

PAT-Drill 301T, 301TP

Part no 33 1 0000 (301T), 33 1 1000 (301TP)

Compact, Portable, Trailer-Mounted Drilling Rig

PAT-Drill 301T or PAT-Drill 301TP is a highly compact, mounted-on trailer hydraulic drilling rig, available with all drilling accessories, easy to set-up and move.

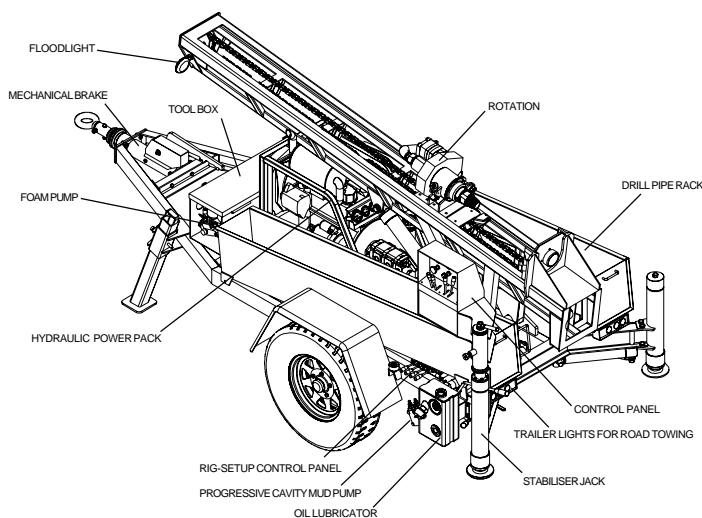
This is an ideal multipurpose rig, powerful, versatile and easy to transport across a variety of terrains.

(301TP Model) Fitted with a built in under slung progressive cavity high flow, high head mud pump powered by the deck engine makes a powerful all inclusive package for deep sedimentary drilling.



More facilities

- Heavy-duty trailer with mechanical overrun and auto reverse brakes.
- 2-front manual & 2-rear hydraulic jack stabilizers for rig leveling.
- Hydraulic-driven foam pump on board.
- Two floodlights for night time operation.



The PAT-Drill Rigs are popular choice for Government, United Nations, and Non-Government organizations (NGO) looking for appropriate and low cost drilling equipment to provide domestic water supplies to rural village communities at an economical price.

PAT-Drill 301T, 301TP

Technical Data, Specifications

RECOMMENDED HOLE RANGE

Medium & Hard rock, DTH-Hammer drilling operation:

- 3"- 5" model DTH-Hammer with capacity to drill
- 4"- 6 1/2" (100-165 mm) diameter

Soft formations, rotary drilling operation:

- Drag bit 4"- 8" (100-200 mm) diameter

ROTATION HEAD

Single reduction gearbox, hydraulic motor driven, and variable rotation speed. Able to swing-a-side for easy casing installation. Swivel spindle 40 mm inside diameter, sub joint 2 3/8 API Reg Mod

Gear box ratio	3.875 : 1
Speed	0 - 55 rpm
Max. torque	1980 Nm

MAST

All steelwork, 3.15 metres high, break-out table to open 200 mm diameter. Mast raised to vertical from storage position by a hydraulic cylinder. The mast is also equipped with 2 floodlights for night time operation

FEED SYSTEM

Rotation head is raised and lowered by a hydraulic cylinder and heavy-duty transmission chain.

Head travelling stroke:	2.25 metres
Pull up	
Capacity	2300 kg
Max. speed	19.5 metres/min
Pull down	
Capacity	3480 kg
Max. speed	14.5 metres/min

OPERATION CONTROL PANEL

- 4 levers: controlling rotation head, pull and feed
- 2 regulators for rotation speed and pull/feed weight
- 4 system pressure gauges

HYDRAULIC POWER PACK

- Engine: 20 hp (15 Kw) at 2800 rpm, 3 cylinders, YANMAR diesel engine, water-cooled, electric start (Optional: 20 hp (15 Kw) petrol engine)
- Hydraulic system: double gear pump type, system pressure 250 bar max, 70-litres tank capacity
- Fuel tank: 25 litres

WATER / FOAM INJECTION PUMP

Triplex piston pump driven by a hydraulic motor.

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

STABILISING JACKS

2 Rear jacks	Hydraulic driven
2 Front jacks	Manually operated jack

HYDRAULIC BREAK-OUT WRENCH

A hydraulic ram assist making and breaking drill pipe threaded connections

PROGRESSIVE CAVITY MUD PUMP (PAT-Drill 301TP only)

An under slung mounted, hydraulic motor driven progressive cavity mud pump capable of delivering 600 litres / minute @ 6 bar pressure supplied with 3" suction hose and 1 1/2" gunline hose

AIR LUBRICATION SYSTEM

Fitted lubricator of Venturi-type for drip lubrication-fully adjustable flow control-for DTH-Hammer

Max. pressure	20 bar
Oil tank capacity	6 litres

PIPE RACK

Each side containing	12 pcs. 76 mm pipe
	15 pcs. 60 mm pipe

DRILL PIPE

Drill pipe length	2 metres
Drill pipe diameter	60 / 76 mm
Thread	2 3/8 API Reg Mod

TRAILER

Towing	Standard towing eye (ball optional)
Brake system	mechanical brake for overrun, parking and auto reverse
Suspension	2 leaf springs and 2 shock absorbers
Trailer light	Fitted trailer lights with 7 pin plug connection to vehicle system
Tyres	700-R15, 8 PLY

WEIGHT (without drill pipes): 1450 kg (PAT-Drill 301T)
1570 kg (PAT-Drill 301TP)

DIMENSIONS

Overall length (A)	4030 mm
Overall width	1690 mm
Overall height (C)	1750 mm

