
**Marine structures — Mobile offshore
units — Chain wheels**

Structures maritimes — Unités mobiles au large — Pignons à chaîne

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Contents

| | Page |
|---|----------|
| Foreword | iv |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Classification | 2 |
| 4.1 Types of the chain wheels | 2 |
| 4.2 Designation | 7 |
| 5 Requirements | 7 |
| 5.1 Geometric tolerance and dimensional tolerance | 7 |
| 5.2 Materials | 8 |
| 6 Inspection | 8 |
| 6.1 Dimensional and geometric inspection | 8 |
| 6.2 Visual inspection for surface quality | 8 |
| 6.3 Inspection of tooth surface hardness | 8 |
| 6.4 Material inspection | 8 |
| Bibliography | 9 |

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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 documents 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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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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Marine structures — Mobile offshore units — Chain wheels

1 Scope

This document specifies the requirements for the profiles, dimensions, tolerances, materials and inspection of chain wheels for chains on mobile offshore units.

Chain wheels meeting the requirements of this document can be used with offshore mooring chains conforming to ISO 20438.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3828, *Shipbuilding and marine structures — Deck machinery — Vocabulary and symbols*

ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 8062-3, *Geometrical product specifications (GPS) — Dimensional and geometrical tolerances for moulded parts — Part 3: General dimensional and geometrical tolerances and machining allowances for castings*

ISO 11971:—¹⁾, *Steel and iron castings — Visual examination of surface quality*

ISO 16859-1, *Metallic materials — Leeb hardness test — Part 1: Test method*

3 Terms and definitions

ISO 21711:2019

<https://standards.iteh.ai/catalog/standards/iso/8fe1f168-a963-41a5-abdc-d333c0a85cd5/iso-21711-2019>

For the purposes of this document, the terms and definitions given in ISO 3828 and the following apply.

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

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

3.1

pitch diameter

D_p

circumscribed circle diameter of the regular polygon formed by the centerline of the stud-link anchor chain where the anchor chain is engaged with the chain wheel

Note 1 to entry: Pitch diameter is used to calculate the maximum torque of the anchor chain during operation.

3.2

speed calculation diameter

D_v

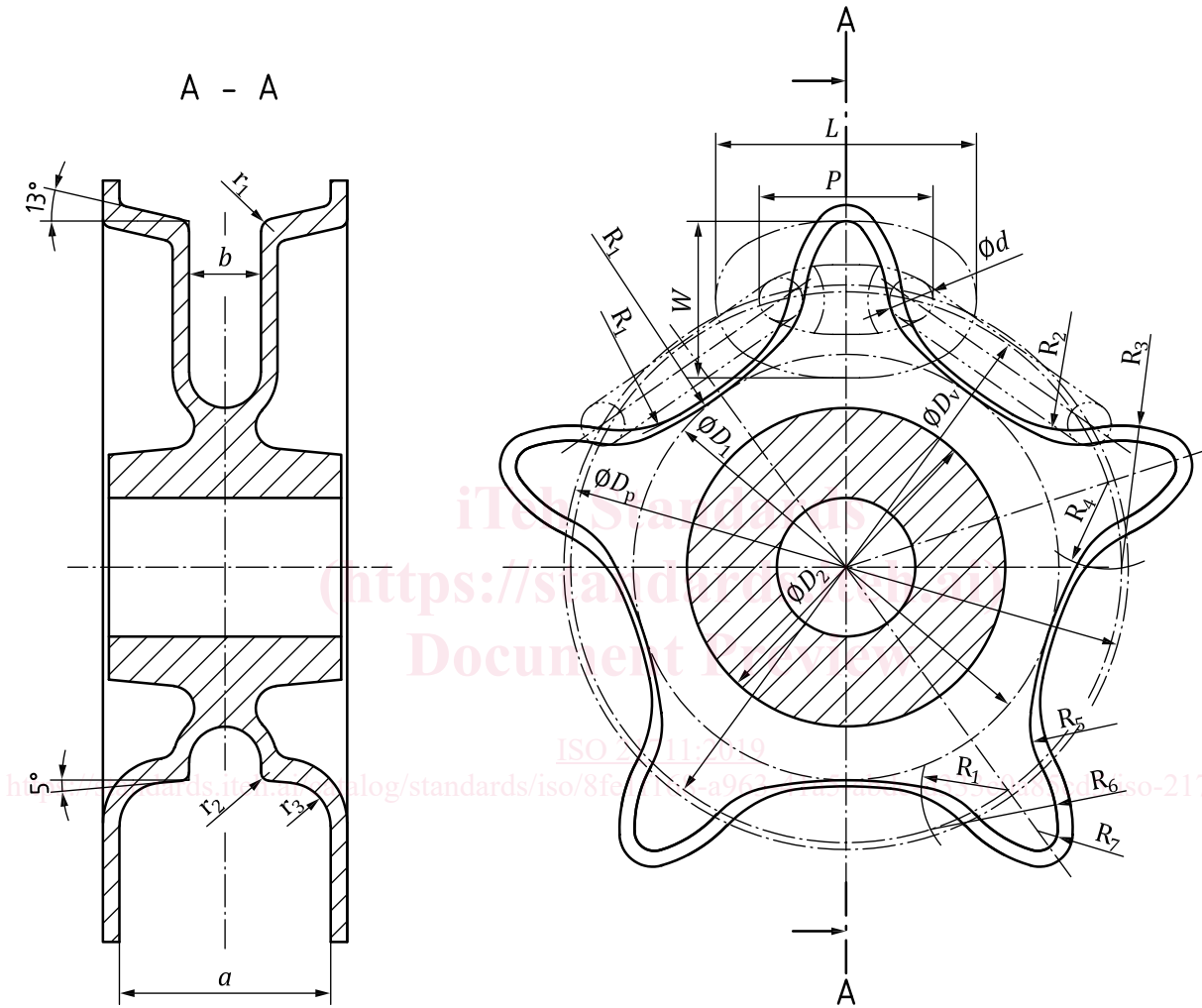
diameter of the moving line of the stud-link anchor chain when anchoring with power

1) Under preparation. Stage at the time of publication: ISO/DIS 11971:2018.

4 Classification

4.1 Types of the chain wheels

- a) Type A — 5-tooth chain wheel, see [Figure 1](#) for the tooth profile structure. The nominal dimensions are given in [Table 1](#).



It is not recommended to select values in the shaded area.

Figure 1 — Tooth profile structure of type A chain wheel