

DESCRIPTION OF THE MACHINE

Requirements: Two (2) Water Well Drilling Machine with Drill Accessories for both Mud rotary and DTH Hammer drilling.

Drill rig mounted on 2 wheel trailer, portable both of Mud rotary and DTH Hammer drilling, drill depth up to 0-100m.
Max. Weight: 2000 Kg

Borehole diameter: 4"-8" for Mud rotary drilling through alluvium, soft rock formation
and 4 1/2"-6 1/2" for DTH Hammer drilling through hard rock formation.

Important: The specifications of the machines are set to cope with the difficult conditions of our field in the Democratic Republic of Congo (DRC). More precisely, the weight and the mobility mode of the machine (trailers) should be suitable to our areas with very poor roads conditions and broken bridges. Overall, the quantities of accompanying consumables have been adjusted to allow the construction of 20 boreholes.
The 2 machines will be delivered in different locations (Aru and Mboko) in DRC.

Accessories

The machine must be accompanied by the following accessories:

- 1. Drill pipe 100 meters (2.0 M): 50**
- 2. Drag bits and Reamer Stabilizer ; 3-Wings step**
 - Drag bit 10'' (200 MM) : 2
 - Drag de 8'' (200 MM) : 4
 - Drag 6 1/2'' (165 MM) : 3
 - Drag 5 7/8 (150 MM) : 4
 - Reamer-stabilizer : 2 pieces for each diameter
 - Sub adaptors : 4
- 3. DTH Hammer equipment (package)**
 - 5" DTH Hammer equipment: 1
 - Button bit 5 7/8" (150 MM) : 3
 - Button bit: 6 1/2" (165 MM) : 3
 - Drill pipe 76 MM ; 0.7M Length : 1
 - Bit spanner, 6 1/2": 1
 - Bit spanner, 5 7/8" : 1
 - Sub adaptors : 1
- 4. Main Spare parts for 1 year maintenance for drilling machine (suggested services packs): 1 set**
- 5. Tools Box : 1**
- 6. Air Tool kit (pneumatic) : 1**
- 7. Mud Pump (Diesel) de 12-14 HP; 2 wheels : 1**
- 8. Borehole development compressor (diesel)**
 - Compressor Diesel : 1
 - PVC raiser pipe: PVC L 30x 3M, Ø 50 MM, screw : 1
 - Flexible air hose on reel stand, L 80 MM, Ø 20 MM: 1

9. Pump test unit

- Generator 7KVA, Petrol engine: 1
- Submersible pump 3'' with electric cable (L=55 m) : 1
- Submersible pump 3'', with epoxy joint, without electric cable: 1
- Dip meter, 100 meter flat cable (with 4 spare batteries) : 1

10. Water supply on-site

- Fresh water pump (petrol engine) 2'' with 1 suction hose (L=5 M) and 1 delivery hose (L= 10 M): 1
- Bladders de 5,000 litres: 2
- Bladders de 2,000 litres: 1

11. Mobile Air compressor, 12 bar - On trailer

- Mobile Air compressor, 12 bar: 1
- Air delivery Hose (15 M ; Ø 1 ½ '') : 2
- Recommended oil and maintenance spare parts for Compressor: 1 set

12. Recommended consumable for 20 boreholes of 60 M average depth

12.1. UPVC Casing & Screen pipe (2.9 Meter)

- Plein casing 8'' (205/225) de 2 meter : 10
- Plein casing 6'' (153/168) : 94
- Plein casing 4.5'' (115/125): 550
- Screen 4.5'' (115/125) : 195
- Chain tong wrench 44'' Length. For 8'' pipe (rigid): 1

12.2. Oil & Grease

- Basic lubricant for rigs Multigrade engine oil (25 litres) : 2
- Hydraulic Oil (25 litres) : 3
- Compresseur Oil (25 litres): 3
- Copper grease (KG) : 15
- Litium GREASE (KG) : 10

12.3. Consumable for DTH Hammer drilling

- Rock drill oil (25 litres) : 8
- Drilling foam 25 litres): 15
- Polymère (sac de 25 KG) : 10
- Granular bentonite, 25 kg/pack : 10

13. Reception of Equipments and training of Operators

A technician for the reception of the equipment, the assembly of the machine, the start-up and a practical training of the local personnel during a period of 1.5 months in the field. The training will be validated by a report to be submitted to UNHCR.

14. Place of Delivery

The first machine will be delivered to Aru (Ituri / DR Congo) while the second machine will be delivered to Mboko (South Kivu / DR Congo).

NB. The tenderer should ensure that the spare parts, accessories and consumables must allow the machine operate immediately after delivery on site in order to carry out 20 boreholes with an average depth of 60 m. He shall make all necessary suggestions for this purpose in his technical offer.

15. Warranty:

The Supplier warrants the supplied equipment free of faulty workmanship and material for 12 months after receipt of the equipment at receiving docks. To substantiate a warranty claim a report will be made by UNHCR with satisfactory evidence to support the claim. If a warranty claim is accepted a free of charge new part will be made available by the supplier within 1 month.

The warranty process should be clearly described by the supplier as part of the technical offer.

16. After Sales Services:

In its offer the company should make a suggestion on possibilities to ensure an effective After Sales Services (availability of mechanics, nearer place of spare parts, etc.), with a maximum response time of 1 month.

17. Training:

Total training duration needed: 6 weeks. As machines come totally dismantled and packed in a container, we need an expert expertise to commission, assemble, set up and organize the management of the spare parts store. This expert will also train the local operators to use and maintain the machine for long term use. The trainings will take place on the field with the local operators (on the job training) and the expert will move from one location to another to drill together with the local team. He will make sure that at least 4 boreholes are completed before the end of his mission of six weeks.