

FED. SUPPLY CLASS

53GP

1. SCOPE

- 1.1 This standard practice establishes standard installation torque limits for 160 ksi threaded fasteners which are used in airframe applications where periodic removal is required.

2. REFERENCE DOCUMENTS

- 2.1 The following documents form a part of this standard practice to the extent specified herein:

Aerospace Industries Association

NASM33750 Recess Hi-Torque, Dimensions of Recess, Gage, and Driver For
 NASM33781 Recess – Torq-Set, Dimensions of Recess, Gage and Driver For
 NAS4000 Recess, Tri-Wing, Dimensions of Recess and Gages

Copies can be obtained from the Aerospace Industries Association, 1000 Wilson Blvd., Suite 1700, Arlington, VA 22209. www.aia-aerospace.org

3. DEFINITIONS

- 3.1 Threaded Fastener: As used in this standard practice, this term indicates a bolt or screw.
- 3.2 Tension Type Fasteners: As used in this standard practice, this term indicates those threaded fasteners with a head diameter of approximately two times the shank diameter.
- 3.3 Reduced Head Fasteners: As used in this standard practice, this term indicates those threaded fasteners with a head diameter of approximately 1.5 times the shank diameter.

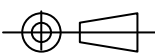
4. GENERAL REQUIREMENTS

- 4.1 The torque limits shown in Table I are intended for use with NASM33750, NASM33781, and NAS4000 type high performance recesses.
- 4.2 The torque limits listed in Table I are for head side rotation. These values are also satisfactory for nut side torque application.
- 4.3 For torque control power tools, use the nominal torque limit to the upper torque limit listed in Table I. Torque control power tools must be limited to 500 rpm maximum.
- 4.4 Installation torque limits specified by the engineering drawing take precedence over the torque limits in Table I.

5. DETAIL REQUIREMENTS

- 5.1 Installation torque limits for 160 ksi threaded fastener systems subject to periodic removal.

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THIRD ANGLE PROJECTION 	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 1
PROCUREMENT SPECIFICATION NONE	TITLE INSTALLATION TORQUE LIMITS FOR 160 KSI THREADED FASTENER SYSTEMS SUBJECT TO PERIODIC REMOVAL	CLASSIFICATION STANDARD PRACTICE NAS1737 SHEET 1 OF 2

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FORM 09-01

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TABLE I – TORQUE LIMITS

TORQUE (INCH-POUNDS)

FASTENER SIZE	TENSION TYPE FASTENERS	REDUCED HEAD FASTENERS
.1900-32	30–40	20–25
.2500-28	80–100	30–40
.3125-24	160–200	80–100
.3750-24	220–270	160–200
.4375-20	440–550	220–270
.5000-20	680–850	440–550
.5625-18	960–1200	680–850
.6250-18	1300–1620	960–1200
.7500-16	–	1300–1620
.8750-14	–	–
1.0000-12	–	–

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