# INTERNATIONAL STANDARD

# ISO 8385

Second edition
1999-05-15

# Ships and marine technology — Dredgers — Classification

*Navires et technologie maritime — Dragues — Classification*



Reference number
ISO 8385:1999(E)

## Foreword

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International Standard ISO 8385 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 8, *Ships and marine technology*, Subcommittee SC 7, *Inland navigation vessels*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this standard, read "...this European Standard..." to mean "...this International Standard...".

This second edition cancels and replaces the first edition (ISO 8385:1999), of which it constitutes a technical revision.





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## Foreword

The text of EN ISO 8385:1999 has been prepared by Technical Committee CEN/TC 15 "Inland navigation vessels", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 8 "Ships and marine technology".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This standard provides a single classification for all types of dredgers designed for loosening, raising, transporting and disposing of dredged material.

## 2 Normative References

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the lasted edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 8384
Ships and marine technology – Dredgers – Vocabulary

## 3 Terms and Definitions

For the purposes of this standard, the terms and definitions given in ISO 8384 apply.

## 4 Classification

Dredgers are classified on the basis of the criteria as specified in table 1:

**Table 1: Classification on basis of criteria**

| Category of criteria | Criteria | |
|---|---|---|
| **1** Area of operation | **1.1** Inland waterways, inland ports and sites for soil extraction | |
| | **1.2** Seagoing | **1.2.1** Harbours and coastal zone |
| | | **1.2.2** Offshore |
| | | **1.2.3** Ocean-going |
| | **1.3** Special environments | **1.3.1** Tropical |
| | | **1.3.2** Arctic |
| | | **1.3.3** Other special environments |
| **2** Soil characteristics | **2.1** Silts | |
| | **2.2** Peats and organic soils | |
| | **2.3** Sands | |
| | **2.4** Gravels | |
| | **2.5** Clays | |
| | **2.6** Boulders and cobbles | |
| | **2.7** Rocks | |
| | **2.8** Mixed soils | |
| | **2.9** Fine sidements | |

(continued)

**Table 1 (continued)**

| | | |
|---|---|---|
| **3** Power plant | **3.1** Steam | |
| | **3.2** Diesel | |
| | **3.3** Diesel-electric | |
| | **3.4** Diesel-hydraulic | |
| | **3.5** Electric | |
| | **3.6** Electric hydraulic | |
| | **3.7** Gas-turbine | |
| | **3.8** Nuclear | |
| | **3.9** Combinations | |
| **4** Mobility | **4.1** Non-propelled | |
| | **4.2** Self-propelled | |
| | **4.3** With limited propulsive capabilities | |
| **5** Transportability | **5.1** Non-dismountable | |
| | **5.2** Dismountable | |
| **6** Crew quarters | **6.1** Without crew accomodation | |
| | **6.2** With day accomodation | |
| | **6.3** With sleeping accomodation | |
| **7** Location of dredging apparatus | **7.1** At one side | |
| | **7.2** At both sides | |
| | **7.3** In a well | **7.3.1** Fore |
| | | **7.3.2** Aft |
| | **7.4** On deck | **7.4.1** Fore |
| | | **7.4.2** Aft |
| **8** Operating movements | **8.1** Longitudinal | **8.1.1** Ahead |
| | | **8.1.2** Astern |
| | **8.2** Traversing or lateral/arc | |
| | **8.3** Combinations and special | |
| **9** Equipment for movement and propulsion | **9.1** Propellers or other propulsive devices | |
| | **9.2** Anchors | |
| | **9.3** Spuds | |
| | **9.4** Combinations and special | |

(continued)

**Table 1 (continued)**

| | | | |
|---|---|---|---|
| **10** Method of soil extraction | **10.1** Single bucket dredgers | **10.1.1** Dipper dredgers | |
| | | **10.1.2** Backhoe dredgers | |
| | **10.2** Grab dredgers | **10.2.1** Single grab dredgers | |
| | | **10.2.2** Multi-grab dredgers | |
| | | **10.2.3** Dragline dredgers | |
| | **10.3** Bucket dredgers | | |
| | **10.4** Rockbreakers | **10.4.1** With freely falling chisel | |
| | | **10.4.2** With powered chisel | |
| | | **10.4.3** With drilling for blasting | |
| | **10.5** Bed levellers | | |
| | **10.6** Agitation dredgers | | |
| | **10.7** Suction dredgers | **10.7.1** Type of dredge pump | **10.7.1.1** Centrifugal or axial flow pump |
| | | | **10.7.1.2** Jet pump |
| | | | **10.7.1.3** Air lift |
| | | | **10.7.1.4** Combinations and special |
| | | **10.7.2** Method of loosening soil | **10.7.2.1** Cutter head |
| | | | **10.7.2.2** Bucket wheel/cutting wheel |
| | | | **10.7.2.3** Hydraulic agitator |
| | | | **10.7.2.4** Combinations and special |
| | | **10.7.3** Type of suction head | **10.7.3.1** Forward suction head |
| | | | **10.7.3.2** Draghead |
| | | | **10.7.3.3** Combinations and special |

(continued)

**Table 1 (concluded)**

| | | |
|---|---|---|
| **11** Disposal/transport of dredged material | **11.1** Direct delivery | |
| | **11.2** Hydraulic delivery | **11.2.1** Cantilever pipeline |
| | | **11.2.2** Floating pipeline |
| | | **11.2.3** Submersible pipeline |
| | **11.3** Chute | |
| | **11.4** Belt conveyor | |
| | **11.5** Delivery by barge | |
| | **11.6** Hopper dredgers | **11.6.1** Bottom doors or valves |
| | | **11.6.2** Split hull |
| | | **11.6.3** Other means of disposal |
| | **11.7** Combinations | |