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Series 1 shipborne barges —

Part 3: Specification for the arrangement, dimensions and method of test for lifting post castings

[ISO title: Shipbuilding — Shipborne barges, series 1 — Lifting
post casting — Arrangement, dimensions and method of testing]

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Committees responsible for this British Standard

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Association of Master Lightermen and Barge Owners (Port of London)

British Tugowners' Association

British Waterways Board

HM Customs and Excise

Shiprepairers' and Shipbuilders' Independent Association

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National foreword

This Part of BS MA 87 has been prepared under the direction of the Shipbuilding and Marine Standards Committee and is identical with ISO 6764:1985 “*Shipbuilding — Shipborne barges, series 1 — Lifting post casting — Arrangement, dimensions and methods of testing*”, published by the International Organization for Standardization (ISO).

ISO 6764 was produced as a result of international discussion in which the UK took an active part.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

Where the words “International Standard” appear, referring to this standard, they should be read as “Part of BS MA 87”.

Cross-references

International Standard	Corresponding British Standard
ISO 4175:1979	BS MA 87 <i>Series 1 shipborne barges</i> Part 1:1980 <i>Specification for main dimensions</i>

The Technical Committee has reviewed the provisions of ASTM A 609, ASTM E 186 and ASTM E 709¹⁾, to reference is made in the text and has decided that they are acceptable for use in conjunction with this standard.

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 6, 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⁾ Available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa 1910, USA.

1 Scope and field of application

This International Standard specifies the arrangement, dimensions and method of testing of lifting post castings for shipborne barges, series 1.

2 References

ISO 4175, *Shipbuilding — Shipborne barges, series 1 — Main dimensions*.

ASTM A 609, *Specification for ultrasonic examination of carbon and low-alloy steel castings*.

ASTM E 186, *Reference radiographs for heavy-walled [2 to 4 1/2 in (51 to 114 mm)] steel castings*.

ASTM E 709, *Practice for magnetic particle examination*.

3 Definition

lifting post castings of barges, series 1

units designed to provide reliable and safe lifting of barges during handling on a barge carrier by means of a special loading frame attached to the ship crane, and the mounting and securing of barges in the hold and on deck

4 Dimensions

The arrangement and dimensions of lifting post castings shall comply with indications given in Figure 1, Figure 2 and Figure 3.

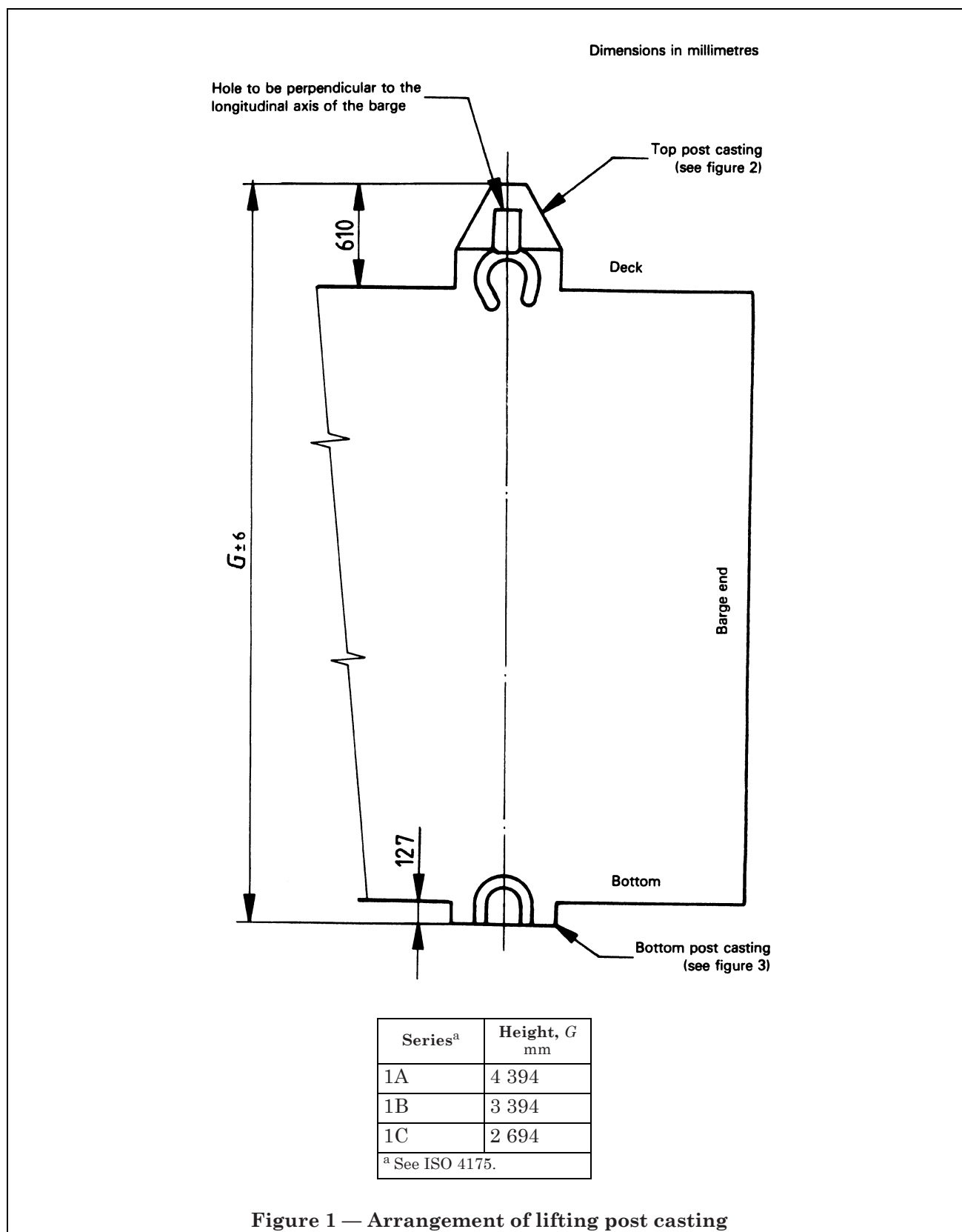
5 Materials

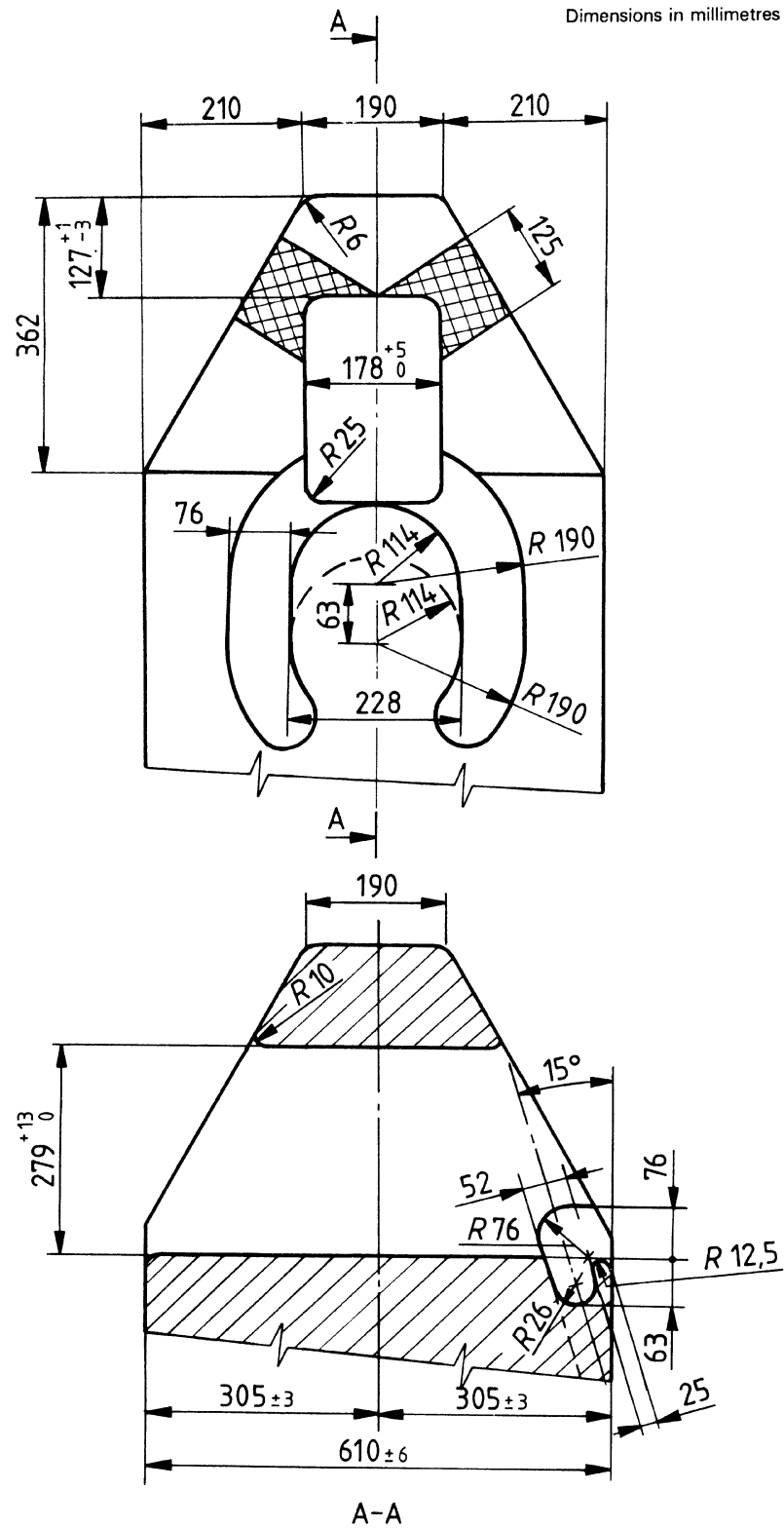
The casting materials shall comply with the requirements for hull steel castings of a recognized classification society. The post shall be of sufficient ultimate strength to withstand a total load of 1 134 t in tension and compression.

6 Tests of castings

Tests of top post castings shall be in accordance with national requirements. The area to be tested non-destructively is indicated in Figure 2.

NOTE The Annex gives the recommended minimum test specification of top post castings.





NOTE The area of non-destructive testing is shaded (see the upper view).

Figure 2 — Dimensions of top lifting post casting

Dimensions in millimetres

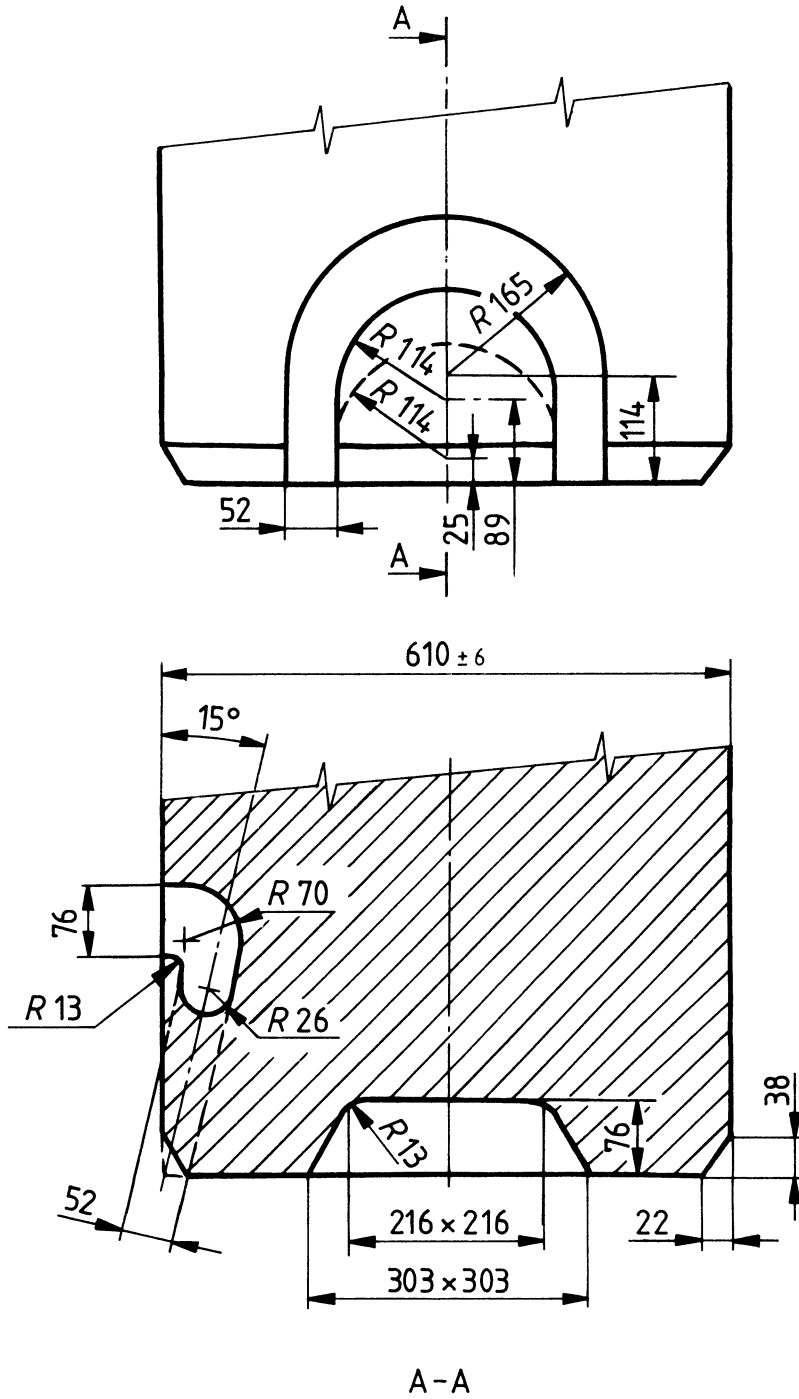


Figure 3 — Dimensions of bottom lifting post casting

Annex Recommended minimum test specification of top post castings

(This annex forms an integral part of the Standard.)

A.1 Origin of requirements

The rules of the American Bureau of Shipping (ABS) and the American Society for Testing Materials (ASTM) have been used to establish the minimum basis of testing of the top post casting. Any other national standard with the same minimum requirements is acceptable.

A.2 Procedure

A.2.1 Carry out a Magnaflux test of the edges of the “lifting eye” portion of all top castings. Defects indicated by the Magnaflux test shall be repaired by the foundry in accordance with ABS rules. The Magnaflux test shall be dry-powder, 4 to 5 A/mm in accordance with ASTM E 709.

A.2.2 The first 10 castings of an order placed shall have radiographic and ultrasonic examination in the “lifting eye” portion. The balance of the castings shall have ultrasonic examination only. The radiographic examination requirement may be waived for continuous additional orders.

A.2.3 Carry out an ultrasonic inspection on the “lifting eye” portion of all top castings and particularly the top corner where the cross-section of metal is thinnest, in accordance with ASTM A 609. The ultrasonic inspection shall be made at 2 MHz. The indications shall be compared to a standard test block with flaws corresponding to quality level 1 of Table 2 of ASTM A 609. Any casting which has a defect indicated larger than the test block shall be submitted to radiographic inspection in accordance with ASTM E 186.

A.2.4 Any casting found defective by the radiographic examination shall be replaced, unless the defect is of minor nature and can be repaired in accordance with ABS Rules.

Publications referred to

See national foreword.

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