



## Technical Specification

### PRD 650



**A specially crafted bore hole drilling rig with a pull up force of 7800 kg capable of drilling 6 ½” diameters up to 250 m depth. Drilling hole size range from 6 ½” to 10”.**

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





<b>Application</b>	Domestic Water Wells
<b>Capacity</b>	Hole Diameter : 165 - 254 mm (6 ½" - 10")
	Maximum Depth : 250 m @ 165 mm (6 ½") diameter
<b>Drilling Method</b>	DTH and Rotary Drilling
<b>Prime Mover*</b>	Rig hydraulic system is powered from Truck Engine with PTO option through Transfer Gearbox arrangements or suitable Deck Engine - 105 hp
<b>Platform Structure</b>	Heavy I and C section welded steel structure covered with 5mm chequered plate
<b>Mast Assembly</b>	Strong structural steel twin tubular box type construction
	Mast Overall Length : 6130 mm
	Rotary Head Travel : 5550 mm
	Rod Handling : 3 m
<b>Mast Raising Cylinder</b>	Centralizer Opening : 10 5/8" (270 mm)
	Mast is raised and lowered by single hydraulic cylinder
<b>Feed System</b>	1 x Double acting hydraulic cylinder with 1:3 rope reeving system
	Pull Up Force : 7800 kgf (17160 lb.f) @ 190 bar
	Pull Down Force : 5300 kgf (11660 lb.f) @ 190 bar
	Pull Up Speed : 62 m/min
<b>Rotary Head Assembly (Top Head Drive)</b>	Pull Down Speed : 103 m/min
	Fabricated steel body with spur gear reduction and oil bath lubrication type gearbox along with top air entry and spindle thread connection of API 2 7/8 IF driven by single hydraulic motor
	Maximum Torque : 3000 Nm
	Rotation Speed : 0 - 80 rpm Fine controlled





<b>Hydraulics</b>	2 x Fixed displacement pump for Feed and Rotation
	2 x Fixed displacement pump for Mud pump, Auxiliary operations and Micro feed
	Maximum System Pressure: 2750 psi (190 bar)
	Hydraulic Tank Capacity: 450 litres
<b>Control Panel</b>	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
<b>Levelling Jacks</b>	4 x Lug mounted Hydraulic levelling jacks are provided for quick setting and levelling of the drill rig. Locking check valves for safety with adequate capacity to withstand load.
<b>Breakout Wrench</b>	Hydraulic operated break out wrench is provided for fast breaking of rod joints
<b>Water / Foam Injection Pump</b>	Hydraulic operated water injection triplex pump with necessary fittings, pressure regulator, flow regulator check valve and suction filter are provided
	Maximum Flow : 50 lpm
	Maximum Pressure : 50 kg/sq.cm
<b>Airline Lubricator</b>	A positive acting venturi type inline lubricator is provided for injecting oil to the down hole hammer.
	Tank capacity : 15 litres
	Working pressure : 350 psi





<b>Recommended Air Compressor*</b>	<u>Make</u> ELGI / Atlas Copco / Doosan <u>Compressor capacity</u> 1100 cfm - 300 psi (21 bar) 600 cfm - 200 psi (14 bar)
<b>Mud Pump Option*</b>	Hydraulic operated PRD 125 Mud Pump (5" x 4.5") Stroke : 5" (127 mm) Liner size diameter : 4.5" (114 mm) Displacement (Max recommended) : 550 lpm Maximum working Pressure : 197 psi (13.85 kg/sq.cm)
	Engine / Hydraulic driven Centrifugal Mud Pump:  Discharge : 600 lpm  Total Head : 30 mtr
<b>Additional Fitments</b>	Night Lights, Tools box, Hammer stand, Fuel tank for compressor
<b>User Manual</b>	Manual for Operation, Maintenance and Spare Parts
<b>Truck Option*</b>	Ashok Leyland Stallion 4x4 Ashok Leyland 4x2 / 6x4 12 to 25 ton GVW Truck
<b>Mounting Option*</b>	Truck / Crawler / Skid
<b>Optional Attachments</b>	Welding Machine Auxiliary winch : 1 ton Single Rod Changer Hydraulic Oil Cooler 4 m rod handling mast

*\*Combinations will vary according to our Design feasibility*















**Happy Drilling Forever with PRD Rigs**

