

Technical Specification

PRD MAX DRILL 4000



A super performer bore hole drilling rig with a pull up force of 42200 kg capable of drilling 6 ½" diameter up to 1350 m depth. Drilling hole size range from 6 ½" to 20".

Note: The images provided here are for reference only and do not depict the exact specification outlined in this document.



De-watering holes Application De-watering and monitoring holes in the mines Cathodic protection Hole Diameter : 165 - 508 mm (6 1/2" - 20") Capacity Maximum Depth : 1350 m @ 165 mm (6 1/2") diameter **Drilling Method** DTH and Rotary Drilling Rig hydraulic system is powered from separate Deck Engine **Prime Mover** Make: Cummins Model: NTA855BC Heavy I and C section welded steel structure covered with 5mm **Platform Structure** chequered plate Strong structural steel twin tubular box type construction Mast Overall Length: 10000 mm Rotary Head Travel: 7300 mm Mast Assembly Rod Handling : 6 m Centralizer Opening: 16 "(406 mm) Expandable : 28" (711 mm) Split type Mast is raised and lowered by two hydraulic cylinders Mast Raising Cylinder Mast Dumping Mast is provided with forward dumping arrangement 2 x Double acting hydraulic cylinder with 1:2 double rope reeving system Pull Up Force : 42200 kgf (92840 lb.f) @ 210 bar Feed System Pull Down Force : 18500 kgf (40700 lb.f) @ 210 bar Pull Up Speed : 17 m/min Pull Down Speed : 34 m/min

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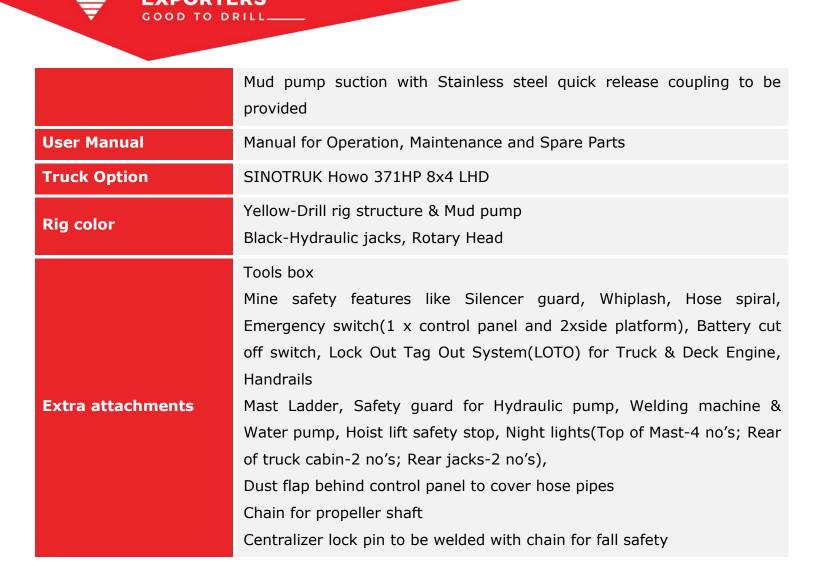
GOOD TO DRILL	
Rotary Head Assembly (Top Head Drive)	Fabricated steel body with spur gear reduction and oil bath lubrication type gearbox along with top air entry and bottom entry mud swivel having ID: 90 mm spindle thread connection of API 6 5/8 IF driven by double hydraulic motor. Tilting Rotary Head with locking system will be provided Rotary Head Motor Make: Danfoss/Bondioli Pavesi(Italy)
	Maximum Torque : 11900 Nm
	Rotation Speed : 0 - 120 rpm Fine controlled
Hydraulics	 2 x Variable displacement piston pump for Feed and Rotation 1 x Fixed displacement pump for Auxiliary operations 1 x Fixed displacement pump for Hydraulic cooler Pilot operated proportional control valve for Feed and Rotation Hydraulic Hose Make: Manuli, Parker, GATE depends on the application. High Tensile reinforcement spiral hose. Hydraulic pump make: Danfoss
	Maximum System Pressure : 3480 psi (240 bar)
	Hydraulic Oil Cooler : 120 gpm
	Hydraulic Tank Capacity : 950 litres
Control Panel	Swing out centralized control panel is at rear end of the equipment for convenient view of drill table provided with all necessary gauges, control system and emergency switch. Locking arrangement is provided for the safety of control panel.
Levelling Jacks	 4 x Hydraulic levelling jacks are provided for quick setting and levelling with heavy duty telescopic guides 2 x Additional hydraulic jacks are provided at rear of truck cabin for more stability 2xAdditional hydraulic jacks are provided to support Mast Locking check valves for safety with adequate capacity to withstand load

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Breakout Wrench	Hydraulic operated breakout wrench is provided for fast breaking of rod joints
Water / Foam Injection Pump	Hydraulic operated water injection triplex pump with necessary fittings, pressure regulator, flow regulator, check valve and suction filter are provided.
	Maximum Flow : 100 lpm
	Maximum Pressure : 40 kg/sq.cm
Winches	Hydraulic operated auxiliary winch to load drill pipe into rod changer with a lifting capacity of 1 ton.
	Winch on mast: 2 ton swing type winch to handle casing pipes.
Welding Machine	Hydraulic driven semi brushless welding alternator is provided for welding casing pipes
	Welding electrode : 4mm
	Weld current : 40-180 ADC
	Auxiliary electricity : 1-phase: 230 VAC/3.0 kVA 3-phase: 400 VAC/6.0 kVA Make: Dynaset(Europe)
Airline Lubricator	A positive acting venturi type inline lubricator is provided for injecting oil to the down hole hammer
	Tank capacity : 20 litres
	Working pressure : 350 psi
Mud Pump	Hydraulic operated PRD 250 Mud Pump (10" x 7") onboard Stroke : 10" (254 mm) & Liner size diameter : 7 " (178 mm) Displacement (Max recommended) : 1980 lpm Maximum working pressure : 292 psi (20.53 kg/sq.cm) Make: Laxmi 250 model Valve for Mud drilling operation to be fixed in Control panel

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*Combinations will vary according to our Design feasibility

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