

# GEO 500 Drill Rig





Depth Capacities (Vertical Borehole)		
	Dry Hole (m)*	Wet Hole (m)*
<b>PWL</b>	450	500
<b>HWL</b>	700	770
<b>NWL</b>	1.050	1.155

(\* ) Depth capacity is given according to drill rig feed cylinder pull capacity. Depth capacity might be increased while using the rods which have light weight V-wall or different thread design. Depth based on vertical hole.

Power Unit (80 cc)		
	Option 1	Option 2
<b>MFG</b>	Iveco (@2200 RPM)	Cummins (@2200 RPM)
<b>Model</b>	N67MNTX20.00 A800	6BTA5.9-CI80-II
<b>Power</b>	129 kW (175 HP)	132 kW (180 HP)
<b>Type</b>	Turbo & intercooler	Turbo & intercooler
<b>Cooling</b>	Water	Water

Our standard production includes Iveco and Cummins engines. Upon request from different manufacturers such as Volvo, Ford, and Deutz the delivery date may vary based on the engine delivery date.

Torque & RPM Rating		
Gear Ratio	Speed (RPM)	Torque (Nm)
1. 6,27:1	122 - 199	3.950 - 2.250
2. 3,12:1	246 - 400	1.650 - 1.420
3. 1,75:1	439 - 714	1.420 - 705
4. 1,00:1	714 - 1.250	705 - 341

Rotation Lubrication Unit	
Hydraulically driven cooled oil circulation, with 25 micron suction filter.	

Chuck Assembly	
<b>Type</b>	7 jaws - Hydraulic open, spring closed
<b>Max. Inside Diameter</b>	120 mm (P wireline size)
<b>Holding Capacity</b>	19.000 kg

Hydraulic System (@1.600 RPM)		
	Max. Flow Rate	Max. Pressure
<b>Primary Pump</b>	128 L/min	300 Bar
(Main hoist, Wireline hoist, Rotation, Fast feed pull/push cylinder and Crawler tracks)		
<b>Secondary Pump</b>	72 L/min	230 Bar
(Water/mud pump)		
<b>Auxiliary Pump</b>	72 L/min	180 Bar
(Fine feed drilling, Foot clamp, Chuck, Rod slide, Rotation head slide, Rotation pilot, Main hoist pilot, Rotation lubrication, Mast raising/lowering, Mast dump/retraction, Mast telescope, Leveling jacks (4))		
<b>Mixer Gear Pump</b>	32 L/min	60 Bar
(Hydraulic oil and rotation unit box oil cooling)		

Hydraulic Oil Cooling	
Hydraulic and rotation unit box oil are cooling by air.	

Mast & Feed System	
<b>Drilling Angle</b>	Vertical to 90 degree
<b>Sliding Distance</b>	2,20 m (According to mast axis)
<b>Feed Travel</b>	3,40 m
<b>Telescopic Mast</b>	3,30 m (Open and close by hydraulic feed cylinder)
<b>Feed Speeds</b>	Fast and slow with variable controls
<b>Maximum Pull</b>	15.000 kg
<b>Maximum Push</b>	12.500 kg
Standard 6 m pull, angle hole, telescopic mast for ease of set up, ST 52-3 steel profile.	

Rod Holder	
There is a rod holder on top of the rotation unit. The rod holder keeps the rod steady, allowing it to be opened using a hydraulic chuck. By moving up and down with a spring system, the rod holder prevents damage to the threads of the rods. The rod holder prevents friction of the rod during advancement by moving forward and backward. P, H and N wireline jaws are using.	



Main Line Hoist		
<b>Capacity</b>	9.000 kg (Single line)	
<b>Cable Size</b>	21,5 m x 16 mm rope	
<b>Line Speed</b>	Bare Drum 35 m/min	
Hydraulic driven planetary hoist.		
Wireline Hoist		
Hydraulically driven with integral counter balance valves.		
<b>Capacity</b>	2.000 m x 4,6 mm rope	
	<b>Line Pull (kg)</b>	<b>Line Speed (m/min)</b>
<b>Bare Drum</b>	1.870	138
<b>Full Drum</b>	545	474
Rod Clamp		
Hydraulically powered N, H, P and S wireline rod jaw sizes.		
<b>Capacity</b>	25.000 kg	
Water Pump		
Hydraulically driven 835 water/mud pump.		
<b>Max. Flow Rate</b>	35 gpm @ 800 psi	
Mud Mixer (With Mud Mixing Tank)		
Hydraulically driven mud mixer.		
<b>Max. Speed</b>	2.300 rpm	
Drill Base Support		
<b>Supports</b>	4 Hydraulic leveling jacks.	
<b>Travel Length</b>	500 mm	
Crawler Mounted		
<b>Max. Velocity</b>	4,2 km/h	
<b>Max. Slope</b>	30 Degree	
Lighting System		
There are 4 LED lighting lamp on the mast.		
Mast Ladder		
3 parts of ladder.		

Weight	
Crawler Mounted Weight	8.900 kg
Hydraulic Hose & Connections	
Parker connection and hydraulic hoses German brand or Cast connection and hydraulic hoses Italian brand.	
Proportional Valves	
<b>Controls:</b> Main winch, Wireline winch, Rotation, Fast feed pull/push cylinder and Crawler	
Manifold Valve Bank	
<b>Controls:</b> Fine feed drilling, Foot clamp, Chuck, Rod slide, Rotation head slide, Head opener, Rotation pilot, Main hoist pilot, Rotation lubrication control valves.	
Auxiliary Valve Bank	
<b>Controls:</b> Mast raising/lowering, Mast dump/retraction, Levelling jacks (4)	
Control Panel	
Emergency stop, Drill head rotation pressure, Feed monometer, Hold back manometer, Main hoist monometer, First pump monometer, Secondary pump monometer, Auxiliary pump monometer, Drill head rotation lubrication monometer.	
Engine pressure, Engine temperature, Engine RPM, Engine working hour; Engine trouble information, Drill head lubrication trouble information, Rotation RPM meter.	
Warranty	
1 year against faulty workmanship individual manufactures warranty on all components as per our terms and condition of sale.	
<i>These technical specifications are based on theoretical engineering calculations. Actual capacity will depend on specific drilling conditions and materials. Geo Sondaj Makine İmalat Ltd. reserves the right to change or make modifications to designs and specifications without prior notice or obligation.</i>	

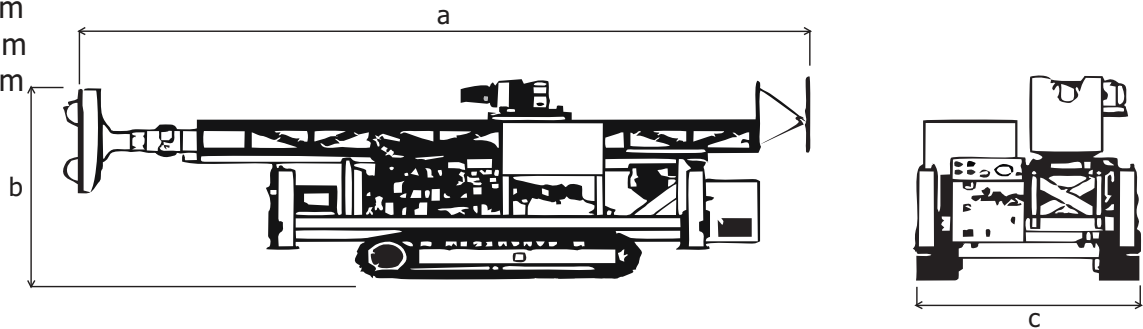


## Options

Mast lighting and installation, Water pump release valve, manometer, accumulator and diaphragm, Rod holder, Rod spinner, Rod loader, Swiveling control panel, Remote control panel, Mast ladder, Enclose operator cabin, Engine service information connection, Warning horn to alert drill crew, Fire suppression unit, Water flow meter, Hydraulic oil reservoir fill pump, Wireline hoist self levelling system, SPT

## Dimensions

a : 7.200 mm  
b : 2.500 mm  
c : 2.230 mm



**All weights and dimensions are approximations and are subject to change.**

**CE certificated.**