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Shipbuilding — Clear view screens

Construction navale — Hublots tournants

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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.

International Standard ISO 3904 was drawn up by Technical Committee ISO/TC 8, *Shipbuilding*, and was circulated to the Member Bodies in September 1975.

It has been approved by the Member Bodies of the following countries :

Australia	Germany	Romania
Austria	India	Spain
Belgium	Italy	Sweden
Bulgaria	Japan	Turkey
Canada	Korea, Dem. P. Rep. of	U.S.S.R.
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The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Poland
United Kingdom

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Shipbuilding — Clear view screens

1 SCOPE AND FIELD OF APPLICATION

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 REFERENCES

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

ISO 3254, *Shipbuilding — Toughened safety glass panes for ships' rectangular windows.*

IEC Publication 34, *Rotating electrical machines.*

IEC Publication 92, *Electrical installations in ships :* Parts 1 (Amendment No. 1), 3, 4 and 5.

IEC Publication 144, *Degrees of protection of enclosures for low-voltage switchgear and controlgear.*

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 disk driven by an electric motor.

Because of the rotation of the glass disk, 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 disk is ensured.

4 DESIGN AND CONSTRUCTION

4.1 Classification

The screens shall be classified by types, according to the position of the driving electric motor, as follows :

— **type A** : Driving motor mounted at the upper part of the main frame in off-set position;

— **type B** : Driving motor mounted at the side of the main frame in off-set position;

— **type C** : Driving motor mounted at the centre of the glass disk.

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

4.2 Basic requirements

4.2.1 *Drive*

The drive of the glass disk shall be as follows :

— type A and B : by means of an endless driving belt;

— type C : direct.

4.2.2 *Speed of rotation*

The speed of rotation of the glass disk shall be not less than 1 600 rev/min.

4.2.3 *Operation*

In order to ensure vibrationless and noiseless operation the glass disk shall be balanced. Admissible unbalance in axial and radial directions is given in table 4.

4.2.4 *Clearance*

The distance (clearance) between the outside edge of the complete glass disk and the main frame of the clear view screen shall be as small as possible.

4.2.5 *Main frame*

The height of the main frame shall be such as to ensure that it can be installed in glass panes with nominal thicknesses up to 19 mm (see ISO 3254).

4.2.6 *Glass disk*

See clause 6.