INCH-POUND
A-A-59400A
14 March 2001
SUPERSEDING
A-A-59400
26 October 1999

COMMERCIAL ITEM DESCRIPTION

TESTER, SPRING RESILIENCY (PUSH/PULL FORCE GAUGE)

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description (CID) establishes the government acquisition requirements for manually operated spring resiliency testers (commercially called push/pull force gauges). These testers will be used to measure and provide a numerical indication of the tension and compression strengths (resiliency) of springs and spring-loaded devices.

2. CLASSIFICATION. The testers shall be classified by the types, classes, and sizes listed below and in table I. The type, class, and size of the testers to be supplied shall be specified in the acquisition order (see 7.4(b)). Tester sizes other than those listed in table I shall be specified in the acquisition order (see 7.4(c)).

Type I - Linear indicator
Type II - Dial indicator
Type III - Digital electronic indicator

Class A - Light duty
Class B - Heavy duty

Size - See table I

3. SALIENT CHARACTERISTICS

3.1 General requirements. The tester shall be direct reading and capable of both tension and compression measurements. The type II (dial) and type III (digital electronic indicator) shall capable of being hand held or used on a test stand.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: Defense Supply Center Richmond (DSCR), ATTN: DSCR-VBD, 8000 Jefferson Davis Highway, Richmond, VA 23297-5610

AMSC N/A FSC 6635

TABLE I. Spring resiliency testers.

Type	Class	Size	Capacity range	Scale graduation
I	A	1	0-50 g	2 g
		2	0-100 g	4 g
		3	0-8 oz	0.25 oz
		4	0-2 lb	0.50 oz
	B	1	0-20 lb	4 oz
		2	0-80 lb	1 lb
II	A	1	0-500 g	5 g
		2	0-1 kg	10 g
		3	0-10 kg	100 g
		4	0-16 oz	0.125 oz
		5	0-5 lb	0.05 lb
		6	0-10 lb	0.10 lb
		7	0-20 lb	0.20 lb
		8	0-30 lb	0.20 or 0.25 lb
	B	1	0-50 lb	0.50 lb
		2	0-100 lb	1 lb
		3	0-150 lb	1 lb
		4	0-200 lb	2 lb
		5	0-250 lb	2.5 lb
III	A	1	0-5 oz 0-250 g	0.001 oz 0.1 g
		2	0-1 lb 0-500 g	0.001 lb 0.1 g
		3	0-2 lb 0-1 kg	0.001 lb 0.001 kg
		4	0-10 lb 0-5 kg	0.005 lb 0.005 kg
		5	0-20 lb 0-10 kg	0.01 lb 0.01 kg
	B	1	0-50 lb 0-25 kg	0.01 lb 0.01 kg
		2	0-100 lb 0-50 kg	0.1 lb 0.01 kg
		3	0-250 lb 0-110 kg	0.1 lb 0.1 kg
		4	0-500 lb 0-220 kg	0.1 lb 0.1 kg

3.2 Indicator. The spring force indicator shall move along a linear or circular (dial) graduated scale or shall provide a digital electronic readout. Type I (linear) and type II (dial) testers may include dual scales for ounce/pound and gram/kilogram measurements. Type III (digital electronic indicator) testers shall provide both ounce/pound and gram/kilogram readouts.

3.2.1 Peak reading. The tester shall include an indicator-locking device that shall maintain the maximum indicator reading after the tested force is removed.

3.2.2 Accuracy. The type I testers shall be accurate within one scale graduation for loads axially and at an angle up to two degrees from the shaft of the axis. The type II and type III testers shall be accurate within one percent of full-scale capacity for loads axially and at an angle up to two degrees from the shaft of the axis.

3.3 Power requirements. Electrical power supplies for type III testers shall be specified in the acquisition order (see 7.4(d)).

3.4 Attachments. The testers shall be furnished with the following stainless steel attachments:

a. Flat head
b. Notched head
c. Cone head
d. Chisel head
e. Hook
f. Extension rod, 4 to 7 inches in length

3.5 Accessories. If specified in the acquisition order (see 7.4(e)), accessories such as handles, cradles, grippers, and test stand adapters shall be provided.

3.6 Overload protection. The tester shall be equipped with an overload protector to prevent damage to the tester during force application.

3.7 Zero adjustment. The tester shall have a means of zeroing the indicator.

3.8 Calibration certificate. A calibration certificate shall be supplied with each tester.

3.9 Handles. The class B tester shall be supplied with removable handles.

3.10 Shaft ends. The type II tester shall have threaded shaft ends with 10-32 threads (class A) and 5/16-18 threads (class B).

3.11 Insulating link. If specified in the acquisition order (see 7.4(f)), an insulating link shall be provided for protection from shock when testing live electrical contacts.

4. REGULATORY REQUIREMENTS

4.1 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. QUALITY ASSURANCE PROVISIONS

5.1 Product conformance. The testers provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

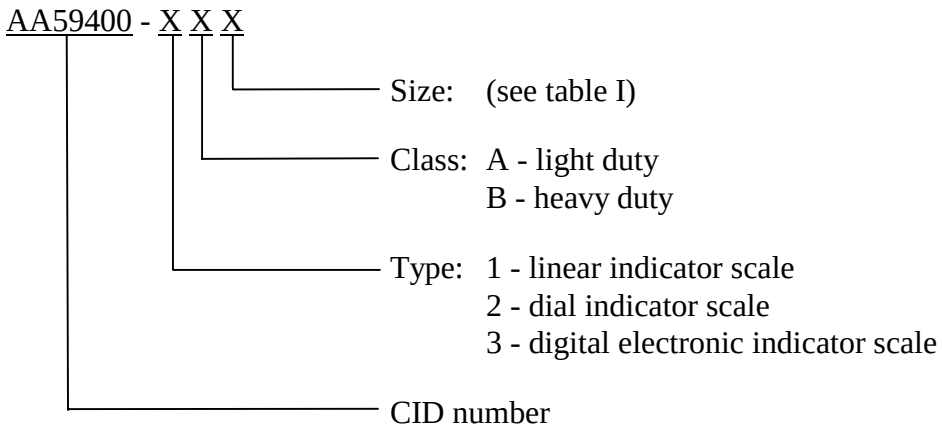
5.2 Market acceptability. The testers offered must have been previously sold either to the government or on the commercial market.

6. PACKAGING

6.1 Preservation, packing, and marking. For acquisition purposes, the testers shall be preserved, packed, and marked as specified in the acquisition order (see 7.4(g)).

7. NOTES

7.1 Part or identification number (PIN). The following part or identification numbering procedure is for government purposes and does not constitute a requirement for the contractor.



7.2 Sources of documents.

7.2.1 FAR. The FAR may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328.

7.3 Sources of supply. The manufacturers and/or suppliers listed below are known to supply spring resiliency testers that meet the salient characteristic requirements of this CID. Competition is not limited to the listed firms.

Wagner Instruments
Greenwich, CT 06836

AMETEK Test & Calibration Instruments
Largo, FL 33773

7.4 Ordering data. Acquisition documents must specify the following requirements:

a. CID document number, revision, and CID PIN
b. Classification (type, class, size) (see table I)
c. Capacity range and scale graduation (specify if different than table I)
d. Power requirements (see 3.3)
e. Accessories, if required (see 3.5)
f. Insulating link, if required (see 3.11)
g. Packaging requirements (see 6.1)

7.5 Cross-reference. The following is a cross-reference between the classification types in MIL-T-43560A and this CID:

TABLE II. Type cross-reference.

MIL-T-43560A	A-A-59400A type	Description
Type I, class 1, style A Type I, class 1, style B	Type I, class A Type I, class B	Linear indicator, light duty Linear indicator, heavy duty
Type I, class 2, style A Type I, class 2, style B	Type II, class A Type II, class B	Dial indicator, light duty Dial indicator, heavy duty
Type II	Not covered	Tension (pull) testers
Not covered	Type III, class A Type III, class B	Digital electronic indicator, light duty Digital electronic indicator, heavy duty

MILITARY INTERESTS:

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

Reviewer:
Army - CR4

CIVIL AGENCY
COORDINATING ACTIVITY:

GSA - 7FXE

Preparing activity:
DLA - GS1

(Project 6635-0199)