

PAT-Drill 501

A Truck Mounted Drilling Rig

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 high 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

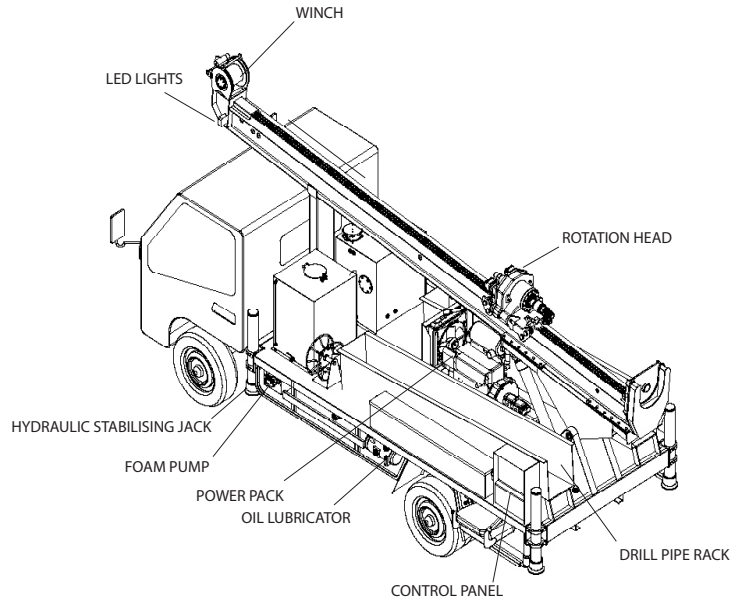
Rotation head is raised and lowered by a hydraulic cylinder and heavy- duty transmission chain. Head travelling stroke 4.65 metres
Pull up - Capacity: 6,400 kg
Max. speed: 32 metres/min

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



Promotion of Appropriate Technology Co.,Ltd. reserves the right to change these specifications without notice



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