
Plovila za celinske vode - Ročno in električno upravljane vpenjalne naprave za vrvne povezave potisnih enot in pripetih plovil - Varnostne zahteve in glavne mere (ISO/DIS 6218:2018)

Inland navigation vessels - Manually- and power-operated coupling devices for rope connections of pushing units and coupled vessels - Safety requirements and main dimensions (ISO/DIS 6218:2018)

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Bateaux de navigation intérieure - Treuils d'accouplement manœuvrés à la main et à moteur pour les convois poussés et formation à couple - Exigences de sécurité et dimensions principales (ISO/DIS 6218:2018)

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Bateaux de navigation intérieure — Treuils d'accouplement manœuvrés à la main et à moteur pour les convois poussés et formation à couple — Exigences de sécurité et dimensions principales

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Contents

	Page
Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Safety requirements	2
4.1 General.....	2
4.1.1 Components.....	2
4.1.2 Requirements.....	4
4.2 Limitation of actuating power for power-operated coupling devices.....	4
4.3 Strength requirements.....	5
5 Models	5
5.1 Operation.....	5
5.2 Position of handwheel/motor.....	5
5.3 With or without tensioning device.....	6
6 Design	6
6.1 Rope drum.....	6
6.1.1 Drum capacity.....	6
6.1.2 Drum diameter.....	6
6.1.3 Rope fastening.....	6
6.2 Handwheel.....	6
6.2.1 Clearances.....	6
6.2.2 Construction.....	6
6.2.3 Handhold.....	6
6.3 Power-operated equipment.....	7
6.4 Combined operating modes.....	7
6.5 Arresting device.....	7
6.5.1 General.....	7
6.5.2 Arresting devices for manually operated coupling devices.....	7
6.5.3 Arresting devices for power-operated coupling devices.....	7
6.6 Protective device.....	7
6.7 Footbrakes for manually operated coupling devices.....	7
6.8 Brakes for power-operated coupling devices.....	7
6.9 Gears.....	8
6.10 Tensioning device for manually operated coupling systems.....	8
6.11 Change gear for manually operated coupling devices.....	8
6.12 Foundation.....	8
6.13 Guide track.....	8
7 Dimensions and characteristic values	8
7.1 General.....	8
7.2 Characteristic values.....	8
7.3 Main dimensions of the coupling device.....	9
7.3.1 Manually operated coupling device.....	9
7.3.2 Power-operated coupling devices.....	10
7.4 Foundation.....	11
8 Material	12
9 Operating instructions and assembly instructions	12
9.1 General.....	12
9.2 Assembly instructions.....	12
9.3 Operating instructions.....	12
10 Designation	13

ISO/DIS 6218:2018(E)

11	Marking	13
	Annex A (normative) Individual and type testing	14
	Bibliography	15

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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).

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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 7, *Inland navigation vessels*.

This fourth edition cancels and replaces the third edition (ISO 6218:2015), which has been technically revised.

The main changes compared to the previous edition are as follows:

- limitation of rope speed has been deleted (former [Clause 4.3](#));
- minimum drum diameter changed to be 12 times of maximum rope diameter;
- wire rope has been replaced by "rope", because the use of wire- or textile-ropes is no subject of this document;
- editorial corrections and improvement of figures.

Inland navigation vessels — Manually- and power-operated coupling devices for rope connections of pushing units and coupled vessels — Safety requirements and main dimensions

1 Scope

This document specifies dimensions and safety requirements for manually operated and power-operated coupling devices used for assembling inland navigation vessels as a push tow or vessels coupled alongside by means of rope connections. The coupling device secures the stable positioning of the coupled vessels.

Requirements for the safety to protect operators from accidents during the creation, operation, and separation of the rope connections of push tows and vessels coupled alongside are contained in this document.

It also gives rules for designation and testing.

2 Normative references

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

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 3730, *Shipbuilding and marine structures — Mooring winches*

ISO 4014, *Hexagon head bolts — Product grades A and B*

3 Terms and definitions

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

3.1

manually operated coupling device

straining device in which a rope is strained by turning a hand wheel

3.2

minimum breaking load

load at which the rope will break

3.3

power-operated coupling device

straining device in which a rope is strained by a power-driven equipment

3.4

tensioning device

ratchet spanner

tool used to increase the tension of the taut rope

ISO/DIS 6218:2018(E)

3.5

straining load

result of action of tensile force applied to the rope when a specific tangential force is applied to the hand wheel or when a specific force by a power-operated mechanism is applied to the gear

4 Safety requirements

4.1 General

4.1.1 Components

Manually operated coupling devices consist of hand wheel, gear, rope drum with rope fastening, footbrake, arresting device, and winch plate, see Figure 1.

Manually operated coupling devices may have the following additional components:

- tensioning device;
- change gear.

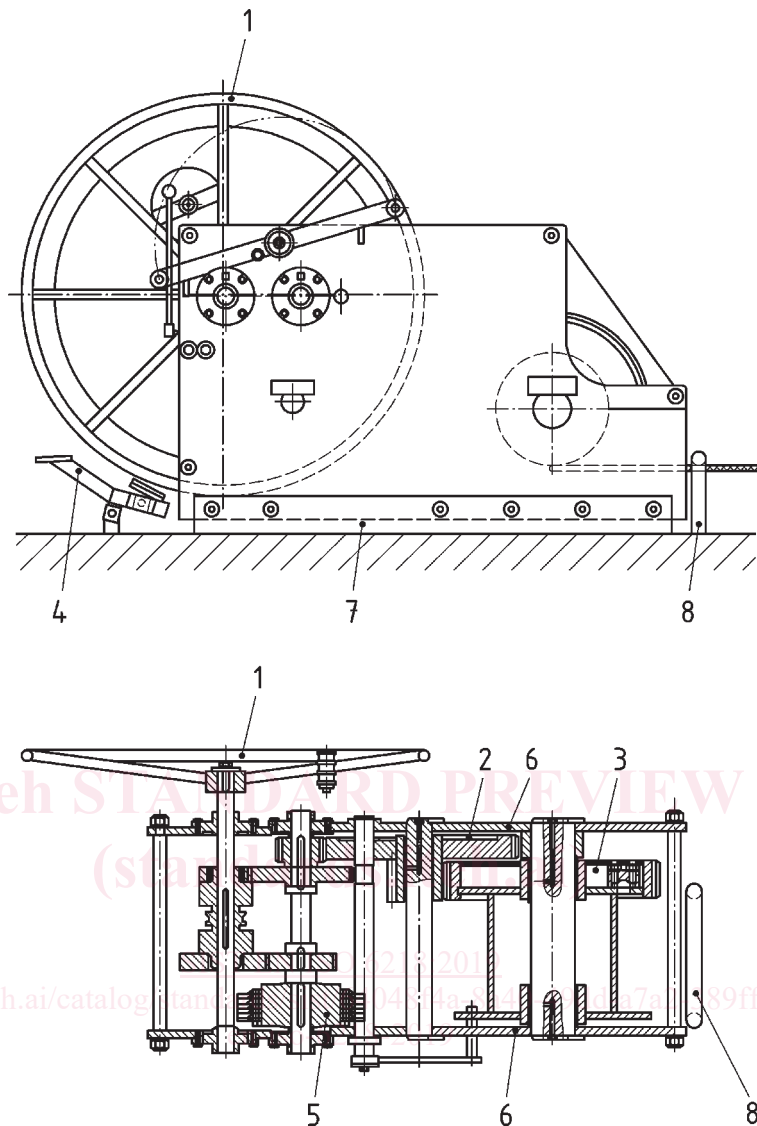
Accessory parts for coupling devices are the following:

- foundation;
- guide track for rope.

Power-operated coupling devices consist of power unit (e.g. electric motor, hydraulic power pack) with controls and gearing, rope drum with rope fastening, arresting device, and winch plate, see Figure 2.

Electrical drives and control equipment shall meet the requirements in ISO 3730.

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**Key**

- 1 handwheel
- 2 gear
- 3 rope drum with rope fastening
- 4 footbrake (only shown in side view)
- 5 arresting device
- 6 winch plate

Accessory parts:

- 7 foundation
- 8 guide track

Figure 1 — Components of manually operated coupling device, here an example of M - R - 25