

METRIC
--------

DOD-F-24669/1

7 July 1986

SUPERSEDING

MIL-S-866C(SHIPS)

24 August 1959 and

MIL-S-16974E(SHIPS)

11 January 1960

## MILITARY SPECIFICATION

FORGINGS AND FORGING STOCK, STEEL  
(CARBON AND ALLOY) BLOOMS, BARS,  
BILLETS AND SLABS (METRIC)

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

## 1. SCOPE

1.1 Scope. This specification covers carbon and alloy steel blooms, billets and slabs for reforging.

1.2 Classification. Blooms, billets, bars, and slabs shall be furnished in the chemical composition specified by ASTM A 29 (see 6.2).

## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specification and standard. The following specification and standard forms a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

## SPECIFICATION

## MILITARY

DOD-F-24669 - Forgings and Forging Stock, Steel Bars, Billets and Blooms, General Specification for. (Metric)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 5523, Department of the Navy, Washington, DC 20362-5101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

AREA FORG

DISTRIBUTION STATEMENT A Approved for public release; distribution unlimited

DOD-F-24669/1

## STANDARD

## MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection By  
Attributes.

(Copies of specifications and standards required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

A 29 - Standard Specification for Steel Bars, Carbon and Alloy,  
Hot-Wrought and Cold-Finished, General Requirements for.  
(DoD adopted)

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

(Nongovernment standards and other publications are normally available from the organizations which prepare or which 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 specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 General. The material furnished under this specification shall be in accordance with the requirements of DOD-F-24669 and as specified herein.

3.2 Manufacture. The material shall be manufactured in accordance with DOD-F-24669.

3.3 Chemical composition. The chemical composition shall comply with the requirements as specified (see 6.2). For convenience, the grades commonly specified for carbon and alloy steel blooms, billets, or slabs are shown in ASTM A 29. Blooms, billets and slabs may be ordered to these grades and, when so ordered, shall conform to the specified limits by heat analysis.

3.3.1 When compositions other than those shown in ASTM A 29 are required, the composition shall be prepared using the ranges and limits shown in the latest issue of ASTM A 29.

## DOD-F-24669/1

3.4 Mechanical properties. No mechanical properties or heat treatment are required by this detail specification.

## 4. QUALITY ASSURANCE PROVISIONS

4.1 The quality assurance provisions shall be in accordance with DOD-F-24669 and as specified herein.

4.2 Sampling for dimensional examination. Sampling shall be in accordance with MIL-STD-105, general inspection level I, acceptance quality level 1.5.

4.3 Dimensional examination. Each piece selected in accordance with 4.2 shall have all dimensions inspected to assure compliance with DOD-F-24669 or ASTM A 29, as applicable.

## 5. PACKAGING

5.1 Preservation, packing and packaging and marking shall be in accordance with DOD-F-24669.

## 6. NOTES

6.1 Intended use. The steels available under this specification are intended for further hot work and heat treating to meet other specifications. Acquisition is based on chemistry and careful selection must be made to assure desired end properties can be achieved.

6.2 Ordering data. In addition to the ordering data of DOD-F-24669, acquisition documents should specify the following:

- (a) ASTM grade designation (see 1.2).
- (b) Size, shape and quantity of reforcing stock required.
- (c) Chemical composition (see 3.3).
- (d) The grain size requirement for blooms, billets or slabs in excess of 645 square centimeters (100 square inches) (see DOD-F-24669).
- (e) The macrostructure requirements for blooms, billets, slabs and bars in excess of 645 square centimeters (100 square inches) (see DOD-F-24669).

## Custodians:

Army - MR  
Navy - SH  
Air Force - 99

## Preparing activity:

Navy - SH  
(Project FORG-0128-01)

## Review activities:

Army - AR, MI, GL  
Navy - AS, OS  
Air Force - 84

## User activity:

Navy - MC

**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification 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.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE NAVY  
COMMANDER  
NAVAL SEA SYSTEMS COMMAND (SEA 5523)  
DEPARTMENT OF THE NAVY  
WASHINGTON, DC 20362

**OFFICIAL BUSINESS**  
PENALTY FOR PRIVATE USE \$300

**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 12503 WASHINGTON D C

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE NAVY

COMMANDER  
NAVAL SEA SYSTEMS COMMAND (SEA 5523)  
DEPARTMENT OF THE NAVY  
WASHINGTON, DC 20362

NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER DOD-F-24669/1		2. DOCUMENT TITLE	
3a. NAME OF SUBMITTING ORGANIZATION		4. TYPE OF ORGANIZATION (Mark one)  <input type="checkbox"/> VENDOR  <input type="checkbox"/> USER  <input type="checkbox"/> MANUFACTURER  <input type="checkbox"/> OTHER (Specify): _____	
b. ADDRESS (Street, City, State, ZIP Code)			
5. PROBLEM AREAS			
a. Paragraph Number and Wording:			
b. Recommended Wording:			
c. Reason/Rationale for Recommendation:			
6. REMARKS			
7a. NAME OF SUBMITTER (Last, First, MI) - Optional		b. WORK TELEPHONE NUMBER (Include Area Code) - Optional	
c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional		8. DATE OF SUBMISSION (YYMMDD)	

TO DETACH THIS FORM, CUT ALONG THIS LINE.)