

Specification for

# **Ships' deck machinery — cargo winches**

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# Foreword

This British Standard for cargo winches for ships has been prepared under the Authority of the Ship Building and Marine Industry Standards Committee (SME/-) and forms one of a series dealing with deck machinery for ships.

The standard provides requirements for the design, construction, safety, performance and acceptance testing of cargo winches for ships and is based on the ISO Standard being prepared by Technical Committee ISO/TC 8 — Shipbuilding details, of the International Organization for Standardization.

Other standards in this series are:

BS MA 30, *Glossary of terms and graphical symbols for ships’ deck machinery.*

BS MA 32, *Ships’ deck machinery — mooring winches.*

BS MA 33, *Ships’ deck machinery — warping winches.*

BS MA 34, *Ships’ deck machinery — capstans.*

This standard makes reference to the following British Standards:

BS 365, *Galvanized steel wire rope for ships.*

BS 408, *Ships’ cargo blocks.*

BS 1486, *Lubricating nipples.*

BS 1486-1, *Lubricating nipples and adaptors for use on machinery and vehicles.*

BS 1597, *Radio-interference suppression on marine installations.*

BS 1700, *Memorandum on ships’ derrick rigs.*

BS 1856, *General requirements for the metal-arc welding of mild steel.*

BS 2949, *Rotating electrical machines for use in ships.*

BS 3399, *Transformers for use in ships.*

BS 6883, *Elastomer insulated cables for fixed wiring in ships.*

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 8, 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.

This British Standard, having been approved by the Shipbuilding and Marine Industry Standards Committee, was published under the authority of the Executive Board on 20 October 1973

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The following BSI references relate to the work on this standard:  
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## Amendments issued since publication

| Amd. No. | Date | Comments |
|----------|------|----------|
|          |      |          |
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NOTE Users of this British Standard, Marine Series, should note that while observing requirements of the standard they should at the same time ensure compliance with such statutory requirements, rules and regulations as may be applicable to the individual ship concerned.

## 1 Scope

This British Standard specifies requirements for the design, construction, safety, performance, acceptance testing and marking of ships' electric and hydraulic cargo winches of nominal size, up to and including 16 tonnes.

The standard does not include requirements for the prime mover used to operate a cargo winch.

## 2 Definitions

For the purpose of this British Standard, the terms and their definitions given in BS MA 30 apply.

Terms particularly applicable to this British Standard are defined as follows:

### 2.1

#### cargo winch

a winch used for hoisting and lowering cargo

### 2.2

#### nominal size of cargo winch

the nominal size of a cargo winch corresponds to the nominal load, that is, the safe working load, in tonnes, on the hook which the winch may hoist when rigged to a derrick with a single sheave pulley block at the derrick head and a single sheave pulley block at the heel, at the design hoisting speeds  $V_1$  given in Table 1

if a cargo winch is provided with a reduction gear change, each reduction step should correspond with a nominal load

NOTE The nominal sizes of cargo winches in Table 1 have been selected from the R10 series of preferred numbers.

### 2.3

#### drum load of a winch

the maximum rope tension in kilonewtons (kN) measured at the drum exit when the winch is hauling in at the design speed with the rope on the drum in a single layer. It is equivalent to 1.1 times the nominal load

NOTE The above definitions are a basis for arriving at a standard range of winches. For all other configurations of derrick rig it is necessary to allow for sheave friction as given in BS 408 and BS 1700. In all cases due allowance is to be made for the number of layers of the rope on the drum.

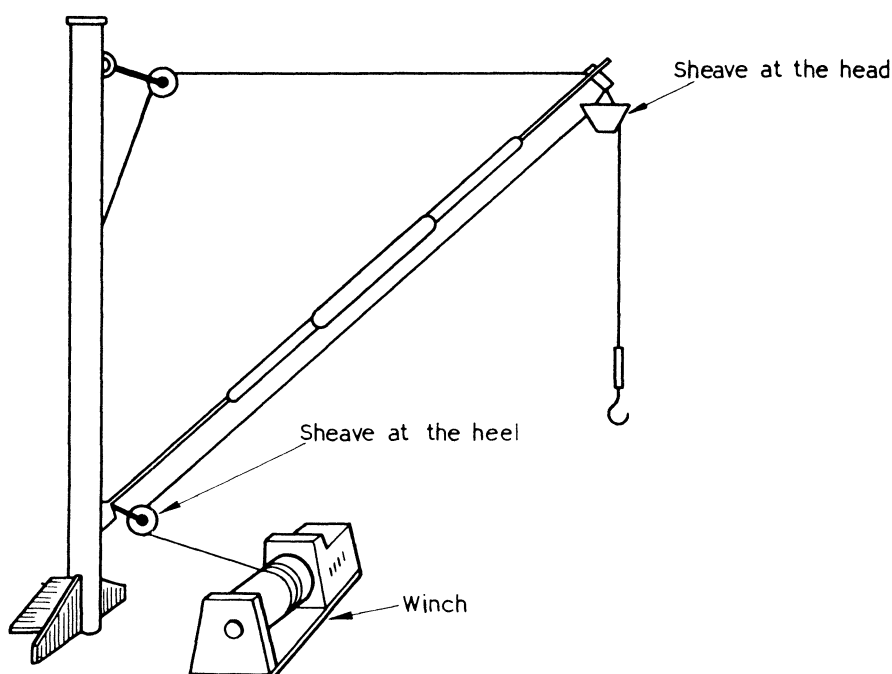


Figure 1 — Diagrammatic illustration of a cargo winch