



**International
Standard**

ISO 18824

**Ships and marine technology —
Ship's mooring and towing fittings
— Horizontal roller fairleads**

First edition

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Ships and marine technology — Ship's mooring and towing fittings — Horizontal roller fairleads

1 Scope

This document specifies the design, size and technical requirements for horizontal roller fairleads installed to brace the mooring rope over other obstacle fittings.

This document is applicable to the design, manufacture and inspection of horizontal roller fairleads.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 safe working load

SWL

maximum load applied on the rope in service conditions

Note 1 to entry: The SWL is expressed in tonnes (1 t = 9,8kN).

3.2 horizontal roller fairlead

type of mooring fitting installed on board a ship to brace the mooring rope over other obstacle fittings

4 Nominal sizes

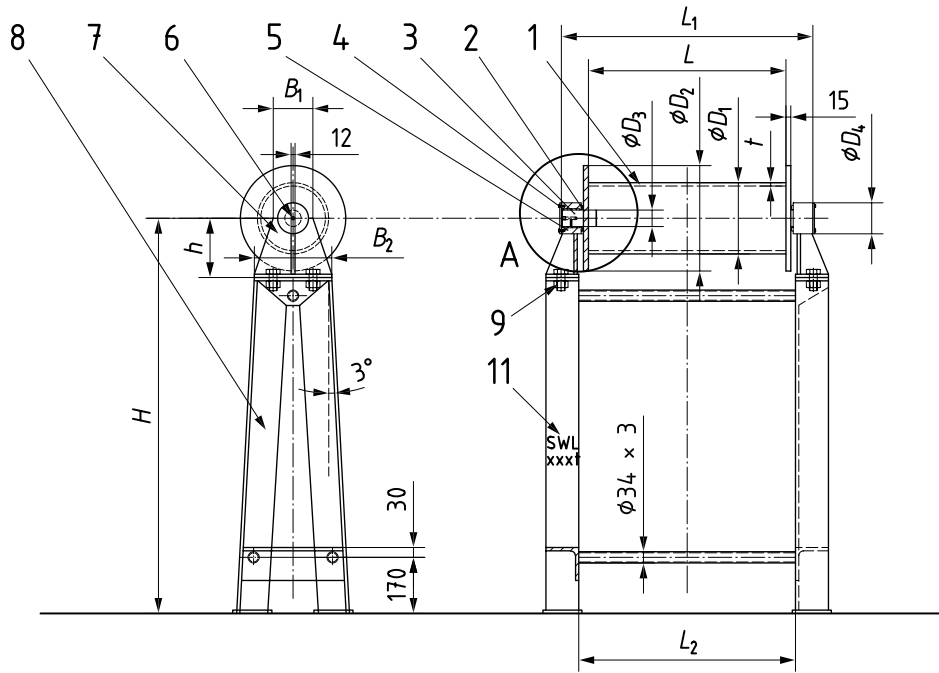
The nominal sizes, D_n , of horizontal roller fairleads are denoted by reference to the nominal diameter. The length, L , of horizontal roller fairleads are expressed in millimetres.

The typical nominal sizes, defined together as $D_n \times L$, are expressed in millimetres:

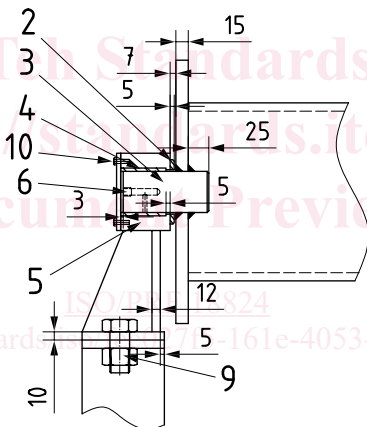
200 × 600, 200 × 800, 250 × 800, 250 × 1 000, 250 × 1 200.

5 Structure and dimension

[Figure 1](#) shows the structure and dimension of horizontal roller fairleads. [Table 1](#) shows the main parameters of horizontal roller fairleads.



A-A



Key

- | | | | |
|-----------------------|-------------------------------|-----------------------|--|
| 1 | roller | 7 | bearing seat |
| 2 | retainer ring | 8 | foundation |
| 3 | axle | 9 | bolts (4 × M24) |
| 4 | bush | 10 | end cover (with gasket) |
| 5 | bearing | 11 | SWL marking |
| 6 | grease nipple | <i>D</i> | nominal size |
| <i>B</i> ₁ | width of bearing seat (upper) | <i>D</i> ₁ | diameter of roller (tube) |
| <i>B</i> ₂ | width of foundation (upper) | <i>D</i> ₂ | diameter of roller (dam-plate) |
| <i>L</i> | length of roller (net) | <i>D</i> ₃ | diameter of axle |
| <i>L</i> ₁ | length of axle (total) | <i>D</i> ₄ | diameter of bearing |
| <i>L</i> ₂ | length of foundation (inside) | <i>H</i> | height of the centre of roller with foundation |
| <i>t</i> | thickness of roller (tube) | <i>h</i> | height of the centre of roller |

Figure 1 — Horizontal roller fairleads