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Shipbuilding and marine structures — Dredgers — Classification

Construction navale et structures maritimes — Dragues — Classification

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Foreword

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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.

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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 extraction (concluded)	10.8 Suction dredgers	10.8.1 Type of dredge pump	10.8.1.1 Centrifugal or axial 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 loosening 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			