International Standard 6764

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Shipbuilding — Shipborne barges, series 1 — Lifting post casting — Arrangement, dimensions and method of testing

Construction navale — Barges de la série 1 embarquées à bord des navires — Pièces coulées des montants de levage — Disposition, dimensions et méthode d'essai

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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Shipbuilding — Shipborne barges, series 1 — Lifting post castings — Arrangement, dimensions and method of testing

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 figures 1, 2 and 3.

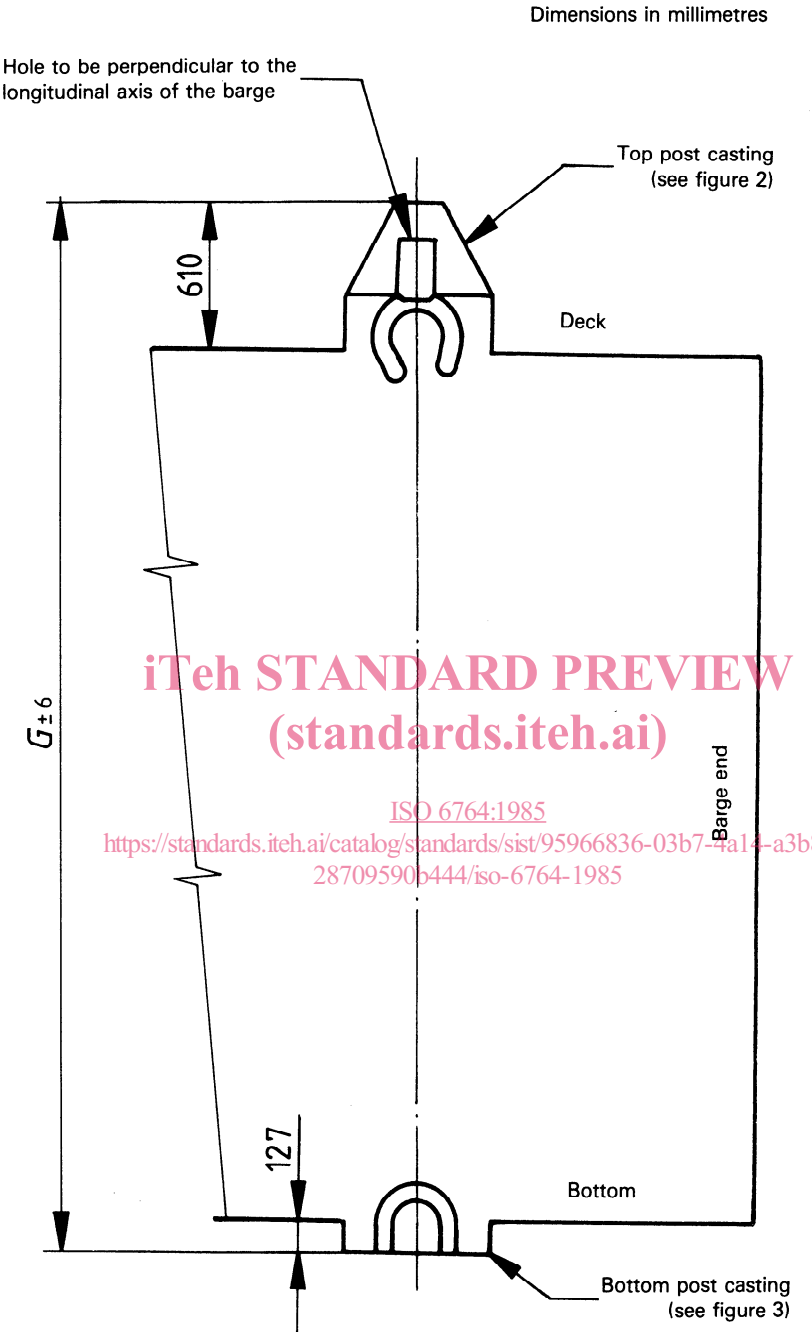
5 Materials

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.

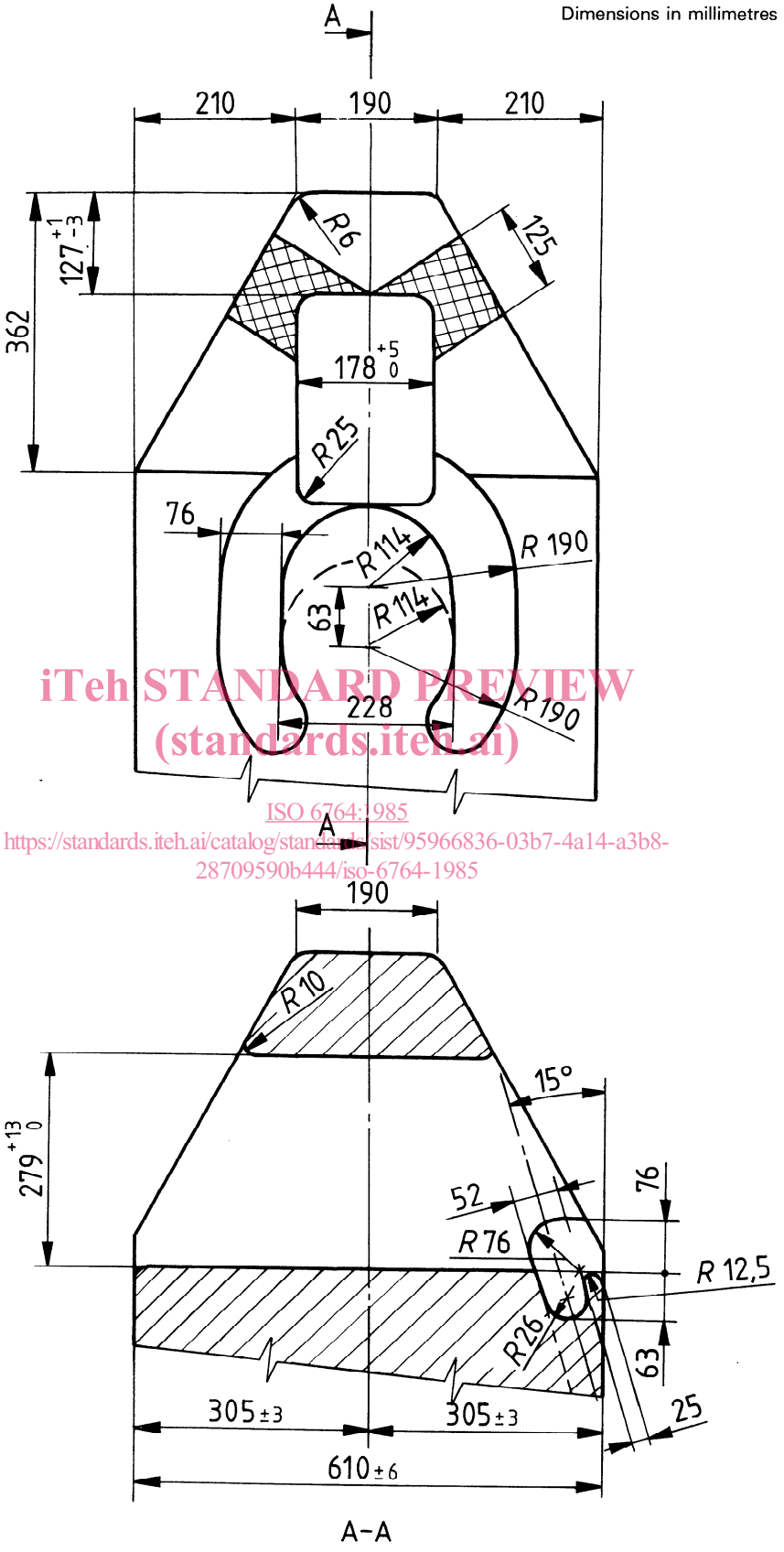


Series [1]	Height, G mm
1A	4 394
1B	3 394
1C	2 694

1) See ISO 4175.

Figure 1 — Arrangement of lifting post casting

Dimensions in millimetres



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

Figure 2 — Dimensions of top lifting post casting

Dimensions in millimetres

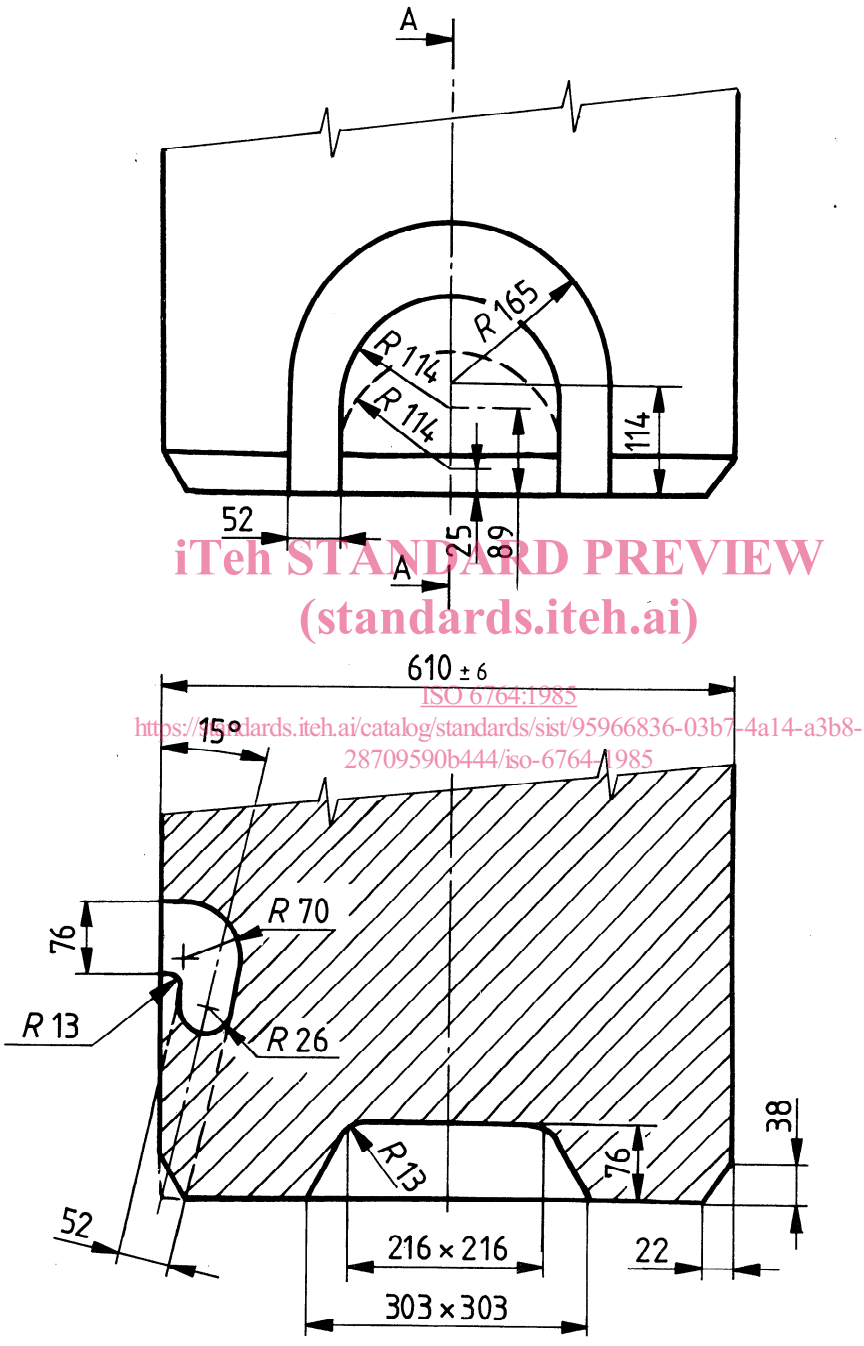


Figure 3 — Dimensions of bottom lifting post casting

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.

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