PAT-Drill 501 MP is drilling machine mounted on a Hino truck 10,000 KG GVW 4x2 Truck.

Sedimentary rock mud drilling 150-300mm (6”-12”) diameter using the onboard mounted 8x12 duplex piston mud pump to depths of 300m

Hard rock air drilling with auxiliary compressor unit 150-245mm (6”-10”) with 6” DTH hammers.

PAT-Drill 501 MP mounted on Hino Truck 4x2 Diesel engine 210 hp Right Hand Steering has low gear creep ratio and rear axle “no spin” differential system.

Drilling machine powered hydraulic system by independent diesel engine “Yanmar 4 cylinder 83 hp”.

Mud Pump PTO driven from 156 kW (210 HP) Hino truck engine.
TECHNICAL DATA & SPECIFICATION

RECOMMENDED HOLE RANGE (Depths to 300 m)

Medium & hard rock, DTH-Hammer drilling: (Needs a separate air compressor)
5"-6" DTH-Hammer with the capacity to drill
6"-9 5/8" (150-245 mm) diameter.

Soft formations, rotary 'mud' drilling:
Drag bit or PDC drill bit 6"-12" (150-305 mm) diameter.

TOP ROTATION HEAD
Double reduction gearbox, 2 hydraulic motors driven, and variable rotation speed. Enable to swing-a-side for easily casing installation. 50 mm (2") Air/water pipe work & flanged drill pipe adaptor inside diameter, sub joint 2 7/8 API Reg Mod.

Gear box ratio
Speed
Max. torque
4.75 : 1
0 – 65 rpm
5,230 Nm

MAST
All steel work, 6.50 metres high, break-out table to open 350 mm diameter. Mast raised to vertical from storage position by a hydraulic cylinder. The machine is also equipped with 2 LED flood lights for night time operation.

FEED SYSTEM
Rotation head is raised and lowered by a hydraulic cylinder and heavy-duty transmission chain. Head travelling stroke 4.65 metres

Pull up - Capacity:
Max. speed:
6,400 kg
32 metres/min

OPERATION CONTROL PANEL
5 levers controlling rotation head, pull and feed, winch.
2 regulators for rotation speed, pull/feed weight.
5 system pressure gauges.
Ridgid mounted control panel with lockable cover plate.

HYDRAULIC POWER PACK (Rig service)
Engine: 83 hp (62.5 kW) at 2500 rpm, 4 cylinders, YANMAR 4TNV98T diesel engine, water-cooled, electric start.
Hydraulic system: Triple gear pump type, system pressure 250 bar max, 300 litres tank capacity.
Fuel tank: Combine with engine truck

MUD PUMP
High pressure Mud pump. Duplex 8x12 Piston Mud pump, mounted on board of Rig platform.

Capacity, Flow:
Pressure:
800 litre/min
25 bar

Complete with Hoses, Strainer, Mixer and mud pump tools, spares.
Mud pump driven by Power Take Off (PTO) from truck engine.

WATER/FOAM INJECTION PUMP
Triple piston pump driven by a hydraulic motor.

Motor speed:
Max. displacement:
Max. working pressure:
450 rpm
10 litres/min
30 bar

STABILISING JACK
4 jacks hydraulic, re-positional to adjust ground clearance.

AIR LUBRICATION SYSTEM
Fitted lubricator of Venturi-type for inject lubrication-fully adjustable flow control-for DTH-Hammer

Max pressure:
Oil tank capacity:
40 bar
7 litres

PIPE RACK
Each side containing: (For 3 metre) 20 pcs. 89 mm pipes

DRILL PIPE
Drill pipe length:
Drill pipe diameter options:
3 metres
89 mm

TRUCK
HINO 500 Series Truck, 210 hp Euro 3 GVW 9,900 Kg capacity 4,285 m. cargo body length on 820 mm. over face chassis rails.
Suspension: Leaf springs and shock absorbers.
Trailer light: Fitted trailer lights with 7 pin plug connection to vehicle system. and standard hook for towing.
Wheels & Tyres: 6 x Radial 8.25-R16

1,000 kg mast head winch for 6 m casing handling.

DIMENSIONS
Overall length : (L)
Overall width :
Overall height : (H)
Weight (without drill pipes)
6.92 m
2.2 m
3.36 m
7,400 kg

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