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**INTERNATIONAL STANDARD**



**2333**

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

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**Shipbuilding —  
Cargo gear particulars book**

First edition — 1972-11-15

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO 2333:1972](https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972)

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UDC 629.12 : 621.87

Ref. No. ISO 2333-1972 (E)

**Descriptors** : shipbuilding, handling equipment, hoists, records, printed forms, symbols

Price based on 15 pages

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

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 2333 was drawn up by Technical Committee ISO/TC 8, *Shipbuilding*.

It was approved in March 1972 by the Member Bodies of the following countries :

|                     |             |                |
|---------------------|-------------|----------------|
| Austria             | India       | Norway         |
| Belgium             | Ireland     | Poland         |
| Czechoslovakia      | Israel      | Romania        |
| Egypt, Arab Rep. of | Italy       | Spain          |
| Finland             | Japan       | Thailand       |
| France              | Netherlands | Turkey         |
| Germany             | New Zealand | United Kingdom |

No Member Body expressed disapproval of the document.

# Shipbuilding – Cargo gear particulars book

## 0 INTRODUCTION

This International Standard is intended to be complementary to, and used with, a register of the cargo handling machinery and gear based on the International Labour Office (ILO) Form No. 1. This ILO document was communicated to the governments of States Members of ILO in pursuance of the decision of the Governing Body at its 135th Session.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard gives, by means of cargo gear forms, the minimum information necessary to enable the rigs to be properly assembled and to permit ordering of spare components when needed.

## 2 GENERAL NOTES ON THE FORMS

Whereas the ILO type forms are primarily concerned with the continuous recording of the various inspections and tests carried out on the cargo gear, this International Standard provides the minimum information as described under section 1.

A number of forms contain spaces, for the insertion of plans and diagrams : in particular, forms 6 and 7. Where a rig is particularly complicated, or where a derrick or crane can be rigged in more than one way, it is preferable to use more than one sheet to show all details, rather than attempt to compress too much into one diagram.

It is strongly recommended that all interchangeable items should be allocated the same "position mark" (see footnote to form 7). This will enable the test certificates for such items to be marked "suitable for all positions . . . as shown in the particulars book" (or with words of similar meaning), thereby facilitating interchangeability of items.

The position marks may be numbers, letters or a combination, as desired. They may be consecutively allocated or, alternatively, arranged such that all components of similar general type, for example wire ropes or shackles, commence with the same number or letter. It is recommended that in all cases the mark should consist of three characters.

If the key plans (forms 3 to 8) are sufficiently comprehensive, and show the details of all items, then summaries of components (forms 9 to 12, inclusive) may be omitted from the actual particulars book.

## 3 NOTES ON PARTICULAR FORMS

### 3.1 Form 1 – Cover sheet of cargo gear particulars book

A space is provided for a Plan No. and Sheet No. to be written in, since shipyards may wish to use this document (Particulars Book) as a substitute for the more traditional rigging plan.

### 3.2 Form 2 – Lists of symbols and abbreviations

A list of symbols is shown for the convenience of the user. Additional symbols may be added by the shipyard, and subsequently by the shipowner, as the need arises on any particular ship.

### 3.3 Form 3 – Summary of masts and derrick posts

Mast scantlings may be added to the remarks column if required. A column has not been included for these data since in many countries masts are not legally regarded as part of the cargo gear.

The order of numbering of the centreline derricks is not stated in this International Standard. However, users may often find it appropriate to adopt an order following on from that of the port and starboard derricks, in which case the derrick marking system will be in agreement with that generally used for numbering ship's lifeboats.

### 3.4 Form 5 – Summary of derrick booms

The form does not include a column for SWL (Safe Working Load), since any particular design of boom may have varying SWL's depending on the lengths of the masts to which it is rigged. The maximum boom thrust, however, will be determined by the boom's scantlings and the layout of its span and runner eyeplates.

### 3.5 Form 6 – Key plan of cranes

It is recommended that a profile view be included in the diagram space.

### 3.6 Form 7 – Key plan of forces

For the proper assembling of the rigs a diagram of forces is essential.

**3.7 Form 8 – Key plan of position marks**

It is recommended that where more than one method of rigging is proposed for any given derrick, then each rig, with its key plan of forces, should be shown on a separate copy of the form.

**3.8 Form 9 – Union purchase**

The diagrams should be kept large for reasons of clarity. It is suggested that any critical dimensions should be marked on the plan.

**3.9 Form 10 – Summary of pulley blocks**

The sheave diameter is given to “bottom of groove” and not to the outside of the sheave. A common practice of the

past in shipping has been to use sheave outside diameter on derricks but the bottom of groove diameter on cranes and on engineering pullies. In the interests of standardization over the widest field, and because the bottom of groove diameter is the critical one from technical considerations, it is recommended that the diameter of all pulley block sheaves be quoted “bottom of groove”.

**4 CARGO GEAR PARTICULARS BOOK**

The thirteen standardized cargo gear forms which form the cargo gear particulars book are given hereafter.

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|                  |                         |               |
|------------------|-------------------------|---------------|
| Ship's name      | Call letters            | Year of build |
| Port of registry | Ship's owner or manager |               |

# CARGO GEAR PARTICULARS BOOK

Stamps and signatures of authorities

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








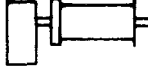

Date issued \_\_\_\_\_

| Contents | Date issued  | Sheet No. |
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|------------------------|------------------|---------------------|
| Cargo gear particulars |                  | Plan No.            |
| Shipbuilder and yard   | Yard No. of ship | Total No. of sheets |
|                        |                  | Sheet No.           |

Ship's name

List of symbols (For use on keyplans)

|   |                        |   |                                     |   |                           |
|---|------------------------|---|-------------------------------------|---|---------------------------|
|  | Chain                  |  | Rope (wire or fibre)                |  | Clips or catches          |
|  | Rigging screw          |  | Swivel                              |  | Ring                      |
|  | Shackle                |  | Oval and other eye or closed socket |  | Clevis eye or open socket |
|  | Triangle plate         |  | "C" hook                            |  | Double ended fork         |
|  | Eye plate (fixed)      |  | Block without becket *              |  | Ramshorn hook             |
|  | Eye plate (swivelling) |  | Block with becket *                 |  | Unpowered winch           |
|  | Gooseneck assembly     |  | Triangular lifting eye              |   | Powered winch             |
|  | Crane                  |   |                                     |   |                           |

\* Number of cross lines indicates number of sheaves

List of abbreviations (For use in tables)

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**Cargo gear particulars**

Shipbuilder and yard

Yard No. of ship

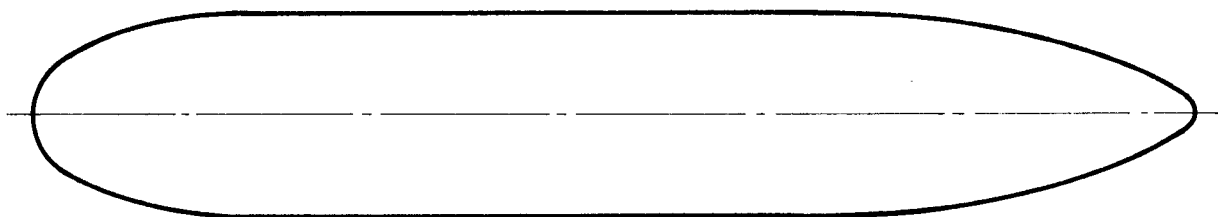
Plan No.

Total No. of sheets

Sheet No.

Ship's name

## Key plan of masts, derrick posts and derrick booms



This diagram does not represent any preferred design.

## Summary of masts and derrick posts

| Mast or derrick post identification letter  | Identification numbers of derricks supported | Height of span eye above gooseneck or trunnion (mm) | Tensile strength of material | Remarks |
|---|--|---|------------------------------|---------|
| <p><b>iTeh STANDARD PREVIEW</b><br/> <b>(standards.iteh.ai)</b></p> <p><a href="https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972">https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972</a></p> <p>ISO 2333:1972</p> |  |   |                              |         |

## Notes

Cranes, winches and derrick booms to be identified by numbers. Marking to commence, in general, at bow of ship and on starboard side. For details of derrick booms see form 5. For union purchase rig layout see form 9.

## Cargo gear particulars

Shipbuilder and yard

Yard No. of ship

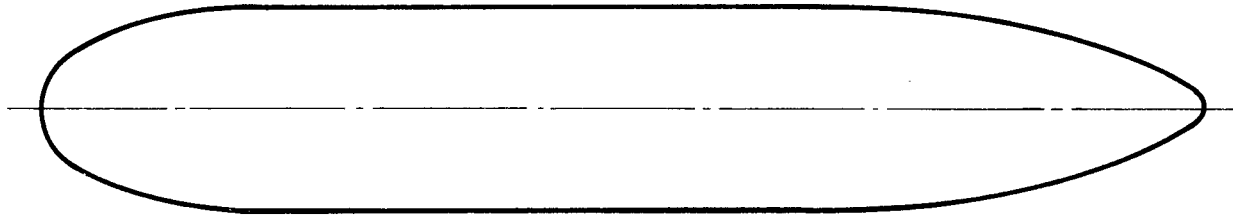
Plan No.

Total No.  
of sheets

Sheet No.

Ship's name

Key plan of shrouds and stays



This diagram does not represent any preferred design.

Summary of shrouds and stays

| Shroud or stay identification mark  | Length of shroud or stay (mm) | Construction (i.e. tube, solid bar, 6 X 7 rope etc.) | Diameter or equivalent dimension (mm) | Maximum service working tension (calculated : kN) | Remarks |
|---|-------------------------------|--|---------------------------------------|---|---------|
| <p><b>iTeh STANDARD PREVIEW</b><br/> <b>(standards.iteh.ai)</b></p> <p>ISO 2333:1972<br/> <a href="https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972">https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972</a></p> |                               |  |                                       |   |         |

Cargo gear particulars

Plan No.

Shipbuilder and yard

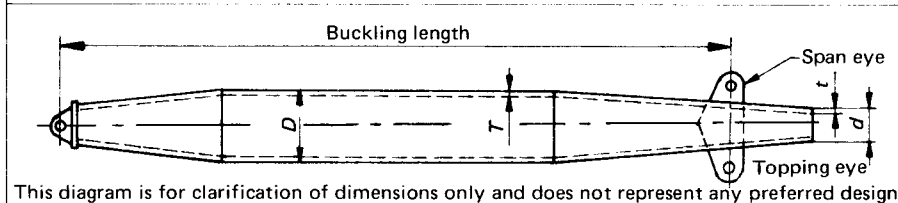
Yard No. of ship

Total No. of sheets  
Sheet No.



Ship's name

Key plan of derrick boom dimensions



Summary of derrick booms

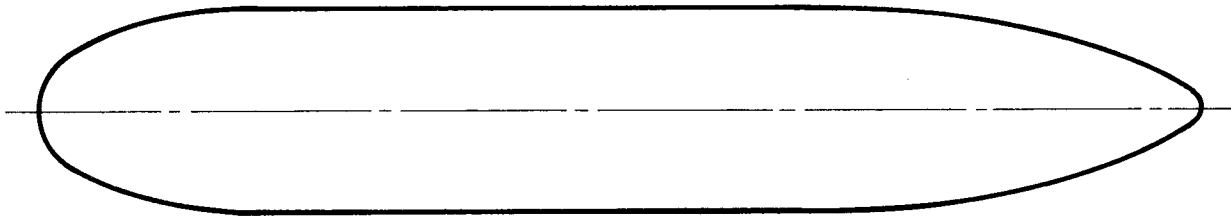
| Derrick boom identification numbers  | Maximum working thrust (kN) | Buckling length (mm) | Diameter at centre $D$ (mm) | Thickness at centre $T$ (mm) | Diameter at end $d$ (mm) | Thickness at end $t$ (mm) | Boom material | Tensile strength of material | Remarks |
|--|-----------------------------|----------------------|-----------------------------|------------------------------|--------------------------|---------------------------|---------------|------------------------------|---------|
| <p><b>iTeh STANDARD PREVIEW</b><br/>                     (standards.iteh.ai)</p> <p>ISO 2333:1972<br/> <a href="https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972">https://standards.iteh.ai/catalog/standards/sist/8e48bb8c-8705-4b4d-a548-2d5220b296bb/iso-2333-1972</a></p> |                             |                      |                             |                              |                          |                           |               |                              |         |

Notes : For safe working load, see form 7.

|                               |                  |                     |
|-------------------------------|------------------|---------------------|
| <b>Cargo gear particulars</b> |                  | Plan No.            |
| Shipbuilder and yard          | Yard No. of ship | Total No. of sheets |
|                               |                  | Sheet No.           |

Ship's name

Key plan of cranes



This diagram does not represent any preferred design.

Summary of cranes

| Crane identification number  | Power supply (voltage frequency etc.) | Safe working load, outreach etc. (division into columns as appropriate) |  |  |  |  | Make and type or model | Remarks |
|--|---------------------------------------|---|--|--|--|--|------------------------|---------|
|  |                                       | SWL   |  |  |  |  |                        |         |
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Notes

Cargo gear particulars

Shipbuilder and yard

Yard No. of ship

Plan No.

Total No. of sheets  
Sheet No.

Ship's name

Key plan of forces in kN

Derrick numbers

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**Notes**

The key plan of forces need not be to scale. It is to include for the SWL of the centreline derricks the boom thrust, boom end moment, rope tensions and resultant forces on the pulley blocks (including guys) with the boom in its lowest working position.

**Cargo gear particulars**

Plan No.

Shipbuilder and yard

Yard No. of ship

Total No.  
of sheets

Sheet No.