

DRILLING EQUIPMENT FOR SOIL INVESTIGATION ENVIROMENTAL SAMPLING - MICROPILES GROUND CONSOLIDATIONS - WATER WELLS

Technology and *Versatility* are the force points of this modern and fully hydraulic drilling rig. The **Multidrill XL** is Strong and Reliable and it is designed with a simple but high-tech logic that allows any drilling operation, related to its dimensions. Its particular conformation gives the possibility to get different rig assemblies with drilling components and accessories that are determined according to specific drilling requirements

The **Multidrill XL** is *silenced - fast - easy to operate - simple to maintain*; that it drastically reduces unproductive times and assure a safe operation for the driller and respect for the enviroment.

The drilling methods that can be used with the **Multidrill XL** are: *Direct and reverse fluid circulation - Down the hole hammer - Auger - Hydraulic top hammer - Core barrel.*

FRASTE DRILLING RIG TYPE MULTIDRILL XL



1. Description of drilling machine:

1.1 MULTIDRILL XL basic machine, truck mounted is powered by deck mounted silenced engine and include: main frame, oil tank, fuel tank, mast support, mast raising cylinder, mast hydraulic cylinder, counterslide, stroke mm 600/800, control panel, mounted on a touring arm for a perfect control of drilling operations.

The hydraulic system with one open loop piston pump in load sensing system, and gears pumps includes valves, gauges, heating exchanger and

no. 4 hydraulic stabilizers with block valves.

Perkins type 1006.60T six cylinders water cooled diesel engine - 108KW (147 HP) - 2500 rpm, silenced by sound proof, complete with electric system and battery.

1.2 Drilling mast for 3000 mm drill pipes with pull-down hydraulic cylinder, with floating and proportional valves for a perfectly adjustable pull up and pull down speed and pressure.

Pull-down system with Fleyer chain forces transmission.

Max pull up speed: 27 mt/1' - Max pull down speed: 43 mt/1'

Pull-up 5000 kg - Pull-down 4000 kg - Stroke 4000 mm

1.3 Rotary head trolley support, with hydraulic side shifting device.

1.4 Four speeds rotary head type R02D060 with two hydraulic motors mounted in serial parallel hydraulic connection and inside double gear ratio, with dampened floating shaft.

Air/water injection swivel included I.D. mm 60.

Torque and speeds in the four gears:

1st speed: kgm 90 @ 270 rpm;

2nd speed: kgm 180 @ 135 rpm;

3rd speed: kgm 350 @ 80 rpm;

4th speed: kgm 700 @ 40 rpm.

1.5 Rotary head rpm counter display, positioned on the control panel.

1.6 Threaded wear sub, positioned under the rotary head.

1.7 Articulated joint for augers - hex connection.

1.8 Double hydraulic clamp, clamping diameter from 60 to 250 mm, for drill pipes and casings holding and break-out.

1.9 Hydraulic winch - fixed drum type - Direct pull 2000 kg - 1st layer. Speed 50 mt./1', supplied with 30 mt. cable diameter mm 10, with hook and cable tensioner.

1.10 Mast head with pulleys. Clearance from top pulleys to double clamp mm 6300.

1.11 Duplex piston mud pump Ballerini type C2, 4 1/2" x 5" - Max delivery 480 lt./1', pressure 23 bar. Driven by hydraulic transmission. Suction hose 6 mt. long, with foot valve and strainer included.

1.12 Hydraulic SPT automatic device, fitted on the drill mast side for an easy positioning over the SPT rods. Drop stroke mm 760, drop weight kg. 63,5, with blows counter display on control panel.

1.13 Light system for night time drilling operation.

1.14 Side drill pipes storage with hydraulic raising, suitable for 30 drill pipes, diameter 89 mm, 3 meters long.

1.15 Hydraulic double pulling cylinder for casings positioned under the mast, pulling capacity 20 ton (for percussion samplers lifting).

2. Description of truck

Brand new, MAN truck, type 14.225 LAC, 4x4, 220 CV, ZF speeds gear 16 speeds, wheelbase mm 3600, double tires on rear axle, type 10R22,5, green colour.



2.1 Engine model: D 0836 LFL 02

2.2 Emission category: Euro 3

2.3 Combustion process: Direct injection / 4stroke diesel

2.4 Mode of operation: Turbocharging and intercooling

2.5 No. of cylinders / arrangements: 6 / upright in line

2.6 Rated power to ISO 1585-88/195/EEC kW/hp: 162/220 at engine speed rpm: 2400

2.7 Max. torque in Nm: 850 at engine speed rpm: 1200 – 1800

(Photo in Bucharest/Romania)