
International Standard



7364

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Shipbuilding and marine structures — Deck machinery — Accommodation ladder winches

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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 7364 was developed by Technical Committee ISO/TC 8, *Shipbuilding and marine structures*, and was circulated to the member bodies in April 1982.

It has been approved by the member bodies of the following countries:

Austria	Germany, F.R.	Poland
Belgium	India	Romania
Brazil	Italy	Spain
China	Japan	Thailand
Cuba	Korea, Dem. P. Rep. of	United Kingdom
Czechoslovakia	Korea, Rep. of	USSR
Egypt, Arab Rep. of	Mexico	Yugoslavia
Finland	Netherlands	
France	Norway	

No member body expressed disapproval of the document.

Shipbuilding and marine structures — Deck machinery — Accommodation ladder winches

1 Scope and field of application

This International Standard specifies requirements and characteristics of lightly powered ships' accommodation ladder winches provided with electric, hydraulic or pneumatic drive, and unpowered ships' accommodation ladder winches.

It does not include requirements for the prime mover used to operate the winch.

2 References

ISO 2408, *Steel wire ropes for general purposes — Characteristics*.

ISO 3828, *Shipbuilding — Deck machinery — Vocabulary*.

ISO 5488, *Shipbuilding — Accommodation ladders*.

3 Definitions

For the purpose of this International Standard, the definitions given in ISO 3828 apply, with the following exceptions.

3.1 nominal size : The nominal size, which corresponds to the drum load as given in the table, is used as a designation of a winch in accordance with this International Standard.

3.2 drum load : The maximum rope tension in the rope or ropes at the drum exit either when the winch is hoisting an unloaded accommodation ladder at the nominal speed, with the rope or ropes wound on the drum in a single layer, or when the winch is placing the accommodation ladder in its stowage position.

3.3 Types of winches (see the figure)

3.3.1 right-hand winch : A winch where the reduction gear or drive of the drum is on the right-hand side of the drum, in relation to an observer situated on the side of the motor or power supply.

3.3.2 left-hand winch : A winch where the reduction gear or drive of the drum is on the left-hand side of the drum, in relation to an observer situated on the side of the motor or power supply.

3.3.3 symmetrical double drum winch : A winch where the reduction gear or drive of the drums is between symmetrically situated drums.

4 Design and operation

4.1 The winches shall be equipped with one or two drums. The drum shall be a split drum where two ropes are to be wound on it.

4.2 The drum length shall be such that the rope can be wound on fully, in not more than three layers.

4.3 The drum diameter shall be not less than 14 times the rope diameter given in the table.

4.4 The flange height shall be such that it will project at least 4,5 rope diameters beyond the outermost layer of the rope.

4.5 Double drum winches intended for double flight accommodation ladders shall be fitted with a suitable device to allow independent holding, hoisting or lowering of each flight.

4.6 The winch shall be provided with a device capable of holding the drum at 1,5 holding load. For powered winches, such device shall automatically operate when the drive is being shut off or if the power fails. Manual lowering and hoisting of the accommodation ladder shall be possible. A self-locking wormgear (or equivalent) may be considered a holding device if agreed between the purchaser and the manufacturer.

4.7 For design purposes the drum shall be based on the use of 6×37 galvanized steel wire rope with fibre core of 1 770 N/mm² tensile grade, as specified in ISO 2408. Wire rope diameters are listed in the table. This requirement does not preclude the use of other types of rope in service.

In every case the safety factor of the rope shall be not less than five in relation to the holding load listed in the table.

NOTE — Attention is drawn to the possibility of national authorities requiring a safety factor of more than five. The relevant figures for a safety factor of six are shown in brackets in the table.

4.8 The winch shall be designed to ensure that all bearing surfaces and corresponding component parts of the winch are lubricated during operation.