

Specification for

Small weathertight hatches

UDC 629.12.011.84

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Shipbuilding and Marine Standards Committee (SME/-) to Technical Committee SME/2 upon which the following bodies were represented:

- British Ship Research Association
- British Shipbuilders
- Department of Trade and Industry — Marine Division
- Federation of Wire Rope Manufacturers of Great Britain
- General Council of British Shipping
- Honourable Company of Master Mariners
- Shiprepairers and Shipbuilders Independent Association

This British Standard, having been prepared under the direction of the Shipbuilding and Marine Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 December 1983

© BSI 12-1999

First published July 1970
First revision December 1983

The following BSI references relate to the work on this standard:
Committee reference SME/2
Draft for comment 81/76203 DC

ISBN 0 580 13533 0

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Principal dimensions	1
3 Design and manufacture	1
4 Materials	1
5 Quality of manufacture	1
6 Ancillary fittings	1
7 Test requirements	1
8 Designation	2
Figure 1 — Small hatch, nominal size 600 × 600	3
Figure 2 — Small hatch, nominal size 800 × 600	4
Figure 3 — Small hatch, nominal size 800 × 800	5
Figure 4 — Small hatch, nominal size 1 000 × 1 000	6
Figure 5 — Small hatch, nominal size 1 300 × 1 300	7
Figure 6 — Hinge details	8
Figure 7 — Standard toggle details	9
Table 1 — Material specifications	2
Publications referred to	Inside back cover

Foreword

This revision has been prepared under the direction of the Shipbuilding and Marine Standards Committee by the British Ship Research Association. The revised standard provides alignment with the principal dimensions of International Standard ISO 5778 “*Shipbuilding — Small weathertight steel hatches*”. The design of hinge given in BS MA 8:1970 has been retained, and is different from that specified in ISO 5778.

The principal changes from BS MA 8:1970 occur in regard to overall dimensions, sealing arrangement, location and numbers of closing devices.

This standard supersedes BS MA 8:1970, which is withdrawn.

The standard does not specify coaming height and thickness, since these will need to be determined with reference to the situation of the hatch, and the requirements of appropriate regulatory bodies.

These hatches generally comply with the requirements of the International Convention on Load Lines, 1966. The possibility for application in position 1 and position 2 has to be considered for each situation and where necessary the hatch covers provided with additional stiffening.

NOTE Users of this British Standard should note that while observing the requirements of the standard they should at the same time ensure compliance with such statutory requirements, rules and regulations as may be applicable to the individual ship concerned.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies the main dimensions, location and number of fittings, materials and quality of manufacture of small weathertight steel hatches for application on board ship in order to ensure interchangeability of the hatches.

The hatches are suitable for loading operations and giving access to storage compartments and for access to dry cargo holds. The hatches are not suitable as an access to any kind of tank or for use as escape hatches.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Principal dimensions

The nominal size of a hatch is based on the dimensions of the clear openings required in the deck as shown in Figure 1 to Figure 5. The openings shall have rounded corners of radius 100 mm.

3 Design and manufacture

NOTE The welding symbols used in the figures are in accordance with BS 499-2 "Specification for symbols for welding".

3.1 Coaming. The dimensions of the hatch coaming shall be in accordance with Figure 1 to Figure 5. On all sizes, the coaming shall have square or rounded corners as shown in Figure 1.

NOTE The height and thickness of the coaming are not specified in this standard since they are determined by the intended situation of the hatch and the requirements of the appropriate Regulatory Bodies.

3.2 Weathertight cover

3.2.1 The weathertight cover shall conform to the details of Figure 1 to Figure 5.

3.2.2 The hatch seal shall have a cross-section of 45 mm × 20 mm (see Figure 6). The seal shall be bonded to the cover by an adhesive suitable for service in a marine environment.

3.3 Hinges. Two hinges shall be fitted to each hatch and shall conform to the dimensions given in Figure 6. Each hinge shall be provided with an elongated hole in order to allow the closing devices to compress the hatch seal.

3.4 Closing devices. The closing devices shall consist of a toggle bolt/wing nut assembly in accordance with the dimensions given in Figure 7.

3.5 Location of hinges and closing devices. The location of the hinges and closing devices relative to the weathertight cover shall be in accordance with Figure 1 to Figure 5.

3.6 Lugs for closing devices. All lugs attached to the coaming for closing devices shall be positioned relative to the top of the coaming to ensure that the seal cannot be compressed by more than 4 mm. Alternatively, a depth stop shall be fitted on or near the centreline of each closing device.

4 Materials

The materials used shall be in accordance with Table 1.

The quality of the resilient packing material forming the hatch seal shall be satisfactory for service under marine conditions and shall provide effective and lasting sealing and resealing properties when the hatch is tightened under normal conditions.

5 Quality of manufacture

5.1 Coamings and covers shall be free from distortion due to forming or welding.

5.2 Coamings, covers and fittings shall be free from exposed rough edges likely to cause injury to persons and, in the case of the coaming, damage to the packing material.

5.3 The coamings and covers shall be suitably treated by blast cleaning or other process to remove scale and surface deposits and shall be given a priming coat of paint to inhibit subsequent corrosion.

5.4 Upon assembly of the completed coaming and cover, the manufacturer shall ensure that there is correct registry of the edge of the coaming with the packing material and continuous contact between the two components when the hatch is closed.

6 Ancillary fittings

In the design of a hatch provision shall be made for the embodiment of the following ancillary fittings:

- a) A means of securing the hatch cover in the raised position.
- b) Counter-balance weights.

NOTE It may not be possible to balance fully the mass of the cover.

- c) Means of securing the hatch by a suitable padlock and eyeplate.

7 Test requirements

The completed hatch, when installed on board ship, shall be capable of being closed and secured in a normal manner.

NOTE It is a requirement of the Regulatory Bodies that completed hatches, when installed on board ship, be subjected to a hose test carried out to the satisfaction of a representative of the Regulatory Body concerned.