INTERNATIONAL STANDARD 2333

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Shipbuilding — Cargo gear particulars book

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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 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.

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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.

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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

Date issued _____

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Contents

Cargo gear particulars

Shipbuilder and yard	Yard No. of ship	Plan No. 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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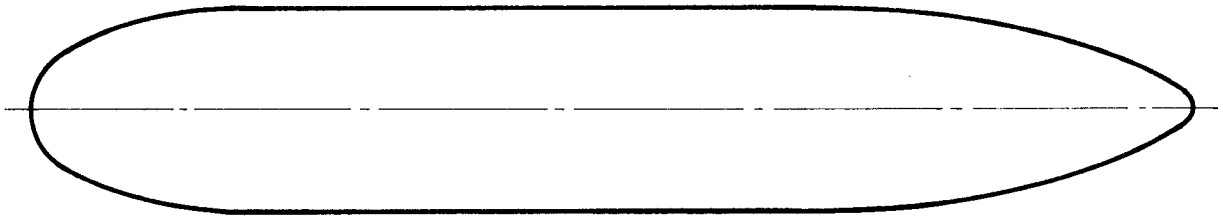
Cargo gear particulars

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

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Notes

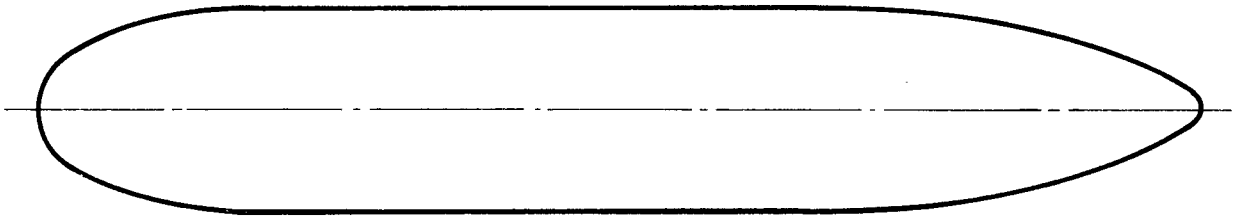
Cranes, winches and derrick booms to be identified by numbers. Marking to commence, in general, at bow of ship and on starboard side.
For details of derrick booms see form 5. For union purchase rig layout see form 9.

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

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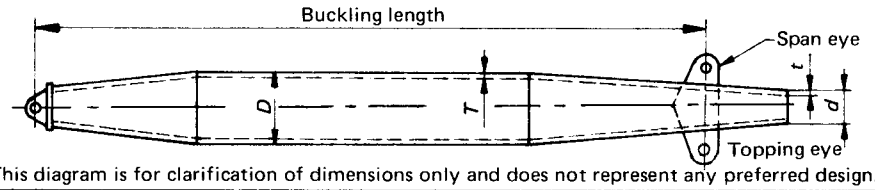
Cargo gear particulars

Plan No.

Shipbuilder and yard	Yard No. of ship	Total No. of sheets
		Sheet No.

Ship's name

Key plan of derrick boom dimensions



This diagram is for clarification of dimensions only and does not represent any preferred design.

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

Notes : For safe working load, see form 7.

Cargo gear particulars

Shipbuilder and yard	Yard No. of ship	Plan No.
		Total No. of sheets
		Sheet No.

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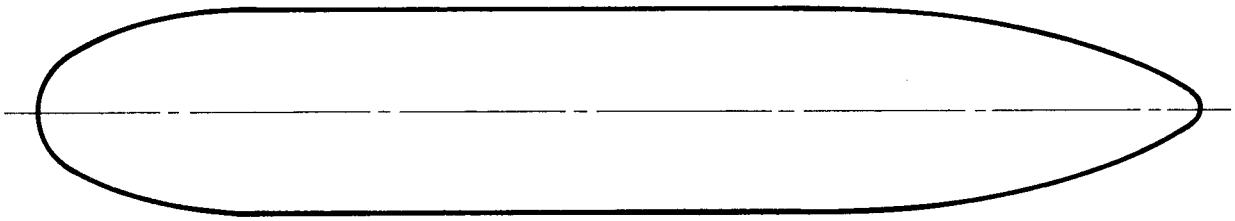
Ship's name

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						

Notes

Cargo gear particulars

Shipbuilder and yard	Yard No. of ship	Plan No.
		Total No. of sheets
		Sheet No.

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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.

Ship's name

Key plan of position marks

Derrick numbers

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Notes

The key plan of position marks is to show all the items listed on forms 10 to 13. All interchangeable items should be allocated identical position marks.

Cargo gear particulars

Plan No.

Shipbuilder and yard	Yard No. of ship	Total No. of sheets
		Sheet No.

Ship's name

Union purchase layout

Derrick numbers

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Notes : This form is to be completed by drawing a sketch plan (which need not be to scale) showing :
(i) The working ranges of the union purchase derrick rig or rigs
(ii) The position of deck and/or other attachments of guys, etc., for each rig
(iii) The maximum permitted angle between the runners

Cargo gear particulars

Plan No.

Shipbuilder and yard	Yard No. of ship	Total No. of sheets
		Sheet No.

Ship's name

Summary of pulley blocks

Position mark (from key plan on form 8)	Number required on rig	Number of sheaves	Sheave diameter (bottom of groove) (mm)	Maximum diameter (& material) of rope for which sheave is suitable (mm)	Maximum permitted load on head-fitting (kN)	Type of eye fitting and becket (if fitted)	Remarks

Notes : The column "Maximum permitted load on head-fitting" is included for the benefit of owners or other persons wishing to fit oversize blocks in certain positions to facilitate the standardization and/or interchangeability of these items on board the ship. For minimum required strength, see "Key plan of forces" on form 7.
The column "Maximum diameter of rope . . ." is included for the benefit of owners or other persons wishing to use certain sheaves with oversize grooves to facilitate interchangeability. For actual rope size, see form 12.
The remarks column should include any critical dimensions or data, e.g. of head fitting of blocks, etc.

Cargo gear particulars

Plan No.

Shipbuilder and yard	Yard No. of ship	Total No. of sheets
		Sheet No.

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Ship's name

Summary of shackles

Position mark (from key plan on form 8)	Diameter of body	Number required on rig	Maximum permitted S.W.L. (kN)	Type of shackle (large dee, bow etc)	Material	Remarks

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Notes

The column "Maximum permitted S.W.L." is included for the benefit of owners or other persons wishing to fit oversize shackles in certain positions to facilitate the standardization and/or interchangeability of these items on board the ship. For minimum required strength at any position see "Key plan of forces" on form 7.

The remarks column should include any critical dimensions or data, e.g. width of shackle, diameter of bolt, etc.

Cargo gear particulars

Plan No.

Shipbuilder and yard	Yard No. of ship	Total No. of sheets
		Sheet No.

Ship's name

Summary of ropes

Position mark (from key plan on form 8)	Number required on rig	Actual minimum breaking load (kN)	Diameter (mm)	Material (e.g. nylon, manila, steel etc.)	Construction (e.g. 6 × 19, 6 × 27 seale, 3 stranded plain)	Length (metres)	Remarks

Notes

For actual loads on individual ropes, see "Key plan of forces" on form 7.

Cargo gear particulars

Shipbuilder and yard	Yard No. of ship	Plan No.
		Total No. of sheets
		Sheet No.

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