



IMS Model 8010 HP Versi-Dredge[®]

Dimensions

Length	56'-6" (17.2 m)
Width	10'-0" (3.1 m)
Width – Shipping, Overall	10'-6" (3.2 m)
Height – Overall (Without spuds)	11'-6 1/2" (3.5 m)
Height – Overall (Shipping)	10'-0" (3.1 m)
Dry Weight (Estimated)	52,000 Lbs. (23,587 kg)
Average Draft (Estimated)	2'-4" (.7m)
Fuel Capacity (3" Air Space)	250 U.S. Gallons (946 L)
	{Two Independent Fuel Tanks}

HULL:

Length (operational)	49'-4" (15 m)
Depth	3'-6" (1.1 m)
Width (operational)	15'-8" (4.8 m)
Built-in Ballast Tanks at Rear Corners	
Minimum Exterior Steel Plate Thickness	3/16" (4.8 mm)
Four (4) Lifting Lugs for lifting complete dredge	

DIESEL ENGINE:

Type	John Deere Model 9.0 L 6090HF070 Turbocharged Diesel Engine – Radiator cooled Continuous Power Rating – 375 HP (279 kW) @ 2200 RPM
	Sound Reduction Engine Enclosure 12V DC Electrical System Engine Control Panel w/ Digital Read-outs in Operator's Cab

DREDGE PUMP:

8" (203 mm) Diameter Suction x 8" (203mm) Diameter Discharge-Hull Mounted 19.5 (5.9 m) " Diameter 3 Vane Impeller – Thread Mounted on a Heavy-Duty Shaft Wet End Parts (Impeller, Casing, Suction Cover and Replaceable Rear Liner – 28% High Chrome Alloy Cast Iron (600 BHN Minimum) Oil Lubricated Bearing Assembly w/ Lip Seal Rope Packing on Pump End with Water Flush Anti-friction Roller Bearings for thrust and radial loads Typical Operation Point – 3,000 GPM (11.355 liters/sec) @ 150' (45.7 m) of Head (water) @ 1132 RPM Efficiency @ Typical Operating Point – 77 % Maximum Sphere Size – 3.625" (92 mm)

CUTTER HEAD:

Cutter Diameter	31.5" (800 mm)
Number of Blades	6
Cutting Blade Edges	Replaceable Blades
Shaft Diameter	2 1/2" (63.5 mm)
Torque Rating	63,000 Lb.-In.
Speed Range	0 – 40 RPM
Cutter HP	40 (30 kW)
Cutting Force	4,000 Lb. (1,814 kg)
Unit Cutting Force	64 Lb./ Inch

DREDGE RANGE:

Minimum Digging Depth	2'- 4" (.7 m)
Maximum Digging Depth	15' (4.6 m)
Width of Cut @ 2'-4" Digging Depth	22'-0" (6.7m)
Width of Cut @ 15' Digging Depth	18'-3" (5.6 m)

LADDER SWING CYLINDER:

Nominal Size	6" (152 mm) Bore x 16" (406 mm) Stroke
Rod Diameter	2 1/2" (63.5 mm)
Style	Connecting Rod End(s)
Burst Pressure	7,500 PSI
Operating Pressure	2,500 PSI

LADDER HOIST CYLINDER:

Nominal Size	6" (152 mm) Bore x 30" (762 mm) Stroke
Rod Diameter	2 1/2" (63.5 mm)
Style	Connecting Rod End(s)
Burst Pressure	7,500 PSI
Operating Pressure	2,500 PSI

KICKER SPUD CYLINDER:

Nominal Size	6" (152 mm) Bore x 10" (254 mm) Stroke
Rod Diameter	2 1/2" (63.5 mm)
Style	Connecting Rod End(s)
Burst Pressure	7,500 PSI
Rated Operating Pressure	2,500 PSI

SPUD HOIST WINCHES:

Type	High Performance, High Efficiency Planetary Hydraulic Winch
Line Pull (First Layer)	5,025 Lbs. (2,279 kg)
Line Speed (Up and Down)	70 FPM (21.3 MPM)
Maximum Operating Pressure	2,000 PSI
Wire Rope Diameter & Type	1/2" (12.7 m)- 6 x 19 Galvanized Wire Rope

HYDRAULIC SYSTEMS:

Pump Drive	Double Pump – Engine-Direct Drive
Circuits	Dredge Pump (Closed Loop) 4,500 PSI Max. Continuous Rating 5,500 PSI Relief Pressure Setting
	Cutter Head 2,500 PSI Continuous Rating 2,800 PSI Relief Pressure Setting
	Auxiliary 2,500 PSI Continuous Rating 2,800 PSI Relief Pressure Setting

Circuit Type(s)	Dredge Pump - Closed Loop Hydro-Transmission Auxiliary Controls – 7 Bank Proportional Directional
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Control Valve(s)	Cutter Proportional Directional Control Valve
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OPERATOR'S CAB:

Construction Steel Galvannealed Sheet Wrapper w/ 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 w/ 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 & Low Oil Pressure Shut-Down
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Controls	Individual "Finger Tip" Control Switches Dredge Pump On/Off & Speed Cutter Head Fwd/Off/Rev & Speed Ladder Swing Cylinder, Starboard/Off/Port & 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
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Lighting	Front & Rear Work Lights Interior Cabin Light
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Instruments Gauges	Slurry Pressure & Vacuum Gauges (Dial type) Hydraulic Pressure Gauge, Dredge Pump Circuit Hydraulic Pressure Gauge, Cutter Head Circuit Hydraulic Pressure Gauge, Auxiliary Circuit(s)
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Options:	Windshield Wiper and Horn
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SAFETY EQUIPMENT:

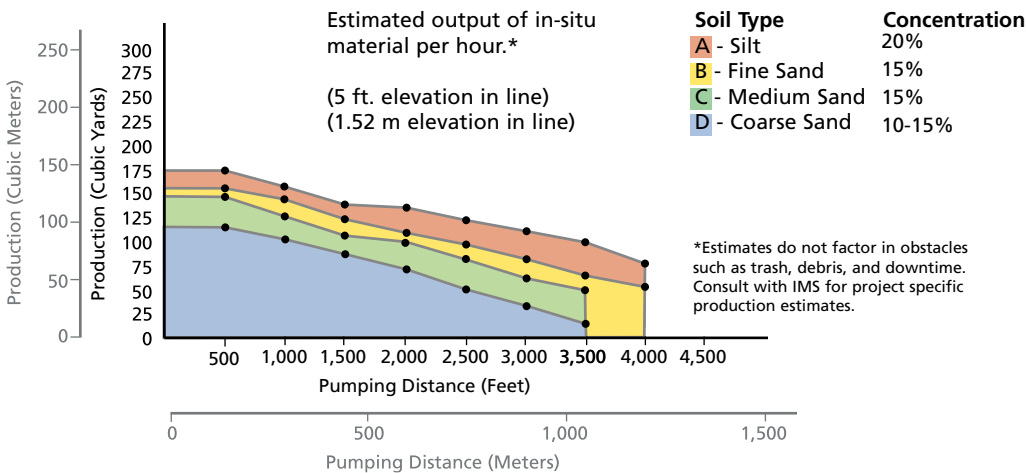
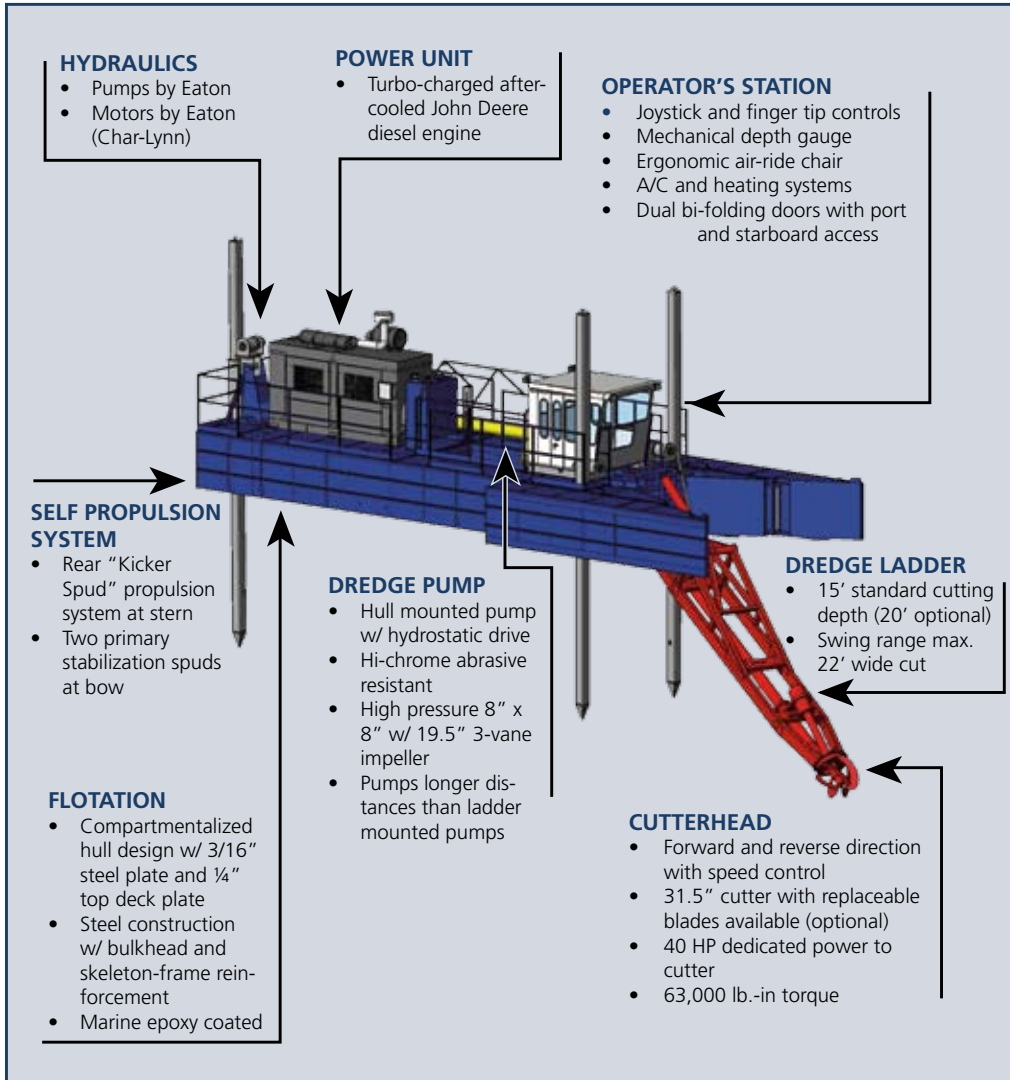
Two Fire Extinguishers and Two Life Vests. Life Ring with Rope is optional.

COATING SYSTEM:

All underwater parts are given two coats of marine epoxy primer followed by a marine urethane top coat. Above water parts are first coated with a zinc rich primer followed by a marine epoxy primer and top coated with acrylic polyurethane. The deck is also given an anti-skid surface. The minimum paint thickness for below and above water coatings is 12 mils, not including OEM coatings.

These specifications are representative of a typical swinging ladder dredge design, but are subject to change at IMS'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 customer's needs.

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IMS, A Division of LWT Dredges, Pumps and Pumping Systems

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