

Designation: F 1070 - 87 (Reapproved 1999)

An American National Standard

# Standard Specification for Doors, Non-Tight, for Marine Use<sup>1</sup>

This standard is issued under the fixed designation F 1070; 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  $(\epsilon)$  indicates an editorial change since the last revision or reapproval.

#### 1. Scope

- 1.1 This specification to be used in conjunction with Specification F 1073, covers the principal dimensions and the mechanical requirements for manufacturing steel, aluminum, and glass-reinforced plastic non-tight, personnel doors and dutch doors, with the exception of joiner, joiner dutch doors, and expanded metal doors, for marine use.
  - 1.2 The doors will be used in non-tight bulkheads.
- 1.3 When fire protection requirements are applicable to the location of these doors, then the use of aluminum and glass-reinforced plastic doors shall be unacceptable.
- 1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

#### 2. Referenced Documents

2.1 ASTM Standards:

A 36/A 36M Specification for Carbon Structural Steel<sup>2</sup>
A 131/A 131M Specification for Structural Steel for Ships<sup>2</sup>
B 209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate<sup>3</sup>

F 1073 Specification for Door Fittings, for Watertight/ Gastight/Airtight, Weathertight, and Non-Tight Doors, for Marine Use<sup>4</sup>

2.2 ABS Standard:

Rules for Building and Classing Steel Vessels<sup>5</sup>

2.3 Military Standards:

MIL-P-17549 Plastic Laminates, Fibrous Glass Reinforced, Marine Structural<sup>6</sup>

MIL-R-21607 Resins, Polyester Low-Pressure Laminating, Fire Retardant<sup>6</sup>

MIL-P-24441 Epoxy-Polyamide Paint<sup>6</sup>

MIL-C-81706 Coating, Aluminum and Aluminum Alloys<sup>6</sup> TT-E-490 Enamel, Silicone Alkyd Copolymer, Semi-gloss, Exterior<sup>6</sup>

DoD-STD-2138 Metal Sprayed Coating Systems for Corrosion Protection<sup>6</sup>

#### 3. Ordering Information

- 3.1 Ordering for doors under this specification shall include the following:
  - 3.1.1 Type of door and material (see Table 1 and Figs. 1-3),
  - 3.1.2 Nominal and ASTM designations,
- 3.1.3 Quantity, hand of door (right hand or left hand, or both), and
- 3.1.4 Optional items, such as fixed lights, door locks, to be indicated.
- 3.2 Inspection and acceptance of doors shall be agreed upon between the purchaser and the supplier.

#### 4. Materials and Manufacture

- 4.1 The materials and specifications shall be as given in Table 1.
- 4.2 Glass-reinforced plastic (GRP) material of doors shall meet the requirements of MIL-P-17549, Grade 1. In addition, laminate must have the flammability limits equal to the requirements for Grade 2, Class A of MIL-R-21607.

#### 5. Construction, Shape, and Dimensions

- 5.1 The construction, shape, and clear opening dimensions shall be as shown in Tables 1 and 2 and Figs. 1-3 and conform to the following requirements:
- 5.1.1 A right-hand opening door shall be construed as one that opens towards you with hinges located on right side of door. A left-hand opening is similar but with hinges on the left.
- 5.1.2 The size of the door opening and shape shall be as given in Table 2.
- 5.1.3 Figs. 1 and 2 show the right-hand opening, and in the case of left-hand opening, the arrangement of fittings shall be reversed.
- 5.1.4 The position of the grab handles shall be located on the center of the height of both sides of the door; in the case of dutch doors, the location of the grab handles shall be suitably positioned in the top panel.

<sup>&</sup>lt;sup>1</sup> This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.03 on Outfitting.

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<sup>&</sup>lt;sup>2</sup> Annual Book of ASTM Standards, Vol 01.04.

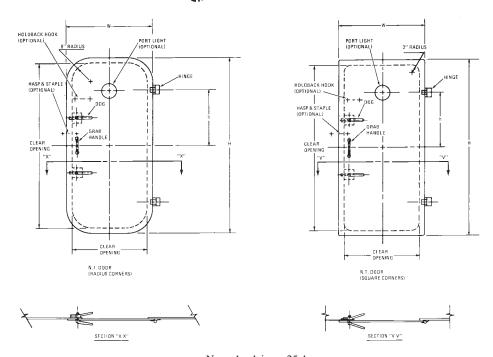
<sup>&</sup>lt;sup>3</sup> Annual Book of ASTM Standards, Vol 02.02.

<sup>&</sup>lt;sup>4</sup> Annual Book of ASTM Standards, Vol 01.07.

<sup>&</sup>lt;sup>5</sup> Available from American Bureau of Shipping, ABS Plaza, 16855 Northchase Dr., Houston, TX 77060.

<sup>&</sup>lt;sup>6</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

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 $\label{eq:Note_1} Note \ 1\text{---}1 \ in. = 25.4 \ mm.$  FIG. 1 Non-Tight Doors (Square Corners)

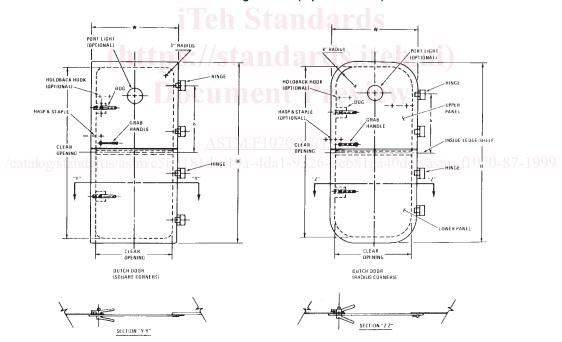


FIG. 2 Non-Tight Doors (Radius Corners)

- 5.1.5 The material of the standard door components shall be as shown in Table 1.
- 5.1.6 Doors shall be fitted with dogs, hinges, hasp and staple assemblies, grab handles, label plates, and hook assemblies; for details, see Specification F 1073.
- 5.1.7 Welding shall be done in accordance with the Rules of American Bureau of Shipping.

### 6. Workmanship, Finish, and Appearance

- 6.1 All sharp and ragged edges shall be ground flush and removed for personnel protection.
- 6.2 Pretreatment and priming of door components shall be as follows: