

GG-E-671B  
 November 22, 1972  
 SUPERSEDING  
 Fed. Spec. GG-E-671a  
 February 13, 1951

## FEDERAL SPECIFICATION

### ERASERS, STEEL

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

#### 1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers steel erasers.

1.2 Classification. Steel erasers shall be of the following types, as specified (see 6.2):

Type I - Knife blade.

Type II - Arrowhead blade.

#### 2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

##### Federal Specifications:

PPP-B-566 - Boxes, Folding, Paperboard.

PPP-B-636 - Boxes, Shipping, Fiberboard.

PPP-B-665 - Boxes; Paperboard, Metal Edged and Components.

PPP-B-676 - Boxes, Setup.

##### Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC., Atlanta, Chicago, Kansas City, MO., Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

##### Military Specifications:

MIL-P-116 - Preservation, Methods of.

##### Military Standards:

MIL-STD-105 - Sampling Procedures and Tables of Inspection by Attributes.

MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

American Society for Testing and Materials (ASTM) Standard:

E 18 - Test for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials.

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

National Motor Freight Traffic Association, Incorporated, Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Association, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

### 3. REQUIREMENTS

3.1 Materials. The materials used in the fabrication of the steel erasers shall be of the types specified in 3.2.1.1, 3.2.1.2, 3.2.2.1 and 3.2.2.2, and shall be of a quality necessary to conform to the requirements of this specification.

#### 3.2 Design and construction.

3.2.1 Type I. The type I steel eraser shall consist of a knife blade of steel as described in 3.2.1.1 and a handle of any of the materials as specified in 3.2.1.2. The overall length of the steel eraser shall be not less than 5-1/2 inches nor more than 7 inches. The general design of the steel eraser blade shall be as indicated in figure 1.

3.2.1.1 Blade. The blade shall be of carbon or alloy steel of a hardness of Rc 54-60 (see 4.5), shall have a keen ground edge capable of being resharpened and honed without curling; and shall be capable of holding a knife edge without nicking or rapidly dulling. The blade shall be 2-1/8  $\pm$  1/8 inches long and 0.064 inch thick along the ridge of the blade.

3.2.1.2 Handle. The handle shall be of hardwood, plastic, hard rubber, bone, or other materials suitable for the intended purpose. Hardwood handles shall be finished in accordance with the manufacturers commercial practice. The handle shall be not less than 3-1/2 inches long.

3.2.2 Type II. The type II steel eraser shall consist of a knife blade of steel as described in 3.2.2.1 and a handle of any of the materials as specified in 3.2.2.2. The overall length of the steel eraser shall be not less than 5-1/2 inches nor more than 6 inches. The design of the steel eraser blade shall be generally as indicated in figure 2.

3.2.2.1 Blade. The blade shall be of carbon or alloy steel of a hardness of Rc 54-60, shall have a keen ground edge capable of being resharpened and honed without curling, and shall be capable of holding a knife edge without nicking or rapidly dulling. The blade shall be 1  $\pm$  1/8 inch long and 0.050 thick.

3.2.2.2 Handle. The handle shall be of hardwood, plastic, hard rubber, bone, or other materials suitable for the intended purpose. Hardwood handles shall be finished in accordance with the manufacturers commercial practice. The handle shall be not less than 4-5/8 inches long.

3.2.3 Assembly. The blade shall be securely fastened in the handle. The method of fastening the blade in the handle shall be at the option of the manufacturer. However, the length of the tang and the method of holding shall be such to insure permanent fastening.

3.3 Marking. The blade of each eraser shall be permanently marked with the manufacturer's name or trademark.

3.4 Workmanship. The steel erasers shall be free from burrs, rough edges, or other defects which may effect appearance or impair serviceability.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to the prescribed requirements.

#### 4.2 Sampling.

4.2.1 Lot. For the purpose of sampling a lot shall consist of all steel erasers offered for delivery at one time as defined in MIL-STD-105.

4.2.2 Sampling for visual and dimensional examination. A random sample of steel erasers shall be taken from each lot in accordance with MIL-STD-105, inspection level S-2. The acceptable quality level (AQL) shall be 4.0 percent defective. The sample unit shall be one steel eraser.

4.2.3 Sampling for preparation for delivery requirements. Sampling shall be in accordance with MIL-STD-105. For examination of interior packages the sample unit shall be one shipping container fully prepared for delivery, and selected at random just prior to the closing operation. Closure defects shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end-item inspection lot. The inspection level shall be S-2 with an AQL of 4.0 percent defective.

4.2.4 Sampling for test. A random sample of steel erasers shall be taken from each lot in accordance with MIL-STD-105, inspection level S-2. The AQL shall be 4.0 percent defective. The sample unit shall be one steel eraser.

4.3 Visual and dimensional examination of end item. Samples selected in accordance with 4.2.2 shall be examined for defects listed in table I. The Government reserves the right to classify as a defect any departure from the specification not listed in table I.

TABLE I. Classification of defects

Examine	Defects
Classification	Not type specified (see 1.2).
Materials	Not as specified (see 3.1).
Dimensions	Not as specified (see 3.2).
Design	Not as specified (see figures 1 and 2).
Blade	Not sharpened (see 3.2.1.1 and 3.2.2.1).
Assembly	Blade not securely fastened into handle (see 3.2.3).
Marking	Missing, incomplete or not as specified (see 3.3).
Workmanship	Defects which adversely impair serviceability or affect appearance (see 3.4).

4.4 Examination of preparation for delivery. Samples selected in accordance with 4.2.3 shall be examined to determine the packaging, packing, and marking requirements of section 5 of this specification are complied with. Defects shall be scored in accordance with table II.

TABLE II. Classification of preparation for delivery defects

Examine	Defects
Markings (exterior and interior)	Omitted; incorrect; illegible; improper size, location, sequence, or method of application.
Materials	Any component missing or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps, loose strapping, inadequate stapling.
	Distortion of container.

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4.5 Tests. Samples taken in accordance with 4.2.4 shall be tested in accordance with 4.5.1.

4.5.1 Hardness of steel. Hardness of steel used in the eraser blades shall be tested to determine conformance with the values specified in 3.2.1.1 and 3.2.2.1. Steel hardness shall be determined in accordance with ASTM E 18.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B, or C as specified (see 6.2).

5.1.1 Level A. The eraser shall be placed in a sheath of the type normally used for the product. The erasers, in quantities specified (see 6.2) shall then be packaged in accordance with MIL-P-116, Method 1C-2.

5.1.2 Level B. The eraser shall be placed in a sheath of the type normally used for the product and twelve erasers shall then be packaged in a close-fitting box conforming to PPP-B-566, PPP-B-665 or PPP-B-676.

5.1.3 Level C. The erasers shall be packaged in accordance with the manufacturer's standard practice providing it insures protection for the erasers during shipment and safe delivery to its destination.

5.2 Intermediate packaging. Intermediate packaging shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A. Multiples of the erasers packaged as specified in 5.1.1 shall be packaged in a close-fitting box conforming to PPP-B-636, class-domestic. Closure of the boxes shall be in accordance with the appendix to PPP-B-636.

5.2.2 Level B. Six unit packages (72 erasers) packaged in accordance with 5.1.2 shall be packaged in a close-fitting box conforming to PPP-B-566, PPP-B-665, PPP-B-676 or PPP-B-636, type, class and style optional.

5.2.3 Level C. Multiples of the erasers packaged as specified in 5.1.3 shall be packaged in accordance with the manufacturer's standard practice providing it insures protection for the erasers during shipment and safe delivery to its destination.

5.3 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.3.1 Level A. Erasers packaged as specified in 5.2.1 shall be packed in quantities as specified (see 6.2) in close-fitting boxes conforming to PPP-B-636, class weather-resistant. Closure and sealing of boxes to be in accordance with the appendix to PPP-B-636.

5.3.2 Level B. Twelve intermediate packaged (864 erasers) packaged in accordance with 5.2.2 shall be packed in a close-fitting box conforming to PPP-B-636, class-domestic. Closure of boxes shall be in accordance with the appendix to PPP-B-636.

5.3.3 Level C. Erasers packaged as specified in 5.2.3 shall be packed in containers that will assure carrier acceptance and safe arrival at destination in compliance with the Uniform Freight Classification or the National Motor Freight Classification.

5.4 Marking. Marking shall be in accordance with 5.4.1 or 5.4.2 as specified (see 6.2).

5.4.1 Civil agencies. In addition to any special marking required by the contract or order, the interior and exterior containers shall be marked in accordance with Fed. Std. No. 123.

5.4.2 Military agencies. In addition to any special marking required by the contract or order, the interior and exterior containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The steel erasers covered by this specification are intended to be used to remove printing or lettering from paper or cloth surfaces.

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6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- (a) Title, number, and date of this specification.
- (b) Type of steel eraser required (see 1.2).
- (c) Inspection responsibility, if other than as specified herein (see 4.1).
- (d) Selection of applicable levels of packaging and packing and any special marking required (see 5.1, 5.2, 5.3, and 5.4).



Figure 1. Type I, Knife blade eraser

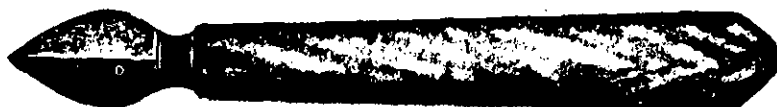


Figure 2. Type II, Arrowhead blade eraser

DOD HAS WAIVED COORDINATION INTEREST

Preparing Activity:

GSA-FSS

User Activity:

Army - GL

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Orders for this publication are to be placed with the General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain extra copies and other documents referenced herein. Price 10 cents each.