

2.1 Federal and Military. The federal and military specifications, military standards (MS and AN) specified in this handbook are available at the source listed below:

Navel Supply Depot  
5801 Tabor Avenue  
Philadelphia, Pennsylvania 19120

### 2.2 Other publications.

2.2.1 Industrial. The following industrial specifications, standards and handbooks, listed within this military handbook, are available at the following sources:

American Society for Testing and Materials  
ASTM Handbook for Ferrous Metals

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.)

General Motors Engineering Standards  
GM Material Standards

(Application for copies should be addressed to the General Motors Corporation, General Motors Technical Center, Warren, Michigan 48090.)

General Dynamics Corp. - Electric Boat Division  
Specification GD/EB-1890

(Application for copies should be addressed to the General Dynamics Corp., Electric Boat Division, Groton, Connecticut 06340.)

National Standards Association  
National Aerospace Standards

(Application for copies should be addressed to the National Standards Association, Inc., 1321 14th Street N.W., Washington, D.C. 20005.)



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Society of Automotive Engineers  
SAE Handbook and Aerospace Material Specifications

(Applications for copies should be addressed to the Society of Automotive Engineers, Inc., 485 Lexington Avenue, New York, New York 10017.)

3. Relationship of code markings. The following data specifies the relationship of code markings on AN and MS fasteners to AMS material specifications:

MIL-HDBK CODE MARKINGS	AMS MAT'L SPEC	TITLE OF SPECIFICATIONS	ALLOY NO	SIMILAR SPECIFICATION
E1	6320	Bars and Forgings, 0.55 Ni, 0.50 Cr, 0.25 Mo (0.33-0.38C)	8735	MIL-S-6098, Cond C
E1	6325	Bars and Forgings, 0.55 Ni, 0.50 Cr, 0.25 Mo (0.38-0.43C) Heat Treated 105,000 TS	8740	MIL-S-6049
E4	5061	Bars and Wire 0.08-0.20C	----	-----
E5	5045	Sheet and Strip 0.25 Max C Cold Rolled, Full Hard Temper	1020	QQ-S-698
E9	5024	Bars, Forgings and Mechanical Tubing, 0.32 - 0.39C, 1.5 Mn, Free Cutting	1137	QQ-S-637
E11	6322	Bars and Forg- ings, 0.55 Ni, 0.50 Cr, 0.25 Mo, (0.38-0.43C)	8740	MIL-S-6049, Cond C
E12	4120	Bars, Rods and Wire, Rolled 4.5 Cu, 1.5 Mg, 0.6 Mn	2024- T4	QQ-Z-225/6 Temper T4

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MIL-HDBK CODE MARKINGS	AMS MAT'L SPEC	TITLE OF SPECIFICATIONS	ALLOY NO	SIMILAR SPECIFICATION
E23	6350	Plate, Sheet and Strip, 0.95 Cr, 0.20 Mo, (0.28-0.33C)	4130	MIL-S-18729
E30	6381	Tubing, Mechani- cal, 0.95 Cr, 0.2 Mo (0.38-0.43C)	4140	-----
E30	6382	Bars and Forgings, 0.95 Cr, 0.20 Mo, (0.38-0.43C)	4140	MIL-S-5626
E37	6304	Bar, Forging and Mech Tubing, 1 Cr, 0.55 Mo, 0.3 V, (0.40-0.50C)	17-22A	-----
EC2	5628	Bars and Forgings, 16 Cr, 2 Ni	51431	QQ-S-763, Cl. 431
EC3	7472	Bolts and Screws, Cres, Roll Thd Ni 7.0-12.0 (0.15C)	202	QQ-S-763, Cl. 202
EC10	5639	Bars, Forgings, Mech. Tubing and Rings, 19 Cr, 9 Ni	30304	QQ-S-763, Cl. 304
EH5	5646	Bars, Forgings, Mech. Tubing and Rings, 18 Cr, 11 Ni (Cb + Ta)	30347	QQ-S-763, Cl. 347
EH19	5735	Bars, Forging, Mech. Tubing and Rings, 15 Cr, 26 Ni, 1.3 Mo, 2.1 Ti, 0.3 V	A-286	-----

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4. Manufacturer's trade-mark. The manufacturer's name or registered trade-mark shall be positioned, when applicable, as specified in tables I thru VII.

## 5. ABBREVIATIONS

5.1 Specifications and standards. Abbreviations for documents specified herein are as follows:

AISI	- American Iron and Steel Institute
AMS	- Aerospace Material Specifications
AN	- Air Force - Navy (AN) Standards
ASG	- Aeronautical Standard Group
ASTM	- American Society for Testing and Materials
GD/EB	- General Dynamics Corp., Electric Boat Division
GM	- General Motors
MS	- Military Standards
NAS	- National Aerospace Standards
SAE	- Society of Automotive Engineers

5.2 Mechanical properties, et cetera. Abbreviations for mechanical properties and others, specified herein, are in accordance with MIL-STD-12.

## 6. MARKING REQUIREMENTS

6.1 Markings and application. Identification markings are specified in the first column of tables I thru VII. The markings provide optimum legibility and permanent identification. The height of the markings is commensurate with the size of the fastener(s) being marked.

Custodian:  
 Army - WC  
 Navy - SH  
 Air Force - 69

Preparing activity:  
 Army - WC  
 Project No. 5300-0014

Review activities:  
 Army - EL, MI, MO, MU, WC  
 Navy - SH  
 Air Force - 69


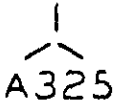



DISC - IS  
 NSA

User activities:  
 Army - GL  
 Navy - SA, WP, YD, MC  
 Air Force - 11

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
1. NONE	A76	Bolts, Track	Carbon Steel	Yes	1/2 thru 1 dia	TS PSI min	55,000	
						max	70,000	
2. NONE	A163	Bolts, Track	Carbon Steel Ht Tr	Yes	3/4 thru 1-1/8 dia	TS PSI min	110,000	
						YS PSI min	80,000	
3. NONE	A394	Bolts, Trans Tower, Galv	Carbon Steel	Option	1/2 thru 1 dia	TS PSI min	60,000	
						BHN	121-207	
						RH	B69-95	
4. NONE	A307 Grade A	Bolts, Common	Low Carbon Steel	Option	1/4 thru 4 dia	TS PSI min	55,000	Grade A equivalent to SAE, Grade 1.
						BHN min	104	
						RH min	B64	
5. NONE	A307 Grade B	Bolts, Flange	Low Carbon Steel	Yes	1/4 thru 4 dia	TS PSI min	55,000	
						max	90,000	
						BHN	104-187	
						RH	B64-92	
6.	A449	Bolts and Studs	Med Carbon Steel Ht Tr Grade 5	Yes	Thru 3/4 dia	TS PSI min	120,000	Marked on top of head for bolts and on end for studs.
						YS PSI min	88,000	
						Prf Load PSI	85,000	
						BHN	241-302	
						RH	C23-32	
					Over 3/4 thru 1 dia	TS PSI min	115,000	
						YS PSI min	81,000	
						Prf Load PSI	78,000	
						BHN	235-302	
						RH	C22-32	
					Over 1 thru 1-1/2 dia	TS PSI min	105,000	
						YS PSI min	77,000	
						Prf Load PSI	74,000	
						BHN	223-285	
						RH	C19-30	

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFICATION MARK	ASTM SPECIFICATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
6. 	A449	Bolts and Studs	Med Carbon Steel Ht Tr Grade 5	Yes	Over 1-1/2 thru 3 dia	TS PSI min Prf Load PSI BHN	90,000 58,000 183-235	Marked on top of head for bolts and on end for studs.
7. 	A325	Bolts, High Strength, Structural	Med Carbon Steel Ht Tr	Yes	Thru 3/4 dia  Over 3/4 thru 1 dia  Over 1 thru 1-1/2 dia	TS PSI min YS PSI min Prf Load PSI BHN RH  TS PSI min YS PSI min Prf Load PSI BHN RH  TS PSI min YS PSI min Prf Load PSI BHN RH	120,000 88,000 85,000 241-331 C23-35  115,000 81,000 78,000 235-321 C22-34  105,000 77,000 74,000 223-293 C19-31	Marked on top of head, plus the spec. number. (See column 2)
8. 	A325	Nuts for High Str Bolts	Carbon Steel	No	1/2 thru 1-1/2 dia	BHN min *Prf Load based on 144,000 PSI	143	Marked on one face of nut, raised or depressed.
9. 	A354	Bolts and Studs	Alloy Steel, (Grade BD)	Yes	1/4 thru 1-1/2 dia	TS PSI min YS PSI min Prf Load PSI BHN RH	150,000 125,000 120,000 302-352 C32-38	Marked on top of head for bolts and on one end for studs. Equivalent to SAE Grade 8.
10. 	A354	Bolts and Studs	Alloy Steel, (Grade BC)	Yes	1/4 thru 2-1/2 dia	TS PSI min YS PSI min Prf Load PSI BHN RH	125,000 109,000 105,000 255-321 C25-34	Marked on top of head for bolts and on one end for studs.

Proof load to be based on the indicated stress in the bolt used during test.

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
10.  BC	A354	Bolts and Studs	Alloy Steel, (Grade BC)	Yes	Over 2-1/2 thru 4 dia	TS PSI min 115,000 YS PSI min 99,000 Prf Load PSI 95,000 BHN 255-321 RH C25-34	Marked on top of head for bolts and on one end for studs.
11.  BB	A354	Bolts and Studs	Alloy Steel Grade BB	Yes	1/4 thru 2-1/2 dia	TS PSI min 105,000 YS PSI min 83,000 Prf Load PSI 80,000 BHN 217-285 RH C18-30	Marked on top of head for bolts and on one end for studs.
					Over 2-1/2 thru 4 dia	TS PSI min 100,000 YS PSI min 78,000 Prf Load PSI 75,000 BHN 217-285 RH C18-30	
12.  A 490	A490	Bolts, High Str, Struc- tural	Alloy Steel	Yes	1/2 thru 2-1/2 dia	TS PSI min 150,000 YS PSI min 125,000 Prf Load PSI 120,000 BHN 302-352 RH C32-38	Marked on top of head.
					Over 2-1/2 thru 4 dia	TS PSI min 140,000 YS PSI min 115,000 Prf Load PSI 105,000 BHN 285-341 RH C30-36	
13.  B5	A193	Bolts and Studs for High Temp	Cres, AISI 501 (Grade B5)	Yes	1/4 thru 4 dia	TS PSI min 100,000 YS PSI min 80,000	Marked on top of head for bolts and on end for studs.
14.  B6	A193	Bolts and Studs, for High Temp	Cres, AISI 416 or 416SE (Grade B6)	Yes	1/4 thru 4 dia	TS PSI min 110,000 YS PSI min 85,000	Marked on top of head for bolts and on end for studs.

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
B7	A193	Bolts and Studs for High Temp	Alloy Steel, AISI 4140, 4142 or 4145 (Grade B7) (0.15- 0.25 Mo)	Yes	1/4 thru	TS PSI min	125,000	Marked on top of head for bolts and on end for studs.
					2-1/2 dia	YS PSI min	105,000	
					Over 2-1/2 thru 4 dia	TS PSI min	115,000	
					Over 4 thru 7 dia	YS PSI min	95,000	
						TS PSI min	100,000	
						YS PSI min	75,000	
B14	A193	Bolts and Studs for High Temp	Alloy Steel, (0.30- 0.40 Mo)	Yes	1/4 thru 2-1/2 dia	TS PSI min YS PSI min	125,000 105,000	Marked on top of head for bolts and on end for studs.
B16	A193	Bolts and Studs for High Temp	Alloy Steel, (0.50- 0.65 Mo)	Yes	1/4 thru	TS PSI min	125,000	Marked on top of head for bolts and on end for studs.
					2-1/2 dia	YS PSI min	105,000	
					Over 2-1/2 thru 4 dia	TS PSI min	110,000	
					Over 4 thru 7 dia	YS PSI min	95,000	
						TS PSI min	100,000	
						YS PSI min	85,000	
B8	A193 and A320	Bolts and Studs for High Temp	Cres, AISI 304	Yes	Thru 4 dia	TS PSI min YS PSI min	75,000 30,000	Marked on top of head for bolts and on end for studs. (See item 274, table VI)
B8C	A193 and A320	Bolts and Studs for High Temp	Cres, AISI 347	Yes	Thru 4 dia	TS PSI min YS PSI min	75,000 30,000	Marked on top of head for bolts and on end for studs.
B8M	A193	Bolt and Studs for High Temp	Cres, AISI 316	Yes	Thru 4 dia	TS PSI min YS PSI min	75,000 30,000	Marked on top of head for bolts and on end for studs. (See item 276 of table VI)

TABLE 1 - ASTM IDENTIFICATION MARKINGS

IDENTIFICATION MARK	ASTM SPECIFICATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
21. <u>B&amp;T</u>	A193 and A320	Bolts and Studs for High Temp	Cres, AISI 321	Yes	Thru 4 dia	TS PSI min YS PSI min	75,000 30,000	Marked on top of head for bolts and on end for studs.
22.  <u>B8</u>	A193 and A320	Bolts and Studs for High Temp	Cres, Strain Hardened, AISI 304	Yes	1/4 thru 3/4 dia  Over 3/4 thru 1 dia  Over 1 thru 1-1/4 dia  Over 1-1/4 thru 1-1/2 dia	TS PSI min YS PSI min BHN max  TS PSI min YS PSI min BHN max  TS PSI min YS PSI min BHN max	125,000 100,000 320  115,000 80,000 320  105,000 65,000 320  100,000 50,000 320	Marked on top of head for bolts and on end for studs. (See item 275, table VI) Line under symbol indicates strain hardened material.
23.  <u>B8C</u>	A193 and A320	Bolts and Studs for High Temp	Cres, Strain Hardened, AISI 347	Yes	1/4 thru 3/4 dia  Over 3/4 thru 1 dia  Over 1 thru 1-1/4 dia  Over 1-1/4 thru 1-1/2 dia	TS PSI min YS PSI min BHN max  TS PSI min YS PSI min BHN max  TS PSI min YS PSI min BHN max	125,000 100,000 320  115,000 80,000 320  105,000 65,000 320  100,000 50,000 320	Marked on top of head for bolts and on end for studs. Line under symbol indicates strain hardened material.



TABLE 1 - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
24.  <u>B8M</u>	A193	Bolts and Studs for High Temp	Cres, Strain Hardened, AISI 316	Yes	1/4 thru 3/4 dia	TS PSI min	125,000	Marked on top of head for bolts and on end for studs. Line under symbol indicates strain hardened material. (See item 277, table VI)
						YS PSI min	100,000	
						BHN max	320	
					Over 3/4 thru 1 dia	TS PSI min	115,000	
		YS PSI min	80,000					
					Over 1 thru 1-1/4 dia	BHN max	320	
					Over 1-1/4 thru 1-1/2 dia	TS PSI min	105,000	
						YS PSI min	65,000	
						BHN max	320	
25.  <u>B8T</u>	A193 and A320	Bolts and Studs for High Temp	Cres, Strain Hardened, AISI 321	Yes	1/4 thru 3/4 dia	TS PSI min	125,000	Marked on top of head for bolts and on end for studs. Line under symbol indicates strain hardened material.
						YS PSI min	100,000	
						BHN max	320	
					Over 3/4 thru 1 dia	TS PSI min	115,000	
		YS PSI min	80,000					
					Over 1 thru 1-1/4 dia	BHN max	320	
					Over 1-1/4 thru 1-1/2 dia	TS PSI min	105,000	
						YS PSI min	65,000	
						BHN max	320	
26.  1	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Carbon Steel	Yes	1/4 and larger	BHN min	120	Nut, legibly stamped to indicate grade and process of manu- facture.
						* Prf load based on 130,000 PSI		

\* Proof load to be used on the indicated stress in the bolt used during test.

TABLE 1 ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
27.  2	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Carbon Steel	Yes	1/4 and larger	BHN * Prf load based on 150,000 PSI	163-352 Nut, legibly stamped to indicate grade and process of manufac- ture.
28.  2H	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Carbon Steel, Ht Tr	Yes	1/4 and larger	BHN RH * Prf load based on 175,000 PSI	248-352 C24-38 Nut, legibly stamped to indicate grade and process of manu- facture.
29.  3	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Cres, AISI 501	Yes	1/4 and larger	BHN RH * Prf load based on 175,000 PSI	248-352 C24-38 Nut, legibly stamped to indicate grade and process of manu- facture.
30.  4	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Alloy Steel	Yes	1/4 and larger	BHN RH * Prf load based on 175,000 PSI	248-352 C24-38 Nut, legibly stamped to indicate grade and process of manu- facture.
31.  6	A194	Nuts, Hot Forg or Cold Formed for High Press. and/or High Temp	Cres, AISI 416	Yes	1/4 and larger	BHN RH * Prf load based on 175,000 PSI	248-352 C24-38 Nut, legibly stamped to indicate grade and process of manu- facture.

\* Proof load to be based on the indicated stress in the bolt used during test.

TABLE 1 - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
32.  8	A194	Nuts, Hot Forged or Cold Formed for High Press. and/or High Temp	Cres, AISI 304	Yes	1/4 and larger	BHN min RH min	149 B81 Nut, legibly stamped to indicate grade and process of manufacture.
33.  8C	A194	Nuts, Hot Forged or Cold Formed for High Press. and/or High Temp	Cres, AISI 347	Yes	1/4 and larger	BHN min RH min	149 B81 Nut, legibly stamped to indicate grade and process of manufacture.
34.  8T	A194	Nuts, Hot Forged or Cold Formed for High Press. and/or High Temp	Cres, AISI 321	Yes	1/4 and larger	BHN min RH min	149 B81 Nut, legibly stamped to indicate grade and process of manufacture.
35.  8F	A194	Nuts, Hot Forged or Cold Formed for High Press. and/or High Temp	Cres, AISI 303	Yes	1/4 and larger	BHN min RH min	149 B81 Nut, legibly stamped to indicate grade and process of manufacture.
36.  1B	A194	Nuts, Mach-from-Bar for High Press. and/or High Temp	Carbon Steel	Yes	1/4 and larger	BHN * Prf load based on 130,000 PSI	120 Marked same as item 26, except symbol "B" specifies bar stock.
37.  2B	A194	Nuts, Mach-from-Bar for High Press. and/or High Temp	Carbon Steel	Yes	1/4 and larger	BHN * Prf load based on 150,000 PSI	163-352 Marked same as item 27, except symbol "B" specifies bar stock.

\* Proof load to be based on the indicated stress in bolt used during the test.

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
38.  2HB	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Carbon Steel, Ht Tr	Yes	1/4 and larger	BHN RH	248-352 C24-38	Marked same as item 28, except symbol "H" specifies ht tr and "B" specifies bar stock.
39.  3B	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 501	Yes	1/4 and larger	BHN RH	248-352 C24-38	Marked same as item 29, except symbol "B" specifies bar stock.
40.  4B	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Alloy Steel	Yes	1/4 and larger	BHN RH	248-352 C24-38	Marked same as item 30, except symbol "B" specifies bar stock.
41.  6B	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 416	Yes	1/4 and larger	BHN RH	248-352 C24-38	Marked same as item 31, except symbol "B" specifies bar stock.
42.  8B	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 304	Yes	1/4 and larger	BHN min RH min	149 B81	Marked same as item 32, except symbol "B" specifies bar stock.
43.  8CB	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 347	Yes	1/4 and larger	BHN min RH min	149 B81	Marked same as item 33, except symbol "B" specifies bar stock.

\* Proof load to be based on the indicated stress in bolt used during test.

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
44.  8TB	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 321	Yes	1/4 and larger	BHN min RH min	149 B81 Marked same as item 34, except symbol "B" specifies bar stock.
45.  8FB	A194	Nuts, Mach- from-Bar for High Press. and/or High Temp	Cres, AISI 303	Yes	1/4 and larger	BHN min RH min	149 B81 Marked same as item 35, except symbol "B" specifies bar stock.
46.  L7	A320	Bolt and Studs for Low Temp	Alloy Steel, 4140, 4142 or 4145	Yes	1/4 thru 2-1/2 dia	TS PSI min YS PSI min	125,000 105,000 Marked on top of head for bolts and on end for stud.
47.  L9	A320	Bolts and Studs for Low Temp	Nickel Steel	Yes	1/4 thru 2-1/2 dia  Over 2-1/2 thru 4 dia	TS PSI min YS PSI min  TS PSI min YS PSI min	125,000 105,000  105,000 80,000 Marked on top of head for bolts and on end for studs.
48.  L10	A320	Bolts and Studs for Low Temp	Alloy Steel, AISI 2317	Yes	1/4 thru 4 dia	TS PSI min YS PSI min	70,000 40,000 Marked on top of head for bolts and on end for studs.
49.  L43	A320	Bolts and Studs for Low Temp	Alloy Steel, AISI 4340	Yes	1/4 thru 4 dia	TS PSI min YS PSI min	125,000 105,000 Marked on top of head for bolts and on end for studs.
50.  B8D	A320	Bolts and Studs for Low Temp	Cres, AISI 348	Yes	1/4 dia and larger	TS PSI min YS PSI min	75,000 30,000 Marked on top of head for bolts and on end for studs.

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TABLE I - ASTM IDENTIFICATION MARKS

IDENTIFI- CATION MARKS	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
51. <u>B8F</u>	A320	Bolts and Studs for Low Temp	Cres, AISI 303 or 303SE	Yes	1/4 dia and larger	TS PSI min 75,000 YS PSI min 30,000	Marked on top of head for bolts and on end for studs.
52. <u>B8D</u>	A320	Bolts and Studs for Low Temp	Cres, Strain Hardened, AISI 348	Yes	1/4 thru 3/4 dia  Over 3/4 thru 1 dia  Over 1 thru 1-1/4 dia  Over 1-1/4 thru 1-1/2 dia	TS PSI min 125,000 YS PSI min 105,000  TS PSI min 115,000 YS PSI min 80,000  TS PSI min 105,000 YS PSI min 65,000  TS PSI min 100,000 YS PSI min 50,000	Marked on top of head for bolts and on end for studs. Line under the symbol indicates strain- hardened material.
53. <u>B8F</u>	A320	Bolts and Studs for Low Temp	Cres, Strain Hardened, AISI 303 or 303SE	Yes	1/4 thru 3/4 dia  Over 3/4 thru 1 dia  Over 1 thru 1-1/4 dia  Over 1-1/4 thru 1-1/2 dia	TS PSI min 125,000 YS PSI min 100,000  TS PSI min 115,000 YS PSI min 80,000  TS PSI min 105,000 YS PSI min 65,000  TS PSI min 100,000 YS PSI min 50,000	Marked on top of head for bolts, and on end for studs. Line under the symbol indicates strain- hardened material.
54. <u>B4B</u>	A437	Bolts and Studs for High Temp, Turbine-Type	Alloy Steel, Spl Ht Tr	Yes	1/4 dia and larger	TS PSI min 145,000 YS PSI min 100,000 BHN max 331	Marked on top of head for bolts and on end for studs.
55. <u>B4B</u>	A437	Nuts, for Turbine-Type Bolts and Studs	Alloy Steel, Spl Ht Tr	Yes	1/4 and larger	BHN RH 293-341 C31-37	Marked on top of nut.

TABLE I - ASTM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
56.  B4C	A437	Bolts and Studs for High Temp, Turbine-Type	Alloy Steel, Spl Ht Tr	Yes	1/4 dia and larger	TS PSI min 115,000 YS PSI min 80,000	Marked on top of head for bolts and on end for studs.
	A437	Nuts for Bolts and Studs, Turbine-Type	Alloy Steel, Spl Ht Tr	Yes	1/4 and larger	BHN RH 229-277 C21-29	Marked on top of nut.
57.  B17	A453	Bolts, Scr, Studs and Nuts for High Str, High Temp	Alloy Steel, Spl Ht Tr	Yes	1/4 dia and larger	TS PSI min 130,000 YS PSI min 85,000 BHN 248-341	Marked on top of head for bolts and on end for studs. Marked on top of nut.
58.  B18	A453	Bolts, Scr, Studs and Nuts for High Str, High Temp	Spl Alloy Steel, Spl Ht Tr	Yes*	1/4 thru 3 dia, Cond A	TS PSI min 100,000 YS PSI min 70,000 BHN 220-280	Marked on top of head for bolts and on end for studs. Marked on top of nut.
					Over 3 dia Cond A	TS PSI min 100,000 YS PSI min 60,000 BHN 220-280	Indicate the "Condition A or B", as applicable.
					1/4 thru 3 dia Cond B	TS PSI min 95,000 YS PSI min 60,000 BHN 210-270	
					Over 3 dia Cond B	TS PSI min 95,000 YS PSI min 50,000 BHN 210-270	
59.  B19	A453	Bolts, Scr, Studs, and Nuts for High Str, High Temp	Spl Alloy Steel, Spl Ht Tr	Yes	1/4 dia and larger Cond A	TS PSI min 130,000 YS PSI min 85,000 BHN 255-321	Marked on top of head for bolts and on end for stud. Marked on top of nut.
					1/4 dia and larger Cond B	TS PSI min 125,000 YS PSI min 80,000 BHN 248-321	Indicate the "Condition A or B", as applicable.

TABLE I -- ASTM IDENTIFICATION MARKINGS






IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
60.  B20	A453	Bolts, Scr, Studs and Nuts for High Str, High Temp	Spl Alloy Steel, Spl Ht Tr	Yes	1/4 dia and larger Cond A  1/4 dia and larger Cond B	TS PSI min YS PSI min BHN	170,000 120,000 311-388	Marked on top of head for bolts and on end for studs. Marked on top of nut. Indicate the "Condi- tion A or B", as applicable.



TABLE II - SAE AND GM IDENTIFICATIONS MARKINGS

IDENTIFI- CATION MARK	ASTM SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
61. NONE	SAE Grade 0	Bolts and Screws	Steel, SAE Grade 0	Yes	1/4 thru 1-1/2 dia	Not applicable		
62. NONE	SAE Grade 1 or GM255-M	Bolts and Screws	Carbon Steel, SAE Grade 1	Yes	1/4 thru 1-1/2 dia	TS PSI min	55,000	Grade 1 is equivalent to ASTM, Grade A.
63. NONE	SAE Grade 2 or GM260-M	Bolts and Screws	Carbon Steel	Yes	1/4 thru 1/2 dia	TS PSI min Prf load PSI BHN max RH max	69,000 55,000 241 B100	
					Over 1/2 thru 3/4 dia	TS PSI min Prf load PSI BHN max RH max	64,000 52,000 241 B100	
					Over 3/4 thru 1-1/2 dia	TS PSI min Prf load PSI BHN max RH max	55,000 28,000 207 B95	
64.	SAE Grade 3	Bolts and Screws	Med Carbon Steel	Yes	1/4 thru 1/2 dia	TS PSI min Prf load PSI BHN RH	110,000 85,000 207-269 B95-104	Marked on top of head.
					Over 1/2 thru 5/8 dia	TS PSI min Prf load PSI BHN RH	100,000 80,000 207-269 B95-104	
65.	SAE Grade 5 or GM280-M	Bolts and Screws	Med Carbon Steel, Ht Tr	Yes	1/4 thru 3/4 dia	TS PSI min Prf load PSI BHN RH	120,000 85,000 241-302 C23-32	Marked on top of head. See item 6, table I.

TABLE 11 - SAE AND GM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	GRADE DESIGNATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
	SAE Grade 5 or GM280-M	Bolts and Screws	Med Carbon Steel, Ht Tr	Yes	Over 3/4 thru 1 dia	TS PSI min 115,000 YS PSI min 81,000 Prf load PSI 78,000 BHN 235-302 RH C22-32	Marked on top of head. See item 6, table I.
					Over 1 thru 1-1/2 dia	TS PSI min 105,000 YS PSI min 77,000 Prf load PSI 74,000 BHN 223-285 RH C19-30	
	SAE Grade 5.1 or GM275-M	"SEMS"	Carbon Steel, Ht Tr	Yes	Thru 3/8	TS PSI min 120,000 Prf load min 85,000 BHN 241-375 RH C23-40	Marked on top of head. Grade 5 material, heat treated before assem- bly, with a hardened washer is an accept- able substitute.
	SAE Grade 6	Bolts and Screws	Med Carbon Steel, Ht Tr	Yes	1/4 thru 5/8 dia	TS PSI min 140,000 Prf load PSI 110,000 BHN 285-331 RH C30-36	Marked on top of head. Note: This grade of material is obsolete as of SAE Handbook 1965.
					Over 5/8 thru 3/4 dia	TS PSI min 133,000 Prf load PSI 105,000 BHN 269-331 RH C28-36	
	SAE Grade 7 or GM290-M	Bolts and Screws	Low Alloy Steel, Ht Tr	Yes	1/4 thru 1-1/2 dia	TS PSI min 133,000 YS PSI min 110,000 Prf load PSI 105,000 BHN 269-321 RH C28-34	Marked on top of head.
	SAE Grade 8 or GM300-M	Bolts and Screws	Low Alloy Steel, Ht Tr	Yes	1/4 thru 1-1/2 dia	TS PSI min 150,000 YS PSI min 125,000 Prf load PSI 120,000 BHN 302-352 RH C32-38	Marked on top of head, raised or depressed. See item 9, table I.

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TABLE II - SAE AND GM IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	GRADE DESIGNATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
70.   —	GM455-M	Bolts and Screws	Cres, 12% Cr	Option	1/4 thru 1-1/2 dia	TS PSI min	55,000	Marked on top of head.
						Prf load PSI	40,000	
						BHN	143	
						RH	B79	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
E 1	71. AN150401 thru AN150425	Nut-Hex, Check	Aly Stl, SAE 8735 or SAE 8740, AMS6320, AMS6325	No	#10(.190) thru 3/4(.750)	TS PSI min 105,000 YS PSI min 85,000 BHN 223-262	Mark stamped on side of nut.
	AN150426 thru AN150450	Nut-Hex, Shear, Slot					
E 4	72. AN116901 thru AN116912	Scr, Oval, Fil Head	Low Carbon Steel AMS5061	No	.112 dia	TS PSI min 70,000 RH B80-100	Marked on top of head, raised or depressed.
	AN116913 thru AN116924	Scr, Oval, Fil Head, Drilled			.112 dia		
	AN116925 thru AN116960	Scr, Oval, Fil Head			.138 dia		
	AN116961 thru AN117000	Scr, Oval, Fil Head, Drilled			.138 dia		
	AN117001 thru AN117040	Scr, Oval, Fil Head			.164 dia		
	AN117041 thru AN117080	Scr, Oval, Fil Head Drilled			.164 dia		
E 5	73. AN122576 thru AN122600	Washer, Plain	Low Carbon Stl, H. Temp AMS-5045	No	.094 I.D. thru .164 I.D.	RH B84-96	Rubber stamped on face of washer.

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

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IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
74. E9	MS9015(ASG)	Plug, Mach Thd, "0" Ring Seal	FMS, SAE1137, AMS5024	No	.250 thru .625	BHN 207-255	Marked on top of plug, raised or depressed.
75.	AN101001 thru AN101900	Bolts, Hex Head	Alloy Steel, SAE8740, AMS6322	No	.190 thru .750 dia	RH C26-32	Marked on top of head, raised or depressed.
	AN101901 thru AN102800	Bolts, Hex Head, Drilled Shk		No	.190 thru .750 dia	RH C26-32	
	AN102801 thru AN103700	Bolts, Hex Hd, Drilled, 1-Hole		No	.190 thru .750 dia	RH C26-32	
	AN103701 thru AN104600	Bolts, Hex, Hd, Drilled, 6-Holes		No	.190 thru .750 dia	RH C26-32	
	AN115401 thru AN115600	Scr, Flat Fil Head		No	.190 thru .375 dia	RH C26-32	
E11	AN115601 thru AN115800	Scr, Flat Fil Head, Drilled Shk		No	.190 thru .375 dia	RH C26-32	
	AN115801 thru AN116150	Scr, Flat Fil Head, Drilled	Alloy Steel, SAE8740	No	.190 thru .375 dia	RH C26-32	Marked on top of head, raised or depressed.
	AN121501 thru AN121525	Nut, Hex, Plain	Alloy Steel, SAE8740	No	.190 thru 1.000	RH C19-26	Mark stamped on side of nut.
	AN121551 thru AN121575	Nut, Hex, Castle		No	.190 thru 1.000	RH C19-26	Mark stamped on side of nut.

TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)		MECHANICAL PROPERTIES	REMARKS
75.          E II	AN121601 thru AN121925	Pin, Straight, Headed	Alloy Steel, SAE8740	No	.125 thru .500 dia	RH	C26-32	Marked on top of head, raised or depressed.
	AN125951 thru AN126880	Stud, Straight		No	.250-20 x .250-28 thru .625-11 x .625-18	RH	C26-32	Marked on fine thd end. (Undersize or oversize limit of coarse thd stamped into other end)
	AN126881 thru AN128362	Stud, Straight, Necked		No	.375-16 x .375-24 thru .625-11 x .625-18	RH	C26-32	
	AN128363 thru AN129292	Stud, Straight, Drilled		No	.250-20 x .250-28 thru .625-11 x .625-18	RH	C26-32	
	AN129293 thru AN130774	Stud, Str, Drilled, Necked		No	.375-16 x .375-24 thru .625-11 x .625-18	RH	C26-32	
	AN148551 thru AN149250	Bolt, Soc Hd, 6-Hole, Drilled	Alloy Steel SAE8740	No	.190 thru .625	RH	C32-36	Marked on top of head, depressed. (Inactive for design after 1 Jan 60)
	AN150501 thru AN152600	Stud, Stepped, 1.5 Dia Engagement	Alloy Steel SAE8740	No	.250-20 x .190-32 thru .625-11 x .5625-18	RH	C26-32	Marked on fine thd end. (Undersize or oversize limit of coarse thd stamped on other end)
	AN152601 thru AN154700	Stud, Stepped, Drilled, 1.5 Dia Engagement		No	.250-20 x .190-32 thru .625-11 x .5625-18	RH	C26-32	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)		MECHANICAL PROPERTIES	REMARKS
75.      E II	AN154701 thru AN156800	Stud, Stepped, 2 Dia Engagement	Alloy Steel SAE8740	No	.250-20 x .190-32 thru .625-11 x .5625-18	RH	C26-32	Marked on fine thd end. (Undersize or oversize limit of coarse thd stamped on other end)
	AN156801 thru AN158900	Stud, Stepped, Necked, 1.5 Dia Engagement		No	.250-20 x .190-32 thru .625-11 x .5625-18	RH	C26-32	
	AN158901 thru AN160100	Stud, Stepped, Necked, 1.5 Dia Engagement		No	.4375-14 x .375-24 thru .625-11 x .5625-18	RH	C26-32	
	AN160101 thru AN161300	Stud, Stepped, Drilled, Necked, 1-1/2 Dia Engagement		No	.4375-14 x .375-24 thru .625-11 x .5625-18	RH	C26-32	
	AN161301 thru AN162500	Stud, Stepped, Drilled, Necked, 2 Dia Engagement		No	.4375-14 x .375-24 thru .625-11 x .5625-18	RH	C26-32	
	AN162501 thru AN163700	Stud, Stepped, Drilled, Necked, 2 Dia Engagement		No	.4375-14 x .375-24 thru .625-11 x .5625-18	RH	C26-32	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENERS DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
75.     E II	AN163701 thru AN165500	Stud, Stepped, Necked, Wrench Pad, 1.5 Dia Engagement	Alloy Steel, SAE8740	No	.3125-18 x .250-28 thru .625-11 x .5625-18	RH	C26-32 Marked on fine thd end. (Undersize or oversize limit of coarse thd stamped on other end)
	AN165501 thru AN167300	Stud, Stepped, Drilled, Necked, Wrench Pad, 1.5 Dia Engagement		No	.3125-18 x .250-28 thru .625-11 x .5625-18	RH	C26-32
	AN167301 thru AN169100	Stud, Stepped, Necked, Wrench Pad, 2 Dia Engagement		No	.3125-18 x .250-28 thru .625-11 x .5625-18	RH	C26-32
	AN169101 thru AN170900	Stud, Stepped, Drilled, Necked, Wrench Pad, 2 Dia Engagement		No	.3125-18 x .250-28 thru .625-11 x .5625-18	RH	C26-32
	MS9088(ASG) thru MS9094(ASG)	Bolt, Mach, 12-Pt Hd, Drilled	Alloy Steel, SAE8740	No	.190 thru .5625 dia	RH	C26-32 Marked on top of head, raised or depressed.
	MS9146(ASG) thru MS9152(ASG)	Bolt, Mach, 12-Pt Hd		No	.190 thru .5625 dia	RH	C26-32



TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)		MECHANICAL PROPERTIES	REMARKS
75.          E 11	MS9157(ASG) thru MS9163(ASG)	Bolt, Mach, 12-Pt Hd	Alloy Steel, SAE8740	No	.190 thru .5625 dia	RH	C26-32	Marked on top of head, raised or depressed.
	MS9169(ASG) thru MS9175(ASG)	Bolt, Mach, 12-Pt Hd, Drilled		No	.190 thru .5625 dia	RH	C26-32	
	MS9183(ASG) thru MS9186(ASG)			No	.138 thru .164 dia	RH	C26-32	
	MS9189(ASG) thru MS9192(ASG)	Bolt, Mach, 12-Pt Hd		No	.138 thru .164 dia	RH	C26-32	
	MS9122(ASG) and MS9123(ASG)	Scr Mach, Hex Hd, Slotted		No	.190 thru .250 dia	RH	C26-32	
	MS9303(ASG)	Stud, Shld, Hex, Wrenching	Alloy Steel, SAE8740	No	.190-32 x .190-32	RH	C26-32	Marked on one side of hexagon, depressed.
	MS9304(ASG)	Stud, Shld and Stepped, Hex Wrenching		No	.190-32 x .250-28	RH	C26-32	
	MS9305(ASG)	Stud, Shld, Hex Wrenching		No	.250-28 x .250-28 dia	RH	C26-32	
	MS9306(ASG)	Stud, Shld and Stepped, Hex Wrenching		No	.250-28 x .3125-24 dia	RH	C26-32	
	MS9307(ASG)			No	.250-28 x .375-24 dia	RH	C26-32	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
E11	75. MS9308(ASG)	Stud, Shld, Drilled, Hex Wrenching	Alloy Steel, SAE8740	No	.190-32 x .190-32 dia	RH C26-32	Marked on one side of hexagon, depressed.
	MS9309(ASG)	Stud, Shld and Stepped, Drilled, Hex Wrenching		No	.190-32 x .250-28 dia	RH C26-32	
	MS9310(ASG)	Stud, Shld, Drilled, Hex Wrenching		No	.250-28 x .250-28 dia	RH C26-32	
	MS9311(ASG)	Stud, Shld and Stepped, Drilled, Hex Wrenching		No	.250-28 x .3125-24 dia	RH C26-32	
	MS9312(ASG)			No	.250-28 x .375-24 dia	RH C26-32	
E12	76. MS9015(ASG)	Plug, Mach Thd, "O" Ring Seal	Alum Alloy, 2024-T4 AMS4120	No	.750 thru 2.500	TS PSI min 62,000	Marked on top of plug, raised or depressed. (See item 74, table III.)
	MS9099(ASG) and MS9200(ASG)	Nut, Hex and Nut, Plain, Hex			.3125 thru 2.500	TS PSI min 62,000	Marked on one side of nut.
E23	77. MS172201 (ASG) thru MS172235 (ASG)	Washer, Key	Alloy Steel, SAE4130	Yes	.3937 thru 4.3307-Nom Brg Bore Dia	TS PSI min 125,000 RH min C26	Marked on top face of washer, indented.
	MS172271 (ASG) thru MS172320 (ASG)	Washer, Key, (Single)			.500 thru 2.500-Shaft Thd Dia	TS PSI min 125,000 RH min C26	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
77. E23	AN122576 thru AN122600	Washer, Plain	Alloy Steel, SAE4130	No	.190 thru 1.000 I.D.	TS PSI min RH min	125,000 C26 Rubber stamped on face of washer.
78. E30	MS172236 (ASG) thru MS172270 (ASG)	Nut - Spnr, Brg Ret, Aero	Aly Stl, SAE4140, AMS6381	No	.3397 thru 4.3307 Nom Brg Bore Dia	RH HR-BHN max CF-BHN max	C26-32 229 241 Marked on face of nut.
	MS172321 (ASG) thru MS172370 (ASG)	Nut, Spnr, Aero	Aly Stl, SAE4140 AMS6382		.500 thru 2.500		
79. E37	MS9316(ASG) and MS9317(ASG)	Scr, Mach, Slot, Hex Hd	Low Alloy Heat Resistant, AMS6304	No	.190-32 thru .250-28 dia	HR-BHN max CF-BHN max	229 248 Marked on top of head, raised or depressed.
80. E22	AN121526 thru AN121550	Nut, Plain	Cres. SAE51431 AMS5628	No	.190 thru 1.000	BHN	229-277 Marked on one side of nut.
	AN121576 thru AN121600	Nut, Castle	Cres, SAE51431, AMS5628	No	.190 thru 1.000	BHN	229-277 Marked on one side of nut.
81. E23	AN104601 thru AN105500	Bolt, Hex Hd	Cres, SAE30202, AMS7472	No	.190 thru .750	Prf load PSI	70,000 Marked on top of head, raised or depressed.
	AN105501 thru AN106400	Bolt, Hex Hd, Drilled Shk					
	AN106401 thru AN107300	Bolt, Hex Hd, Drilled 1-Hole					

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
61. EC3	AN107301 thru AN108200	Bolt, Hex Hd, Drilled 6-Holes	Cres, SAE30202, AMS7472	No	.190 thru .750	Prf load PSI 70,000	Marked on top of head, raised or depressed.
62. E10	MS9100(ASG)	Nut, Hex, Boss Conn	Cres, SAE30304, AMS5639	No	.3125 thru 2.500	0.75 and under BHN 170-255 Over 0.75 BHN 140-241	Marked on one side of nut.
63. EH5	MS9404 (ASG)	Plug, Mach Thd	Cres, SAE30347, AMS5646	Yes	.250 thru .750	BHN 170-255	Marked on top of plug. See item 133, Table III.
	MS9201(ASG)	Nut, Plain, Hex Boss, Conn	Cres, SAE30347 AMS5646	No	.3125 thru 2.500	0.75 and under BHN 170-255 Over 0.75 BHN 140-241	Marked on one side of nut.
64. EH19	MS9033(ASG) thru MS9038(ASG)	Bolt, Mach, 12-Point	Cres and Heat Res AMS5735	No	.190 thru .500 dia	TS PSI min 130,000 BHN 248-341	Marked on top of head, raised or depressed.
	MS9060(ASG) thru MS9066(ASG)	Bolt, Mach, 12-Point, Drilled Hd			.190 thru .5625 dia		
	MS9177(ASG) and MS9178(ASG)	Scr, Mach, 12-Point			.138 thru .164 dia		
	MS9187(ASG) and MS9188(ASG)	Scr, Mach, 12-Point, Drilled Hd			.138 thru .164 dia		
	MS9224(ASG)	Bolt, Mach, 12-Point			.5625 dia		
	MS9360(ASG)	Nut, Plain, Hex, Drilled		No	.112 thru .164	BHN 248-341	Marked on one side of nut, indented.



TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
26.	AN515	Scr, Mach, Rd Head (FF-S-92) NC Thd	Cres	No	.125 thru .375 dia	TS PSI min	100,000	Marked on top of head, raised or depressed.
	AN520	Scr, Mach, Rd Head (FF-S-92) NF Thd			.125 thru .250	TS PSI min	100,000	Note: Some screws are marked with two dashes. Only one dash need be visible after slotting.
	AN526	Scr, Mach, Truss Hd (FF-S-92) NC and NF Thd			.138 thru .250	TS PSI min	100,000	
	AN530	Scr, Tap, Thd Form. or Thd Ctg. Sp Thd (FF-S-107)			.138 thru .250 dia	TS PSI min	100,000	Marked on top of head, depressed. Note: Some screws are marked with two dashes. Only one dash need be visible after slotting.
	AN531	Scr, Tap, Thd Form. cr Thd Ctg. Sp Thd (FF-S-107)			.138 thru .250 dia	TS PSI min	100,000	
	MS20427	Rivet, 100°, Csk Hd			.062 thru .375 dia	Shear str PSI	65,000-85,000	Marked on top of head, Recessed.
	MS21207 (ASG)	Scr, Tap, 100° Flat Hd, Sp Thd (FF-S-107)		Option	.138 thru .250	TS PSI min	100,000	Marked on top of head. Note: Some screws are marked with two dashes. Only one dash need be visible after slotting.
	MS24693	Scr, Mach, FH, Csk, 100° (FF-S-92) UNC-2 & UNF-2			No	.138 thru .375 dia	TS PSI min	100,000

TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
86.	MS24694	Scr, Mach, 100° Flat Csk Hd (MIL-S-7839) UNC-3 & UNF-3	Cres	No	.138 thru .5625 dia	TS PSI min 85,000	Marked on top of head. Note: Some screws are marked with two dashes. Only one dash need be visible after slot- ting.
—	MS35249	Scr, Mach, FH, 82° Csk (FF-S-92) UNC-2			.138 thru .750 dia	TS PSI min 70,000	Note: This standard cancelled. See MS24671 or MS51959 as applicable.
	MS35250	Scr, Mach, 82° Flat Csk Hd (FF-S-92) UNF-2			.138 thru .750 dia	TS PSI min 70,000	Note: This standard cancelled. See MS51960.
87.	AN3 thru AN20	Bolt, Mach, Aircraft	Non- Cres	Option	.190 thru 1.250 dia	TS PSI min 125,000	Marked on top of head, raised or depressed.
X	MS20073 (ASG) and MS20074 (ASG)	Bolt, Mach, Aircraft, Drilled Hd (MIL-B-6812)		No	.190 thru .750 dia	TS PSI min 125,000	
88.	AN21 thru AN36	Bolt, Clevis (MIL-B-6812)	Non- Cres	Option	.138 thru 1.000 dia	Clevis bolts shall have tensile strengths equal to one-half of the requirements for hex hd bolts when used as specified in MIL-B-6812.	Marked on top of head, raised or depressed. Note: Only one "X" need be visible after slotting.
XX	AN502 AN503	Screw, Mach, Drilled, Fil Hd. NC & NF Thd (MIL-S-7839)		No	.190 thru .3125 dia .138 thru .3125 dia	TS PSI min 125,000	


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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
89.	AN509	Screw, Mach, FH 100°, Str (MIL-S-7839)	Non-Cres	No	.164 thru .5625 dia	TS PSI min	125,000	Marked on top of head, raised or depressed.
XX	MS24694	Screw, Mach, Flat Csk Hd, 100°, Cross- Recess	Low-Ally Steel		.164 thru .5625 dia	RH	C26-C32	Note: Only one "X" need be visible after slotting
	MS9360(ASG)	Nut, Plain, Hex Drilled	Cres and Heat Resistant, AMS5735	Yes	.112 thru 1.000	TS PSI min	130,000	Marked on side of nut.
89.	AN3 thru AN20	Bolt, Mach, Aircraft (MIL-B-6812)	Alum Alloy	Option	.190 thru 1.250 dia	TS PSI min	62,000	Marked on top of head, raised or depressed.
90.	AN173 thru AN186	Bolt, Mach, Close Tol, Aircraft (MIL-B-6812)	Non-Cres	Option	.190 thru 1.000 dia	TS PSI min	125,000	Marked on top of head, raised or depressed. Note: Triangle denotes "close toler- ance".
91.	AN173 thru AN186	Bolt, Mach, Close Tol, Aircraft (MIL-B-6812)	Alum Alloy	Option	.190 thru 1.000 dia	TS PSI min	62,000	Marked on top of head, raised or depressed. Note: Triangle denotes "close toler- ance".
92.	AN173 thru AN186	Bolt, Mach, Close Tol, Aircraft (MIL-B-6812)	Cres	Option	.190 thru 1.000 dia	TS PSI min	125,000	Marked on top of head, raised or depressed. Note: Triangle denotes "close toler- ance".
93.	MS20427	Rivet, Solid, 100° Csk Hd	Carbon Steel	No	.062 thru .375	Shear str PSI	32,000- 38,000	Marked indented into center of head.



TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
93.	MS20613	Rivet, Solid, Univ Hd	Carbon Steel	No	.062 thru .375	Shear str PSI 25,000- 35,000	Marked indented into center of head.
	AN125551 thru AN125700	Rivet, Solid, Univ Hd			.062 thru .375	RH max B60	
94.	MS20426	Rivet, Solid, 100°, Csk, Precision Hd (MIL-R-5764)	Alum Alloy Comp 5056-H32	No	.062 thru .375 dia	Shear str PSI 24,000	Marked on top of head, raised.
95.	MS20426	Rivet, Solid, 100°, Csk, Precision Hd (MIL-R-5764)	Alum Alloy, Comp 2024-T4	No	.062 thru .375 dia	Shear str PSI 37,000	Marked on top of head, raised.
96.	MS20426	Rivet, Solid, 100°, Csk, Precision Hd (MIL-R-5764)	Alum Alloy Comp 2017-T4	No	.062 thru .375 dia	Shear str PSI 33,000	Marked on top of head, raised.
97.	MS20426	Rivet, Solid, 100°, Csk, Precision Hd (MIL-R-5764)	Alum Alloy, Comp 2117-T4	No	.062 thru .375 dia	Shear str PSI 26,000	Marked on top of head, indented.
	MS20470	Rivet, Solid, Univ Hd	Alum Alloy		.062 thru .375 dia	Shear str PSI, see MIL-R-5674 for com- position.	Marked as specified in MIL-R-5674.
98.	MS20602	Rivet, Blind, Chem Expanded Protruding Hd	Alum Alloy Comp 5056	No	.125 thru .1875 dia	TS PSI min 46,000	Marked on top of head, indented.


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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
98. +	MS20603	Rivet, Blind, Chem, Expanded 100° Flush Head (MIL-R-7885)	Alum Alloy, Comp 5056	No	.125 thru .1875 dia	TS PSI min 46,000	Marked on top of head, indented.
99.	MS20600	Rivet, Blind, Str, Pull Stem, Self- Plugging, Protruding Head	Alum Alloy 5056	No	.125 thru .250 dia	See MIL-R-7885 for shear str values. TS PSI max 46,000	Parts are dyed orange color, use no. 32246 of Fed. Std. No. 595.
31 ORANGE COLOR	MS20601	Rivet, Blind, Self-Plugging 100°, Flush Hd (MIL-R-7885)			.125 thru .250 dia		
	MS20604 (ASG)	Rivet, Blind, Non-Str, Univ Hd	Alum Alloy 5056	No	.094 thru .250 dia	See MIL-R-8814 for shear str values.	
	MS20605 (ASG)	Rivet, Blind, Non-Str, 100°, Flush Head					
	MS20606 (ASG)	Rivet, Blind, Non-Str, Modified Truss Hd (MIL-R-8814)			.125 thru .250 dia		
100. ● ●	MS20615	Rivet, Solid, Univ Hd	Nickel- Copper Alloy, (Monel)	No	.062 thru .250 dia	Shear str PSI 49,000- 59,000	Marked on top center of head, indented.

TABLE III - AN AND MS IDENTIFICATION MARKINGS


IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
101. 	MS24400	Nut, Plain, Hex, Bulk and Univ Ftg Mtg, Precision Type (MIL-F-5509)	As Specified	No	.3125 thru 2.500	As specified for material used.		All nuts marked with a triangle to denote precision type. Material marked as specified in MIL-F-5509.
102. B7A	MS15824	Studs, (Bolt -Studs) Continuous Thd, High Temp 875°F. Max (MIL-S-1222)	Alloy Steel	Yes	.4375 thru 1.375 dia	TS PSI min	125,000	Marked on end of stud. Note: Either B7A or B14 bolt-studs are acceptable for service above 775°F. thru 875°F.
103. B14	MS15824	Studs, (Bolt -Studs) Continuous Thd, High Temp 975°F. Max (MIL-S-1222)	Alloy Steel	Yes	.4375 thru 1.375 dia	TS PSI min	125,000	Marked on end of stud. (See item 16, table I) Note: See item 102 above.
104. B16	MS16187	Studs, (Bolt -Studs) Continuous Thd, High Temp 875°F. - 1000°F. (MIL-S-1222)	Alloy Steel	Yes	.250 thru 2.500 dia	TS PSI min	125,000	Marked on end of stud. (See item 17, table I)
105. J	MS17293(WP) thru MS17296(WP)	Stud, Stepped, 1.5 Engagement (MIL-S-8879 Thd)	Alloy Steel, SAE6740	No	.250-20 x .190-32 thru .4375-14 x .375-24 dia	Hot finished BHN max Cold finished BHN min	229 241	Marked on fine thd end. Note: Oversize limit stamped on coarse thd end.

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
105.	MS17297(WP) and MS17298(WP)	Stud, Stepped, Drilled, 1.5 Engagement (MIL-S-8679 Thd)	Alloy Steel, SAE8740	No	.3125-18 x .250-28 and .375-16 x .3125-24 dia	Hot finished BHN max 229 Cold finished BHN min 241	Marked on fine thd end. <u>Note:</u> Oversize limit stamped on coarse thd end.
	J MS17299(WP) thru MS17301(WP)	Stud, Straight (MIL-S-8679 Thd)			.190-24 x .190-32 thru .3125-18 x .3125-24 dia		
	MS17302(WP) and MS17303(WP)	Stud, Straight, Drilled (MIL-S-8679 Thd)			.250-20 x .250-28 and .3125-18 x .3125-24 dia		
106: K <sup>c</sup> OR N-CU K	MS18116 (SH)	Bolt, Bolt- Stud, Stud, Stud-Bolt: (Mechanical Properties and Markings)	Nickel- Copper- Alum Alloy	Yes	.250 thru 4.000 dia	TS PSI min 130,000 YS PSI min 90,000	Marked on top of head for bolts and on end of studs.
107 1200	MS20033 thru MS20046	Bolt, Mach, Hex Hd, 1200°F. (MIL-B-7874)	Cres and Heat Resistant	No	.190 thru 1.000 dia	TS PSI min 110,000 Rupture values per 100 hours PSI 47,000	Marked on top of head
108. 12	MS20500 (ASG)	Nut, Self- Locking, Hex, 1200°F.	Cres and Heat Resistant	No	.190 thru 1.000	Rupture values based on 47,000 PSI ten- sion in the median thd area. (See MIL-N-7873)	Marked on one side of nut.

TABLE III - AN AND MS IDENTIFICATION MARKINGS




IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
108. 12	MS20501 (ASG)	Nut, Self- Locking, Hex Plate, 2" Lug, 1200°F. (MIL-N-7873)	Cres and Heat Resistant	No	.190 thru 1.000	Rupture values based on 47,000 PSI tension in the median thd area. (See MIL-N-7873)	Marked on top of plate.
109. S12	20503 Air Force Std	Nut, Self- Locking, Free Spin- ning, 1200°F. (MIL-N-8056)	Cres and Heat Resistant	No	.190 thru 1.000	See MIL-N-7873 for necessary requirement.	Marked on one side of nut.
110. B	MS21044 (ASG)	Nuts, Self- Locking, Hex, 250°F. (MIL-N-25027)	Copper Base Alloy	No	.112 thru 1.250	See MIL-N-25027(ASG) for necessary require- ments.	Marked on top or one side of nut.
111. 	MS21262 (ASG)	Screws, Self- Locking, 250° F., Cyl Hd, Hex Wrench- ing Socket	Alloy Steel	No	.164 thru .625 dia	Ultimate TS PSI 160,000	Marked on top of head, raised or depressed.
	MS21295	Screws, Self- Locking, 250° F., Cyl Hd, Hex Wrench- ing Socket (FF-F-18240)	Cres			TS PSI min 80,000	
112. B	MS27039	Screw, Mach, Pan Hd, Str, Cross- Recessed (MIL-S-7839)	High Str Bronze	No	.164 thru .500 dia	TS PSI min 85,000	Marked on top of head.

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
113. C	MS27039	Screw, Mach, Pan Hd, Str, Cross- Recessed (MIL-S-7839)	Cres	No	.164 thru .500 dia	TS PSI min	125,000	Marked on top of head.
114. —	MS27039	Screw, Mach, Pan Hd, Str, Cross- Recessed (MIL-S-7839)	Alloy Steel	No	.164 thru .500	TS PSI min	125,000	Marked on top of head.
115. L	MS35307	Screw, Cap, Hex Hd, UNC-2A (FF-S-85)	Cres	No	.250 thru 1.250 dia	TS PSI min Prf load PSI min	80,000 30,000	Marked on top of head, raised preferred.
	MS35308	Screw, Cap, Hex Hd, UNF-2A (FF-S-85)			.250 thru 1.250 dia	BHN min	140	
	MS51099	Screw, Cap, Hex Hd, Drilled, UNC-2A (FF-S-85)			.250 thru 1.000 dia			
	MS51100	Screw, Cap, Hex Hd, UNF-2A (FF-S-85)			.250 thru 1.000 dia			
	MS51109	Screw, Cap, Hex Hd, Drilled Shank UNC-2A (FF-S-85)			.250 thru 1.000 dia			

TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
115. 	MS51110	Screw, Cap, Hex Hd, Drilled Shank, UNF-2A (FF-S-85)	Cres	No	.250 thru 1.000 dia	TS PSI min 80,000 Prf load PSI min 30,000 BHN min 140	Marked on top of head, raised preferred.
116. 	MS90725 and MS90726	Screw, Cap, Hex Hd, UNC and UNF 2A (FF-S-85)	Med Carbon Steel, Grade 5 or Equiv	No	.250 thru 2.500 dia	Thru 3/4" TS PSI min 120,000 Prf load PSI min 85,000 Over 3/4" thru 1" TS PSI min 115,000 Prf load PSI min 78,000 1" thru 1-1/2" TS PSI min 105,000 Prf load PSI min 74,000 Over 1-1/2" TS PSI min 90,000	Marked on top of head, raised preferred  <u>Note:</u> Marking same as item 6, table I.
117. 	MS18153 and MS18154	Screw Cap, (Fin Hex Hd) Drilled Hd, UNC and UNF 2A (FF-S-85)	Alloy Steel, Grade 8 or Equiv	No	.250 thru 1.000 dia	TS PSI min 150,000	Marked on top of head, raised preferred.  <u>Note:</u> Marking same as item 9 of table I.
	MS51107 and MS51108	Screw, Cap, Hex Hd, Drilled Shk UNC-2A and UNF-2A (FF-S-85)	Alloy Steel, Grade 8 or Equiv	No	.250 thru 1.000 dia	TS PSI min 150,000	

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TABLE III - AN AND MS IDENTIFICATION MARKINGS


IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
117. 	MS90727	Screw, Cap, (Fin Hex Hd)	Alloy Steel,	No	.250 thru 1.500 dia	TS PSI min 150,000	Marked on top of head, raised preferred.  <u>Note:</u> Marking same as item 9, table I.
	MS90725	UNC-2A and UNF-2A (FF-S-85)	Grade 8 or Equiv	No	.250 thru 2.500 dia		
<u>Note:</u> The following AN and MS items are marked with their own part number. AN and MS part numbers are the numbers of the applicable AN and MS standard followed by supplementary numerals and letters designating product size, material, and coating. The second column of numerals give the numbers of the standard and reference to this document will permit completion of identification of the part.							
118. PART NO.	AN42 thru AN49	Bolt, Eye (MIL-B-6812)	As Required	No	.190 thru .5625	For Non-Cres and Cres TS PSI min 125,000 For Alum Alloy TS PSI min 62,000	Marked on side of head depressed.
119. PART NO.	AN5023	Nut, Propel- ler Shaft Thd, Shipping	As Required	No	1.375 thru 6.000	As specified for the material furnished.	Marked on side of nut. <u>Note:</u> Nut should be marked before stamp- ing.
120. PART NO.	MS9197 (ASG)	Nut, Tube Coupling	Cres and Heat Resistant	Yes	.5625 thru 3.500	0.75 and Under BHN 170-255 Over 0.75 BHN 140-241	Marked on side of nut. (Nut should be marked before threading.)
121. PART NO.	MS9198 (ASG)	Nut, Tube Coupling	Cres and Heat Resistant	Yes	.5625 thru 3.500	0.75 and Under BHN 170-255 Over 0.75 BHN 140-241	Marked on side of nut. (Nut should be marked before threading.)
122. PART NO.	MS9199 (ASG)	Nut, Tube Coupling	Alum Alloy 2014-T6 AMS4121	Yes	.750 thru 3.500	TS PSI min 65,000	Marked on side of nut. (Nut should be marked before threading.)



TABLE III - AN AND MS IDENTIFICATION MARKINGS

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IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
123. PART NO.	MS9356 (ASG)	Nut, Plain, Hex	Cres and Heat Resistant AMS5735	Yes	.112 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
124. PART NO.	MS9357 (ASG)	Nut, Plain, Hex, (Sil Pl)	Cres and Heat Resistant AMS5735	Yes	.112 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
125. PART NO.	MS9358 (ASG)	Nut, Castel- lated, Hex	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
126. PART NO.	MS9359 (ASG)	Nut, Castel- lated, Hex, (Sil Pl)	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
127. PART NO.	MS9360 (ASG)	Nut, Plain, Hex, Drilled (Sil Pl)	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
128. PART NO.	MS9361 (ASG)	Nut, Plain, Hex, Check	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
129. PART NO.	MS9362 (ASG)	Nut, Plain, Hex, Check, (Sil Pl)	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)
130. PART NO.	MS9363 (ASG)	Nut, Slotted, Hex, Shear	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min BHN	130,000 248-341	Marked on side of nut. (Nut should be marked before threading.)

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TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
131. PART NO.	MS9364 (ASG)	Nut, Slotted, Hex, Shear, (Sil P1)	Cres and Heat Resistant AMS5735	Yes	.190 thru 1.000	TS PSI min 130,000 BHN 246-341	Marked on side of nut. (Nut should be marked before threading.)
132. PART NO.	MS9397(ASG) thru MS9402(ASG)	Bolt, Tee Hd, Chamfered, UNJF-3A	Alloy Steel, SAE8740 AMS6322	Yes	.190 thru .500 dia	BHN-HR max 229 BHN-CF max 241 BH C26-32	Marked on top of head.
133. PART NO. EH5	MS9404 (ASG)	Plug, Mach, Thread	Cres and Heat Resistant AMS5646	Yes	.750 thru 2.500	0.75 and Under BHN 170-255 Over .75 BHN 140-241	Marked on Top of head. (See item 83, table III.)
134. PART NO.	MS9432(ASG) thru MS9437(ASG)	Bolt, Tee Hd, Chamfered, UNJF-3A	Cres and Heat Resistant AMS5735	Yes	.190 thru .500 dia	TS PSI min 130,000 BHN 246-341	Marked on top of head.
135. PART NO.	MS9438(ASG) and MS9439(ASG)	Screw, Mach, Hex Hd, Drilled UNJF-3A	Low Alloy Heat Resistant	Yes	.138-40 thru .164-36	RH C42-46	Marked on top of head.
136. PART NO.	MS9440(ASG) thru MS9448(ASG)	Bolt, Mach, Hex Hd, Drilled, UNJF-3A	Low Alloy, Heat Resistant AMS6304	Yes	.190 thru .750 dia	BHN-HR max 229 BHN-CF max 246	Marked on top of head
137. PART NO.	MS9449(ASG) and MS9450(ASG)	Screw, Mach, Hex Head, UNJF-3A	Low Alloy, Heat Resistant AMS6304	Yes	.138-40 thru .164-36	BHN-HR max 229 BHN-CF max 246	Marked on top of head.
138. PART NO.	MS9451(ASG) Thru MS9459(ASG)	Bolt, Mach, Hex Hd, UNJF-3A	Low Alloy, Heat Resistant AMS6304	Yes	.190 thru .750 dia	BHN-HR max 229 BHN-CF max 246	Marked on top of head.

TABLE III - AN AND MS IDENTIFICATION MARKINGS

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IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
139. PART NO.	MS9487(ASG) and MS9488(ASG)	Screw, Mach, Hex Hd, UNJF-3A	Cres and Heat Resistant (2.1-Ti and 0.30 V)	Yes	.138-40 thru .164-36	TS PSI min 130,000	Marked on top of head.
140. PART NO.	MS9498 (ASG)	Screw, Mach, Hex Hd, Drilled UNJF-3A	Cres and Heat Resistant (2.1-Ti and 0.30 V)	Yes	.138-40	TS PSI min 130,000	Marked on top of head.
141. PART NO.	MS17354 (WP)	Nut, Plain, Hex, Boss Conn (MIL-S- 8879 Thd)	Alum Alloy, (2014-T6) AMS4121	Yes	.3125 thru 2.500	TS PSI min 65,000	Marked on side of nut depressed.
142. PART NO.	MS17731 (ASG)	Fastener, Rotary, Quick- Operating, Flush Head, Floating Type (MIL-F-22978)	As Specified	Yes	.375	See requirements in MIL-F-22978 for mechanical properties.	Marked on top of head.
143. PART NO.	MS17732	Fastener, Rotary, Quick- Operating, Protruding Head, Float- ing Type (MIL-F-22978)	As Specified	Yes	.375	See requirements in MIL-F-22978 for mechanical properties.	Marked on top of head.
144. PART NO.	MS20004 thru MS20024	Bolt, Internal Wrenching (MIL-B-7838)	Alloy Steel	No	.250 thru 1.500	TS PSI min RH 160,000 C34-40	Marked on side or top of head.

TABLE III - AN AND MS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
145. PART NO.	MS21025	Nut, Castel- lated, Bear- ing Retainer (MIL-N-6034)	Alloy Steel, 4140 or 8740	No	1.000 thru 4.4375	RH	C30-34	Marked on side of nut.
146 PART NO.	MS21250	Bolt, 12 Pt, External Wrenching MIL-B-8831	Alloy Steel	No	.250 thru 1.500 dia	Single shear, based on 108,000 PSI. For double shear, see MIL-B-8831.		Marked on top of head, indented.
147. PART NO.	MS21277 (ASG) and MS21275 (ASG)	Screw, Mach, 12 Point Head	Cres and Heat Res AMS5735	Yes	138-40 thru 164-36 dia	TS PSI min	130,000	Marked on top of head, raised or depressed.
148. PART NO.	MS21279 (ASG) thru MS21285 (ASG)	Bolt, Mach, 12 Pt Hd, Extended Washer	Cres and Heat Res AMS5735	Yes	.190 thru .5625	TS PSI min	130,000	Marked on top of head, raised or depressed.
149. PART NO.	MS21286 (ASG) and MS21287 (ASG)	Screw, Mach, 12 Pt Hd, Drilled	Cres and Heat Res AMS5735	Yes	138-40 thru 164-36	TS PSI min	130,000	Marked on top of head, raised or depressed.
150. PART NO	MS21290 (ASG) thru MS21294 (ASG)	Bolt, Mach, Drilled, Double Hex, Extended Washer	Cres and Heat Res	Yes	.3125 thru .5625 dia	TS PSI room temp min YS PSI min BHN	130,000 85,000 248-341	Marked on top of head.
151. PART NO.	MS21288 (ASG) thru MS21294 (ASG)	Bolt, Mach, 12 Pt Hd, Drilled	Cres and Heat Res, AMS5735	Yes	.190 thru .5625 dia	TS PSI min	130,000	Marked on top of head, raised or depressed.
152. PART NO.	MS24592 (USAF)	Nut, Tube Coupling, MIL-A-5070	Steel or Alum Alloy	Yes	.375 thru 2.500	See specification.		Marked on face of wrenching flange.

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TABLE III - AN AND MS IDENTIFICATION MARKINGS


IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
153. PART NO.	MS25080 (ASC)	Stud, Terminal	Brass	No	.138 thru .375 dia	TS PSI min 52,000	Marked on face of flange.
154. PART NO.	MS27073 (USAF)	Nut, Tube Coupling, Swivel, MIL-F-27272	Cres or Alum Alloy	Yes	.375 thru 1.625	See specification.	Marked on side of nut.
155. PART NO.	MS39075 (AWC)	Nut, Cou- pling, Elect Conduit	Alum Alloy	No	.500 thru 3.000	TS PSI 45,000-55,000	Marked on top or side of nut.
156. PART NO.	MS39081	Nut, Cou- pling, Elect Conduit, Plain, Hex	Alum Alloy	No	.500 thru 3.000	TS PSI 45,000-55,000	Marked on top or side of nut.

TABLE IV - MILITARY IDENTIFICATION MARKINGS  
NOT COVERED ELSEWHERE

IDENTIFI- CATION MARK	REFERENCE SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
157.  Y I	MIL-S-857 (SH)	Bolts and Studs	Med Carbon, Ht Tr (Equiv to Grade 5)	Yes	Thru 3/4 dia	TS PSI min 120,000 YS PSI min 88,000	Marked on top of head and on end of stud.  Note: See item 6, table I.
					Over 3/4 thru 1 dia	TS PSI min 115,000 YS PSI min 81,000	
					Over 1 thru 1-1/2 dia	TS PSI min 105,000 YS PSI min 77,000	
158.  *	MIL-S-857 (SH)	Bolts and Studs	Alloy Steel (Equiv to Grade 6)	Yes	1/4 thru 1-1/2 dia	TS PSI min 150,000 YS PSI min 125,000	Marked on top of head and on end of stud. Note: See item 9, table I.
43 159.  H	MIL-S-1222 (SH)	Nuts, for High Temp	Carbon Steel	Yes	1/4 thru 2-1/2	Finished * Prf load based on 135,000 PSI Heavy * Prf load based on 150,000 PSI BHN min 160 RH min 884	Marked on top face of nut.
160.  4	MIL-S-1222 (SH)	Nuts, for High Temp	Alloy Steel	Yes	1/4 thru 2-1/2	Finished * Prf load based on 150,000 PSI Heavy * Prf load based on 175,000 PSI BHN 248-352 RH C24-38	Marked on top face of nut.  Note: See item 30, table I.
161. 3	MIL-R-1150	Rivets, Solid	Alum Alloy, 3S-F	No	0.063 thru 0.750 dia	TS PSI min 19,500	Marked on end of rivet shank, raised.
162. 5	MIL-R-1150	Rivets, Solid	Alum Alloy, 53S-T61	No	0.063 thru 1.250 dia	TS PSI min 30,000	Marked on end of rivet shank, raised.



\* Proof load to be based on the indicated stress in the bolt used during test.

TABLE IV - MILITARY IDENTIFICATION MARKINGS  
NOT COVERED ELSEWHERE

IDENTIFI- CATION MARK	REFERENCE SPECIFI- CATION	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
163. 6	MIL-R-1150	Rivets, Solid	Alum Alloy, 61S-T6	No	0.063 thru 1.250 dia	TS PSI min 42,000	Marked on end of rivet shank, raised.
164. +	MIL-R-1223	Rivets, Solid	Carbon Steel, Grade M	Option	0.250 thru 1.250 dia	TS PSI 58,000-68,000	Marked in center on top of head.
165 	MIL-R-1223	Rivets, Solid	Carbon Steel, Grade HT (High- Tensile)	Option	0.250 thru 1.250 dia	TS PSI 68,000-83,000	Marked on top of head, at outer periphery, raised.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
<b>Note:</b> Because practically all NAS parts are intended for use in highly critical aircraft and missile applications, proper and full identification marking is important. For this reason, most NAS parts, where size permits, carry the complete part number.							
166.	NAS 144 thru NAS 158	Bolt, Int Wrenching	Alloy Steel	Yes	.250 thru 1.125	TS PSI 160,000-180,000 See NAS 159 for shear requirements.	Marked on side of head, raised or depressed
PART NO.	NAS 172				1.250 dia		
	NAS 174				1.375 dia		
	NAS 176				1.500 dia		
167.	NAS 333 thru NAS 340	Bolt, 100°, Close Tol, High Str	Alloy Steel	No	.190 thru .625 dia	TS PSI 160,000-180,000 See NAS 498 for shear requirements.	Marked on top of head, raised or depressed.
PART NO. AND 							
168.	NAS 428	Bolt, Adj, Crowned, Hex Head (MIL-B-6812)	Alloy Steel	Yes	.190 thru .375	TS PSI min 125,000	Marked on top of head, raised or depressed.
PART NO. AND X							
169.	NAS 464	Bolt, Shear, Close Toler- ance	Alloy Steel	No	.190 thru 1.000	TS PSI 160,000-180,000 See NAS 498 for shear requirements.	Marked on top of head, raised or depressed.
PART NO. AND 							
170.	NAS 467	Bolt, Hex, Elect	Brass, Naval, Comp 1, QQ-B-637	No	.250 thru .500 dia	TS PSI min 60,000	Marked on top of head, raised or depressed.
PART NO.							

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
171. PART NO. AND	NAS 501	Bolt, Hex Head	Cres, Type 321 or 347	No	.190 thru 1.250 dia	TS PSI min 70,000	Marked on top of head.
172. PART NO.	NAS 517	Scr, 100°, Flat Head, Close Toler- ance, MIL-S-7839	Alloy Steel	No	.164 thru .500 dia	UTS PSI min 125,000	Marked on top of head, indented.
173. PART NO	NAS 560	Scr, Mach, 100°, Flush Hd, Non- Magnetic, High Temp Structural	Cres as Specified	Option	.164 thru .5625 dia	UTS PSI min 75,000-160,000	Marked on top of head, indented.
174. PART NO.	NAS 563 thru NAS 572	Bolt, Hex Head, Full Length, Threaded	Alloy Steel	Option	.190 thru .750 dia	TS PSI HT 160,000-180,000 RH C36-40	Marked on top of head, raised or depressed.
175. PART NO.	NAS 583 thru NAS 590	Bolt, 100°, Flat Head, Hi-Torque, Close Tol	Alloy Steel, As Specified	Yes	.190 thru .625 dia	TS PSI HT 160,000-180,000	Marked on top of head, depressed.
176. PART NO.	NAS 593	Nut, Rigid, Tube Conn	Alum Alloy (NAS597)	No	.4375 thru 3.000	Ult stress PSI at 70° ± 10°F - 66,000 Ult stress PSI at approx 350°F - 25,000	Marked on one flat of nut.
177. PART NO.	NAS 596	Nut, Rigid, Tube Conn	Cres (NAS597)	No	.4375 thru 3.000	Ult stress PSI at 70° ± 10°F - 175,000-200,000 RH C36-43	Marked on one flat of nut.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
178. PART NO.	NAS 600 thru NAS 606	Scr, Mach, Aircraft, Pan Hd, Recessed, Thd Full Lg	Alloy Steel (MIL-S- 7839)	Option	.112 thru .375 dia	TS PSI min 125,000 RH C36-40	Marked on top of head, raised or depressed.
179. PART NO.	NAS 623	Scr, Mach, Aircraft, Pan Hd, Recessed, Short Thd	Alloy Steel (NAS498)	Yes	.164 thru .375 dia	TS PSI 125,000-175,000 See NAS 498 for shear requirements.	Marked on top of head, raised or depressed.
180. PART NO.	NAS 624 thru NAS 644	Bolt, 12 Pt, External Wrenching	Alloy Steel (NAS496)	Yes	.250 thru 1.500 dia	TS PSI Ht Tr 180,000-200,000 RH C39-43	Marked on top of head, raised or depressed.
47 181. PART NO.	NAS 653 thru NAS 658  NAS 663 thru NAS 668  NAS 673 thru NAS 678	Bolt, Hex Head, Close Tol, Short Thd  Bolt, 100°, Flat Hd, Close Tol  Bolt, Hex Hd, Close Tol	Titanium Alloy	Yes	.190 thru .500 dia	UTS PSI 4 Al - 4 Mn 150,000 6 Al - 4 V 160,000	Marked on top of head, raised or depressed.
182. PART NO.	NAS 1003 thru NAS 1020	Bolt, Mach, Hex Head	Cres	Option	.190 thru 1.250 dia	UTS PSI min 140,000	Marked on top of head, raised or depressed.
183. PART NO.	NAS 1093 thru NAS 1088	Bolt, 100°, Flat Head, Close Thd, Short Thd	Titanium Alloy NAS621	Yes	.190 thru .500 dia	UTS PSI 4 Al - 4 Mn 150,000 6 Al - 4 V 160,000	Marked on top of head, depressed only.

TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
184.  PART NO.	NAS 1100	Scr, Flat Fil Head Tor-Set, Full Thd	Aly Stl (NAS498) or Cres (AMS7478)	Yes	.190 thru .375	UTS PSI HT 160,000-180,000	Marked on top of head, raised or depressed.
						UTS PSI HT min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
185.  PART NO.	NAS 1101	Scr, Flat Fil Head, Tor-Set, Full Thd	Aly Stl (NAS498) or Cres (AMS7478)	Yes	.190 thru .375 dia	UTS PSI HT 160,000-180,000	Marked on top of head, raised or depressed.
	NAS 1102	Scr, 100°, Flat Hd, Tor-Set, Full Thd				UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
186. PART NO.	NAS 1103 thru NAS 1120	Bolt, Hex Head, Close Tol, Short Thd	Alloy Steel (NAS498)	Yes	.190 thru 1.250 dia	UTS PSI HT 160,000-180,000	Marked on top of head, raised or depressed.
187.  PART NO.	NAS 1121 thru NAS 1128	Bolt, Flat Fil Head, Tor-Set, Close Tol, Short Thd	Alloy Steel (NAS498) or Cres AMS7478	Yes	.190 thru .500 dia	UTS PSI HT 160,000-180,000	Marked on top of head, raised or depressed.
				Yes	.190 thru .500 dia	UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
188. PART NO.	NAS 1131 thru NAS 1138	Bolt, Pan Hd, Tor- Set, Close Tol, Short Thd	Alloy Steel (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
188.  PART NO.	NAS 1131 thru NAS 1138	Bolt, Pan Hd, Tor-Set, Close Tol, Short Thd	Cres (AMS7478)	Yes	.190 thru .500 dia	UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
			or Titanium Alloy (NAS621)	Yes	.190 thru .500 dia	UTS PSI min 4 Al - 4 Mn 150,000 6 Al - 4 V 160,000	Marked on top of head, raised or depressed.
189.  PART NO.	NAS 1141 thru NAS 1148	Bolt, Braz Head, Tor-Set, Close Tol, Short Thd	Alloy Steel (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
			Cres (AMS7478)	Yes	.190 thru .500 dia	UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
190.  PART NO.	NAS 1151 thru NAS 1158	Bolt, 100°, Flat Hd, Tor-Set, Close Tol, Short Thd	Aly Stl (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
			Cres (AMS7478)		.190 thru .500 dia	UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. <u>Note:</u> Add "C" for Cres.
			or Titanium Alloy (NAS621)		.190 thru .500 dia	UTS PSI min 4 Al - 4 Mn 150,000	Add "T" for 4 Al - 4 Mn.
					.190 thru .500 dia	6 Al - 4 V 160,000	Add "V" for 6 Al - 4 V.
191.  PART NO.	NAS 1161	Bolt, Self-Locking 100°, Flat Head, Tor-Set, Close Tol	Alloy Steel (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
192. PART NO.	NAS 1171 thru NAS 1178	Bolt, Pan Hd, Self- Locking Tor- Set, Close Tol	Alloy Steel (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
193. PART NO.	NAS 1181 thru NAS 1188	Bolt, Flat Fil Hd, Self -Locking, Tor-Set, Close Tol	Alloy Steel (NAS498)	Yes	.190 thru .500 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
			Cres (AMS7478)	Yes	.190 thru .500 dia	UTS PSI room temp min 140,000	<u>Note:</u> Add "C" for Cres.
194. PART NO.	NAS 1189	Bolt, 100°, Flat Hd, Self-Locking, Full Thd	Alloy Steel (NAS498)	Yes	.190 thru .375 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
			or Cres AMS7478	Yes	.190 thru .375 dia	UTS PSI room temp min 140,000	<u>Note:</u> Add "C" for Cres.
195. PART NO.	NAS 1190	Bolt, Pan Hd, Self- Locking, Full Thd	Alloy Steel (NAS498)	Yes	.190 thru .375 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
			or Cres (AMS7478)	Yes	.190 thru .375 dia	UTS PSI room temp min 140,000	<u>Note:</u> Add "C" for Cres.
196. PART NO.	NAS 1191	Bolt, Flat Fil Head, Self-Locking, Full Thd	Alloy Steel (NAS498)	Yes	.190 thru .375 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
			or Cres (AMS7478)	Yes	.190 thru .375 dia	UTS PSI room temp min 140,000	<u>Note:</u> Add "C" for Cres.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
197. PART NO.	NAS 1202 thru NAS 1210	Bolt, 100°, Flat Head, Close Tol, Recessed	Alloy Steel (NAS498)	Yes	.164 thru .625 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
198.  PART NO.	NAS 1216  NAS 1217	Scr, Pan Hd, Hi-Tor, Recess, Full Thd  Scr, Pan Hd, Hi-Tor, Recess, Short Thd	Various Alloy Steels (NAS498)	Yes	.164 thru .375 dia  .164 thru .375 dia	UTS PSI Ht Tr 160,000-180,000 RH C36-40  UTS PSI Ht Tr 160,000-180,000 RH C36-40	Marked on top of head, raised or depressed
199. PART NO.	NAS 1218	Scr, Pan Hd, Hi-Tor, Recess, Long Thd	Various Alloy Steels (NAS498)	Yes	.138 thru .375 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
200.  PART NO.	NAS 1219  NAS 1220  NAS 1221	Scr, 100°, Flat Head, Hi-Tor, Recess, Full Thd  Scr, 100°, Flat Head, Hi-Tor, Recess, Short Thd  Scr, 100°, Flat Head, Hi-Tor, Recess, Long Thd	Various Alloy Steels (NAS498)	Yes  Yes  Yes	.138 thru .375 dia  .164 thru .375 dia  .164 thru .375 dia	UTS PSI Ht Tr 160,000-180,000  UTS PSI Ht Tr 160,000-180,000  UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.

TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
201. PART NO.	NAS 583 thru NAS 590	Bolt, 100°, Flat Head, Hi-Tor, Close Tol	Alloy Steel	Yes	.190 thru .625 dia	TS PSI Ht Tr 160,000-180,000	Marked on top of head, depressed.
202. PART NO.	NAS 1223 thru NAS 1235	Bolt, Hex Head, Self- Locking, Close Tol	Alloy Steel (MIL-B- 7838) or Cres (AMS7478)	Yes	.190 thru 1.250 dia	UTS PSI Ht Tr 160,000-180,000 RH C36-40  UTS PSI room temp min 140,000	Marked on top of head, raised or depressed. Plus six dots, if practicable.
203.  PART NO.	NAS 1243 thru NAS 1250  NAS 1253 thru NAS 1260	Bolt, 0156 OS Shk, 100° Flat Hd, Hi- Tor, Recess, Close Tol, Short Thd  Bolt, 0312 OS Shk, 100° Flat Hd, Hi- Tor, Recess, Close Tol, Short Thd	Alloy Steel (NAS498)	Yes	.190 to .625	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
204.  PART NO.	NAS 1261 thru NAS 1265  NAS 1266 thru NAS 1270  NAS 1271 thru NAS 1280	Bolt, Hex Head, Close Tol, Short Thd  Bolt, Hex Head, Close Tol  Bolt, 12 Pt, External Wrenching	Titanium 6 Al - 4 V (NAS621)	Yes	.5625 thru 1.000 dia	UTS PSI 160,000	Marked on top of head, raised or depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
205.  PART NO.	NAS 1292 thru NAS 1296	Pin, Threaded, Shear, 100° Flat Hd	Alloy Steel, Ht Res H-11 AMS6485	Yes	.164 thru .375 dia	TS PSI Ht Tr 260,000-280,000	Marked on top of head, depressed only. Plus "J" for H-11 steel.  <u>Note:</u> "NAS" may be omitted.
			or Alloy Steel, Rene 41, AMS5712			TS PSI min 170,000	Marked on top of head, depressed only. Plus "R" for Rene-41 stl.
206. PART NO.	NAS 1297	Bolt, Hex Hd, Shoulder, MIL-B-6812	Alloy Steel	Yes	.138 thru .625 dia	TS PSI Ht Tr 125,000-145,000	Marked on top of head, raised or depressed.
51 207.  PART NO.  X	NAS 1298	Screw, Braz Hd, Shoulder, MIL-S-7839	Alloy Steel	Yes	.138 thru .4375 dia	TS PSI Ht Tr 125,000-145,000	Marked on top of head, raised or depressed.
	NAS 1299	Screw, 100°, Flat Hd, Shoulder, MIL-S-7839					
208. PART NO.	NAS 1303 thru NAS 1320	Bolt, Hex Hd, Close Tol	Alloy Steel	Yes	.190 thru 1.250 dia	UTS PSI Ht Tr 160,000-180,000 RH C36-40	Marked on top of head, raised or depressed.
209.  PART NO.	NAS 1322 thru NAS 1326	Pin, Threaded, Shear, Pro- truding Head	Alloy Steel, Ht Res H-11 AMS6485	Yes	.164 thru .375 dia	TS PSI Ht Tr 260,000-280,000	Marked on top of head, depressed only. Plus "J" for H-11 steel. <u>Note:</u> "NAS" may be omitted.
			or Alloy Steel, Rene-41, AMS5712			TS PSI min 170,000	Marked on top of head, depressed only. Plus "R" for Rene-41 steel.



TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
210. PART NO.	NAS 1402 thru NAS 1406	Scr, Mach, Pan Head, Recess	Alloy Steel, MIL-B- 7838	Yes	.164 thru .375 dia	UTS PSI Ht Tr 160,000-180,000 RH C36-40	Marked on top of head, raised or depressed.
211. PART NO.	NAS 1503 thru NAS 1510	Bolt, 100°, Flat Hd, Close Tol, Short Thd	Alloy Steel, NAS498	Option	.190 thru .625 dia	UTS PSI Ht Tr 160,000-180,000	Marked on top of head, raised or depressed.
212. PART NO.	NAS 1578	Bolt, Shear, Pan Hd, 1200°F	Cres and Ht Res, U-212 of NAS1597	Yes	.190 thru .500 dia	TS PSI min room temp 175,000 TS PSI min 1200°F 135,000	Marked on top of head, raised or depressed.
213. PART NO.	NAS 1579	Screw, Pan Hd, Full Thd, 1200°F	Cres and Ht Res, U-212 of NAS1597	Yes	.190 thru .375 dia	TS PSI min room temp 175,000 TS PSI min 1200°F 135,000	Marked on top of head, raised or depressed.
214.  PART NO.	NAS 1580	Bolt, Tension, Flush Hd, 1200°F	Cres and Ht Res, U-212 of NAS1597	Yes	.190 thru .625 dia	TS PSI min room temp 175,000 TS PSI min 1200°F 135,000	Marked on top of head, raised or depressed.
	NAS 1581	Bolt, Shear, Reduced, 100°, Flush Head, 1200°F	Cres and Ht Res, U-212 of NAS1597	Yes	.190 thru .625 dia	TS PSI min room temp 175,000 TS PSI min 1200°F 135,000	Marked on top of head, raised or depressed.
215. PART NO.	NAS 1582	Screw, Flush Hd, Full Thd, 1200°F	Cres and Ht Res, U-212 of NAS1597	Yes	.190 thru .375 dia	TS PSI min room temp 175,000 TS PSI min 1200°F 135,000	Marked on top of head, raised or depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
216.  PART NO.	NAS 1583	Pin, 100°, Csk Hd, Hi- Shear Rivet, Close Tol, 1200°F	Inconel-X AMS5667	Yes	.125 thru .375 dia	TS PSI min room temp TS PSI min 1200°F	160,000  110,000	Marked on top of head, raised or depressed.
	NAS 1584	Pin, Flat Hd, Hi-Shear Rivet, 1200°F						
217.  PART NO.	NAS 1586	Bolt, Ten- sion, 12 Point, External Wrenching, 1200°F	Cres and Ht Res Alloy U-212 of AMS1597	Yes	.250 thru 1.250 dia	TS PSI min room temp TS PSI min 1200°F	175,000  135,000	Marked on top of head, raised or depressed.
218.  PART NO.	NAS 1587	Washer, Plain and Csk, 1200°F	Cres, Class 321 or 347	No	.190 thru 1.250 I.D.	UTS PSI min	75,000	Marked on one face, indented.
219.  PART NO.	NAS 1588	Bolt, Shear, Hex Hd, 1200°F	Cres and Ht Res Alloy U-212 of AMS1597	Yes	.190 thru 1.000 dia	TS PSI min room temp TS PSI min 1200°F	175,000  135,000	Marked on top of head, raised or depressed.
220.  PART NO.	NAS 1603 thru NAS 1610	Bolt, .0312 OS Shk, 100° Flat Hd	Alloy Steel, NAS498 and MIL-S- 6758	Yes	.190 thru .625 dia	UTS PSI Ht Tr 160,000-180,000		Marked on top of head, depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
221. PART NO.	NAS 1620 thru NAS 1628	Screw, 100° Flat Head, Tor-Set	Alloy Steel, NAS498 or Cres, AMS5735	Yes	.138 thru .500 dia	UTS PSI Ht Tr 160,000-180,000  UTS PSI min 140,000	Marked on top of head, depressed.
222. PART NO.	NAS 1630 thru NAS 1634	Screw, Pan Head, Tor- Set	Alloy Steel, NAS498 or Cres, AMS5735	Yes	.138 thru .250 dia	UTS PSI Ht Tr 160,000-180,000  UTS PSI min 140,000	Marked on top of head, raised or depressed.  <u>Note:</u> Add "C" for Cres.
223. PART NO.	NAS 1703 thru NAS 1710	Bolt, .0516 OS Shk, 100° Flat Head	Alloy Steel, NAS498	Yes	.190 thru .625 dia	TS PSI min Ht Tr 160,000-180,000	Marked on top of head, depressed.
224. PART NO.	NAS 1806 thru NAS 1816  NAS 1906 thru NAS 1916	Rivet, Hi- Shear, Flat Hd, Intfer Fit  Rivet, Hi- Shear, 100° Flat Hd, Intfer Fit	Titanium Alloy, NAS621  Titanium Alloy, NAS621	Yes	.1875 thru .500 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted. (Add "V" for 6 Al - 4 V)
225. PART NO.	NAS 2006 thru NAS 2010	Bolt, Lock Tension, Protruding Head, Pull Type	Titanium Alloy, NAS621	Yes	.1875 thru .3125 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted.
226. PART NO.	NAS 2106 thru NAS 2110	Bolt, Lock Tension, 100° Flat Hd, Pull Type	Titanium Alloy, NAS621	Yes	.1875 thru .3125 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted.

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
227.  PART NO.	NAS 2206 thru NAS 2210	Bolt, Lock Tension, 100° Flat Hd, Pull Type	Titanium Alloy, NAS621	Yes	.1875 thru .3125 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted.
	NAS 2306 thru NAS 2310	Bolt, Lock Tension, 100° Flat Hd, Stump Type			.1875 thru .3125 dia		
228.  PART NO.	NAS 2406 thru NAS 2412	Bolt, Lock, Shear, Pro- truding Head, Pull Type	Titanium Alloy, NAS621	Yes	.1875 thru .375 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted.
	NAS 2506 thru NAS 2512	Bolt, Lock, Shear, 100° Flat Hd, Pull Type			.1875 thru .375 dia		
229.  PART NO.	NAS 2606 thru NAS 2612	Bolt, Lock, Shear, Pro- truding Head, Stump Type	Titanium Alloy, NAS621	Yes	.1875 thru .375 dia	Shear str PSI min 95,000	Marked on top of head, depressed. "NAS" may be omitted.
	NAS 2706 thru NAS 2712	Bolt, Lock, Shear, 100° Flat Hd, Stump Type		Yes	.1875 thru .375 dia		
230. PART NO.	NAS 2803 thru NAS 2610	Bolt, 100° FH, Tor-Set, Close Tol	Alloy Steel, NAS498	Yes	.190 thru .625 dia	UTS PSI Ht Tr 180,000-200,000	Marked on top of head, raised or depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS

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IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
231.  PART NO.	NAS 2903 thru NAS 2920	Bolt, .0156 OS Shk, Hex Hd, Close Tol	Alloy Steel MIL-B- 7838	Yes	.190 thru 1.250 dia	UTS PSI Ht Tr RH 160,000-180,000 C36-40	Marked on top of head, raised or depressed. Add "E" for short thd.
	NAS 3003 thru NAS 3020	Bolt, .0312 OS Shk, Hex Hd, Close Tol			.190 thru 1.250 dia		
232. PART NO. AND X	NAS 220 thru NAS 227	Screw, Braz Hd, Recessed	Alloy Steel MIL-S- 7839	No	.164 thru .5625	TS PSI min 125,000	Marked on top of head, raised or depressed.
58 233. PART NO. AND I	NAS 220 thru NAS 227	Screw, Braz Hd, Recessed	Cres MIL-S- 7839	No	.164 thru .5625 dia	TS PSI min 85,000	Marked on top of head, raised or depressed.
234. X =	NAS 220 thru NAS 227	Screw, Braz Hd, Recessed	Bronze, High Strength	No	.164 thru .5625 dia	UTS PS min 85,000	Marked on top of head, raised or depressed.
235. X → X	NAS 514	Scr, Mach, 100°, Flat Head, Full Thd	Alloy Steel MIL-S- 7839	No	.112 thru .375 dia	TS PSI min Ht Tr 125,000-145,000	Marked on top of head, raised or depressed. Only one "X" need be visible after slot- ting.
236. 	NAS 525	Rivet, Hi- Shear, 100° Csk Hd, Close Tol, Hd and Shk	Various Steel Alloys NAS 498	Option	.125 thru .625 dia	TS PSI Ht Tr 125,000-175,000	Marked at center of head, indented.

TABLE V - NAS IDENTIFICATION MARKINGS







IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
236. 	NAS 529	Rivet, Hi-Shear, Flat Hd, Close Tol Shank	Various Steel Alloys, NAS 498	Option	.125 thru .625 dia	TS PSI Ht Tr 125,000-175,000	Marked at center of head, indented.
237. 	NAS 662	Scr, Mach, 100°, Flat Hd, Plain, Self-Locking	Cres, QQ-S-763 or MIL-S-7720	No	.060 thru .099 dia	TS PSI min 80,000	Marked on top of head, raised or depressed
238. 	NAS 662	Scr, Mach, 100°, Flat Hd, Plain, Self-Locking	Brass, QQ-B-626	Yes	.060 thru .099 dia	TS PSI min 55,000	Marked on top of head, raised or depressed.
65 239. 	NAS 679	Nut, Self-Locking, Hex, Low Height, 550°F, 800°F	Cres AMS5525	No	.112 thru .4375	TS PSI min 105,000 RH max B90	Marked on side of nut
240. 	NAS 1021	Nut, Self-Locking, Hex, Reg Height, 800°F	See MIL-N-25027	No	.112 thru 1.250	See applicable test requirements specified in MIL-N-25027.	Marked on side of nut.
	NAS 1022	Nut, Self-Locking, Hex, Shear, 800°F					

TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
241.  PART NO.	NAS 1068	Nut, Plate, Floating, Two Lug, Reduced, Rivet Spac- ing, Self- Locking, 450°F, 500°F and 800°F	Non-Cres and Cres	No	.112 thru .3125	See applicable test requirements speci- fied in MIL-N-25027.	Marked on top of nut, plus "C" for cres.
242.  C	NAS 1291	Nut, Self- Locking, Hex, Low Height, Light-Weight, 450°F, 500°F	Cres MIL-N- 25027	No	.086 thru .375	See test require- ments, specified in MIL-N-25027.	Marked on side of nut
243.  —	NAS 1065	Stud, High Temp, Elec Term Block	Cres, 302 or 303SE MIL-S- 7720	No	.138 thru .375 dia	TS PSI min 125,000	Marked on top of head, recessed.
244.  X	NAS 1096	Scr, Hex Hd, Cross Recess, Full Thd	Alloy Steel MIL-S- 7839	No	.164 thru .190	TS PSI min 125,000	Marked on top of head, raised or depressed.
245.  PART NO.	NAS 1100	Scr, Pan Hd, Tor-Set, Full Thd	Alloy Steel, NAS498 or Cres, AMS5735	Yes	.112 thru .375 dia	UTS PSI Ht Tr 160,000-180,000  UTS PSI room temp min 140,000	Marked on top of head, raised or depressed.  Plus "C" for Cres.
246.  	NAS 1054	Rivet, Hi- Shear, Pro- truding Head	Various Steel Alloys, NAS498	Option	.125 thru .375 dia	TS PSI Ht Tr 160,000-180,000 RH C36-40	Marked on top center of head, depressed.

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TABLE V - NAS IDENTIFICATION MARKINGS


IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
246. 	NAS 1055	Rivet, Hi-Shear, 100°, Flat Hd, Close Tol	Various Steel Alloys, NAS498	Option	.125 thru .375 dia	TS PSI Ht Tr RH 160,000-180,000 C36-40	Marked on top center of head, depressed.
247.  ●	NAS 1097	Rivet, Solid, 100°, Flush Head, Shear	Alum Alloy, 2117-T4 MIL-R-5674	No	.094 thru .250 dia	Shear str PSI 26,000	Marked on top of head, indented
INDENTED	NAS 1241	Rivet, Solid, 100°, Flush Head		No	.094 thru .375 dia		
	NAS 1242	Rivet, Solid, Univ Head		No	.094 thru .375 dia		
	NAS 1321	Rivet, Slug, Sleeveless		No	.125 thru .375 dia		
248.  ●	NAS 1097	Rivet, Solid, 100°, Flush Shear Hd	Alum Alloy 2017-T4 MIL-R-5674	No	.094 thru .250 dia	Shear str PSI 33,000	Marked on top of head, in center, raised.
	NAS 1241	Rivet, Solid, 100°, Flat Head			.094 thru .375 dia		
	NAS 1242	Rivet, Solid, Univ Hd			.094 thru .375 dia		
249.  +	NAS 1097	Rivet, Solid, 100°, Flat Shear Hd	Alum Alloy 5056-H32 MIL-R-5674	No	.094 thru .250 dia	Shear str PSI 24,000	Marked in center of head, raised.



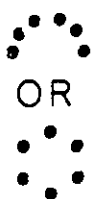
TABLE V - NAS IDENTIFICATION MARKINGS

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IDENTIFICATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFICATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
+	249. NAS 1241	Rivet, Solid, 100°, Flat Head	Alum Alloy 5056-H32	No	.094 thru .375 dia	Shear str PSI 24,000	Marked in center of head, raised.
	NAS 1242	Rivet, Solid, Univ Hd	MIL-R-5674		.094 thru .375 dia		
-	250. NAS 1097	Rivet, Solid, 100°, Flat Shear Hd, MIL-R-5674	Alum Alloy, 2024-T4 MIL-R-5674	No	.094 thru .250 dia	Shear str PSI 37,000	Marked on center of head, raised.
	NAS 1241	Rivet, Solid, 100°, Flat Head		No	.094 thru .375 dia		
	NAS 1242	Rivet, Solid, Univ Hd		No	.094 thru .375 dia		
	NAS 1321	Rivet, Slug, Sleeveless		No	.125 thru .375 dia		
	251. NAS 1198	Rivet, Solid, Univ Hd	Cres and Heat Resistant AMS5737	No	.062 thru .250 dia	Shear str at room temp 85,000-95,000 After driving 90,000	Marked on top of head, off center, raised.
○	NAS 1199	Rivet, Solid, 100°, Flat Head		No	.062 thru .250 dia		
	NAS 1200	Rivet, Solid, 100°, Flat Shear Hd		No	.094 thru .250 dia		

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TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZES RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS	
 OR	252.	NAS 1351	Scr, Cap, Soc Head, Self-Locking, Fine Thd	Alloy Steel (FF-S-86)	No	.060 thru 1.000 dia	TS PSI min 160,000 Marked on top or side of head, raised or depressed.	
		NAS 1352	Scr, Cap, Soc Head, Self-Locking, Coarse Thd	Cres		.073 thru 1.000 dia	TS PSI min 80,000	
		NAS 1408	Nut, Self- Locking, Hex, Std Height, Non-Abn Use, Coarse Thread, MIL- N-25027	Non-Cres and Cres		.250 thru 1.500	Mechanical properties tested as specified in Fed. Test Method Std. No. 151 and MIL- N-25027.	Marked on top of head at corners of hex.
		NAS 1409	Nut, Self- Locking, Hex, Std Height, Non- Abn Use, Coarse Thread, MIL- N-25027			.250 thru 1.500		
		NAS 1635	Scr, Pan Hd, Self-Locking, Full Thd, Cross Recess	Cres	No	.138 thru .375 dia	Base on tensile yield str PSI 35,000	Marked on top of head.
M	253.	NAS 1398	Rivet, Blind, Pro- truding Head, Locked Spindle	Nickel- Copper- Alloy QQ-N-281	No	.125 thru .250 dia	TS PSI min 85,000 Marked on top of head.	

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TABLE V - NAS IDENTIFICATION MARKINGS

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IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
253.  M	NAS 1399	Rivet, Blind, 100°, Flat Hd, Locked Spindle	Nickel- Copper- Alloy QQ-N-281	No	.125 thru .250 dia	TS PSI min 85,000	Marked on top of head.
254.  C	NAS 1398	Rivet, Blind, Pro- truding Head, Locked Spindle	Cres and Heat Resistant AMS5735, 5736 and 5737	No	.125 thru .250 dia	TS PSI min 130,000	Marked on top of head.
	NAS 1399	Rivet, Blind, 100°, Flat Hd, Locked Spindle		No	.125 thru .250 dia		
255.  H	NAS 1414 thru NAS 1422	Pin, Swage Locking, 100° Shear Head, Stump Type	Alloy Steel QQ-W-405	Yes	.125 thru .375 dia	TS PSI Ht Tr 160,000-180,000	Marked on center of head, depressed.
	NAS 1424 thru NAS 1432	Pin, Swage Locking, Protruding Head, Shear, Stump Type			.125 thru .375 dia		
	NAS 1436 thru NAS 1442	Pin, Swage Locking, 100° Shear Head, Pull Type			.1875 thru .375 dia		

TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
255. H	NAS 1446 thru NAS 1452	Pin, Swage Locking, Protruding Head, Shear Pull Type	Alloy Steel QQ-W-405	Yes	.1875 thru .375 dia	TS PSI Ht Tr 160,000-180,000	Marked on center of head, depressed.
256	NAS 1456 thru NAS 1462	Pin, Swage Locking, 100° Flat Hd, Tension, Pull Type	Alloy Steel QQ-W-405	Yes	.1875 thru .375 dia	TS PSI Ht Tr 160,000-180,000	Marked on center of head, depressed.
65 I	NAS 1465 thru NAS 1472	Pin, Swage Locking, Protruding Head, Ten- sion, Pull Type			.156 thru .375 dia		
	NAS 1486 thru NAS 1492	Pin, Swage Locking, 100° Flat Hd, Tension, Stump Type			.1875 thru .375 dia		
	NAS 1496 thru NAS 1502	Pin, Swage Locking, Protruding Head, Tension, Stump Type			.1875 thru .375 dia		
257. — —	NAS 1475 thru NAS 1482	Pin, Swage Locking, 100° FH, Tension, Pull Type	Alloy Steel, QQ-W-405	Yes	.156 thru .375 dia	TS PSI Ht Tr 160,000-180,000	Marked on center of head, depressed.

TABLE V - NAS IDENTIFICATION MARKINGS

IDENTIFI- CATION MARK	DESIGNATION OF PRODUCT STANDARD	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
258.	NAS 1516 thru NAS 1522	Pin, Swage Locking, 100° FH Tension, Pull Type, Close Tol	Alum Alloy, 7075-T6 QQ-A-430	Yes	.1875 thru .375 dia	Shear str PSI min 42,000	Marked on top of head, raised, mfr.'s mark depressed.
	NAS 1546 thru NAS 1552	Pin, Swage Locking, 100° FH, Tension, Stump Type			.1875 thru .375 dia		
259.	NAS 1525 thru NAS 1532	Pin, Swage Locking, Protruding Head, Tension, Pull Type	Alum Alloy, 7075-T6, QQ-W-430	Yes	.156 thru .375 dia	Shear str PSI min 42,000	Marked on top of head, raised, mfr.'s mark depressed.
	NAS 1535 thru NAS 1542	Pin, Swage Locking, 100° FH, Tension, Pull Type			.156 thru .375 dia		
	NAS 1556 thru NAS 1562	Pin, Swage Locking, Protruding Head, Tension, Pull Type			.1875 thru .375 dia		

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TABLE VI - IDENTIFICATION MARKINGS FOR SHIPBUILDING

IDENTIFI- CATION MARK	SPECIFI- CATION NUMBER	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES		REMARKS
260 NICU	GD/EB 1890	Bolts, Nuts, Scr and Studs, MIL- B-857	Nickel- Copper, (Monel), QQ-N-281	Yes	All sizes	Cold Drawn Bars TS PSI 85,000-110,000		Marked on top of head for bolts, on end of studs and on side of nut.
261. .K. OR NI-CU K	GD/EB 1890	Bolts and Studs	Ni-Cu-Al, Age Hardened, QQ-N-286	Yes	All sizes	TS PSI min	130,000	Marked on top of head for bolts and on end of studs. Note: See item 106 of table III.
262. B7A, B14 OR B16	GD/EB 1890	Bolt-Stud, MIL-S-1222	Alloy Steel	Yes	All sizes	TS PSI min	125,000 BHN 255-321 RH C25-34	Marked on end of stud. Note: See item 102, 103 and 104 of table III.
263. 4	GD/EB 1890	Nuts, MIL-S-1222	Alloy Steel	Yes	All sizes	BHN RH * Pfr load based on 175,000 PSI.	248-352 C24-38	Marked on flat of nut Note: See items 30 of table I and 160, table IV.
264. 4 OR 4B	GD/EB 1890	Nuts	Alloy Steel, A194	Yes	All sizes	BHN RH * Prf load based on 175,000 PSI.	248-352 C24-34	Marked on top of crown or flat of nut. Notes: Use MIL-S-1222 for MPI requirements. For symbol "4", see item 30 and for symbol "4B" see item 40 of table I.
265. NONE	GD/EB 1890	Bolts and Screws, (MIL-B-857)	Carbon Steel, Grade 2	Yes	All sizes	TS PSI min	69,000	No marking required.
266. S2	GD/EB 1890	Studs, (MIL-B-857)	Carbon Steel, Grade 2	Yes	All sizes	TS PSI min	69,000	Marked on end of studs.

\* Proof load to be based on the indicated stress in the bolt used during test.

TABLE VI - IDENTIFICATION MARKINGS FOR SHIPBUILDING

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IDENTIFI- CATION MARK	SPECIFI- CATION NUMBER	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
267. 	GD/EB 1890	Bolts and Studs, (MIL-B-857)	Med Carbon, Grade 5	Yes	All sizes	TS PSI 90,000-120,000	Marked on top of head for bolts and on end of studs. <u>Note:</u> See items 6, table I, 65, table II, or 157, table IV. Not including aly no. 2 MIL-S-890.
268. 	GD/EB 1890	Bolts and Studs, (MIL-B-857)	Alloy Steel Grade 8	Yes	All sizes	TS PSI min 150,000	Marked on top of head, for bolts and on end of studs. <u>Note:</u> See items 9, table I, 69, table II, or 158, table IV.
269.  B7	GD/EB 1890	Bolts and Studs	Alloy Steel, AISI 4140, MIL-S- 890 Alloy No. 2	Yes	All sizes	TS PSI room temp after ht tr 100,000-125,000	Marked on top of head for bolts and on end of studs. See item 15, table I. <u>Note:</u> When H.T. to meet the physical properties defined for Gr. B7 in ASTM A193.
270. NONE	GD/EB 1890	Scr, Mach, Slot and Cross-Recess	Steel as Specified	No	All sizes	In accordance with the material speci- fied.	No marking.
271.  S-150	GD/EB 1890	Screw, Cap, Socket Head, FF-S-86	Alloy Steel	Yes	All sizes	TS PSI min (Mod) * 170,000 YS PSI min 150,000 Elongation 12% Reduction in area 35%	Marked on top or side of head. * Material properties modified.
272.  S-130	GD/EB 1890	Screw, Cap, Socket Head, FF-S-86	Alloy Steel	Yes	All sizes	TS PSI min * 160,000	Marked on top or side of head. * Without modification, per FF-S-86.

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TABLE VI - IDENTIFICATION MARKING FOR SHIPBUILDING

IDENTIFI- CATION MARK	SPECIFI- CATION NUMBER	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
273. NONE	GD/EB 1890	Screw, Socket, Shoulder	Alloy Steel	Yes	All sizes	TS PSI min 140,000	No marking required.
274.  <u>B8</u>	GD/EB 1890	Screw, Socket, Shoulder	Cres, 302, 303, 304 and 305 Plus 16-18 Alloy	Yes	All sizes	TS PSI min YS PSI min 75,000 30,000	Marked on top of head. See item 18, table I.
275.  <u>B8</u>	GD/EB 1890	Screw, Socket, Shoulder	Cres, 302, 303, 304 and 305 Plus 16-18 Alloy	Yes	All sizes	TS PSI min YS PSI min BHN max 125,000 100,000 320	Marked on top of head. See item 22, table I.  <u>Note:</u> The line under symbol indicates high tensile condition.
276. <u>B8M</u>	GD/EB 1890	Screw, Socket, Shoulder	Cres, 316	Yes	All sizes	TS PSI min YS PSI min 75,000 30,000	Marked on top of head. See item 20, table I.
277.  <u>B8M</u>	GD/EB 1890	Screw, Socket, Shoulder	Cres, 316	Yes	All sizes	TS PSI min YS PSI min BHN max 125,000 100,000 320	Marked on top of head. See item 24, table I.  <u>Note:</u> The line under symbol indicates high tensile condition.
278.  <u>4XX</u>	GD/EB 1890	Bolts and Screws	Cres, 4XX Series	No	All sizes	TS PSI min 100,000	Marked on top of head with appropriate alloy number, raised or depressed.  <u>Note:</u> See items 31 and 41, table I for nuts.


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TABLE VI - IDENTIFICATION MARKINGS FOR SHIPBUILDING

MIL-HDBK-131A

IDENTIFI- CATION MARK	SPECIFI- CATION NUMBER	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
279. 	GD/EB 1890	Bolts, Self- Locking, Scr, or Studs, Nylon Inserts	Alloy Steel and Cres per FF-S-96	No	All sizes	Alloy Steel TS PSI min 160,000 Cres TS PSI min 80,000	Marked on top of head, raised or depressed. See item 252, table V.
280. AISI/SAE NUMBER	GD/EB 1890	Spl Steel Fasteners Produced to Spl Req of Procuring Activity	Alloy Steel as 4130 or 4140, Etc.	Yes	All sizes	To meet the material specified on the order	Marked as instructed by contract or order.
281. 44	GD/EB 1890	Spl Steel Fasteners Produced From Alloy Steel Desig- nated Elastuf 44	Alloy Steel	Yes	All sizes	As required.	Marked as specified by contract or order.
282. E37	GD/EB 1890	Spl Nuts Made from AMS6304- 17-22A	Low Alloy Steel	No	All sizes	HR - BHN max 229 CF - BHN max 248 RH - C32-36	Marked on side of nut. See item 79, table III.
283. NONE	GD/EB 1890	Bolts, Studs, Screws, Etc.	Other Materials Brass, Alum, Etc.	No	All sizes	As specified	As specified by the contract or order.

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TABLE VI - IDENTIFICATION MARKINGS FOR SHIPBUILDING

IDENTIFI- CATION MARK	SPECIFI- CATION NUMBER	FASTENER DESCRIPTION	MATERIAL	MFR.'S IDENTIFI- CATION SYMBOL REQUIRED	NOMINAL SIZE RANGE (INCHES)	MECHANICAL PROPERTIES	REMARKS
MATERIAL IDENTIFICATION BY COLOR CODING							
284. YELLOW	GD/EB 1890	Bolts, Studs, Scr, Etc.	Cres	No	All sizes	As required.	As specified by the contract or order.
BLACK			Ni, Cu, Alum, (K-Monel)				
BLUE			Ni, Cu				
PLAIN			Steel				
PLAIN			Br, Brz				
MATERIAL IDENTIFICATION FOR SETSCREWS							
285. PARTIAL CSK. HEX. SOCKET	GD/EB 1890	Set screws	Nickel- Copper- (Monel)	Yes	All sizes	As required.	As specified by the contract or order.
C BORE OF HEX. SOCKET	GD/EB 1890		Cres				
NONE			Other Items				

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TABLE VII - ITEMS IN MIL-HDBK-131, NOT IDENTIFIED IN MIL-HDBK-131A

TABLE NO.	ITEM NO.	HEAD MARKING	MATERIAL	MECHANICAL CHARACTERISTICS	CLASSIFICATION OR SPECIFICATION	USED BY
1.	I	1	C	Steel, Low Carbon	YS - 60,000 PSI min	Army Ord
2.	I	2	60	Steel, Coml	TS - 48,000 PSI min	Bolt, Hex Hd, Fine Thd Air Force
3	I	3	65	Steel, Coml	TS - 48,000 PSI min	Bolt, Hex Hd, Coarse Thd Air Force
4.	I	4	70	Steel, Coml	TS - 48,000 PSI min	Bolt, Carriage Air Force
5.	I	7	B	Steel, Med Carbon	YS - 75,000 PSI min	Army Ord
6.	I	10	E	Steel, Med Carbon	YS - 95,000 PSI min	Army Ord
7.	I	50	△		Close tolerance shank and/or head	Air Force NAS
8.	I	53	R		Rolled threads, after heat treatment	NAS 360 NAS
9.	I	55	≡	Bronze, Coml	TS - 85,000 PSI min	NAS 380 Air Force - NAS
10.	III	1	-3		.003 Undersize	Air Force
	III	2	3		.003 Oversize	Air Force
	III	3	6		.006 Oversize	Air Force
	III	4	9		.009 Oversize	Air Force
	III	5	12		.012 Oversize	Air Force
11.	IV	1	I	Steel Alloy	Proof load 70,000 PSI 120,000 PSI 150,000 PSI	Army Ord
12.	IV	6	H0α	Steel, Carbon and Alloy	Type II: 180 BHN or B89 RH min heat treat	MIL-S-1222 Military
13.	IV	7	40α	Steel, Carbon and Alloy	200 BHN min or B94 RH (40-50C) heat treat	MIL-S-1222 Military

MIL-HDBK-131A

TABLE VII - LIST OF ITEMS IN MIL-HDBK-131, NOT IDENTIFIED IN MIL-HDBK-131A

TABLE NO.	ITEM NO.	HEAD MARKING	MATERIAL	MECHANICAL CHARACTERISTICS	CLASSIFICATION OR SPECIFICATION	USED BY
14.	V	3	EH1	Steel, Heat Res and Cres 18 Cr, 11 Ni	AMS 7229	Air Force (Mark "H1" only on .062 rivets.)
15.	V	4	EH2	Steel, Heat Res and Cres	AMS 7232	Air Force (Mark "H2" only on .062 rivets.)
16.	V	5	N	Steel, Nickel	QQ-S-624, FS2317 Alternates: FS3115, 41615; 8615, SAE2315, FS3315	MS
17.	V	16	②	Alum Alloy	1100F	Army Ord (Shank marking)
18.	V	17	⑤	Alum Alloy	6053-T61	Army Ord (Shank marking)

TABLE VIII - CROSS REFERENCE DATA FOR MIL-HDBK-131 AND MIL-HDBK-131A

MIL-HDBK-131A

MIL-HDBK-131A		MIL-HDBK-131		MIL-HDBK-131A		MIL-HDBK-131	
ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.
1	I	None	None	28	I	12	IV
2	I	None	None	29	I	14	IV
3	I	None	None	30	I	16	IV
4	I	None	None	31	I	18	IV
5	I	None	None	32	I	20	IV
6	I	8	I	33	I	22	IV
7	I	None	None	34	I	24	IV
8	I	None	None	35	I	None	None
9	I	12	I	36	I	9	IV
10	I	14	I	37	I	11	IV
11	I	13	I	38	I	13	IV
12	I	None	None	39	I	15	IV
13	I	22	I	40	I	17	IV
14	I	23	I	41	I	19	IV
15	I	24	I	42	I	21	IV
15	I	1	II	43	I	23	IV
16	I	26	I	44	I	25	IV
16	I	3	II	45	I	None	None
17	I	27	I	46	I	45	I
17	I	4	II	47	I	46	I
18	I	32	I	48	I	47	I
19	I	35	I	49	I	48	I
20	I	None	None	50	I	37	I
21	I	39	I	51	I	41	I
22	I	33	I	52	I	38	I
23	I	36	I	53	I	42	I
24	I	None	None	54	I	None	None
25	I	40	I	55	I	None	None
26	I	8	IV	56	I	None	None
27	I	10	IV	57	I	None	None

TABLE VIII - CROSS REFERENCE DATA FOR MIL-HDBK-131 AND MIL-HDBK-131A

MIL-HDBK-131A		MIL-HDBK-131		MIL-HDBK-131A		MIL-HDBK-131	
ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.
58	I	None	None	87	III	20	I
59	I	None	None	88	III	20	I
60	I	None	None	89	III	54	I
61	II	None	None	90	III	52	I
62	II	None	None	91	III	None	None
63	II	None	None	92	III	None	None
64	II	6	I	93	III	1	V
65	II	8	I	94	III	15	V
66	II	None	None	95	III	13 and 19	V
67	II	9	I	96	III	12	V
68	II	11	I	97	III	11	V
69	II	12	I	98	III	14	V
70	II	28	I	99	III	None	None
71	III	2	IV	100	III	10	V
72	III	5	I	101	III	None	None
73	III	None	None	102	III	25	I
74	III	None	None	102	III	2	II
75	III	17, 18 and 19	I	103	III	26	I
76	III	None	None	103	III	3	II
77	III	None	None	104	III	27	I
78	III	None	None	104	III	4	II
79	III	None	None	105	III	None	None
80	III	None	None	106	III	None	None
81	III	34	I	107	III	44	I
82	III	None	None	108	III	4	IV
83	III	None	None	109	III	5	IV
84	III	None	None	110	III	None	None
85	III	None	None	111	III	None	None
86	III	29 and 31	I	112	III	None	None
86	III	2	V	113	III	None	None

TABLE VIII - CROSS REFERENCE DATA FOR MIL-HDBK-131 AND MIL-HDBK-131A

MIL-HDBK-131A		MIL-HDBK-131		MIL-HDBK-131A		MIL-HDBK-131	
ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.
114	III	None	None	144	III	None	None
115	III	28	I	145	III	None	None
116	III	8	I	146	III	None	None
117	III	12	I	147	III	None	None
118	III	None	None	148	III	None	None
119	III	None	None	149	III	None	None
120	III	None	None	150	III	None	None
121	III	None	None	151	III	None	None
122	III	None	None	152	III	None	None
123	III	None	None	153	III	None	None
124	III	None	None	154	III	None	None
125	III	None	None	155	III	None	None
126	III	None	None	156	III	None	None
127	III	None	None	157	IV	8	I
128	III	None	None	158	IV	12	I
129	III	None	None	159	IV	15	I
130	III	None	None	160	IV	16	IV
131	III	None	None	161	IV	None	None
132	III	None	None	162	IV	None	None
133	III	None	None	163	IV	None	None
134	III	None	None	164	IV	6	V
135	III	None	None	165	IV	7	V
136	III	None	None	166	V	None	None
137	III	None	None	167	V	None	None
138	III	None	None	168	V	None	None
139	III	None	None	169	V	None	None
140	III	None	None	170	V	None	None
141	III	None	None	171	V	None	None
142	III	None	None	172	V	None	None
143	III	None	None	173	V	None	None





## MIL-HDBK-131A

TABLE VIII - CROSS REFERENCE DATA FOR MIL-HDBK-131 AND MIL-HDBK-131A

MIL-HDBK-131A		MIL-HDBK-131		MIL-HDBK-131A		MIL-HDBK-131	
ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.	ITEM NO.	TABLE NO.
235	V	21	I	265	VI	None	None
236	V	8	V	266	VI	None	None
237	V	55	I	267	VI	8	I
238	V	None	None	268	VI	12	I
239	V	None	None	269	VI	24	I
240	V	None	None	270	VI	None	None
241	V	None	None	271	VI	None	None
242	V	None	None	272	VI	None	None
243	V	30	I	273	VI	None	None
244	V	20	I	274	VI	32	I
245	V	None	None	275	VI	33	I
246	V	9	V	276	VI	None	None
247	V	11	V	277	VI	None	None
248	V	12	V	278	VI	None	None
249	V	None	None	279	VI	None	None
252	V	19	V	280	VI	None	None
251	V	None	None	281	VI	None	None
252	V	None	None	282	VI	None	None
253	V	None	None	283	VI	None	None
254	V	None	None	284	VI	None	None
255	V	15	I	285	VI	None	None
256	V	None	None				
257	V	None	None				
258	V	None	None				
259	V	None	None				
260	VI	None	None				
261	VI	None	None				
262	VI	25, 26 and 27	I				
263	VI	16	IV				
264	VI	None	None				

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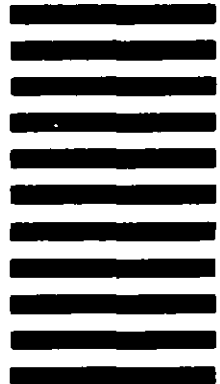
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