

Section II: Schedule of Requirements

eSourcing reference: **ITB/2026/64017**

The ITB is for the procurement of **Drilling Rig -600and 350 Mtr under four lots .**

- **The ITB has four lots**
 - Lot 1- Drilling Rig 600mtr with Booster Machine, Mobile compressor, tools ,accessories and spareparts - 4 Units- **with Full accessories**
 - Lot 2- Drilling Rig 600mtr with Booster Machine, Mobile compressor, tools ,accessories and spareparts - 4 Units- **With limited accessories**
 - Lot 3- Drilling Rig 350mtr with tools and accessories - 3 Units
 - Lot 4-Drilling Rig 350mtr with tools and accessories - 2Units

Technical specifications for Goods and Comparative Data Table

Form D-Technical Bid Form-Drilling rig 600Mtr- for

- Lot 1-Drilling Rig 600mtr with Booster,compressor, tools ,accessories & spareparts-4 Units-**with Full accessories** & Lot 2-Drilling Rig 600mtr with Booster,compressor,tools,accessories&spareparts-4Units-**limited accessories**
- Lot 3- Drilling Rig 350mtr with tools and accessories - 3 Units and Lot 4-Drilling Rig 350mtr with tools and accessories - 2 Units

N.B. Evaluation will be conducted on a lot-by-lot basis. UNOPS reserves the right to award either Lot 1 or Lot 2 (but not both) and either Lot 3 or Lot 4 (but not both). Bidders may submit offers for multiple lots; however, awards will be made in accordance with this limitation.

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Bidders are required to submit the excel and pdf Version of - Form D- Technical Bid Form

Drilling Rig - 600mtr - lot 1& 2

<p><u>Technical Specification</u> <u>Title: ITB for the Supply,Installation, Commissioning and Training of 600Mtr & 350Mtr Water well drilling rig with tools and accessories for Ministry of irrigation and Lowlands/MILS- Ethiopia</u> <u>ITB/2026/64017</u></p>	<p>Is your product compliant with UNOPS Minimum Requirement?</p>	<p>Technical specification of goods offered by bidder</p>	<p>Remark (note for deviation and description of additional document attached with bidder offer)</p>
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Lot -1 -Truck Mounted Water Well drilling rig 600mtr with Booster Machine, Mobile Compressor, Tools, Accessories & Spareparts

Item 1	Truck Mounted Water Well drilling rig 600mtr, with Tools, Accessories, and Spareparts
General Description of the Drilling Rig	
Parameter	Minimum Requirement
Drilling capacity	<p>To drill in all formations to a depth of 600m with maximum of 17.5” well diameter both by Mud and air rotary DTH in both direct and reverse circulation drilling method.</p> <p>☐ Yes ☐ No Vendor to Confirm & Specify</p>
Use	<p>For Water well drilling at medium and elevated depths</p> <p>☐ Yes ☐ No Vendor to Confirm & Specify</p>

The drilling rig should be able to work at	Air Temperature 0°-50° c Climate: Humid tropics - Arid desert Altitude: above Sea level 100m - 3000 m a.s.l.	☐ Yes ☐ No Vendor to Confirm & Specify			
Work Methods	Rotary drilling with direct and reverse circulation by Water, Mud, Air or Foam and Down the Hole Hammer Drilling	☐ Yes ☐ No Vendor to Confirm & Specify			
Components of the Drilling Rig					
A.TRUCK SPECIFICATION					
Assembly of drilling rig	Onto a suitable 3 or 4 axles carrier vehicle 6*6 or 8x4 truck	☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	ASTRA HD9 /IVECO Model T-series	☐ Yes ☐ No Vendor to Confirm & Specify			
Chasis	Heavy Duty	☐ Yes ☐ No Vendor to Confirm & Specify			
Steering orientation	LHD	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine		☐ Yes ☐ No Vendor to Confirm & Specify			
Cooling system	Water cooled engine, turbo intercooler,	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered by	Diesel	☐ Yes ☐ No Vendor to Confirm & Specify			
Cylinders	6(Six)	☐ Yes ☐ No Vendor to Confirm & Specify			
Displacement	Min 12882cc.	☐ Yes ☐ No Vendor to Confirm & Specify			
Emission Control	Euro III	☐ Yes ☐ No Vendor to Confirm & Specify			
Extra Heavy Duty Suspension	Front with shock absorbers, rear reinforced axles with double reduction, central bevel gears and planetary hub reduction	☐ Yes ☐ No Vendor to Confirm & Specify			
Tires					

wheels type	wheels with off road tires;	☐ Yes ☐ No Vendor to Confirm & Specify			
first axle	with single tires,	☐ Yes ☐ No Vendor to Confirm & Specify			
rear axles	with twinned tires;	☐ Yes ☐ No Vendor to Confirm & Specify			
Spare wheel	complete with spare wheel-unit on the chassis	☐ Yes ☐ No Vendor to Confirm & Specify			
Tire with tube or tubeless	Tubeless	☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel Tank		☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel Type	Diesel	☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel:	Min 300 lt. fuel tank on the truck	☐ Yes ☐ No Vendor to Confirm & Specify			
Additional Fuel tank capacity for the deck engine	600 litres, for assembly on truck-with two sections	☐ Yes ☐ No Vendor to Confirm & Specify			
B. MAIN FRAMEWORK					
Main Frame					
Main frame	made out of electrically welded high quality steel structural members and tubular pieces mounted on carrier truck.	☐ Yes ☐ No Vendor to Confirm & Specify			
Outriggers					
4 hydraulic stabilizers	Two of them are complete of tread ring to block the cylinder for levelling and positioning of rig, complete with check valve and ball-joint plate. 2 additional screw type stabilizers with ball-joint plate are placed at the pull zone of the mast to increase stability of the mast.	☐ Yes ☐ No Vendor to Confirm & Specify			
Front outriggers lifting capacity,	a minimum of (each): 40,000 KG	☐ Yes ☐ No Vendor to Confirm & Specify			

Rear outriggers lifting capacity,	a minimum of (each): 30,000 KG	☐ Yes ☐ No Vendor to Confirm & Specify			
Complete hydraulic circuit, made up of :					
Hydraulic oil tank, capacity	Minimum of 1000 liters, completely covered for inspection and cleaning,	☐ Yes ☐ No Vendor to Confirm & Specify			
hydraulic oil tank, equipped with	Vent filter, level indicator and temperature gauge	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic System Features	Load sensing system, heat exchanger (air/oil) for cooling of hydraulic oil, rigid and flexible pipework, filters, unions, capacity and pressure regulation valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
On and Off system	Automatic On-Off hydraulic driven oil cooler.	☐ Yes ☐ No Vendor to Confirm & Specify			
Filtering system	100-150 micron strainer on suction line , 10 micron on discharge lines. All return lines shall be equipped with clogging indicators or equivalent maintenance warning devices.	☐ Yes ☐ No Vendor to Confirm & Specify			
The system must include one gear box on which are connected:	Combination of piston and gear pumps suitable for rotary head, mud pump, pull-up/down, stabilizers, mast lifting, and auxiliary services :- One (1) variable displacement axial piston pump in a closed circuit for the rotary head One (1) variable displacement axial piston pump in an open circuit for pull-down and winch One (1) variable displacement axial piston pump in an open circuit for the mud pump One (1) geared pump for the cooling circuit, One (1) geared pump for the (stabilizers, mast lifting and air/mud valve cylinder), One (1) geared pump for other services if necessary (generator/welding machine),	☐ Yes ☐ No Vendor to Confirm & Specify			

Each hydraulic pump suction	should have a lockable shut-off valve to stop oil during maintenance operations.	☐ Yes ☐ No Vendor to Confirm & Specify			
rods of the cylinders	The rods of the cylinders are in chrome plated high tensile strength steel with extra heavy duty seal packing.	☐ Yes ☐ No Vendor to Confirm & Specify			
C. MAST					
Construction		☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	Box type construction, made of electrically welded high quality steel	☐ Yes ☐ No Vendor to Confirm & Specify			
Finish	Anti-corrosion coating, industrial primer and paint suitable for outdoor drilling environments	☐ Yes ☐ No Vendor to Confirm & Specify			
Capacity	Max 60 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Height	11-15 Meters,	☐ Yes ☐ No Vendor to Confirm & Specify			
The mast shall be	raised and lowered by hydraulic cylinders.	☐ Yes ☐ No Vendor to Confirm & Specify			
Guides and carriage	Hardened, treated steel, anti-wear surface ,applied to the mast for the rotary head power carriage	☐ Yes ☐ No Vendor to Confirm & Specify			
Crown block:	Removable type, rated for full mast load	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic clamp:	Detachable, easy access for maintenance	☐ Yes ☐ No Vendor to Confirm & Specify			
Top of the Mast (Crown block)					
The mas shall have a capacity of	a minimum of 55 tons with electronic safety stop for cable.	☐ Yes ☐ No Vendor to Confirm & Specify			
Sheaves	3 sheaves with a minimum diameter 390 mm (15")	☐ Yes ☐ No Vendor to Confirm & Specify			
Hose Chain Support					
Hose Chain Support	Heavy-duty hose carrier chain assembly mounted on the mast and connected to the sliding carriage, with all exposed metallic structural	☐ Yes ☐ No Vendor to Confirm & Specify			

	components manufactured from stainless steel grade AISI 304 or better				
Pull-down system		☐ Yes ☐ No Vendor to Confirm & Specify			
The system shall be	Hydraulically powered device by means of cylinders and heavy-duty high resistance chains.	☐ Yes ☐ No Vendor to Confirm & Specify			
Drilling string	should be a hydraulically adjustable feed system of battery weight and pressure thrust on drill string.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pull-up (Pullup Capacity)	Minimum 50 ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Safety factor for feed chains:	Minimum 4:1	☐ Yes ☐ No Vendor to Confirm & Specify			
Max pull-down	Minimum 28ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Drilling advancement speed	adjustable from Min 6 m/min	☐ Yes ☐ No Vendor to Confirm & Specify			
Up handling speed (fast)	adjustable from Min 22 m/min	☐ Yes ☐ No Vendor to Confirm & Specify			
Down handling speed (fast)	adjustable from Min 50 m/min	☐ Yes ☐ No Vendor to Confirm & Specify			
Tie Rods for the Mast					
Rods for the Mast	Steel-rods (cable wire type) with adjustment screw to reduce the oscillations of the mast.	☐ Yes ☐ No Vendor to Confirm & Specify			
Rotary Head Power Carriage					
Material	high-quality steel construction	☐ Yes ☐ No Vendor to Confirm & Specify			
Positioning	Lateral via anti-friction sliding blocks; vertical via roller pin bearings with adjustable play.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic side-parking	minimum 1000 mm (39 $\frac{3}{8}$ ") for safe lateral movement.	☐ Yes ☐ No Vendor to Confirm & Specify			
Tilting Support	Hydraulic cylinders, up to 88° ± 2° tilt for frontal drill pipe loading.	☐ Yes ☐ No Vendor to Confirm & Specify			

Spindle drive	Compatible with 4 1/2" API IF threaded rotary heads.	☐ Yes ☐ No Vendor to Confirm & Specify			
Rotary Head					
Rotary Head	include: Steel case, pinion-crown transmission, alloy treated steel shafts and gears mounted on bearings, oil-bath lubrication.	☐ Yes ☐ No Vendor to Confirm & Specify			
	Powered by two variable displacement hydraulic motors.	☐ Yes ☐ No Vendor to Confirm & Specify			
	Dragging head under part, floating type, with shock absorber incorporated,	☐ Yes ☐ No Vendor to Confirm & Specify			
	made by cast rubber with steel reinforcements inside, internal diameter 6" with fixed 4"1/2 IF thread (it should be already prearranged for application of swivel head).	☐ Yes ☐ No Vendor to Confirm & Specify			
Static capacity	Minimum 50 ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque	Minimum 22,000 Nm	☐ Yes ☐ No Vendor to Confirm & Specify			
Speed	Min120 Rpm- (The Maximum Speed should not be less than 120rpm)	☐ Yes ☐ No Vendor to Confirm & Specify			
Swivel Head	Swivel head for direct circulation internal diameter (free passage) 3" (76 mm).	☐ Yes ☐ No Vendor to Confirm & Specify			
Control panel Adjustable extension arm	Hydraulic arm extension for positioning based on machine inclination. Fully orientable hydraulically for operator comfort	☐ Yes ☐ No Vendor to Confirm & Specify			
Fixed Panel	complete with valves, distributors, pressure control gauges, engine management ECU, rig positioning controls, control valves for the pressure of the clamps, emergency button and electrical panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Swivel Arm Panel	Complete with valve, Hydraulic controls for key functions, manual distributor ON/OFF for secondary functions, pull-up/down gauges,	☐ Yes ☐ No Vendor to Confirm & Specify			

	thrust balancing system with proportional function, speed control for head, drill advancement, water/mud pump speeds, on/off controls for secondary functions, emergency stop, closure cover				
monitored parameter- Control panel monitoring indicators	Components on the control panel includes: - Pressure of the air/mud pipework - Oil pressure of the main pumps - Pull-up, pressure on the drill string - Pull-down, balancing system - Regulation of the advancing speed - Regulation of the speed of water and mud pump - Regulation of the rotary head speed - Emergency button	☐ Yes ☐ No Vendor to Confirm & Specify			
Winch					
Main Winch		☐ Yes ☐ No Vendor to Confirm & Specify			
Powered	by hydraulic motor and rig's hydraulic circuit.	☐ Yes ☐ No Vendor to Confirm & Specify			
Equipped with	up and down control.	☐ Yes ☐ No Vendor to Confirm & Specify			
Complete with	Minimum 100 m of Stainless steel cable Ø 20 mm	☐ Yes ☐ No Vendor to Confirm & Specify			
Direct pull max	Minimum 10000 daN	☐ Yes ☐ No Vendor to Confirm & Specify			
Telescopic Jib Boom					
Mounting	Mounted on top of the mast, capable of 180° rotation for picking up and positioning drill pipes	☐ Yes ☐ No Vendor to Confirm & Specify			
Extension	Horizontally extendable up to 800 mm via hydraulic cylinder	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Control	Fully integrated with the main control panel for precise movement and positioning	☐ Yes ☐ No Vendor to Confirm & Specify			
Material	High-quality steel structure , welded construction	☐ Yes ☐ No Vendor to Confirm & Specify			

Load Capacity	Min 2.5 ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Service Winch (mounted on telescopic Jib boom)					
Powered by	hydraulically powered,	☐ Yes ☐ No Vendor to Confirm & Specify			
complete with	Minimum 15 m Stainless steel cable Ø 10 mm	☐ Yes ☐ No Vendor to Confirm & Specify			
direct pull max	Minimum 13 kN	☐ Yes ☐ No Vendor to Confirm & Specify			
Travelling Block					
Fitted with	2 sheaves with a rotating hook.	☐ Yes ☐ No Vendor to Confirm & Specify			
The capacity of the travelling block	Minimum of 50 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Air lubricator					
type	Venturi type with adjustable oil flow system device	☐ Yes ☐ No Vendor to Confirm & Specify			
Max pressure	30-35 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Oil tank	Min 22 liters	☐ Yes ☐ No Vendor to Confirm & Specify			
Flow	Min15 kg/h	☐ Yes ☐ No Vendor to Confirm & Specify			
D. DOUBLE HYDRAULIC CLAMP					
Construction	constructed with high-quality steel	☐ Yes ☐ No Vendor to Confirm & Specify			
Guiding system	Hydraulically adjustable, supports safety fork insertion; includes main clamping jaws and reduction jaws	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Power	hydraulic cylinders; easily removable	☐ Yes ☐ No Vendor to Confirm & Specify			
Max clamping diameter	360 mm (14.1") for drill pipes and 508 mm (20") for casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Min clamping diameter	76 mm (3")	☐ Yes ☐ No Vendor to Confirm & Specify			

Max passage diameter	520 mm (20.5")	☐ Yes ☐ No Vendor to Confirm & Specify			
Max clamping force	Minimum 360kN	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque min unscrewing	Minimum 90,000 Nm	☐ Yes ☐ No Vendor to Confirm & Specify			
Dust protector clamp	The dust protector pad shall be made into 2 pieces and mounted on the bottom of the clamp that completes the reduction for various drill pipes.	☐ Yes ☐ No Vendor to Confirm & Specify			
E. DECK ENGINE					
General Information:					
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				
Cooling system	Water cooled,	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine	turbocharged, 4-stroke diesel engine, Direct Injection	☐ Yes ☐ No Vendor to Confirm & Specify			
No of Cylinders	6-8 cylinder (in-line or V Configuration)	☐ Yes ☐ No Vendor to Confirm & Specify			
Horsepower	Min 750 Hp	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque	3100-3500 Nm at 2100RPM(or per manufacturer's rating, meeting high-altitude and ambient temperature requirements)	☐ Yes ☐ No Vendor to Confirm & Specify			
Complete with	complete with an electrical system and a 24 V battery	☐ Yes ☐ No Vendor to Confirm & Specify			

The following minimum parameters shall be met:	- Alternator	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Low oil pressure switch	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Over-temperature switch	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Engine stop solenoid	☐ Yes ☐ No Vendor to Confirm & Specify			
F.GENERATOR -WELDER SET					
General Information:		☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement	☐ Yes ☐ No Vendor to Confirm & Specify			
Generator Capacity	Three Phase -Generator power 380V-50Hz - 10 kVA- 16KVA Single Phase -Generator power 220V-50Hz - 4 kVA-8KVA	☐ Yes ☐ No Vendor to Confirm & Specify			
Welder Capacity	Minimum 400 A	☐ Yes ☐ No Vendor to Confirm & Specify			
Voltage Regulation	Automatic voltage regulation (AVR) for stable output	☐ Yes ☐ No Vendor to Confirm & Specify			
Protection Features	Overload protection, short-circuit protection, and thermal protection	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	Heavy-duty steel enclosure with anti-corrosion coating suitable for outdoor drilling environments	☐ Yes ☐ No Vendor to Confirm & Specify			
Mounting	Installed on the drilling rig frame with vibration-damping supports	☐ Yes ☐ No Vendor to Confirm & Specify			

G. COMPRESSOR					
General Information:		☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				
Air Compressor		☐ Yes ☐ No Vendor to Confirm & Specify			
Cooling system	Intercooler/Aftercooler	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered by	Directly connected to the engine through hydraulic	☐ Yes ☐ No Vendor to Confirm & Specify			
Duty Cycle	Continuous	☐ Yes ☐ No Vendor to Confirm & Specify			
Compressed air module	PTO version 2 Two-stage, with hydraulic insert clutch.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pressure	30-35 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Max free air delivery	Minimum 34 m ³ /min (1200 cfm) at 1 bar , 20°C	☐ Yes ☐ No Vendor to Confirm & Specify			
With the engine speed	1800-2200 rpm	☐ Yes ☐ No Vendor to Confirm & Specify			
Power Consumption	Maximum of 420 kW	☐ Yes ☐ No Vendor to Confirm & Specify			
Working condition	Air Temperature 0°-50° c Climate: Humid tropics - Arid desert Altitude: above Sea level 100m - 3000 m a.s.l.	☐ Yes ☐ No Vendor to Confirm & Specify			

Rated Output	~30–33 m ³ /min (1060-1193cfm) at 30-35bars	☐ Yes ☐ No Vendor to Confirm & Specify			
H. TRIPLEX WATER PUMP:					
General Information:		☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				
Powered by	Means of hydraulic motor and rig's hydraulic circuit.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pump type	Triplex piston pump suitable for water or drilling mud circulation	☐ Yes ☐ No Vendor to Confirm & Specify			
Suction	Water/mud suction pipework Ø 1½" with 6 m flexible suction hose, complete with rapid coupling and bottom valve	☐ Yes ☐ No Vendor to Confirm & Specify			
Flow rate	Minimum 80 L/min	☐ Yes ☐ No Vendor to Confirm & Specify			
Pressure	Max 70 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	Heavy-duty steel construction suitable for continuous drilling operations	☐ Yes ☐ No Vendor to Confirm & Specify			
Application	Circulation of drilling fluids, water injection, and flushing during drilling operations	☐ Yes ☐ No Vendor to Confirm & Specify			
I. MUD PUMP					
General Information:		☐ Yes ☐ No Vendor to Confirm & Specify			

Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				
Mud pump type	Double action duplex piston mud pump	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	steel fluid and power ends, shaft with eccentrics, connecting rods and crossheads made out of special steel and mounted on bearings, liners, pistons, valves and valve seats made out of heat treated alloy steel,	☐ Yes ☐ No Vendor to Confirm & Specify			
Mechanical Components	shaft with eccentrics, connecting rods and crossheads made out of special steel and mounted on bearings, liners, pistons, valves and valve seats made out of heat treated alloy steel,	☐ Yes ☐ No Vendor to Confirm & Specify			
Lubrication	oil bath lubrication and auxiliary forced lubrication system by means of a geared pump, pulsation dampener, rod lubrication tank,	☐ Yes ☐ No Vendor to Confirm & Specify			
Mud suction pipework	8" diameter suction pipework with flexible hose (200 mm internal diameter), rapid coupling, and suction strainer	☐ Yes ☐ No Vendor to Confirm & Specify			
Pump capacity:	Flow rate : Minimum 2200 l/min Pressure max -20 bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Four Exit Pump Drive					
type	Spheroidal cast-iron fusion case and alloy treated steel gears,	☐ Yes ☐ No Vendor to Confirm & Specify			
Mounted on	mounted on bearings, oil-bath lubrication, heat exchanger (air-oil) for cooling case oil.	☐ Yes ☐ No Vendor to Confirm & Specify			

Coupling	Direct coupling to engine.	☐ Yes ☐ No Vendor to Confirm & Specify			
Mud Mixing and Fluid System					
Jet hopper mixer	minimum 60 liters with accessories	☐ Yes ☐ No Vendor to Confirm & Specify			
Tank for Foam & Water	Separate tanker minimum 4000lit for foam & water with air agitation for polymer mixing.	☐ Yes ☐ No Vendor to Confirm & Specify			
Air/mud pipe Work					
Delivery pipework	diameter 3"	☐ Yes ☐ No Vendor to Confirm & Specify			
Hose system	Combination of rigid and flexible hoses placed at the mast and the swivel head.	☐ Yes ☐ No Vendor to Confirm & Specify			
Valves materials	stainless steel on-off and non-return valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
Main Valve Operation	hydraulic cylinder for the main valve opening (air/mud), that can be controlled by the control panel directly.	☐ Yes ☐ No Vendor to Confirm & Specify			
External Hydraulic Lines					
External hydraulic lines	Powered from the truck engine through PTO arrangement for the mast and levelling jacks with quick disconnect hose or other system to lower the mast and raise the levelling jacks while the deck engine is malfunctioning	☐ Yes ☐ No Vendor to Confirm & Specify			
It shall include	two (2) external hydraulic hoses to assist the feed cylinder to pull-up the drilling string.	☐ Yes ☐ No Vendor to Confirm & Specify			
All controls	All controls shall be positioned near to the control panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
J. ADDITIONAL REQUIREMENT					
Walkways Around the clamp Area	Working platform positioned next to the well area and removable for displacement.	☐ Yes ☐ No Vendor to Confirm & Specify			
Plate and Base supports for Stabilizers	There should be base support for rear outriggers and bottom of the mast. Plus, there should also be a	☐ Yes ☐ No Vendor to Confirm & Specify			

	front plate for supporting the forward outriggers.				
Lighting system	The rig shall be complete with a lighting system, 2 lamps on the mast and another 2 lamps on the control panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Standard Painting	White, The painting process of all parts of the drilling rigs should be provided with a careful preparation of all surfaces through cleaning and sanding. This shall be followed by a degreasing phase, a first coating with epoxy primer and lastly by the painting to be carried out in liquid.	☐ Yes ☐ No Vendor to Confirm & Specify			
Quality Standard Requirements for the Drilling Rig, tools & accessories					
The manufacturer shall comply with the following international standards:	API Spec 5DP & API 7-1 (For Drill pipes and collars)	☐ Yes ☐ No Vendor to Confirm & Specify			
	ISO 9001:2015 (Quality management systems) from International Accreditation Forum (IAF)	☐ Yes ☐ No Vendor to Confirm & Specify			
K- Drilling Tools, Spareparts and Accessories for 600 Mtr Drilling Rig					
DRILL PIPE 5", length 6 m, Thread 3 1/2"API IF, pipe th. 8.8 (N80), length tool joints (42CrMo4) 300 and 250 mm, wrench recess on both joints and thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL PIPE 5", length 3 m, Thread 3 1/2"API IF, pipe th. 8.8 (N80), length tool joints (42CrMo4) 300 and 250 mm, wrench recess on both joints and thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL COLLAR 6" (152,4 mm) Length 6 m, thread 4 1/2" API REG, internal diameter 50 mm, wrench on both ends and thread protection with non-return valve which are replaceable		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL COLLAR 8" (203.2 mm) Length 6 m, thread 6 5/8" API REG, internal diameter 90 mm, wrench on both ends and thread protection with non-return valve which are replaceable		☐ Yes ☐ No Vendor to Confirm & Specify			
Spiral stabilizers 12 1/4" - body 8"x2 m with 6 5/8"API REG (B))x(P), wrench recess on both ends and hard thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
Spiral stabilizers 14" (350 mm) - body 8" (203 mm) x1,5 m with 6 5/8"API REG (B))x(P), internal hole diameter 80 mm		☐ Yes ☐ No Vendor to Confirm & Specify			

Cross over sub 4 1/2" API IF box x 3 1/2" API IF pin, length 300 mm	☐ Yes ☐ No Vendor to Confirm & Specify			
Cross over sub 4 1/2" API IF box x 6 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING SWIVEL, BOX type, swivel type for drill rods with threads 3 1/2" API IF, load capacity 3200 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING SWIVEL, BOX type, swivel type for drill rods with threads 6 5/8" API IF, load capacity 4600 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING PLUG, BOX type for drill rods with threads 4 1/2" API REG, load capacity 2000 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING PLUG, BOX type for drill rods with threads 6 5/8" API REG, load capacity 2000 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING PLUG, Box type, for drilling bits with threads 7 5/8" API REG, load capacity 4600 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 3 1/2" API IF BOX , 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG PIN , 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX , 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX, 6 5/8" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX, 7 5/8" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 4 1/2" API REG BOX, 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
Tricone 12 1/4" (311.1 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "4", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
Tricone 14 3/4" (374.6 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "3", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 17 1/2" (444.5 mm) IADC 535, TCI inserts, thread 7 5/8" API REG Pin, leg back protection type "3", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			

TRICONE 9 7/8" (250,8 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "3", for hard formation and central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 9 7/8" (250,8 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 12 1/4" (311,1 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 14 3/4" (375 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 17 1/2" (444,5 mm) IADC 211, tooth type, thread 7 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 10 5/8" (270 mm), thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 12 1/4" (311 mm), thread 3 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 14 3/4" (375 mm), thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 17 1/2" (444,5 mm), thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 8" with shank DHD 380 and thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 10" with shank SD 10 and thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 12" with shank SD 12 and thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 12 1/4" (311 mm) concave face for DTH Hammer 10" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 12 1/4" (311 mm) concave face for DTH Hammer 12" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 15" (311 mm) concave face for DTH Hammer 10" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 15" (311 mm) concave face for DTH Hammer 12" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 10" (254 mm) concave face for DTH Hammer 10" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			

BIT 10" (254 mm) concave face for DTH Hammer 12" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 8 1/2" (216 mm) concave face for DTH Hammer 10" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 17 1/2" (445 mm) concave face for DTH Hammer with shank DHD 380 appropriate for the bit.	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 20 1/2" (520.7 mm) concave face for DTH Hammer with shank DHD 380 appropriate for the bit.	☐ Yes ☐ No Vendor to Confirm & Specify			
Grinding wheel (bit) for the above grinder(Row#32-40) to suit all the insert sizes	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 20 1/2	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 17 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 14 3/4"	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 12 1/4"	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 10 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Bit Breaker for tricone diameter 9 7/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 6 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 8 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 10 3/4"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 17 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 20 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 12 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			

Steel Casing elevators 141/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 6 5/8", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 8 5/8", max capacity 20 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 10 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 12 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 14 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 6 5/8" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 8 5/8" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 10 3/4" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit of casing clamp for 6 5/8", " PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit of casing clamp for 8 5/8", PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit of casing clamp for 10 3/4" PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 8", thread 4 1/2" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 10", thread 6 5/8" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 12", thread 6 5/8" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
Loading kit (2 cable rings plus 2 shackles) for casing elevator, max capacity 30 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
JET HOOPER MIXER: Jet hopper mixer 60 liters with accessories.	☐ Yes ☐ No Vendor to Confirm & Specify			

Foldable Water tight canvas TANK FOR FOAM and WATER: Minimum Capacity of 4000litrs, with air agitation for polymer mixing.	☐ Yes ☐ No Vendor to Confirm & Specify			
HAND OPERATED manual OIL & FUEL pump Filling pump with filter for oil & fuel, actioned manually.	☐ Yes ☐ No Vendor to Confirm & Specify			
Fishing tools with: = taper tap for 3 1/2" API IF Box drill pipe, -1pcs each = die collar for 3 1/2" API IF Box drill pipe, -1pcseach = fishing magnet OD 6 1/2" with pulling capacity 400kg-1pcseach	☐ Yes ☐ No Vendor to Confirm & Specify			
Chain Tong for Casing 12" (Gr. 35) - 8" (Gr. 34) - 6" (Gr. 33 1/2")	☐ Yes ☐ No Vendor to Confirm & Specify			
Shackle AR Omega D+C 17 Tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Shackle AR Omega D+C 25 Tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Wire sling 12 mm , 6 m length - Sling Type Eye/Eye	☐ Yes ☐ No Vendor to Confirm & Specify			
Wire sling 10 mm , 3 m length - Sling Type Eye/Eye	☐ Yes ☐ No Vendor to Confirm & Specify			
Wire sling 10 mm 1.5 m length - Sling Type Eye/Eye	☐ Yes ☐ No Vendor to Confirm & Specify			
Sliding caliper 0-300 mm	☐ Yes ☐ No Vendor to Confirm & Specify			
Nipper 150 mm	☐ Yes ☐ No Vendor to Confirm & Specify			
Top adaptor spanner for DTH hammer cylinder 8"	☐ Yes ☐ No Vendor to Confirm & Specify			
TOP ADAPTOR SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
14" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
12" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
10" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			

8" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
17 1/2" Bit spanner	☐ Yes ☐ No Vendor to Confirm & Specify			
201/2" Bit spanner	☐ Yes ☐ No Vendor to Confirm & Specify			
Standard safety equipment for a crew of six members	☐ Yes ☐ No Vendor to Confirm & Specify			
TOOL BOX & MAINTENANCE KIT for 600Mtr	☐ Yes ☐ No Vendor to Confirm & Specify			
Slogging Wrenches: Open-end and 12-point box ends (up to 3" or 75mm) for hammer-tightening structural bolts.	☐ Yes ☐ No Vendor to Confirm & Specify			
Heavy-Duty Socket Set: 3/4" and 1" drive sets for high-torque applications.	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque Multipliers: Essential for reaching the high foot-pound requirements of flange bolts and mounting hardware.	☐ Yes ☐ No Vendor to Confirm & Specify			
Large Pipe Wrenches: 18 ", 24", 36", and 48" (Rigid-style) for mud lines and drill floor piping.(each size 1 pcs)	☐ Yes ☐ No Vendor to Confirm & Specify			
Impact Wrenches: Pneumatic 1" drive impact tools for fast removal of heavy covers and guards.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pressure Gauges: 0–5,000 psi (350 bar) digital or liquid-filled gauges with quick-connect fittings.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Hose Crimper & Cutter: For on-site repairs of auxiliary lines.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Jacks: 20-ton "pancake" or bottle jacks for leveling or component lifting.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Jacks: 50-ton "pancake" or bottle jacks for leveling or component lifting.	☐ Yes ☐ No Vendor to Confirm & Specify			
Fluid Sampling Kit: To monitor hydraulic oil cleanliness and prevent pump cavitation.-	☐ Yes ☐ No Vendor to Confirm & Specify			
Digital Mustimeter: CAT IV rated (e.g., Fluke 87V or equivalent) for troubleshooting high-voltage power systems.	☐ Yes ☐ No Vendor to Confirm & Specify			
Clamp Meter: To measure high amperage on mud pump motors and the drawworks.	☐ Yes ☐ No Vendor to Confirm & Specify			

Insulation Tester (Megohmmeter): For testing motor windings and cable integrity against the rig ground.	☐ Yes ☐ No Vendor to Confirm & Specify			
Precision Screwdriver Set: For PLC (Programmable Logic Controller) and control board wiring.	☐ Yes ☐ No Vendor to Confirm & Specify			
Infrared (Thermal) Camera: To detect hot spots in electrical panels or overheating bearings before they fail.	☐ Yes ☐ No Vendor to Confirm & Specify			
High-Pressure Grease Gun: Manual and battery-powered (18V) for the dozens of grease points on the mast and swivel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Lubrication Chart: Specific to your rig model, tracking hours vs. grease type (EP2, High-Temp, etc.).	☐ Yes ☐ No Vendor to Confirm & Specify			
Oil Filter Wrenches: Large strap-style wrenches for engine and hydraulic return filters.	☐ Yes ☐ No Vendor to Confirm & Specify			
Parts Washer/Solvent Kit: For cleaning shale shaker screens and fouled valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
Spare parts to be supplied for the 600m Drilling Rig	☐ Yes ☐ No Vendor to Confirm & Specify			
Truck air filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Truck oil filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Truck fuel filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine air filters	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine oil filters	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine fuel filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator air filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator oil filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator fuel filters	☐ Yes ☐ No Vendor to Confirm & Specify			

Booster Engine air filters		☐ Yes ☐ No Vendor to Confirm & Specify			
Booster Engine oil filters		☐ Yes ☐ No Vendor to Confirm & Specify			
Booster Engine fuel filters		☐ Yes ☐ No Vendor to Confirm & Specify			
V-Belts: A matched set for the cooling fans and auxiliary pumps for the primary power unit(Deck Engine, Carrier Truck Engine, welder Generator, booster Engine)- 2Pcs for Each		☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic oil filter elements set- for the hydraulic system		☐ Yes ☐ No Vendor to Confirm & Specify			
Wheel and master cylinder repair kit & brake lining		☐ Yes ☐ No Vendor to Confirm & Specify			
All hydraulic lines and hoses fitting seals (Washers and seal kit)		☐ Yes ☐ No Vendor to Confirm & Specify			
Kit for air compressor		☐ Yes ☐ No Vendor to Confirm & Specify			
Flange and O-Ring Kit: A comprehensive set of Viton O-rings, SAE, and Metric seals.		☐ Yes ☐ No Vendor to Confirm & Specify			
Mud seal "V"		☐ Yes ☐ No Vendor to Confirm & Specify			
Pack of gasket for the Power units(Deck Engine, Carrier Truck Engine, welder Generator, booster Engine)- 1 set for each		☐ Yes ☐ No Vendor to Confirm & Specify			
Shear Pins & Fuses: For mechanical and electrical overload protection.		☐ Yes ☐ No Vendor to Confirm & Specify			
BOP Seal Kit: Critical for maintaining the Blowout Preventer pressure integrity		☐ Yes ☐ No Vendor to Confirm & Specify			
L. INSPECTION, INSTALLATION, COMMISSIONING AND TRAINING					
Pre- Shipment Inspection	UNOPS at its discretion may conduct Preshipment Inspection on site during assembly of the drilling rig at the factory	☐ Yes ☐ No Vendor to Confirm & Specify			

Installation, Commissioning and Training	<p>The manufacturer /bidder shall organize a start-up and training on the delivered drilling rig, performed by expert technicians at the customer's job site in Ethiopia</p> <p>Main activities shall include:</p> <ul style="list-style-type: none"> -Complete check of the delivered rig and eventual accessories -Practical training about the drilling rig characteristics and the various types of operations -Complete course on ordinary and extraordinary maintenance -Lessons on safety measures and precautions -Explanation of the Spare Parts Manual and Operation Manual <p>N.B The Vendor is responsible to cover all the costs (including training hall costs etc) and consumables (fuel, Lubrications, etc) necessary for the installation, commissioning and training activities ,</p> <p>Duration: 30 days/for each of the regions however the training is going to be made simultaneously. The Total Training Period for all the Regions shouldn't exceed 30Days.</p> <p>Commissioning = The awarded bidder is required to commission the drilling Rig by drilling 600mtr long drilling well. All the costs related to the commissioning work is the responsibility of the bidder.</p> <p>Installation ,training and commissioning to be on site at 4 regions out side of Addis Ababa(Afar, Diredawa Administration, Somali and Oromia) , 10 persons per / location</p>	☐ Yes ☐ No Vendor to Confirm & Specify			
Mandatory Requirements					
Warranty	Manufacturer Standard Warranty minimum 12 Months	☐ Yes ☐ No Vendor to Confirm & Specify			
Technical Data Sheet	The compliance for each technical specification shall be supported by technical data sheet and relevant	☐ Yes ☐ No Vendor to Confirm & Specify			

	catalogue. Failure to comply with this requirement leads to rejection.				
Manual	The rig will be supplied with operation and maintenance manual, and spare parts catalogue	☐ Yes ☐ No Vendor to Confirm & Specify			
Local Agent	The manufacturer/supplier should have a local agent in Ethiopia. (If no local agent in Ethiopia, the bidder should commit/agree to arrange a local agent which provides PDI, maintenance and aftersales service within one month after award. Bidders should submit a commitment letter to provide such service.	☐ Yes ☐ No Vendor to Confirm & Specify			
The device (components of the Rig) including the trucks shall be brand new (Refurbished machine will not be accepted)		☐ Yes ☐ No Vendor to Confirm & Specify			
Item 2	BOOSTER MACHINE				
General Information: BOOSTER MACHINE					
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				
Movability	Portable booster ,Open skid	☐ Yes ☐ No Vendor to Confirm & Specify			
Type	A single-stage oil-lubricated piston type air/nitrogen compressor	☐ Yes ☐ No Vendor to Confirm & Specify			
The unit consists of	one highly efficient liquid cooled booster block (pumper), air pre-cooler, scrubber tank, air after cooler, safety valves, diesel engine, engine cooling, and control systems - all mounted on a strong steel base skid.	☐ Yes ☐ No Vendor to Confirm & Specify			

The Unit should be	standard with full protection frame with lifting frame and forklift slots	☐ Yes ☐ No Vendor to Confirm & Specify			
Cooling system	Water cooled booster block	☐ Yes ☐ No Vendor to Confirm & Specify			
The Unit Should have a features of	Pressure regulating system with automatic load/unload valve	☐ Yes ☐ No Vendor to Confirm & Specify			
	Engine speed regulation	☐ Yes ☐ No Vendor to Confirm & Specify			
	Adjustable capacity to match the feed-air compressors	☐ Yes ☐ No Vendor to Confirm & Specify			
	Back pressure valve at discharge	☐ Yes ☐ No Vendor to Confirm & Specify			
	Maintain minimum compression ratio – avoid condensation	☐ Yes ☐ No Vendor to Confirm & Specify			
	Complete control system, with analogue gauges and robust controls, pumper temperature monitoring system, digital engine monitoring system & all relevant safeties	☐ Yes ☐ No Vendor to Confirm & Specify			
Booster type block	4-cylinder reciprocating	☐ Yes ☐ No Vendor to Confirm & Specify			
Compression stages -	Single Stage	☐ Yes ☐ No Vendor to Confirm & Specify			
Max suction pressure	≥ 350 psi/ 24bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Max discharge pressure	≥ 1000 psi / 69 bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Max compression ratio -	≤ 3.5	☐ Yes ☐ No Vendor to Confirm & Specify			
Capacity at max suction pressure -	≥ 2150 CFM (≥ 61 m ³ /min)	☐ Yes ☐ No Vendor to Confirm & Specify			
Booster oil capacity –	≥ 7 lt	☐ Yes ☐ No Vendor to Confirm & Specify			
Suction connection	3” npt	☐ Yes ☐ No Vendor to Confirm & Specify			

Discharge connection	2" npt	☐ Yes ☐ No Vendor to Confirm & Specify			
Max operating ambient temperature	52 °C	☐ Yes ☐ No Vendor to Confirm & Specify			
Min operating ambient temperature -	10°C	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine					
Number of cylinders	4-6 cylinder	☐ Yes ☐ No Vendor to Confirm & Specify			
Output at rated speed -	≥ 250 bhp / 186 kW/	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine speed (nominal) - r/min	1500-1800	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine speed (unloaded) r/min	≥ 1200	☐ Yes ☐ No Vendor to Confirm & Specify			
Capacity of fuel tank	≥ 250lt	☐ Yes ☐ No Vendor to Confirm & Specify			
Electrical system					
The booster	equipped with a 24 Volt negative ground electrical starting and operating system.	☐ Yes ☐ No Vendor to Confirm & Specify			
The control panel	Includes an analogue pressure gauges and robust controls, digital engine monitoring (Murphy Powerview), load/unload switch, engine speed control, and pumper temperature monitoring system (Murphy thermal scanner).	☐ Yes ☐ No Vendor to Confirm & Specify			
Safety Device					
The booster should give a warning and/or shut down in the following conditions:	High discharge air temperature (1 sensor per cylinder)	☐ Yes ☐ No Vendor to Confirm & Specify			
	- High liquid level in scrubber tank	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Low engine oil pressure	☐ Yes ☐ No Vendor to Confirm & Specify			

	- High engine coolant temperature	☐ Yes ☐ No Vendor to Confirm & Specify			
	- High engine speed	☐ Yes ☐ No Vendor to Confirm & Specify			
Minimum Safety devices installed	-Emergency stop	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Safety valves at suction and discharge	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Battery disconnects	☐ Yes ☐ No Vendor to Confirm & Specify			
Accessories for connection to feed-air compressors					
Accessories	The bidder is required to provide the necessary accessories that are required to operate the machine smoothly. The accessories at minimum includes:-	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Suction hose - min15mt	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Inlet strainer,	☐ Yes ☐ No Vendor to Confirm & Specify			
	-connection manifold,	☐ Yes ☐ No Vendor to Confirm & Specify			
	-hose adaptors	☐ Yes ☐ No Vendor to Confirm & Specify			
Service & repair					
Service packs	The bidder is required to provide recommended service packages for different service hours 250 hrs, 500 hrs, 1000 hrs, 2000 hrs. the Packages should include at minimum :-	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Oil	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Valve repair kit	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Piston repair kit	☐ Yes ☐ No Vendor to Confirm & Specify			

Condition	The device (components of the Booster Machine) shall be brand new (Refurbished machine will not be accepted)	☐ Yes ☐ No Vendor to Confirm & Specify			
Mandatory Requirements		☐ Yes ☐ No Vendor to Confirm & Specify			
Warranty	Manufacturer Standard Warranty minimum 12 Months				
Technical Data Sheet	The compliance for each technical specification shall be supported by technical data sheet and relevant catalogue. Failure to comply with this requirement leads to rejection.	☐ Yes ☐ No Vendor to Confirm & Specify			
Manual	The rig will be supplied with operation and maintenance manual, and spare parts catalogue	☐ Yes ☐ No Vendor to Confirm & Specify			
Local Agent	The manufacturer/supplier should have a local agent in Ethiopia. (If no local agent in Ethiopia, the bidder should commit/agree to arrange a local agent which provides PDI, maintenance and aftersales service within one month after award. Bidders should submit a commitment letter to provide such service.	☐ Yes ☐ No Vendor to Confirm & Specify			
The device (components of the Rig) including the trucks shall be brand new (Refurbished machine will not be accepted)		☐ Yes ☐ No Vendor to Confirm & Specify			
Item 3	MOBILE COMPRESSOR				
General Information:		☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Model/Model No.	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Manufacturer	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Country of Origin	Vendor to Specify	☐ Yes ☐ No Vendor to Confirm & Specify			
Parameter	Minimum Requirement				

The supplier should provide	a complete Rotary Screw Air Compressor Package	☐ Yes ☐ No Vendor to Confirm & Specify			
	consisting of a two-stage oil-injected rotary screw compressor, electric motor, control system, cooling system, air receiver, filtration system, dryer, and all required accessories for safe and efficient operation.	☐ Yes ☐ No Vendor to Confirm & Specify			
Technical Specification					
Parameter	Minimum Requirement				
Type:	Two-Stage Oil Injected Rotary Screw Compressor	☐ Yes ☐ No Vendor to Confirm & Specify			
Max pressure	30-35 Bar (435 -510 psi)	☐ Yes ☐ No Vendor to Confirm & Specify			
Free air delivery	delivers about 34 m ³ /min (roughly 1200 cfm)	☐ Yes ☐ No Vendor to Confirm & Specify			
Mobility	Skid- Mounted	☐ Yes ☐ No Vendor to Confirm & Specify			
Control System	Automatic with protection, monitoring, and diagnostics	☐ Yes ☐ No Vendor to Confirm & Specify			
Power source	Diesel	☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel Tank	Minimum 300 lit	☐ Yes ☐ No Vendor to Confirm & Specify			
Duty Cycle	Continuous Operation	☐ Yes ☐ No Vendor to Confirm & Specify			
The package shall include:	Display of: -Pressure -Temperature -Operating hours -Fault alarms	☐ Yes ☐ No Vendor to Confirm & Specify			
	-Automatic start/stop and load/unload control	☐ Yes ☐ No Vendor to Confirm & Specify			

Safety shutdowns for:	-High temperature -High/low pressure -Motor overload -Oil system faults	☐ Yes ☐ No Vendor to Confirm & Specify			
Standard Quality Certification for Mobile Air Compressor					
The compressor and accessories shall comply with the following standards: Documentation must include:	ISO 1217 (Compressor performance test) from the compressor manufacturer	☐ Yes ☐ No Vendor to Confirm & Specify			
	ISO 8573 (Compressed air quality) from the compressor manufacturer	☐ Yes ☐ No Vendor to Confirm & Specify			
	DOC-IEC standards for electrical equipment	☐ Yes ☐ No Vendor to Confirm & Specify			
	DOC-Pressure vessels compliant with PED or ASME	☐ Yes ☐ No Vendor to Confirm & Specify			
	DOC on Noise regulations according to EU Machinery Directive	☐ Yes ☐ No Vendor to Confirm & Specify			
Spare parts for the compressor	Manufacturer's recommended spare parts for 2 years or 4000 hours of operations shall be listed and offered financially. Bidders required to list down the items. The spare parts shall be: -Clearly itemized -Priced separately -Readily available	☐ Yes ☐ No Vendor to Confirm & Specify			
Condition	The device (components of the Booster Machine) shall be brand new (Refurbished machine will not be accepted)	☐ Yes ☐ No Vendor to Confirm & Specify			
Mandatory Requirements					
Warantee	Manufacturere Standard Warantee minimum 12 Months	☐ Yes ☐ No Vendor to Confirm & Specify			
Technical Data Sheet	The compliance for each technical specification shall be supported by technical data sheet and relevant catalogue. Failure to comply with this requirement leads to rejection.	☐ Yes ☐ No Vendor to Confirm & Specify			
Manual	The rig will be supplied with operation and maintenance manual, and spare parts catalogue	☐ Yes ☐ No Vendor to Confirm & Specify			

Local Agent	The manufacturer/supplier should have a local agent in Ethiopia. (If no local agent in Ethiopia, the bidder should commit/agree to arrange a local agent which provides PDI, maintenance and aftersales service within one month after award. Bidders should submit a commitment letter to provide such service.	☐ Yes ☐ No Vendor to Confirm & Specify			
The device (components of the Rig) including the trucks shall be brand new (Refurbished machine will not be accepted)		☐ Yes ☐ No Vendor to Confirm & Specify			
UNOPS Delivery, and the right to vary — Comparative Data Table					
Delivery time- UNOPS prefers an FCA (Incoterm 2020) delivery period of 16 weeks. However, bidders are requested to indicate their earliest possible delivery timeline in their offers.		☐ Yes ☐ No Bidder's to Insert details			
FCA(Incoterms 2020)- Bidder to Specify the FCA point of delivery		Bidder's to Insert details			
Delivery time- UNOPS prefers an DAP (Incoterm 2020) delivery period of 24 weeks. However, bidders are requested to indicate their earliest possible delivery timeline in their offers.		☐ Yes ☐ No Bidder's to Insert details			
UNOPS Right to vary requirements	At the time of awarded, UNOPS reserves the right to vary the quantity of the goods and associated services specified above, provided this does not exceed +/- 25%, without any change in the unit prices or other terms and conditions of the ITB	☐ Yes ☐ No Bidder's to Insert details			
Related services requirements					
[Provide details of how these services will be provided here]					
The offered goods and related services (if applicable) are in accordance with the required specifications and requirements specified in Section II: Schedule of Requirements.		☐ Yes ☐ No			
ANY DEVIATION MUST BE LISTED BELOW:					

[illegible]

Bidders are required to submit the excel and pdf Version of - Form D- Technical Bid Form

Drilling Rig -350mtr- Lot 3 and Lot 4

<p>Technical Specification Title: ITB for the Supply, Installation, Commissioning and Training of 600Mtr & 350Mtr Water well drilling rig with tools and accessories for Ministry of irrigation and Lowlands/MILS- Ethiopia ITB/2026/64017</p>	<p>Is your product compliant with UNOPS Minimum Requirement ?</p>	<p>Technical specification of goods offered by bidder</p>	<p>Remark (note for deviation and description of additional document attached with bidder offer)</p>
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Lot 2- Truck Mounted Waterwell Drilling Rig 350m with Drilling Tools Accessories

General Description of the Drilling Rig					
Parameter	Minimum Requirement				
Description	for Drilling operations at 350m deep with a maximum 17 ½” diameter water wells	☐ Yes ☐ No Vendor to Confirm & Specify			
Drilling capacity	to drill in all formations to a depth of 350m with 10”-17.5” well diameter, both by Mud and air rotary DTH in both direct and reverse circulation drilling methods.	☐ Yes ☐ No Vendor to Confirm & Specify			
Used	For water well drilling at medium and elevated depths	☐ Yes ☐ No Vendor to Confirm & Specify			
The drilling rig should be able to work at	Air Temperature 0°-50° c Climate: Humid tropics - Arid desert Altitude: above Sea level 100m - 3000 m a.s.l.	☐ Yes ☐ No Vendor to Confirm & Specify			

Work Methods	Rotary drilling with direct and reverse circulation by Water, Mud, or Foam and Down the Hole Hammer Drilling	☐ Yes ☐ No Vendor to Confirm & Specify			
Components of the Drilling Rig					
A.TRUCK SPECIFICATION					
Assembly of drilling rig	Onto a suitable 3 or 4 axles carrier vehicle 6*6 or 8x4 truck	☐ Yes ☐ No Vendor to Confirm & Specify			
Brand	ASTRA HD9 /IVECO Model T-series	☐ Yes ☐ No Vendor to Confirm & Specify			
Chasis	Heavy Duty	☐ Yes ☐ No Vendor to Confirm & Specify			
Steering orientation	LHD	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine		☐ Yes ☐ No Vendor to Confirm & Specify			
Cooling system	Water cooled engine, turbo intercooler,	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered by	Diesel	☐ Yes ☐ No Vendor to Confirm & Specify			
Cylinders	6(Six)	☐ Yes ☐ No Vendor to Confirm & Specify			
Displacement	Min 12882cc.	☐ Yes ☐ No Vendor to Confirm & Specify			
Emission Control	Euro III	☐ Yes ☐ No Vendor to Confirm & Specify			
Extra Heavy Duty Suspension	Front with shock absorbers, rear reinforced axles with double reduction, central bevel gears and planetary hub reduction	☐ Yes ☐ No Vendor to Confirm & Specify			
Tires					
wheels type	wheels with off road tires;	☐ Yes ☐ No Vendor to Confirm & Specify			
first axle	with single tires,	☐ Yes ☐ No Vendor to Confirm & Specify			
rear axles	with twinned tires;	☐ Yes ☐ No Vendor to Confirm & Specify			

Spare wheel	complete with spare wheel-1unit on the chassis	☐ Yes ☐ No Vendor to Confirm & Specify			
Tire with tube or tubeless	Tubeless	☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel Tank		☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel Type	Diesel	☐ Yes ☐ No Vendor to Confirm & Specify			
Fuel:	Min 300 lt. fuel tank on the truck	☐ Yes ☐ No Vendor to Confirm & Specify			
Additional Fuel tank capacity for the deck engine	600 litres, for assembly on truck- with two sections	☐ Yes ☐ No Vendor to Confirm & Specify			
B. MAIN FRAMEWORK:					
Main Frame					
Main framework	Made out of electrically welded High quality S 355 JR steel structural members and tubular pieces.mounted on a carrier truck.	☐ Yes ☐ No Vendor to Confirm & Specify			
Outrigger					
Outriggers	four (4) hydraulic stabilizers complete with safety check valves and support pads. for levelling and positioning of the rig, complete with a check valve and ball-joint plate.	☐ Yes ☐ No Vendor to Confirm & Specify			
Front outriggers lifting capacity,	a minimum of (each):30,000 KG	☐ Yes ☐ No Vendor to Confirm & Specify			
Rear outriggers lifting capacity,	a minimum of (each):25,000KG	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic System :					
Hydraulic Oil Tank, capacity	a minimum of 600 litres	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Tank Features	Inspection cover, vent filter, level gauge and temperature indicator	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic System	Load-sensing hydraulic system with oil cooler	☐ Yes ☐ No Vendor to Confirm & Specify			

Hydraulic Cooling	Automatic hydraulic oil cooling system.	☐ Yes ☐ No Vendor to Confirm & Specify			
Filtration system	Suction and return line filtration system 100-150 micron strainer on suction line , 10 micron on discharge lines. All return lines shall be equipped with clogging indicators or equivalent maintenance warning devices.	☐ Yes ☐ No Vendor to Confirm & Specify			
The system must include one gear box on which are connected:	Combination of piston and gear pumps suitable for rotary head, mud pump, pull-up/down, stabilizers, mast lifting, and auxiliary services :- One (1) variable displacement axial piston pump in a closed circuit for the rotary head One (1) variable displacement axial piston pump in an open circuit for pull-down and winch One (1) variable displacement axial piston pump in an open circuit for the mud pump One (1) geared pump for the cooling circuit, One (1) geared pump for the (stabilizers, mast lifting and air/mud valve cylinder), One (1) geared pump for other services if necessary (generator/welding machine),	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Lines	Heavy-duty rigid and flexible hydraulic piping	☐ Yes ☐ No Vendor to Confirm & Specify			
rods of the cylinders	Chrome-plated high-strength steel rods. The rods of the cylinders are in chrome plated high tensile strength steel with extra heavy-duty seal packing.	☐ Yes ☐ No Vendor to Confirm & Specify			
Each hydraulic pump suction	should have a lockable shut-off valve to stop oil during maintenance operations.	☐ Yes ☐ No Vendor to Confirm & Specify			
C. MAST					
Construction					

Mast Construction	Box-type electrically welded high-strength quality steel	☐ Yes ☐ No Vendor to Confirm & Specify			
Finish	Anti-corrosion industrial coating, primer and paint suitable for outdoor drilling environments	☐ Yes ☐ No Vendor to Confirm & Specify			
Capacity	Minimum of 22 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Height	9 -15m	☐ Yes ☐ No Vendor to Confirm & Specify			
The mast shall be	Raised and lowered by 2 hydraulic cylinder	☐ Yes ☐ No Vendor to Confirm & Specify			
Guides and carriage	Hardened, treated steel, anti-wear surface ,applied to the mast for the rotary head power carriage	☐ Yes ☐ No Vendor to Confirm & Specify			
Crown block:	Removable type, rated for full mast load	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic clamp:	Detachable, easy access for maintenance	☐ Yes ☐ No Vendor to Confirm & Specify			
Top of the Mast (Crown block)					
The mast shall have a capacity of	a minimum of 22 tons with electronic safety stop for cable.	☐ Yes ☐ No Vendor to Confirm & Specify			
sheaves	2 sheaves and a minimum of Ø 320 mm.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hose Chain Support					
Hose Chain Support	Heavy-duty hose carrier chain assembly mounted on the mast and connected to the sliding carriage, with all exposed metallic structural components manufactured from stainless steel grade AISI 304 or better	☐ Yes ☐ No Vendor to Confirm & Specify			
Pull-Down System					
The system shall be	Hydraulically powered device by means of a cylinder and a heavy-duty high-resistance chain.	☐ Yes ☐ No Vendor to Confirm & Specify			
Drilling string	should be hydraulically adjustable feed system of battery weight and pressure thrust on drill string.	☐ Yes ☐ No Vendor to Confirm & Specify			

Pull-up	Minimum 20 ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Feed chains safety factor:	4:1	☐ Yes ☐ No Vendor to Confirm & Specify			
Pull-down Max	Minimum 12 ton	☐ Yes ☐ No Vendor to Confirm & Specify			
Advancement adjustable drilling feed rate	from min 0 to 9 m/min.	☐ Yes ☐ No Vendor to Confirm & Specify			
Up adjustable handling, fast feed rate	from min 0 to 27 m/min.	☐ Yes ☐ No Vendor to Confirm & Specify			
Down adjustable handling fast feed rate	from min0 to 50 m/min.	☐ Yes ☐ No Vendor to Confirm & Specify			
Tie Rods for the Mast					
Rods for the Mast	Steel-rods (cable wire type) with adjustment screw to reduce the oscillations of the mast.	☐ Yes ☐ No Vendor to Confirm & Specify			
Rotary Head Power Carriage					
Material	high-quality steel construction, made entirely out of S 355 JR steel,	☐ Yes ☐ No Vendor to Confirm & Specify			
Postioning	Lateral positioning on anti-friction high resistance sliding blocks, vertical sliding by means of roller pin bearings with regulation of play	☐ Yes ☐ No Vendor to Confirm & Specify			
hydraulic side-parking stroke	Minimum 720mm for safe lateral movement.	☐ Yes ☐ No Vendor to Confirm & Specify			
Tilting Support	hydraulic cylinders, it shall have an inclination of 0°- 82° +/-2° for frontal drill pipes loading.	☐ Yes ☐ No Vendor to Confirm & Specify			
Spindle drive	Compatible with 4 1/2" API IF threaded rotary heads.	☐ Yes ☐ No Vendor to Confirm & Specify			
Rotary Head					
	includes a steel case, pinion-crown transmission, alloy-treated steel shafts and gears mounted on bearings, and oil-bath lubrication.	☐ Yes ☐ No Vendor to Confirm & Specify			

Rotary head

	Powered by two variable displacement hydraulic motors.	☐ Yes ☐ No Vendor to Confirm & Specify			
	Dragging head under part, floating type, with shock absorber incorporated,	☐ Yes ☐ No Vendor to Confirm & Specify			
	Made by cast rubber with steel reinforcements inside, internal diameter 6" with fixed 4"1/2 IF thread (It should be already prearranged for application of swivel head).	☐ Yes ☐ No Vendor to Confirm & Specify			
Static capacity/ Pull back Capacity	Min 50 Tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Max torque	20.000 Nm	☐ Yes ☐ No Vendor to Confirm & Specify			
Max speed	Min120 Rpm - (The Maximum Speed should not be less than 120 rpm)	☐ Yes ☐ No Vendor to Confirm & Specify			
Swivel head	Swivel head for direct circulation, internal diameter (free passage) 3" (76 mm).	☐ Yes ☐ No Vendor to Confirm & Specify			
Control panel Adjustable extension Arm	The control panel should have an arm extension of the hydraulic control panel with the possibility of adjusting its positioning depending on the inclination of the machine. The panel shall be orientable by hydraulic control on the machine.	☐ Yes ☐ No Vendor to Confirm & Specify			
Fixed Panel	complete with valves, distributors, pressure control gauges, engine management ECU, rig positioning controls, control valves for the pressure of the clamps, emergency button, and electrical panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Swivel Arm Panel	Complete with valve, hydraulic controls for key functions, and manual distributor ON-OFF for secondary functions, pressure gauges, pull-up and down gauges, and thrust balancing system with proportional function and speed control of the head, advancing speed, water pump speed, on-off controls for secondary functions, and emergency stop,	☐ Yes ☐ No Vendor to Confirm & Specify			

	The control panel shall be equipped with a closure cover.				
Monitored parameter- Control panel monitoring indicators	Components on the control panel includes : - Pressure of the air/mud pipework - Oil pressure of the main pumps - Pull-up, pressure on the drill string - Pull-down, balancing system - Regulation of the advancing speed - Regulation of the speed of the water and mud pump - Regulation of the rotary head speed - Emergency button	☐ Yes ☐ No Vendor to Confirm & Specify			
Winch					
Main Winch					
Powered	by a hydraulic motor and the rig's hydraulic circuit	☐ Yes ☐ No Vendor to Confirm & Specify			
Equipped with	up and down control	☐ Yes ☐ No Vendor to Confirm & Specify			
complete with	min 60 m of Stainless steel cable Ø 16 mm.	☐ Yes ☐ No Vendor to Confirm & Specify			
a minimum of direct pull,	Max 43 Kn	☐ Yes ☐ No Vendor to Confirm & Specify			
Service Winch					
Powered	by a hydraulic motor and the rig's hydraulic circuit.	☐ Yes ☐ No Vendor to Confirm & Specify			
Equipped with	up and down control	☐ Yes ☐ No Vendor to Confirm & Specify			
complete with	Min 30 m of Stainless steel cable Ø 10 mm.	☐ Yes ☐ No Vendor to Confirm & Specify			
a minimum of direct line pull	22 kN	☐ Yes ☐ No Vendor to Confirm & Specify			
Maximum speed at the first layer	Shall be 20 m/min.	☐ Yes ☐ No Vendor to Confirm & Specify			
Travelling Block					
Fitted with	1 sheave with a rotating hook.	☐ Yes ☐ No Vendor to Confirm & Specify			

The capacity of the travelling block	Minimum of 20 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Air lubricator					
type	Venturi type with adjustable oil flow system device	☐ Yes ☐ No Vendor to Confirm & Specify			
Max pressure	25-30 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Oil tank	Min 22 liters	☐ Yes ☐ No Vendor to Confirm & Specify			
Flow	Min 15 kg/h	☐ Yes ☐ No Vendor to Confirm & Specify			
D. DOUBLE HYDRAULIC CLAMP					
Purpose	Equipment designed for guiding, blocking, screwing & unscrewing of drill pipes, bits, and casing.	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	high-duty quality steel construction (S355)	☐ Yes ☐ No Vendor to Confirm & Specify			
Guiding system	hydraulically adjustable guide system of the rods, a pair of reduction jaws	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered by	6 (six) hydraulic cylinders.	☐ Yes ☐ No Vendor to Confirm & Specify			
Ø max passage	430 mm (17")	☐ Yes ☐ No Vendor to Confirm & Specify			
Ø min clamping	76 mm (3")	☐ Yes ☐ No Vendor to Confirm & Specify			
Ø max clamping	406.4 mm (16")	☐ Yes ☐ No Vendor to Confirm & Specify			
Force max clamping	Min 266 kN	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque min unscrewing	minimum 80,000 Nm	☐ Yes ☐ No Vendor to Confirm & Specify			
Dust protector clamp	The dust protector pad shall be made into 2 pieces and mounted on the bottom of the clamp that completes the reduction for various drill pipes.	☐ Yes ☐ No Vendor to Confirm & Specify			
E. DECK ENGINE					

General Information:					
Brand	Vendor to Specify	Vendor to Specify			
Model/Model No.	Vendor to Specify	Vendor to Specify			
Manufacturer	Vendor to Specify	Vendor to Specify			
Country of Origin	Vendor to Specify	Vendor to Specify			
Parameter	Minimum Requirement				
Cooling system	Water-cooled	☐ Yes ☐ No Vendor to Confirm & Specify			
Engine	diesel turbocharged, 4 strokes, direct injection,	☐ Yes ☐ No Vendor to Confirm & Specify			
no of Cylinders	6-8 cylinder (in-line or V Configuration)	☐ Yes ☐ No Vendor to Confirm & Specify			
Horsepower	Min 500 HP	☐ Yes ☐ No Vendor to Confirm & Specify			
Complete with	complete with an electrical system and a 24 V battery	☐ Yes ☐ No Vendor to Confirm & Specify			
The following minimum parameters shall be met:	- Alternator	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Low oil pressure switch	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Over-temperature switch	☐ Yes ☐ No Vendor to Confirm & Specify			
	- Engine stop solenoid	☐ Yes ☐ No Vendor to Confirm & Specify			
F. GENERATOR -WELDER SET					
General Information:					
Brand	Vendor to Specify	Vendor to Specify			
Model/Model No.	Vendor to Specify	Vendor to Specify			
Manufacturer	Vendor to Specify	Vendor to Specify			
Country of Origin	Vendor to Specify	Vendor to Specify			
Parameter	Minimum Requirement				
Powered	Hydraulically powered by a hydraulic motor and the rig's hydraulic circuit.	☐ Yes ☐ No Vendor to Confirm & Specify			
Generator power:	Three-phase 400 V - 50Hz - 10kVA-16 KVA	☐ Yes ☐ No Vendor to Confirm & Specify			

	Single-phase 230 V - 50 Hz - 4 kVA-8KVA				
Welder power	Minimum 400 A	☐ Yes ☐ No Vendor to Confirm & Specify			
Voltage Regulation	Automatic voltage regulation (AVR) for stable output	☐ Yes ☐ No Vendor to Confirm & Specify			
Protection Features	Overload protection, short-circuit protection, and thermal protection	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	Heavy-duty steel enclosure with anti-corrosion coating suitable for outdoor drilling environments	☐ Yes ☐ No Vendor to Confirm & Specify			
Mounting	Installed on the drilling rig frame with vibration-damping supports	☐ Yes ☐ No Vendor to Confirm & Specify			
G. COMPRESSOR					
General Information:					
Brand	Vendor to Specify	Vendor to Specify			
Model/Model No.	Vendor to Specify	Vendor to Specify			
Manufacturer	Vendor to Specify	Vendor to Specify			
Country of Origin	Vendor to Specify	Vendor to Specify			
Parameter	Minimum Requirement				
Compressor Hydraulic clutch					
Air Compressor					
Cooling system	Intercooler/ Aftercooler	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered by	Directly connected to the engine through hydraulic	☐ Yes ☐ No Vendor to Confirm & Specify			
Duty Cycle	Continuous	☐ Yes ☐ No Vendor to Confirm & Specify			
Type	Two-stage, compressor with intercooling	☐ Yes ☐ No Vendor to Confirm & Specify			
Max pressure	25 -30 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Free air delivery	Min 28.3 m³/min (1000 cfm) at 1 bar , 20°C	☐ Yes ☐ No Vendor to Confirm & Specify			
With the engine speed	1500 rpm (or 1200–1800 rpm if variable speed drive)	☐ Yes ☐ No Vendor to Confirm & Specify			

Power Consumption	Max 350 kW	☐ Yes ☐ No Vendor to Confirm & Specify			
Working condition	Air Temperature 0°-50° c Climate: Humid tropics - Arid desert Altitude: above Sea level 100m - 3000 m a.s.l.	☐ Yes ☐ No Vendor to Confirm & Specify			
Rated Output	22-28 m³/min (883-1000cfm) at 25-30bars	☐ Yes ☐ No Vendor to Confirm & Specify			
H. WATER/FOAM PUMP					
General Information:					
Brand	Vendor to Specify	Vendor to Specify			
Model/Model No.	Vendor to Specify	Vendor to Specify			
Manufacturer	Vendor to Specify	Vendor to Specify			
Country of Origin	Vendor to Specify	Vendor to Specify			
Parameter	Minimum Requirement				
Mounted	On the Deck	☐ Yes ☐ No Vendor to Confirm & Specify			
Powered	by a hydraulic motor and the rig's hydraulic circuit.	☐ Yes ☐ No Vendor to Confirm & Specify			
It should have	a safety valve and an automatic pressure regulator.	☐ Yes ☐ No Vendor to Confirm & Specify			
It Should have	suction and delivery pipework with stainless steel on-off and non-return valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
Capacity Max	Min 89 L/min (23.51 GPM)	☐ Yes ☐ No Vendor to Confirm & Specify			
Pressure Max	50 Bar (725 psi)	☐ Yes ☐ No Vendor to Confirm & Specify			
Materials:	Corrosion-resistant pump casing and components; seals compatible with water/foam.	☐ Yes ☐ No Vendor to Confirm & Specify			
Duty Cycle	Continuous	☐ Yes ☐ No Vendor to Confirm & Specify			
I. MUD PUMP					
General Information:					
Brand	Vendor to Specify	Vendor to Specify			
Model/Model No.	Vendor to Specify	Vendor to Specify			
Manufacturer	Vendor to Specify	Vendor to Specify			

Country of Origin	Vendor to Specify	Vendor to Specify			
Parameter	Minimum Requirement				
Pump type	Duplex double-acting piston mud pump	☐ Yes ☐ No Vendor to Confirm & Specify			
Construction	made up of steel fluid and power ends, shaft with eccentrics, connecting rods and crossheads made out of special steel and mounted on bearings, liners, pistons, valves and valve seats made out of heat treated alloy steel,	☐ Yes ☐ No Vendor to Confirm & Specify			
Lubrications	Oil bath lubrication and auxiliary forced lubrication system by means of a geared pump, pulsation dampener, rod lubrication tank,	☐ Yes ☐ No Vendor to Confirm & Specify			
Suction Line	Heavy-duty suction hose with strainer	☐ Yes ☐ No Vendor to Confirm & Specify			
Mud suction pipework	8" diameter with flexible hose internal diameter 200 mm complete with rapid joint and suction strainer.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pump Capacity-	Flow rate minimum 2200 l/min Pressure max 20 Bar	☐ Yes ☐ No Vendor to Confirm & Specify			
Four Exit Pump Drive					
type	Spheroidal cast-iron fusion case and alloy treated steel gears,	☐ Yes ☐ No Vendor to Confirm & Specify			
Mounted on	mounted on bearings, oil-bath lubrication, heat exchanger (air-oil) for cooling case oil.	☐ Yes ☐ No Vendor to Confirm & Specify			
Coupling	Direct coupling to engine.	☐ Yes ☐ No Vendor to Confirm & Specify			
Mud Mixing and Fluid System					
Jet hopper mixer	60 liters with accessories	☐ Yes ☐ No Vendor to Confirm & Specify			
Tank for Foam & Water	Separate tanker minimum 1000lit for foam & water with air agitation for polymer mixing.	☐ Yes ☐ No Vendor to Confirm & Specify			
Air/mud pipe Work					
Delivery pipework	a diameter of 2"1/2	☐ Yes ☐ No Vendor to Confirm & Specify			

Hose system	with rigid and flexible hoses placed at the mast and the swivel head.	☐ Yes ☐ No Vendor to Confirm & Specify			
Valve Materials	stainless steel on-off and non-return valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
Main Valve Operation	hydraulic cylinder for the main valve opening (air/mud), which shall be controlled by the control panel directly.	☐ Yes ☐ No Vendor to Confirm & Specify			
External Hydraulic Lines					
External hydraulic lines	shall be powered from the truck engine through PTO arrangement for the mast and levelling jacks with quick disconnect hose or other system to lower the mast and raise the levelling jacks while the deck engine is malfunctioning	☐ Yes ☐ No Vendor to Confirm & Specify			
It shall include	two (2) external hydraulic hoses to assist the feed cylinder to pull-up the drilling string.	☐ Yes ☐ No Vendor to Confirm & Specify			
All controls	All controls shall be positioned near to the control panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
J. ADDITIONAL REQUIREMENT					
Walkways Around the clamp Area	Working platform positioned next to the well area and removable for displacement.	☐ Yes ☐ No Vendor to Confirm & Specify			
Plate and Base supports for Stabilizers	There should be base support for rear outriggers and bottom of the mast. Plus, there should also be a front plate for supporting of the forward outriggers.	☐ Yes ☐ No Vendor to Confirm & Specify			
Lighting system	The rig shall be complete with a lighting system, 2 lamps on the mast and another 2 lamps on the control panel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Standard Painting	White-The painting process of all drilling rigs shall provide a careful preparation of all surfaces through cleaning and sanding. This shall be followed by a degreasing phase, a first coating with epoxy primer, and lastly by the painting to be carried out in liquid, for a total of 100 microns.	☐ Yes ☐ No Vendor to Confirm & Specify			

Quality Standard Requirements					
The manufacturer shall comply with the following international standards:	API Spec 5DP & API 7-1 (For Drill pipes and collars)	☐ Yes ☐ No Vendor to Confirm & Specify			
	ISO 9001:2015 (Quality management systems)	☐ Yes ☐ No Vendor to Confirm & Specify			
K- Drilling Tools, Spareparts and Accessories for 350Mtr Drilling Rig					
Tools and Accessories					
DRILL PIPE 5", length 6 m, Thread 3 1/2" API IF, pipe th. 8.8 (N80), length tool joints (42CrMo4) 300 and 250 mm, wrench recess on both joints and thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL PIPE 5", length 3 m, Thread 3 1/2" API IF, pipe th. 8.8 (N80), length tool joints (42CrMo4) 300 and 250 mm, wrench recess on both joints and thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL COLLAR 6" (152,4 mm) Length 3 m, thread 4 1/2" API REG, internal diameter 80 mm, wrench on both ends and thread protection.		☐ Yes ☐ No Vendor to Confirm & Specify			
DRILL COLLAR 8" (203.2 mm) Length 6 m, thread 6 5/8" API REG, internal diameter 90 mm, wrench on both ends and thread protection with non return valve which are replaceable		☐ Yes ☐ No Vendor to Confirm & Specify			
Spiral stabilizers 12 1/4" - body 8"x2 m with 6 5/8" API REG (B)x(P), wrench recess on both ends and hard thread protection		☐ Yes ☐ No Vendor to Confirm & Specify			
Spiral stabilizers 14" (350 mm) - body 8" (203 mm) x1,5 m with 6 5/8" API REG (B)x(P), internal hole diameter 80 mm		☐ Yes ☐ No Vendor to Confirm & Specify			
Cross over sub 4 1/2" API IF box x 3 1/2" API IF pin, length 300 mm		☐ Yes ☐ No Vendor to Confirm & Specify			
Cross over sub 4 1/2" API IF box x 6 5/8"		☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING SWIVEL, BOX type, swivel type for drill rods with threads 3 1/2" API IF, load capacity 3200 Kg		☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING SWIVEL, BOX type, swivel type for drill rods with threads 6 5/8" API IF, load capacity 4600 Kg		☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING PLUG, BOX type for drill rods with threads 4 1/2" API REG, load capacity 2000 Kg		☐ Yes ☐ No Vendor to Confirm & Specify			
HOISTING PLUG, BOX type for drill rods with threads 6 5/8" API REG, load capacity 2000 Kg		☐ Yes ☐ No Vendor to Confirm & Specify			

HOISTING PLUG, Box type, for drilling bits with threads 7 5/8" API REG, load capacity 4600 Kg	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 4 1/2" API REG BOX, 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX, 6 5/8" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB 3"1/2 API IF Box, 4"1/2 API REG Box	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX, 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG PIN , 4 1/2" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
SUB, 6 5/8" API REG BOX, 7 5/8" API REG BOX	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 10 5/8" (270 mm), thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 14 3/4" (375 mm), thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 12 1/4" (311 mm), thread 3 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Drag bit 17 1/2" (444,5 mm), thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
Tricone 12 1/4" (311.1 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "4", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
Tricone 14 3/4" (374.6 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "3", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 17 1/2" (444.5 mm) IADC 535, TCI inserts, thread 7 5/8" API REG Pin, leg back protection type "3", for medium-hard formation and 3 jet flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 9 7/8" (250,8 mm) IADC 535, TCI inserts, thread 6 5/8" API REG Pin, leg back protection type "3", for hard formation and central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 9 7/8" (250,8 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			

TRICONE 12 1/4" (311,1 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 14 3/4" (375 mm) IADC 211, tooth type, thread 6 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
TRICONE 17 1/2" (444,5 mm) IADC 211, tooth type, thread 7 5/8" API REG Pin, for soft formation and with central flushing	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 12", thread 6 5/8" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 8", thread 4 1/2" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
SHOCK ABSORBER for DTH HAMMER 10", thread 6 5/8" API Reg	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 10" with shank SD 10 and thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 8" with shank DHD 380 and thread 4 1/2" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
DOWN THE HOLE HAMMER 12" with shank SD 12 and thread 6 5/8" API REG Pin	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 12 1/4" (311 mm) concave face for DTH Hammer 10" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 10" (254 mm) concave face for DTH Hammer 10" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 15" (381 mm) concave face for DTH Hammer 10" with shank SD 10	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 8 1/2" (216 mm) concave face for DTH Hammer 8" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 10" (254 mm) concave face for DTH Hammer 8" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 12 1/4" (311 mm) concave face for DTH Hammer 8" with shank DHD 380	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 12 1/4" (311 mm) concave face for DTH Hammer 12" with shank SD 12	☐ Yes ☐ No Vendor to Confirm & Specify			
BIT 17 1/2" (445 mm) concave face for DTH Hammer 12" with shank SD 12	☐ Yes ☐ No Vendor to Confirm & Specify			

Steel Casing elevators 6 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 8 5/8"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 10 3/4"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 17 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 12 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Steel Casing elevators 14 1/2"	☐ Yes ☐ No Vendor to Confirm & Specify			
Loading kit (2 cable rings plus 2 shackles) for casing elevator, max capacity 30 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 6 5/8", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 8 5/8", max capacity 20 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 10 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 12 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing clamp and slips for steel casing 14 3/4", max capacity 55 tons	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 6 5/8" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 8 5/8" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Casing Elevators for 10 3/4" PVC Casing	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit of casing clamp for 6 5/8", " PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit of casing clamp for 8 5/8", PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			

Kit of casing clamp for 10 3/4" PVC casing flush joint type (n°1 each diameter)	☐ Yes ☐ No Vendor to Confirm & Specify			
Fishing tools with: = taper tap for 3 1/2" API IF Box drill pipe, -1pcs each = die collar for 3 1/2" API IF Box drill pipe, -1pcseach = fishing magnet OD 6 1/2" with pulling capacity 400kg-1pcseach	☐ Yes ☐ No Vendor to Confirm & Specify			
JET HOOPER MIXER: Jet hopper mixer 60 liters with accessories.	☐ Yes ☐ No Vendor to Confirm & Specify			
Foldable Water tight canvas TANK FOR FOAM and WATER: Minimum Capacity of 1000litrs, with air agitation for polymer mixing.	☐ Yes ☐ No Vendor to Confirm & Specify			
HAND OPERATED manual OIL & FUEL pump Filling pump with filter for oil & fuel, actioned manually.	☐ Yes ☐ No Vendor to Confirm & Specify			
Top adaptor spanner for DTH hammer cylinder 8"	☐ Yes ☐ No Vendor to Confirm & Specify			
TOP ADAPTOR SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
14" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
12" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
10" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
8" BIT SPANNER	☐ Yes ☐ No Vendor to Confirm & Specify			
17 1/2" Bit spanner	☐ Yes ☐ No Vendor to Confirm & Specify			
Standard safety equipment for a crew of six members	☐ Yes ☐ No Vendor to Confirm & Specify			
TOOL BOX & MAINTENANCE KIT				
Slogging Wrenches: Open-end and 12-point box ends (up to 3" or 75mm) for hammer-tightening structural bolts.	☐ Yes ☐ No Vendor to Confirm & Specify			
Heavy-Duty Socket Set: 3/4" and 1" drive sets for high-torque applications.	☐ Yes ☐ No Vendor to Confirm & Specify			
Torque Multipliers: Essential for reaching the high foot-pound requirements of flange bolts and mounting hardware.	☐ Yes ☐ No Vendor to Confirm & Specify			

Large Pipe Wrenches: 18 ", 24", 36", and 48" (Rigid-style) for mud lines and drill floor piping.(each size 1 pcs)	☐ Yes ☐ No Vendor to Confirm & Specify			
Impact Wrenches: Pneumatic 1" drive impact tools for fast removal of heavy covers and guards.	☐ Yes ☐ No Vendor to Confirm & Specify			
Pressure Gauges: 0–5,000 psi (350 bar) digital or liquid-filled gauges with quick-connect fittings.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Hose Crimper & Cutter: For on-site repairs of auxiliary lines.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Jacks: 20-ton "pancake" or bottle jacks for leveling or component lifting.	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic Jacks: 50-ton "pancake" or bottle jacks for leveling or component lifting.	☐ Yes ☐ No Vendor to Confirm & Specify			
Fluid Sampling Kit: To monitor hydraulic oil cleanliness and prevent pump cavitation.-	☐ Yes ☐ No Vendor to Confirm & Specify			
Digital Multimeter: CAT IV rated (e.g., Fluke 87V or equivalent) for troubleshooting high-voltage power systems.	☐ Yes ☐ No Vendor to Confirm & Specify			
Clamp Meter: To measure high amperage on mud pump motors and the drawworks.	☐ Yes ☐ No Vendor to Confirm & Specify			
Insulation Tester (Megohmmeter): For testing motor windings and cable integrity against the rig ground.	☐ Yes ☐ No Vendor to Confirm & Specify			
Precision Screwdriver Set: For PLC (Programmable Logic Controller) and control board wiring.	☐ Yes ☐ No Vendor to Confirm & Specify			
Infrared (Thermal) Camera: To detect hot spots in electrical panels or overheating bearings before they fail.	☐ Yes ☐ No Vendor to Confirm & Specify			
High-Pressure Grease Gun: Manual and battery-powered (18V) for the dozens of grease points on the mast and swivel.	☐ Yes ☐ No Vendor to Confirm & Specify			
Lubrication Chart: Specific to your rig model, tracking hours vs. grease type (EP2, High-Temp, etc.).	☐ Yes ☐ No Vendor to Confirm & Specify			
Oil Filter Wrenches: Large strap-style wrenches for engine and hydraulic return filters.	☐ Yes ☐ No Vendor to Confirm & Specify			
Parts Washer/Solvent Kit: For cleaning shale shaker screens and fouled valves.	☐ Yes ☐ No Vendor to Confirm & Specify			
Spare parts to be supplied for the 350M Drilling Rig				

Truck air filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Truck oil filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Truck fuel filter set	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine air filters	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine oil filters	☐ Yes ☐ No Vendor to Confirm & Specify			
Deck engine fuel filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator air filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator oil filters	☐ Yes ☐ No Vendor to Confirm & Specify			
welder Generator fuel filters	☐ Yes ☐ No Vendor to Confirm & Specify			
V-Belts: A matched set for the cooling fans and auxiliary pumps for the primary power unit(Deck Engine, Carrier Truck Engine, welder Generator,)- 2Pcs for Each	☐ Yes ☐ No Vendor to Confirm & Specify			
Hydraulic oil filter elements set- for the hydraulic system	☐ Yes ☐ No Vendor to Confirm & Specify			
Wheel and master cylinder repair kit & brake lining	☐ Yes ☐ No Vendor to Confirm & Specify			
All hydraulic lines and hoses fitting seals (Washers and seal kit)	☐ Yes ☐ No Vendor to Confirm & Specify			
Kit for air compressor	Maintenance and Service kit for the supplied air compressor such as Air Filter, oil Filters, separators and lubricants . ☐ Yes ☐ No Vendor to Confirm & Specify			
Flange and O-Ring Kit: A comprehensive set of Viton O-rings, SAE, and Metric seals.	☐ Yes ☐ No Vendor to Confirm & Specify			
Mud seal "V"	☐ Yes ☐ No Vendor to Confirm & Specify			

Pack of gasket for the Power units(Deck Engine, Carrier Truck Engine, welder Generator,)- 1 set for each		☐ Yes ☐ No Vendor to Confirm & Specify			
Shear Pins & Fuses: For mechanical and electrical overload protection.		☐ Yes ☐ No Vendor to Confirm & Specify			
BOP Seal Kit: Critical for maintaining the Blowout Preventer pressure integrity		☐ Yes ☐ No Vendor to Confirm & Specify			
L. INSPECTION, INSTALLATION, COMMISSIONING AND TRAINING					
Pre- Shipment Inspection	UNOPS at its discretion may conduct on site during assembly and pre-shipment inspection at the factory of the Drilling rig	☐ Yes ☐ No Vendor to Confirm & Specify			
Installation, Commissioning and Training	<p>The manufacturer /bidder shall organize a start-up and training on the delivered drilling rig, performed by expert technicians at the customer's job site in Ethiopia</p> <p>Main activities shall include:</p> <ul style="list-style-type: none"> -Complete check of the delivered rig and eventual accessories -Practical training about the drilling rig characteristics and the various types of operations -Complete course on ordinary and extraordinary maintenance -Lessons on safety measures and precautions -Explanation of the Spare Parts Manual and Operation Manual <p>N.B The Vendor is responsible to cover all the costs (including training hall costs etc) and consumables (fuel, Lubrications, etc) necessary for the installation, commissioning and training activities ,</p> <p>Duration: 30 days/for each of the regions however the training is going to be made simultaneously. The Total Training Period for all the Regions shouldn't exceed 30Days.</p> <p>Commissioning = The awarded bidder is required to commission the drilling Rig by drilling a 350mtr long drilling well. All the costs related to</p>	☐ Yes ☐ No Vendor to Confirm & Specify			

	the commissioning work is the responsibility of the bidder. Installation, training and commissioning to be on site at 3 regions out side of Addis Ababa(Afar, Somali and Oromia) , 10 persons per / location				
N. Mandatory Requirements		☐ Yes ☐ No Vendor to Confirm & Specify			
Warranty	Manufacturer Standard Warranty minimum 12 Months	☐ Yes ☐ No Vendor to Confirm & Specify			
Technical Data Sheet	The compliance for each technical specification shall be supported by technical data sheet and relevant catalogue. Failure to comply with this requirement leads to rejection.	☐ Yes ☐ No Vendor to Confirm & Specify			
Manual	The rig will be supplied with operation and maintenance manual, and spare parts catalogue	☐ Yes ☐ No Vendor to Confirm & Specify			
Local Agent	The manufacturer/supplier should have a local agent in Ethiopia. (If no local agent in Ethiopia, the bidder should commit/agree to arrange a local agent which provides PDI, maintenance and aftersales service within one month after award. Bidders should submit a commitment letter to provide such service.	☐ Yes ☐ No Vendor to Confirm & Specify			
The device (components of the Rig) including the trucks shall be brand new (Refurbished machine will not be accepted)		☐ Yes ☐ No Vendor to Confirm & Specify			
UNOPS Delivery, and the right to vary — Comparative Data Table					
Delivery time- UNOPS prefers an FCA (Incoterm 2020) delivery period of 16 weeks. However, bidders are requested to indicate their earliest possible delivery timeline in their offers.		☐ Yes ☐ No Bidder's to Insert details			
FCA(Incoterms 2020)- Bidder to Specify the FCA point of delivery		Bidder's to Insert details			
Delivery time- UNOPS prefers an DAP (Incoterm 2020) delivery period of 24 weeks. However, bidders are requested to indicate their earliest possible delivery timeline in their offers.		☐ Yes ☐ No Bidder's to Insert details			

UNOPS Right to vary requirements	At the time the Contract is awarded, UNOPS reserves the right to vary the quantity of the goods and associated services specified above, provided this does not exceed +/- 25%, without any change in the unit prices or other terms and conditions of the ITB	☐ Yes ☐ No Bidder's to Insert details			
Related services requirements					
[Provide details of how these services will be provided here]					
The offered goods and related services (if applicable) are in accordance with the required specifications and requirements specified in Section II: Schedule of Requirements.		☐ Yes ☐ No			
ANY DEVIATION MUST BE LISTED BELOW:					

List of subcontractors or suppliers (if any)					
Bidders must identify the names of all subcontractors/suppliers who will be providing goods/services under this contract and the type of work being subcontracted, if applicable.					

_[Full legal name and address of subcontractors]_____					

I, the undersigned, certify that I am duly authorised by [insert full name of bidder] to sign this bid and bind [insert full name of bidder] should UNOPS accept this bid:					
Name : _____					
Title : _____					
Date : _____					
Signature : _____					