



Designation: A786/A786M – 05

Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates¹

This standard is issued under the fixed designation A786/A786M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope*

1.1 This specification covers carbon, low-alloy, high-strength low-alloy, and alloy steel hot-rolled floor plates for flooring, stairways, transportation equipment, and general structural purposes. While it is generally provided in the as-rolled condition, floor plate also may be provided in the heat-treated condition, depending on the material specification. Rolled floor plates have raised figures at regular intervals on one surface of the plate.

1.2 Floor plate is available in dimensions that meet the classification size limits for sheet, heavy thickness sheet coil, or plate. Maximum thickness for product delivered under this specification is 1 in. [25 mm].

1.3 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be utilized. See Appendix X3 of Specification A6/A6M for information on weldability.

1.4 The values stated in either inch-pound units or SI units are to be regarded separately as standard. The values stated in each system are not exact equivalents; therefore, each system is to be used independently of the other, without combining values.

2. Referenced Documents

2.1 ASTM Standards:²

- A6/A6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling
- A36/A36M Specification for Carbon Structural Steel
- A131/A131M Specification for Structural Steel for Ships
- A242/A242M Specification for High-Strength Low-Alloy Structural Steel

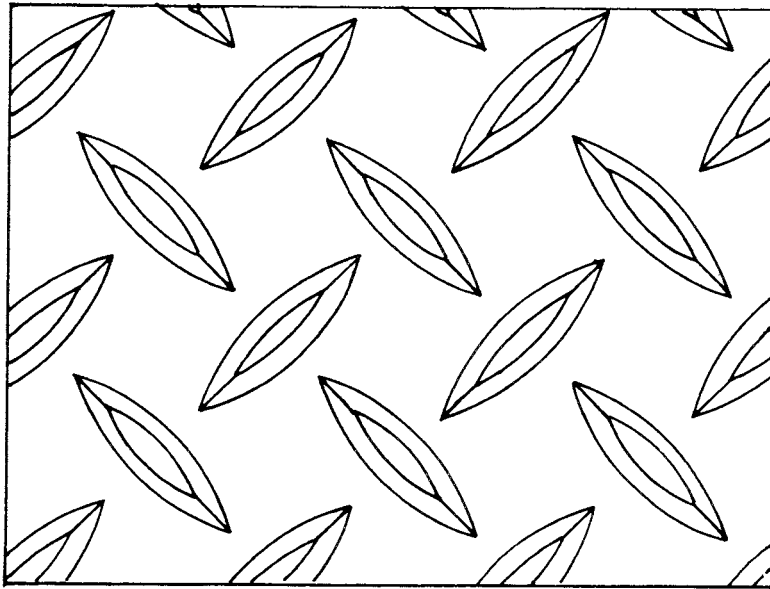
¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.02 on Structural Steel for Bridges, Buildings, Rolling Stock and Ships.

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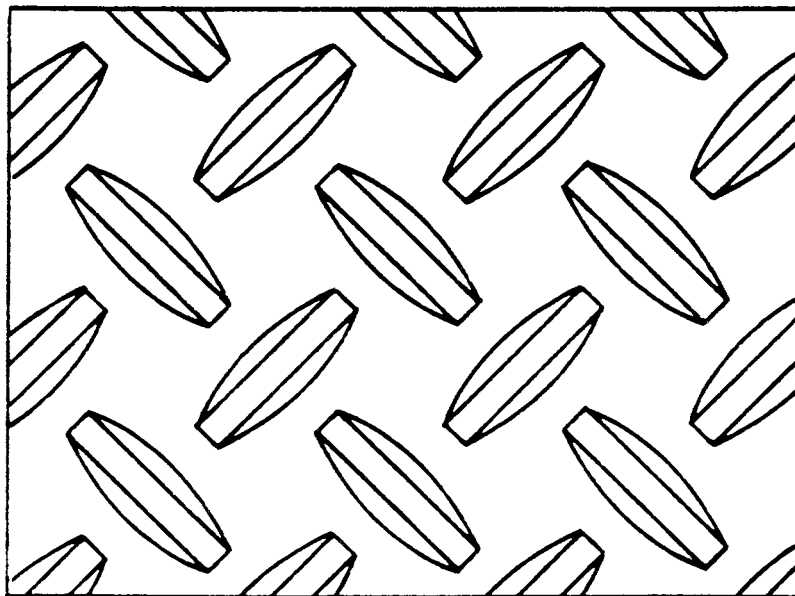
² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

- A514/A514M Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
- A568/A568M Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for
- A570/A570M Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality
- A572/A572M Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
- A573/A573M Specification for Structural Carbon Steel Plates of Improved Toughness
- A588/A588M Specification for High-Strength Low-Alloy Structural Steel, up to 50 ksi [345 MPa] Minimum Yield Point, with Atmospheric Corrosion Resistance
- A606/A606M Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance
- A635/A635M Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Alloy, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability, General Requirements for
- A659/A659M Specification for Commercial Steel (CS), Sheet and Strip, Carbon (0.16 Maximum to 0.25 Maximum Percent), Hot-Rolled
- A709/A709M Specification for Structural Steel for Bridges
- A829/A829M Specification for Alloy Structural Steel Plates
- A830/A830M Specification for Plates, Carbon Steel, Structural Quality, Furnished to Chemical Composition Requirements
- A941 Terminology Relating to Steel, Stainless Steel, Related Alloys, and Ferroalloys
- A1011/A1011M Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

*A Summary of Changes section appears at the end of this standard.



Pattern No. 2



Pattern No. 4

FIG. 1 Floor Plate Patterns (Full Scale)

A1018/A1018M Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Carbon, Commercial, Drawing, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology **A941**.

4. Surface Pattern

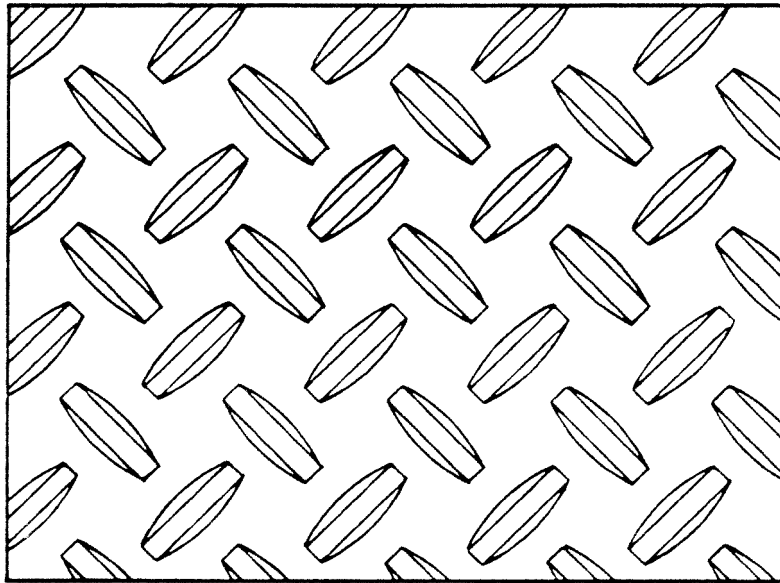
4.1 Individual floor plate patterns are unique to each manufacturer and are not identical in dimension or appearance to

patterns manufactured by other manufacturers, although there may be a close resemblance. Typical patterns are shown in **Fig. 1**. Manufacturers generally produce only one of the patterns shown.

4.2 Pattern size, shape, and minimum pattern height are not addressed in this specification due to the differences in individual manufacturer's patterns and production methods. Where a need for these attributes exists, purchasers should consult the manufacturer.

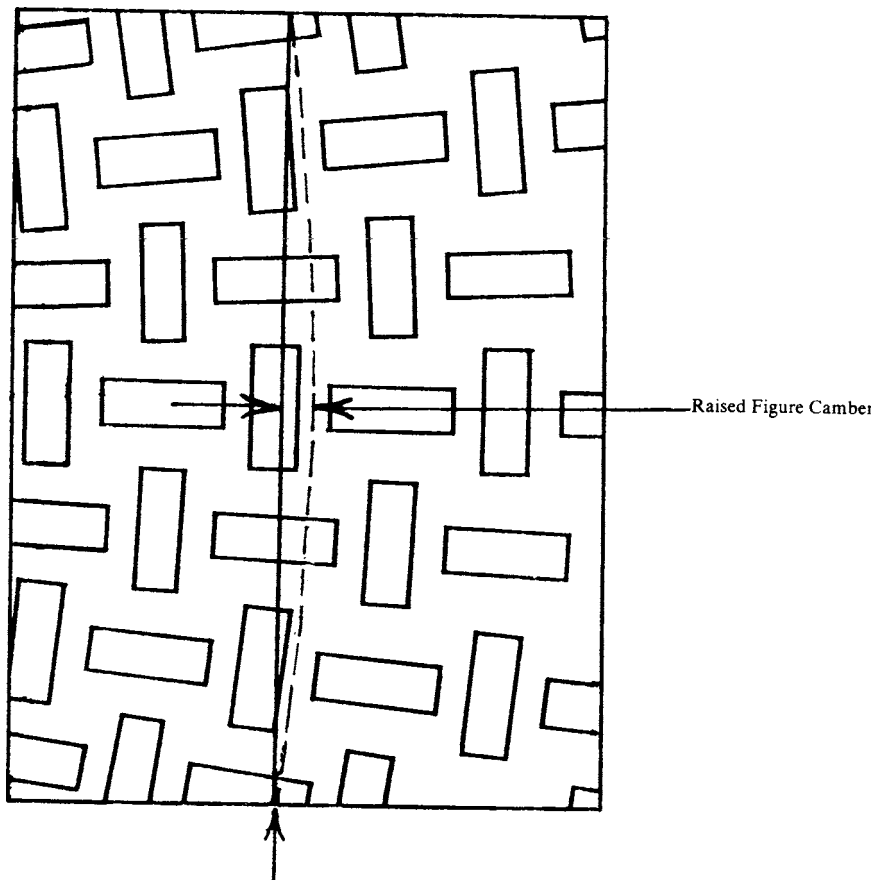
5. Ordering Information

5.1 Information items to be considered, if appropriate, for inclusion in purchase orders are as follows:



Pattern No. 5

FIG. 1 (continued)



Straight edge line (referenced to the pattern, not the plate edge).

FIG. 2 Camber for Raised Figures for Floor Plates (see Table 4 or Table A1.3)

5.1.1 Quantity (weight [mass] or number of pieces),
5.1.2 ASTM designation and year of issue,

5.1.3 Chemical composition limits or ASTM material designation and grade (if applicable) and year of issue (if neither