

INTERNATIONAL STANDARD

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3904

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Shipbuilding and marine structures — Clear-view screens

Construction navale et structures maritimes — Hublots tournants



Reference number
ISO 3904:1990(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3904 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures*.

This second edition cancels and replaces the first edition (ISO 3904:1976), clauses 4.2.4, 4.5.2 and 7, and table 3 of which have been technically revised.

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International Organization for Standardization
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Shipbuilding and marine structures — Clear-view screens

1 Scope

This International Standard specifies the requirements for the design and construction (including dimensions, tolerances, materials and electrical equipment), as well as the designation and the installation, of clear-view screens, principally for use in ships.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 48:1979, *Vulcanized rubbers — Determination of hardness (Hardness between 30 and 85 IRHD)*.

ISO 3254:1989, *Shipbuilding and marine structures — Toughened safety glass panes for rectangular windows*.

IEC 34, *Rotating electrical machines (all parts)*.

IEC 92, *Electrical installations in ships (all parts)*.

3 Description

The purpose of a clear-view screen is to ensure clear vision in any weather condition or in heavy sea. Clear-view screens, according to this International Standard, consist of a metal main frame with a rapidly rotating glass disc driven by an electric motor.

Because of the rotation of the glass disc, spray, rain (heavy and light), hail, sleet and snow are thrown off immediately, and moisture does not cling to the

screen, so that continuously clear vision through the glass disc is ensured.

4 Design and construction

4.1 Classification

The screens shall be classified by type, according to the position of the driving electric motor (see figure 1), as follows:

- **type A:** Driving motor mounted at the upper part of the main frame in an offset position;
- **type B:** Driving motor mounted at the side of the main frame in an offset position;
- **type C:** Driving motor mounted at the centre of the glass disc.

The motor is always mounted on the inner side of the clear-view screen.

4.2 Basic requirements

4.2.1 Drive

The drive of the glass disc shall be as follows:

- types A and B: by means of an endless driving belt;
- type C: direct.

4.2.2 Rotational speed

The rotational speed of the glass disc shall be not less than 1 600 r/min.

4.2.3 Operation

In order to ensure vibrationless and noiseless operation, the glass disc shall be balanced. Admissible mass eccentricity in axial and radial directions is given in table 4.