
**Ships and marine technology — Ship's
mooring and towing fittings — Universal
fairleads with upper roller**

*Navires et technologie maritime — Corps-morts et ferrures de
remorquage de navires — Chaumards universels avec rouleau supérieur*



This document is a preview generated by EVS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	1
4.1 Type	1
4.2 Nominal sizes	1
5 Dimensions	2
6 Materials	2
7 Construction	2
8 Manufacturing and inspection	2
9 Marking	2
Annex A (informative) Basis for strength assessment of universal fairleads	15
Bibliography	18

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13733 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*.

Introduction

The universal fairlead is a type of ship's mooring fitting installed on board to lead the mooring rope from the ship's inboard to outboard.

Ships and marine technology — Ship's mooring and towing fittings — Universal fairleads with upper roller

1 Scope

This International Standard specifies the design, size and technical requirements for universal fairleads with upper roller(s) installed to lead the mooring rope of a ship.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IMO Circular MSC/Circ.1175, *Guidance on shipboard towing and mooring equipment*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

safe working load

SWL

maximum load in kN on the rope that should normally be applied in service conditions

4 Classification

4.1 Type

Depending on the construction, universal fairleads are to be classified as the following four types:

- type 4R: with one rope-passing opening;
- type 5RL: with one rope-passing opening with additional guide roller on left side;
- type 5RR: with one rope-passing opening with additional guide roller on right side;
- type 7R: with two rope-passing openings.

4.2 Nominal sizes

The nominal sizes, D_n , of universal fairleads are denoted by reference to the outside diameter of the main roller in millimetres, in terms of the nearest number drawn from a basic series of preferred numbers. For the universal fairleads having the same roller diameter, the alphabetical character is followed by nominal size for the different SWL.

The nominal sizes are:

140, 160, 180, 200, 250, 300A, 300B, 400A, 400B and 400C.