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NEW

8" SWINGING LADDER DREDGE

"SWINGING DRAGON"™

SPECIFICATIONS

General

Length— with Ladder overall.....	17.2m
Width—Hull, overall.....	4.65m
Width-Shipping, overall.....	3.2m
Height-Overall (without spuds).....	3.52m
Height-Overall (shipping).....	3.05m
Dry Weight (estimated).....	23.2 tonnes
Average Draft (estimated).....	0.71m
Fuel Capacity (76.2mm Air Space) - (2 independent fuel tanks).....	950 liters

Hull

Length.....	15.04m
Depth.....	1.07m
Width.....	4.65m
Built-in Ballast Tanks.....	@ 4 corners
Minimum Exterior Steel Plate Thickness.....	3/16"
Lifting Lugs for lifting complete dredge.....	4

Diesel Engine

John Deere Model 9.0 L6090HF070 Turbocharged Diesel Engine—Radiator Cooled. Continuous Power Rating 280 kW @ 2200 RPM. 12V DC Electrical System. Engine Control Panel with Digital Read-Outs in Operator's Cab.

Dredge Pump

203mm Dia Suction x 203mm Dia Discharge—Hull Mounted. 19.5" Dia 3-Vane. Impeller - Thread-mounted on a Heavy-Duty Shaft. Wet End Parts (Impeller, Casing, Suction Cover & Replaceable Rear Liner) - 28% High Chrome Alloy Cast Iron (600 BHN Minimum). Oil lubricated bearing assembly with lip seal. Rope Packing on Pump End with Water Flush. Anti-Friction Roller Bearings for Thrust and Radial Loads. Typical Operating Point—11,356 LPM @ 45.7m of Head (Water) @ 1132 RPM. Efficiency @ Typical Operating Point 77%. Maximum Sphere Size 92mm

Cutter Head

Cutter diameter 787mm. Number of Blades 6. Cutting Blade Edges Replaceable Blades. Shaft diameter 64mm. Torque Rating 2,560N-m. Speed Range 0-40 RPM. Cutter Horsepower 40 (30kW). Cutting Force 1,815 kg. Cutting Force per Linear Inch of Edge 11.43 kg/cm

Dredge Range

Minimum Digging Depth 0.61m. Maximum Digging Depth 4.57m. Width of Cut @ 0.61m Digging Depth - 6.7m. Width of Cut @ 4.57m Digging Depth – 5.5m

Ladder Swing Cylinder

Nominal Size.....	152mm Bore x 457mm Stroke
Rod Diameter.....	64mm
Style.....	Connecting Rod End(s)
Burst Pressure.....	51.7 MPa
Operating Pressure.....	17.2 MPa

Ladder Hoist Cylinder

Nominal Size.....	152mm Bore x 762mm Stroke
Rod Diameter.....	64mm
Style.....	Connecting Rod End(s)
Burst Pressure.....	51.7 MPa
Operating Pressure.....	17.2 MPa

Kicker Spud Cylinder

Nominal Size.....	152mm Bore x 254mm Stroke
Rod Diameter.....	64mm
Style.....	Connecting Rod End(s)
Burst Pressure.....	51.7 MPa
Operating Pressure.....	17.2 MPa

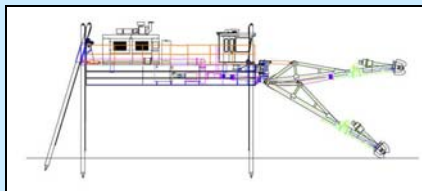
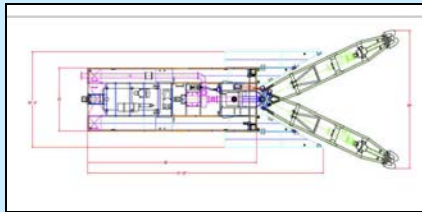
Spud Hoist Winches

Type- High performance, high efficiency, planetary hydraulic winch. Line Pull – 998 kg. Line Speed (Up and Down) – 25.3 MPM. Maximum Operating Pressure – 17.2MPa. Wire Rope Diameter and Type – 12.7mm – 152mm x 483mm Galvanized Wire Rope

- **Newly designed**
- **Contractor Quality**
- **Articulated ladder with high head hull pump**

Applications

- **Lakes/Ponds**
- **Marinas/Docks**
- **Environmental Clean-ups**



One-Truck Transportable

These specifications are representative of a typical swinging ladder dredge design, but are subject to change at manufacturer's discretion when necessary to update the product, and to provide the best available technology that optimizes dredge performance, improves quality, and best satisfies our customers' needs.

Hydraulic Systems

Pump Drive - Double Pump – Engine Direct Drive.

Circuits: Dredge Pump (Closed Loop): 34.5 MPa Max Continuous Rating. 38 MPa Relief Pressure Setting

Cutter Head & Auxiliary. 17.2 MPa Continuous Rating. 19.3 MPa Relief Pressure Setting

Circuit Type(s): Dredge Pump – Closed Loop Hydro-Transmission. Auxiliary Controls – 8 bank proportional directional control valve(s)

Operator's Cab

Construction - Steel galvanized sheet wrapper with steel tubular frame, sound attenuating foam insulation on walls and ceiling, and tinted safety glass windows. Bi-fold door on both sides of cab. Heating/Cooling - Roof mounted air conditioner with hot water heater and fan

Engine Control Panel

Diesel engine control panel with read-outs including speed control, tachometer, oil pressure, coolant temperature, high temperature and low oil pressure shut-down

Controls

Individual "Finger-Tip" Control Switches:

- Dredge pump On/Off and Speed
- Cutter head Fwd/Off/Rev and speed
- Ladder swing cylinder, Starboard/Off/Port and Speed
- Ladder hoist cylinder, Up/Off/Down
- Starboard spud hoist, Up/Off/Down
- Port spud hoist, Up/Off/Down
- Kicker spud hoist, Up/Off/Down
- Kicker spud, Fwd/Off/Rev
- Service water pump, On/Off

Lighting

Front and Rear Work Lights. Interior Cabin Light

Instruments

Gauges:

- Slurry Pressure and Vacuum Gauges (Dial Type)
- Hydraulic Pressure Gauge, Dredge Pump Circuit
- Hydraulic Pressure Gauge, Cutter Head Circuit
- Hydraulic Pressure Gauge, Auxiliary Circuit(s)

Options

- Windshield Wiper & Horn
- Dredge Positioning System
- Production Meter
- Suction/Discharge Relief Valve

Safety Equipment

Two fire extinguishers, two life vests, and life ring.

Coating System

All surfaces contacting liquid in the waterway are sandblasted and given two coats of coal tar epoxy having a minimum film thickness of 12 mils (DFT). All other surfaces are primed and coated with two coats of urethane enamel having a combined minimum film thickness of 4 mils (DFT). The cab, diesel engine, hydraulic pump drive, hydraulic components, etc. have their original OEM coatings.

New 8" Swinging Ladder Dredge – "Swinging Dragon"™

