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INCH-POUND

MIL-I-8846C
18 August 1992
SUPERSEDING
MIL-I-8846B
12 Dec 1973

MILITARY SPECIFICATION

INSERTS, SCREW-THREAD, HELICAL COIL

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

1. SCOPE

1.1 Scope. This specification covers helical coil screw-thread inserts made from formed wire, the inner surfaces of which, after assembly, provide threads as specified on the applicable MS standard, drawing, or part descriptive document.

1.2 Classification. Inserts shall be of the following types and classes, as specified (see 6.2).

a. Type I - Coarse thread

(1) Class 1 - Free running.

(2) Class 2 - Screw locking (self-locking).

b. Type II - Fine thread

(1) Class 1 - Free running

(2) Class 2 - Screw locking (self-locking)

c. Type III - Taper pipe thread

(1) Class 5 - NPT pipe thread

(2) Class 6 - ANPT pipe thread

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Technology & Industrial Services Division, SA-ALC/TIRDM, Kelly AFB, TX 78241-5609 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 5340

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d. Type IV - Metric - spark plug thread

(1) Class 3 - Staking (spark plug thread)

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

PPP-H-1581	Hardware (Fasteners and Related Items), Packaging of

MILITARY

MIL-P-7105	Pipe Threads, Taper, Aeronautical National Form, Symbol ANPT, General Requirements for
MIL-S-8879	Screw Threads, Controlled Radius Root with Increased Minor Diameter, General Specification for
MIL-T-21309	Tools for Inserting and Extracting Helical Coil Wire Screw Thread Inserts

STANDARDS

FEDERAL

FED-STD-66	Steel: Chemical Composition and Hardenability
FED-STD-H28	Screw Thread Standards for Federal Services
FED-STD-151	Metals, Test Methods

MILITARY

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-1312	Fasteners, Test Methods
MS9018	Insert - 18-1.5MM Aviation Spark Plug Helical Coil

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MS9071	Bosses, 18-1.50MM Spark Plug Thread Helical Insert, Standard Dimensions for (ASG)
MS16997	Screw, Cap, Socket Head and Screw Cap Socket Head, Self-Locking, Alloy Steel, Cadmium Plated, UNC-3A
MS21209	Insert, Screw Thread, Coarse and Fine, Screw Locking, Helical Coil, CRES
MS33537	Insert - Screw-Thread, Helical Coil Coarse and Fine Thread, Standard Dimensions for
MS122076 thru MS122115	Insert-CRES Helical Coil Coarse Thread, 1 Dia Nominal Length
MS122116 thru MS122155	Insert-CRES Helical Coil Coarse Thread, 1-1/2 Dia Nominal Length
MS122156 thru MS122195	Insert-CRES Helical Coil Coarse Thread, 2 Dia Nominal Length
MS122196 thru MS122235	Insert-CRES Helical Coil Coarse Thread, 2-1/2 Dia Nominal Length
MS122236 thru MS122275	Insert-CRES Helical Coil Coarse Thread, 3 Dia Nominal Length
MS124651 thru MS124690	Insert-CRES Helical Coil Fine Thread, 1 Dia Nominal Length
MS124691 thru MS124730	Insert-CRES Helical Coil Fine Thread, 1-1/2 Dia Nominal Length
MS124731 thru MS124770	Insert-CRES Helical Coil Fine Thread, 2 Dia Nominal Length
MS124771 thru MS124810	Insert-CRES Helical Coil Fine Thread, 2-1/2 Dia Nominal Length
MS124811 thru MS124850	Insert-CRES Helical Coil Fine Thread 3 Dia Nominal Length

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASME B46.1	Surface Texture (Surface Roughness, Waviness, and Lay)

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(Application for copies should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E8	Materials, Metallic, Tension Testing of
ASTM E290	Materials, Metallic, Semi-guided Bend Test for Ductility of

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1137.)

NATIONAL AEROSPACE STANDARDS (NAS)

NAS 1303 thru 1320	Bolt, Shear - Hexagon Head

(Application for copies should be addressed to Aerospace Industries Association of American, Inc., 1250 Eye Street, N.W., Washington, D. C. 20005.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Material. Unless otherwise specified on the drawing, the wire shall be manufactured of induction furnace or electric arc furnace steel, cold drawn, and shaped by rolling to conform to this specification and the applicable MS standards.

3.1.1 Chemical composition. The chemical composition of the wire shall conform to table I or type 304 of FED-STD-66 (see 4.4.1).

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Table I. Chemical Composition

Element	Analysis (Percent)	Check Analysis	
		Under (Minimum)	Over (Maximum)
Carbon	0.15 Max	----	0.01
Manganese	2.00 Max	----	0.04
Silicon	1.00 Max	----	0.05
Phosphorus	0.045 Max	----	0.01
Sulfur	0.035 Max	----	0.01
Chromium	17.00 to 20.00	0.20	0.20
Nickel	7.00 to 11.00	0.15	0.15
Molybdenum	0.75 Max	----	0.03
Copper	0.75 Max	----	0.03

3.1.2 Tensile strength. Before coiling into parts, the wire shall have a tensile strength not lower than 150,000 pounds per square inch (psi) (see 4.4.2).

3.1.3 Cold-bending. Wire from which the inserts are made shall withstand, without cracking, bending at room temperature through an angle of 180 degrees around a diameter equal to twice the cross-sectional dimension of the wire in the plane of bend (see 4.4.3).

3.2 Design. The detail design and dimensions of the inserts shall conform to the applicable MS standard, drawing, or part descriptive document.

3.2.1 Surface texture. When the design or application makes it necessary to control the surface roughness of the insert, the allowable roughness shall be 32 microinches AA or as specified in the detail specification or the product drawing. Roughness shall be specified in accordance with the method outlined in ANSI/ASME B46.1.

3.3 Threads. Class 1 inserts (MS122076 thru MS122275, and MS124651 thru MS124850) and class 2 inserts (MS21209), when assembled in accordance with MS33537, shall accept threads which conform to MIL-S-8879. After assembly, class 1 and class 2 inserts shall conform to the minimum and maximum lengths specified on MS33537. Class 3 inserts (MS9018), when assembled, shall form threads in accordance with MS9071. Class 5 and class 6 inserts, when assembled in accordance with the applicable design standard or drawing, shall form threads conforming to FED-STD-H28 and MIL-P-7105, respectively.

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3.4 Screw-locking-torque. The class 2 insert, when assembled in accordance with MS33537 and tested in accordance with 4.4.4, shall produce torque in accordance with the values specified in table II.

Table II. Pound-Inches Torque at Room Temperature

Fine Thread Series			Coarse Thread Series		
Bolt Size	Maximum Locking Torque, Installation or Removal	Minimum Breakway Torque	Bolt Size	Maximum Locking Torque, Installation or Removal	Minimum Breakway Torque
0.099-56	2	7. 1/	0.086-56	1.25	3. 1/
0.112-48	3	10. 1/	0.099-48	2	7. 1/
0.138-40	6	1.0	0.112-40	3	10. 1/
0.164-36	9	1.5	0.125-40	4.7	13. 1/
0.190-32	13	2.0	0.138-32	6	1.0
0.250-28	30	3.5	0.164-32	9	1.5
0.3125-24	60	6.5	0.190-24	13	2.0
0.375-24	80	9.5	0.250-20	30	4.5
0.4375-20	100	14.0	0.3125-18	60	7.5
0.500-20	150	18.0	0.375-16	80	12.0
0.5625-18	200	24.0	0.4375-14	100	16.5
0.625-18	300	32.0	0.500-13	150	24.0
0.750-16	400	50.0	0.5625-12	200	30.0
0.875-14	600	70.0	0.625-11	300	40.0
1.000-12	800	90.0	0.750-10	400	60.0
1.125-12	900	117.0	0.875-9	600	82.0
1.250-12	1,000	143.0	1.000-8	800	110.0
1.375-12	1,150	165.0	1.125-7	900	137.0
1.500-12	1,350	190.0	1.250-7	1,000	165.0
			1.375-6	1,150	185.0
			1.500-6	1,350	210.0

1/ Ounce-inches.

3.5 Vibration. The class 2 insert shall withstand the vibration test specified in 4.4.5.

3.6 Identification of product. Unplated class 1 inserts shall be furnished in bright stainless steel finish. Cadmium plated class 1 inserts shall be gold to yellow iridescent in color. Unplated class 2 inserts shall be coated with a red dye. Cadmium plated class 2 inserts shall be olive drab to dark brown in color. Class 1 and 2 inserts coated with a dry film lubricant shall be dark gray to black in color. On inserts that are cadmium plated the cadmium shall be 0.0001 inch nominal thickness.

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3.7 Workmanship. The formed wire shall be of uniform quality and temper; smooth; clean; and free from kinks, waviness, splits, cracks, laps, seams, scale, segregation, and other defects which may impair the serviceability of the insert.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirments specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.2 Classification of inspection. The examination and testing of inserts shall be classified as quality conformance inspection.

4.3 Quality conformance inspection. Quality conformance inspection shall consist of the sampling tests and examinations.

4.3.1 Lot. Unless otherwise specified in the contract or order, a lot shall consist of inserts which are of the same type, class, thread size and length, fabricated by the same process, from the same heat of material, and produced as one continuous run or order, or part thereof, and submitted for acceptance inspection at the same time.

4.3.2 Sampling tests and examinations.

4.3.2.1 Sampling for tests. Sampling for the material composition test (4.4.1), tensile strength test (4.4.2), cold-bending test (4.4.3), and torque test (4.4.4) shall be in accordance with the applicable test paragraph, and any one failure shall be cause for rejection of the represented lot. Sampling and acceptance procedures for the vibration test (4.4.5) shall be as specified in 4.4.5.

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4.3.2.2 Sampling for examination. Sample size shall be selected in accordance with MIL-STD-105, inspection level S-1, Table II-A. It is permissible to use other sampling plans which provide the same quality protection. When sample size equals or exceeds the lot size, 100% inspection is required.

4.4 Test methods.

4.4.1 Material composition. It shall be ascertained that the material complies with 3.1.1. The manufacturer's certificate of chemical composition may be accepted. At the discretion of the procuring activity, the material shall be tested in accordance with method III of Fed-Std-151. If the material does not pass these tests, the entire lot shall be rejected.

Table III. Classification of Defects

Defects	Requirement Paragraph	Classification of Defects	Method of Inspection
Incorrect thread dimensions	3.3	Major	Standard measuring instruments
Incorrect surface roughness	3.2.1	Minor	Standard measuring instruments or visual comparison specimens
Incorrect dimensions	3.2	Minor	Standard measuring instruments
Incorrect design	3.2	Minor	Visual
Incorrect identification	3.6	Minor	Visual
Poor workmanship	3.7	Minor	Visual

4.4.2 Tensile strength. Two samples representative of the insert material shall be tested in accordance with test method ASTM E8 for compliance with 3.1.2.

4.4.3 Cold-bending. Two samples representative of the insert material shall be tested in accordance with test method ASTM E290 for compliance with 3.1.3.

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4.4.4 Screw-locking torque (class 2 inserts). The torque test shall consist of a 15-cycle, room-temperature torque test, using cadmium-plated bolts or screws in accordance with table IV, and with thread lengths greater than the nut thicknesses of table IV. The bolt or screw pitch diameter, after plating, shall be class 3A. A new bolt or screw and a new tapped hole shall be used for each complete 15-cycle test. The insert shall be assembled in a nut in accordance with table IV. Bolts and screws must assembly freely, with the fingers, up to the locking coil or coils. The bolt or screw shall be engaged and disengaged from the assembled insert for 15 full installation and removal cycles without axial load on the insert. The test shall be run at rate slow enough to yield a dependable measure of torque and avoid heating of the bolt. A bolt shall be considered fully installed when three threads extend past the end of the locking coils of the insert; the removal cycle shall be considered complete when the locking coils are disengaged.

4.4.4.1 Maximum locking torque. Maximum locking torque shall be the maximum torque value encountered on any installation or removal cycle and shall not exceed the values specified in table II. Maximum locking torque readings shall be taken on the first and seventh installation cycles and on the fifteenth removal cycle.

4.4.4.2 Minimum breakway torque. Minimum breakway torque shall be the minimum torque required to start removal of the screw or bolt from the installed position and shall be recorded at the start of the fifteenth removal cycle. The torque value for any cycle shall be not less than the applicable value shown on table II.

4.4.5 Vibration (class 2 inserts). The vibration test is waived for inserts sizes below 0.190-32 and sizes larger than 0.500-20 thread size, provided the insert of 0.500-20 thread size with the same type and design locking element has satisfactorily passed the vibration test. The vibration test is also waived for inserts of nominal lengths other than 1-1/2 diameters, provided the 1-1/2 diameter inserts have the same type and design locking elements as the inserts of other lengths and have satisfactorily passed the vibration test. Vibration is a Qualification Test.

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Table IV. Dimensions of Insert Nuts and Bolts Required for Test Assemblies

	Test Bolt Size	Test Nuts 1/ 4/ Across Flats (Maximum)	Test Nuts 1/ 4/ Thickness 2/ +0.010 -0.000	Bolts for Torque and Vibration Tests Basic MS and NAS Part Number 3/
	0.099-56 UNF-3B	0.250	0.170	
F	0.112-48 UNF-3B	0.312	0.190	
I	0.138-40 UNF-3B	0.344	0.240	
N	0.164-36 UNF-3B	0.375	0.280	
E	0.190-32 UNJF-3B	0.437	0.320	NAS1303
	0.250-28 UNJF-3B	0.500	0.410	NAS1304
T	0.3125-24 UNJF-3B	0.562	0.510	NAS1305
H	0.375-24 UNJF-3B	0.688	0.600	NAS1306
R	0.4375-20 UNJF-3B	0.750	0.710	NAS1307
E	0.500-20 UNJF-3B	0.875	0.800	NAS1308
A	0.5625-18 UNJF-3B	0.937	0.900	NAS1309
D	0.625-18 UNJF-3B	1.062	0.990	NAS1310
	0.750-16 UNJF-3B	1.250	1.190	NAS1312
S	0.875-14 UNJF-3B	1.437	1.380	NAS1314
E	1.000-12 UNJF-3B	1.625	1.625	NAS1316
R	1.125-12 UNJF-3B	1.812	1.770	NAS1318
I	1.250-12 UNJF-3B	2.000	1.960	NAS1320
E	1.375-12 UNJF-3B	2.187	2.150	----
S	1.500-12 UNJF-3B	2.187	2.330	----
C	0.086-56 UNC-3B	0.188	0.150	MS16997
O	0.099-48 UNC-3B	0.250	0.170	
A	0.112-40 UNC-3B	0.312	0.190	MS16997
R	0.125-40 UNC-3B	0.344	0.210	
S	0.138-32 UNC-3B	0.344	0.240	MS16997
E	0.164-32 UNC-3B	0.375	0.280	MS16997
	0.190-24 UNC-3B	0.437	0.320	MS16997
T	0.250-20 UNC-3B	0.500	0.410	MS16997
H	0.3125-18 UNC-3B	0.562	0.510	MS16997
R	0.375-16 UNC-3B	0.688	0.600	MS16997
E	0.4375-14 UNC-3B	0.750	0.710	MS16997
A	0.500-13 UNC-3B	0.875	0.800	MS16997
D	0.5625-12 UNC-3B	0.937	0.900	MS16997
	0.625-11 UNC-3B	1.062	0.990	MS16997
S	0.750-10 UNC-3B	1.250	1.190	MS16997
E	0.875-9 UNC-3B	1.437	1.380	MS16997
R	1.000-8 UNC-3B	1.625	1.625	
I	1.125-7 UNC-3B	1.812	1.770	
E	1.250-7 UNC-3B	2.000	1.960	
S	1.375-6 UNC-3B	2.187	2.150	
	1.500-6 UNC-3B	2.187	2.330	

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1/ Material: Aluminum alloy 2024-T4 or T351.
2/ Nut thickness is equal to dimension "H" minimum of MS33537
3/ Equivalent class 3A cadmium plated socket head cap screws may be substituted for the NAS and MS bolts.
4/ For locking torque testing a plate or block of the same material and hole dimensions may be used in lieu of the nut configuration.

4.4.5.1 Method.

a. Five samples of each size shall be tested. The inserts shall be installed in the test nuts listed in table V, and then assembled on the test fixture shown in MIL-STD-1312, test No. 7.

b. The insert-nut assembly shall be screwed onto the test bolt and tightened to the torque specified in table V. The maximum prevailing torque before clamping shall be recorded.

c. Reference lines shall be scribed on the bolts and insert-nut assemblies to determine relative motion or loosening of the assembly. Also, the sliding surfaces of the test fixture under the cylinder flanges and washers should be lightly lubricated with SAE 20 oil so that the cylinder assembly will freely traverse the slots of the fixture.

d. The fixture shall then be vibrated with an essentially sinusoidal wave form at a frequenty of 1750 to 1800 cycles per minute and double amplitude of 0.450 ±0.015 inch. The test shall be run for 30,000 cycles. If, prior to the completion of 30,000 cycles, an insert-nut assembly rotates completely off a bolt, the test shall be stopped.

e. Breakway torque after vibration shall also be measured after the insert-nut assembly has been unseated from the clamped position.

Table V. Vibration Requirements

Thread Size Fine or Coarse	Across Flats	Nut Thickness	Assembly Torque Pound - Inches UNF 1/	UNC
0.190	0.437	0.285	40	35
0.250	0.500	0.375	95	85
0.3125	0.562	0.469	185	175
0.375	0.688	0.562	330	310
0.4375	0.750	0.656	525	495
0.500	0.875	0.750	800	750

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1/ Parts manufactured up to one year beyond the issue date of this revision are valid if qualified under either this revision or the previous revision. Subsequent to one year after issue of this revision parts must be qualified to its requirements.

4.4.5.1.1 The inserts shall be considered to have the vibration test under any of the following conditions:

a. Any structural failure occurs during vibration, such as a break or crack.

b. After vibration, the relative rotation between any insert-nut assembly and the bolt exceeds 360 degrees.

c. The prevailing or breakway torques exceed the maximum or fall below the minimum specified values.

d. Any insert-nut assembly comes completely off the bolt during vibration.

e. Any insert turns out of the nut upon removal of the bolt.

4.4.6 Classification of tests. Acceptance tests consist of all tests except vibration. Qualification tests consist of all tests including vibration. Qualification tests shall be performed on inserts selected from the first lot of inserts of each size produced by a supplier and shall be repeated whenever a significant change is made in the manufacturing process.

4.4.7 Preservation, packaging, packing, and marking. Preparation for delivery shall be inspected for conformance to section 5.

5. PREPARATION FOR DELIVERY

5.1 Preservation, packaging, packing, and marking. Preservation, packaging, packing, and marking shall conform to PPP-H-1581, packaging standards, or packaging data sheets.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The inserts covered by this specification are intended for use in original design application, especially in soft materials, to provide protection against thread failures caused by stripping, fatigue, wear, corrosion, and seizing. They are also intended for use in the repair of damaged or worn

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threads not originally protected. The class 2 insert which has prevailing torque capabilities provides protection to the joint against loosening caused by vibration and impact loading, thus obviating the use of lockwashers, lock wires, or other means of locking.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Part number in accordance with the applicable MS standard, drawing, or other descriptive document (see 3.2).

c. Type class, nominal length, thread size, and series (see 1.2).

d. Applicable levels of preservation, packaging, and packing (see 5.1).

e. Identification of product (see 3.6).

f. Package quantities, if other than standard.

6.3 Design and installation guidance.

6.3.1 Inserts lengths. Type I and type II inserts are available in five standard lengths, 1, 1-1/2, 2, 2-1/2 and 3 times the nominal thread diameter. For specific sizes and part numbers see 2.1.

6.3.2 Installation. Inserts are installed in accordance with the dimensional requirements contained in MS33537.

6.3.3 Insert length selection. The standard engineering practice of balancing the tensile strength of the bolt material against the shear strength of the parent or boss material also applies to helical coil inserts. Table VI will aid the designer in developing the full load value of the bolt rather than stripping the parent or tapped material.

In using this table these factors must be considered:

6.3.3.1 Actual bolt tensile strength, particularly in the lower bolt tensile ranges may be significantly higher than the nominal values. This should be considered in insert length selection.

6.3.3.2 The parent material shear strengths are for room temperature. Elevated temperatures call for significant shear value reductions; compensation should be made when required. Shear values are appropriate because the parent material is subject to shearing stress at the major diameter of the tapped threads.

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6.3.3.3 When parent material shear strength falls between two tabulated values, use the lower of the two.

6.3.3.4 Bolt thread length, overall length, insert length, and full tapped thread depth must be adequate to insure full thread engagement when assembled in order to comply with its design function. Refer to MS33537.

Table VI. Length of Thread Engagement in Bolt Nominal Diameters

Shear Strength of Material (psi) (Alum., Mag., Steel)	Bolt Material Minimum Ultimate Tensile Strenght (psi)								
	54,000	75,000	96,000	108,000	125,000	132,000	160,000	180,000	220,000
10,000	2	2-1/2	3	3	-	-	-	-	-
15,000	1-1/2	1-1/2	2	2-1/2	2-1/2	3	3	-	-
20,000	1	1-1/2	1-1/2	2	2	2	2-1/2	3	3
25,000	1	1	1-1/2	1-1/2	1-1/2	2	2	2-1/2	2-1/2
30,000	1	1	1	1-1/2	1-1/2	1-1/2	2	2	2-1/2
40,000	1	1	1	1	1	1-1/2	1-1/2	1-1/2	2
50,000	1	1	1	1	1	1	1	1-1/2	1-1/2

6.4 Tools. Helical coil wire screw thread taps and plug gages are defined in MIL-T-21309. Included in MIL-T-21309 are tools for inserting and extracting helical coil wire screw thread inserts with tangs.

6.5 Subject term (key word) listing.

Tensile strength
Cold-bending
Vibration
Dimensions
Torque
Locking
Breakway
Bolts
Sampling Test
Shear strength

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6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Air Force - 99
Army - AV
Navy - AS

Review activities:
Army - WC, MI, MU, EA
DLA - IS

User activities:
Army - EL, ME, AT, GL
Navy - SH

Preparing activity:
Air Force - 82

(Project No. 5340-2058)

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-I-8846C	2. DOCUMENT DATE (YYMMDD)

3. DOCUMENT TITLE
MIL-I-8846C, Inserts, Screw-Thread, Helical Coil

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME	b. TELEPHONE (Include Area Code)
SA-ALC/TIRDM Code 82 ATTN: Sylvia A. Reyes	(1) Commercial (2) AUTOVON DSN 945-6314
c. ADDRESS (Include Zip Code) Kelly AFB, TX 78241-5000	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340