**LIST OF STANDARD EQUIPMENT**

**HULL AND SUPERSTRUCTURE**
- The dredger is dismantlable in main pontoon, two side pontoons, operating cab, cutter ladder, gantry and spudpoles, which permits easy transportation by road, rail or ship to nearly any location.
- Heavy duty coupling system with hooks at hull bottom and built connection on deck level, making disassembly on land or afloat possible in a very short time and an easy way.
- Two separate engine room hatches for optimal maintenance of engine and dredge pump.
- Single bollard on fore and aft at each side of the dredger.
- Store with large hatch and wooden floor.
- Chequered aluminium floor plates in engine room.
- Marine coating system and cathodic protection for inland water use.

**OPERATING CABIN**
- Comfortable, ergonomic designed operating cabin.
- Mounted on shock absorbers to minimise vibration and noise levels.
- Constructed of steel and well insulated and plated with coated plywood.
- Two ergonomic designed control panels with a dredge master chair in between.
- Dark tinted windows all around of which one can be opened, providing excellent view of all essential deck equipment.
- Window wiper at front- and aft window.

**DECK EQUIPMENT**
- Side wire swing winches operated with constant tension system, guaranteeing a stable cutter process.
- Removable, with stanchions and stainless steel wires.
- Various auxiliary equipment, such as pump driven by the diesel engine, being started from control panel both in engine room and in operating cabin.
- Dredge pump driven through a gearbox with electric hydraulic clutch, operated from the operating cabin.

**ENGINE ROOM MACHINERY**
- Latest model Caterpillar engine, complying with IMO regulations.
- Engine can be started from control panel both in engine room and in operating cabin.
- Dredge pump driven through a gearbox with electric hydraulic clutch, operated from the operating cabin.
- Various auxiliary equipment, such as diesel-, cooling water pumps.

**DREDGING INSTRUMENTATION**
- Production calculation, existing of yield indicator, concentration meter, velocity meter, positioning/ survey systems.

**MISCELLANEOUS**
- Mooring lines, life saving equipment.
- Set of tools including impeller hook and boatswain’s inventory.
- Start up spare parts.

**LIST OF STANDARD EQUIPMENT**

**DREDGING**
- All hydraulic motors and cylinders are operated by one radial piston pump driven by the diesel engine.

**ELECTRIC INSTALLATION**
- Two separate 24 VDC battery circuits supplied by the alternator of the diesel engine, one for starting the engine and the other for the boardnet.
- In engine room distribution board and in operating cabin switch panel for lights etc. Communication between operating cabin and engine room by PLC box system. All cable connections to dismountable parts with plugs for quick disassembly without possibility of wrong connections.

**SYNOPSIS**
- This leaflet is a brief summary from the original specification, which can be sent on request.
- Specifications are subject to modification without notice.
The DAMEN cutter suction dredger - model 350 - is one of the standard models within a range of well proven dismountable cutter suction dredgers. There are several options possible or even the design can be modified to specific wishes in meeting any operational requirement.

**BASIC FUNCTIONS**
- Maintenance dredging
- Capital dredging
- Mining

**STANDARD DESIGN FEATURES**
- Heavy duty robust design
- Scantlings well in excess of class regulations
- Comfortable ergonomic designed operating cabin
- Well powered, to ensure simultaneous operation of all functions
- Highest quality of installed equipment and components to ensure continuous operation

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**DREDGING FEATURES**
- Min/ max dredging depth: 1/9 m (cutterladder angle of 5/45º)
- Dredging width at 40º swing angle: 27 m (at max dredging depth)
- Maximum mixture capacity: 2000 m³/hr

**PRINCIPAL DIMENSIONS**
- Length o.a. incl. ladder and spudkeepers: 25.00 m
- Length over pontoons: 16.00 m
- Beam o.a.: 6.05 m
- Draft (100 % filled bunkers) approx.: 1.10 m
- Air draught (spuds removed/ ladder up) approx.: 4.70 m
- Total weight approx.: 55 ton

**DREDGE INSTALLATION**
- Dredge pump type: BP3530MD
- Impeller design: high efficiency, double vane, 4 bladed
- Impeller diameter / width / spherical passage: 80 / 175 / 150 mm
- Diameter suction- and discharge pipe: 350 mm
- Cutter: 5-bladed, diameter: 1150 mm
- Cutter power: 55 kW
- Cutter speed: 0-9-18-36 rpm
- Mooring system: two spud poles and two swing winches

**TANK CAPACITIES**
- Fuel oil approx.: 2 x 4 m³ (for ± 100 running hours)
- Ballast water (fore and aft): 2 x 3 m³ and 2 x 3 m³

**ENGINE INSTALLATION**
- Total installed power: 485 kW
- Dredge pump diesel: Caterpillar 3412E DITA JWAC IMO version
- Continuous power rating: 485 kW (A-rating) @ 1800 rpm
- Driving cutter, winches and spuds
- Electric installation: 24 Volt DC for controls, lighting, auxiliaries, engine room ventilation

**DECK MACHINERY**
- Ladder winch (1x): 50 kN, 0-15 m/min
- Side wire winches (2x): 50 kN, 0-15 m/min
- Spud hoisting (2x): by hydraulic cylinder, stroke 1250 mm

**PROCESS INSTRUMENTATION**
- Vacuum and pressure indication
- Mechanical dredging depth indicator

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**GENERAL ARRANGEMENT**

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**PRODUCTION CURVES**
- Production of in situ cubic meters versus discharge distance for various volumetric concentrations for grain size 0,2 mm
- Production of in situ cubic meters versus discharge distance for various grainizes at concentration of 20%