

INFIN DRILLING: 50 TON GAS DRILL RIG

The Infin 50 ton gas drill rig is a purpose built machine incorporating features enabling diamond core, percussion, reverse circulation, tri coning and PDC drilling and cementation of casing. Drill rig is mounted on a 7m double axle trailer and can be towed by Truck horse or Tractor by adapting 5th wheel.

DRILLING CAPABILITIES

- PQ, HQ, NQ and BQ down to depths of 4000m
- Tri-Coning 6.5" down to 2000m
- Reverse Circulation to 800m
- Percussion to 800m with booster
- PDC
- Grouting / Cementation pump with triplex pump
- Pre Cementation of shafts
- Directional drilling 45 to 90 degrees

MAST

Length: 8.95m

Main Cylinder: 100 ton

Wire Cable: 26mm

Feed Speed: Variable control slow and fast

Drilling Angle: 45 to 90 %

Lifting Capacity: 50 ton

Feed Travel: 6.4m

Pull: 502.2 Kn

Thrust: 279 Kn

Rod pull length: 6.4m

WIRE LINE

Capacity: 4000m of 6mm cable

Line pull: Bare drum 10Kn

Full drum 3.0 Kn

Line speed: Bare drum 60m / min

Full drum 200m / min

MAIN HOIST

Single line capacity: Bare drum 100 Kn

Line speed: Bare drum 44m / min

Drum capacity: 35m of 20mm cable

POWER UNIT

Manufacturer: John Deere

Power: 199Kw

Model: R6081HF001

RPM: 1 800

Electrical; 24 Volt

Low Oil pressure cut out switch

High engine temperature cut out switch

700 lt diesel tank

DRILL HEAD AND SPINDLE SPEED

Two speed drill head gearbox designed in Germany and manufactured in RSA

Lock in device for 1st and 2nd gear. Internal oil pump for gear lubrication.

Hydraulic tilt locks onto drill head. Tilt and slew functions hydraulically operated.

Top mounted 3" rotary water swivel with adaptors.

Drill head tilt; 60 degrees

Drill head slew; 80 degrees

Final Drive: Helical Gear driven

Spindle inner diam: 80mm

Weight: 700 kg

Output shaft: Screw in type adaptor

Maximum peak output torque: 8500 Nm

Input Speed: 0 - 800 rpm (variable with displacement shift)

Max input speed: 0 – 2000 rpm (variable with displacement shift)

Input Power: 120 Kw

Gear	Ratio	Speed	Torque
1st	7.5 : 1	0 – 200	6000 - 8500 Nm
2nd	1 : 1	0 – 800	500 - 1000 Nm

HYRAULIC SYSTEM

Hydraulic Power: 180 Kw at 1800 rpm 324 lt per min at 250 bar continuous

Main Drive: 2 x 90cc per rev Load sensing pumps 162 lt per min at 1800 rpm

Fan Drive: 11 cc per rev Gear pump

WATER PUMPS

M16 PUMP

Model: 1632 4” Plunger Pump

Pump Type: Triplex Pump

Displacement: 2.47 lt per rev

Max Discharge: 137 Bar

Two Speed: low speed 162 rpm output speed 400 lt per min at 90 bar 68Kw

**High speed 270 rpm output speed 664 lt per min at 40 bar **

Hydraulic drive motor: Staffa HMC 80

R 35 BEAN PUMP

Model: W 11 Piston Pump

Pump Type: Triplex Pump

Displacement: 0.223 lt per rev

Max Discharge: 69 Bar

Max Flow: 167 lt per min at 750 rpm

Hydraulic drive motor: Comer industries GLS 125

R10 AR4 Pump

Model; A04-104 Piston Pump

Pump Type: Duplex Pump

Displacement: 0.068 lt per rev

Max Discharge: 36 Bar

Flow: 75 lt per min at 600 rpm

Hydraulic drive motor: Comer industries GKS 80

CHUCK ASSEMBLY

Screw Adaptors for PQ – BQ, Percussion and Tri – Coring Drill Rods

WEATHER PROOF PANEL

Digital hour meter

Oil pressure gauge VDO

Engine temperature gauge VDO

Tachometer VDO

Low oil pressure cut out

Engine temperature cut out

ADDITIONAL FEATURES

Hydraulic Mast Dump

Hydraulic Oil Tank 1300 lt

Hydraulic Mast Raise and Lower

Four Hydraulic levelling jacks

Oil Cooler

Break out cylinder

Hydraulic Cementation Mixer 1500 lt

Operator platform with swivel seat

Vertical and inclined drilling

Lightning kit

Drill rig mast is certified for 90 tons and has a 100 ton 3.2m stroke cylinder.

Hydraulic pipes all laid out neatly using steel piping for maintenance purposes.

Hydraulic break out tool for Hammer and Bit

Hydraulic Foot Clamp

Hydraulic steel and hose piping

Ergonomic Control panel

Hydraulic Hose Energy Chain

Spark Arrestor silencer

Safety guards