PAT-Drill 501 is a truck mounted drill rig powered by a deck engine mounted on a rail chassis to fit any suitable 8,500 kg GVW truck.

For down-the-hole-hammer and mud rotary drilling up to 300 m depth 150-245 mm diameter – according to tool selection.

Key Features:

Mast operates with 3 m drill pipes. moving 4.65 m drill stroke.

When mast vertical it can be ‘raised & dumped’ for clearance to set surface casing or suit drill pipe handling.

Rig table 350 mm diameter opening.

Flush drill pipe 76 mm and 90 mm diameter larger diameter best for efficient deep mud drilling.

Rotary head: 50 mm (2") Air/Water pipe work & swivel.
Two hydraulic motor provide hight torque.

Re-positionable levelling jacks give high ground clearance of vehicle mounting options.
TECHNICAL DATA & SPECIFICATION

RECOMMENDED HOLE RANGE (Depths to 300 m)
Medium & Hard rock, DTH-Hammer drilling :
( Needs a seperated air compressor)
5" - 6" DTH-Hammer with the capacity to drill
6" - 9 5/8" (150-245 mm) diameter.
Soft formations, rotary 'mud' drilling :
( Needs a seperated mud pump)
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 3/8 API Reg Mod.
Gear box ratio 4.75 : 1
Speed 0 – 65 rpm
Max. torque 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: 6,400 kg
Max. speed: 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
Engine: 69 hp (50.7 kW) at 2500 rpm, 4 cylinders, YANMAR
4TNV98-NSA 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

WATER/FOAM INJECTION PUMP
Triple piston pump driven by a hydraulic motor.
Motor speed: 450 rpm
Max. displacement: 10 litres/min
Max. working pressure: 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: 40 bar
Oil tank capacity: 7 litres

PIPE RACK
Each side containing: (For 3 metre) 20 pcs. 90 mm pipes

DRILL PIPE
Drill pipe length: 3, 4 metres
Drill pipe diameter options: 76 & 90 mm

TRUCK
HINO 300 Series Truck (GVW) 8,500 Kg capacity 4.40 m. cargo
body length on 700 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 7.50-R16
1,000 kg mast head winch for 6 m casing handling.

DIMENSIONS
Overall length : (L) 7.1 m
Overall width : 2.20 m
Overall height : (H) 3.2 m
Weight (without drill pipes) 6,300 kg

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