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Shipbuilding and marine structures — Dredgers — Classification

Construction navale et structures maritimes — Dragues — Classification



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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8385 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures*.

Annex A of this International Standard is for information only.

Shipbuilding and marine structures — Dredgers —
Classification

1 Scope

This International Standard provides a single classification for all types of dredgers designed for changing the dimensions of waterways in the interests of navigation by extracting or shifting the soil, where a dredger is considered to be a vessel or floating structure intended for dredging.

2 Classification

Dredgers are classified on the basis of the criteria 1 to 11 in table 1:

- 1 Area of operation
- 2 Soil characteristics
- 3 Power plant
- 4 Mobility
- 5 Transportability
- 6 Crew quarters
- 7 Location of dredging gear
- 8 Operating movements
- 9 Equipment for movement and propulsion
- 10 Method of soil extraction
- 11 Disposal of dredged material

Table 1 — Classification on basis of criteria

1 Area of operation	1.1 Inland waterways	
	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
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 Mixed
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 accommodation
	6.2 With day accommodation
	6.3 With full sleeping accommodation

7 Location of dredging gear	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	
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
	10.3 Multi-bucket dredgers	
	10.4 Rockbreakers	10.4.1 With freely falling chisel
		10.4.2 With forced movement chisel
		10.4.3 With drilling for blasting
	10.5 Scraper dredgers	
	10.6 Bed levellers	
	10.7 Agitation dredgers	

10 Method of soil ex- traction (concluded)	10.8 Suction dredgers	10.8.1 Type of dredge pump	10.8.1.1 Centrifugal or ax- ial flow pump		
			10.8.1.2 Jet pump		
			10.8.1.3 Air lift		
			10.8.1.4 Combinations and special		
		10.8.2 Method of loosen- ing soil	10.8.2.1 Cutter		
			10.8.2.2 Bucket wheel		
			10.8.2.3 Hydraulic agitator		
			10.8.2.4 Combinations and special		
		10.8.3 Type of suction head	10.8.3.1 Forward suction head		
			10.8.3.2 Draghead		
			10.8.3.3 Combinations and special		
		11 Disposal 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					