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TECHNICAL SPECIFICATION 6TS-R7-L (short mast) Rig Serial Number: R339

Customer: Nehemiah Construction Ministries U.K.

Model 6T-R7-L top drive rotary hydraulic drilling rig and accessories for drilling boreholes 6" diameter up to 150m deep.

DRILLING HEAD: New rotary head model R7 with 4:1 reduction gearbox, driven by 2 new hydraulic motors driving through oil immersed gears, suitable for rotary, DTHH and r.c. drilling output torque: 4500 ft lbs, speed : 0-60 rpm , 2" bore with 2" top air/mud swivel

CARRIAGE: drilling head is pivot mounted in a new steel carriage which slides along the mast on quick change nylatron sliders. carriage hinges open to one side for winch operations

MAST CONSTRUCTION: mast of 350 x 350 steel rectangular hollow section, with 50 x 50 mm RHS guides for the carriage sliders, suitably braced and all electrically welded. 3.5m working stroke mast raised from the travelling to vertical drilling position by single hydraulic cylinders and mechanically locked in position. working table up to 8" bore and guide bushes for 3" drillrods. mast head crown block for winch operations.

HOIST/FEED MECHANISM" hoist/feed system by means of a 4 " hydraulic cylinder, rope and pulley system with mechanical screw tensioning. safety factor on rope system 4:1 variable feed pressure and speed and gravity lowering can be selected. pullback : 6 tons, pulldown 4 tons CONTROLS all controls mounted on a panel at the rear side of the sub frame overlooking the hole. Controls include engine starting, stop and throttle Hydraulic valves for jacks and mast raise, rotation direction and speed, slow and fast hoist/feed, winch, feed speed and pressure and gravity feed, breakout cylinder. air line shut-off valve, gauges for rotation and feed pressures control panel cover to totally enclose controls.

HYDRAULIC POWER: Hydraulics driven from NEW deck mounted Perkins 1004T 4 cyl turbo charged water cooled engine. Permco hydraulic gear pumps for all functions with new gears, thrust plates and seals. Fuel tank 150 lt capacity with lockable filler cap, and level gauge. Oil tank 450 lt capacity with lockable filler cap and level gauge, suction and pressure filters. Air blast oil cooler.

MOUNTING: rig mounted on steel channel section frame integral with Bedford TM 6x6 RHD S/No: SKFRNX3NPJT101233

4 hydraulic levelling jacks (2 at front 2 rear - all with large feet) Also mounted - Ingersoll Rand XHP750 Air Compressor.

WINCH: 2 ton hydraulic winch with power hoist and lower, automatic brake, and load locking valve. complete with 20m wire rope and safety swivel hook

MUD PUMP Twin: reciprocating cylinder type mud pump directly driven by hydraulic motor. output 600 lt/ min at up to 100m head complete with relief valve and all pipework to rotary head. suction hose and strainer

MUD LINE: composite hose line from deck to rotary head swivel, enabling air , mud or foam or combination to be injected into drillstring. shut-off valve at operators panel.

BREAKOUT: hydraulic breakout cylinder on side of mast with valve at control position to provide powerful pull to rod spanners and wrenches.