**BRITISH STANDARD** 

**BS EN ISO** 8385:1999

# Ships and marine technology — Dredgers — Classification

The European Standard EN ISO 8385:1999 has the status of a British Standard

ICS 47.040; 47.060

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# **National foreword**

This British Standard is the English language version of EN ISO 8385:1999. It is identical with ISO 8385:1999. It supersedes BS 7466:1991 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee SME/32, Ships and marine technology — Steering committee, to Subcommittee SME/32/7, Ships and marine technology — Inland navigation vessels, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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## Summary of pages

Amendments issued since publication

This document comprises a front cover, an inside front cover, the EN ISO title page, pages 2 to 6, an inside back cover and a back cover.

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This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 August 1999

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# EUROPEAN STANDARD

# **EN ISO 8385**

# NORME EUROPÉENNE EUROPÄISCHE NORM

May 1999

ICS 47.060

### English version

# Ships and marine technology - Dredgers - Classification (ISO 8385:1999)

Navires et technologie maritime - Dragues - Classification (ISO 8385:1999)

Schiffe und Meerestechnik - Schwimmbagger - Klassifizierung (ISO 8385:1999)

This European Standard was approved by CEN on 15 February 1999.

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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of an identical text or by endorsement, at the latest by November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

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# 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 latest edition of the normative document referred to applies. Members of ISO and IEC maitain 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 |  |
| 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)   |                                  |  |

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# Table 1 (continued)

| 3 Power plant                           | 3.1 Steam                                  |              |  |  |
|---|--|--------------|--|--|
| ļ                                       | 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                  | 7.1 At one side                            |              |  |  |
| apparatus                               | 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               |              |  |  |
|   | (continu                                   |              |  |  |

(continued)

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# Table 1 (continued)

| 10 Mathad of acil avtraction | 10.1     | Single bucket dredgers | 10.1.1 Dipper dr                      | edgers  |
|------------------------------|----------|------------------------|---------------------------------------|---|
| 10 Method of soil extraction | 10.1     | Single pucket diedgere | 10.1.2 Backhoe dredgers               |   |
|                              |          | O-t-d-dage             | 10.2.1 Single grab dredgers           |   |
|                              | 10.2     | Grab dredgers          |                                       |   |
|                              |          |                        | 10.2.2 Multi-grab dredgers            |   |
|                              |          |                        | 10.2.3 Dragline dredgers              |   |
|                              | <u></u>  | 10.3 Bucket dredgers   |                                       |   |
|                              | 10.4     | Rockbreakers           | 10.4.1 With freely falling chisel     |   |
|                              |          |                        | 10.4.2 With powered chisel            |   |
|                              |          |                        | 10.4.3 With drilli                    | ng for blasting                               |
|                              | 10.5     | Bed levellers          |                                       |   |
|                              | 10.6     | Agitation dredgers     |                                       |   |
|                              | 10.7     | Suction dredgers       | 10.7.1<br>Type of dredge<br>pump      | 10.7.1.1<br>Centrifugal or axial<br>flow pump |
|                              |          |                        |                                       | 10.7.1.2<br>Jet pump                          |
|                              |          |                        |                                       | 10.7.1.3<br>Air lift                          |
|                              |          |                        |                                       | 10.7.1.4<br>Combinations and<br>special       |
|                              |          |                        | 10.7.2<br>Method of<br>loosening soil | 10.7.2.1<br>Cutter head                       |
|                              |          |                        |                                       | 10.7.2.2<br>Bucket wheel/cutting<br>wheel     |
|                              |          |                        |                                       | 10.7.2.3<br>Hydraulic agitator                |
|                              |          |                        |                                       | 10.7.2.4<br>Combinations and<br>special       |
|                              |          |                        | 10.7.3<br>Type of suction<br>head     | 10.7.3.1<br>Forward suction head              |
|                              |          |                        |                                       | 10.7.3.2<br>Draghead                          |
|                              |          |                        |                                       | 10.7.3.3<br>Combinations and<br>special       |
|                              | <u> </u> | (continued)            | .1                                    |   |

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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       |                                |  |

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