



SPECIFICATION OF RIGS AND SUPPORTING EQUIPMENT

Rig 3011 SonicMast CST

DRILLING RIG UNIT:

Name of drilling unit (Rig)	29-SonicMast CST
Drilling unit type	Multipurpose Sonic Drilling Rig (track mounted)
Year/Serial No.	2010/-
Owner	PT BINTANGMANDIRI PERKASA DRILL
Rig manufacturer	Sonic Samp Drill, Netherlands
Current rig location	BMP HO, Serpong, South Tangerang, Banten

Mast dimensions and specifications

- Length 1023 mm; width 1573 mm, transport height 2340 mm. Travel of drill head 2580 mm, maximum height of mast 3720 mm. Maximum torque 5000 Nm.
- Rod clamp: Clamping force 15-60 kN
- Maximum casing diameter 219 mm
- Standard inserts for foot clamp 50 - 100 mm
- Flood light: standard
- Maximum pull up while vibrating/rotating: 30 kN/2.5 metric tons. Without drilling: 50 kN/5 metric tons. Maximum pull down rotating 25 kN; while vibrating 30 kN/3 ton (all proportional).
- Dry weight 1260 kg. (varies according to optionals)
- Oil 140 ltr. Biohydran SE46 (-20/+100°C)
- Casing rack for GP63 rods (other diameters optional)

Drilling power

- Hydraulic power (continuous) 55 KW.
- Vibration power 27 KW.
- Rotation power 27 KW.
- Sonic vibration oscillator output force 100 kN.
- Frequency 0-150 Hz.
- Two synchronized excenters.
- Augering torque: Clockwise: 1.2 kNm @ 175 bar
- Augering torque: Anti-clockwise: 1.4 kNm @ 210 bar
- Maximum feed force 15 kN
- Required tractor capacities:
 - ⇒ 90-100 hp running at 1900 rpm with PTO at 540 rpm
 - ⇒ Or 110 hp running at 1400 rpm with PTO at 1000 rpm

Hydraulic installation

- Required hydraulic flow 85 l/min @ 210 bar
- LS pump 73 cc → 120 l/min
- Maximum pump pressure 230 bar
- Maximum system pressure 215 bar
- Number of proportional functions: 6
- Maximum flow 120 l/min
- Oil tank volume 140 l
- Cooler 20 KW at $\Delta T = 30^\circ C$
- Pressure filter and tank return filter: 10 μm
- Aeration filter 3 μm

Other features and options

- Prepared for hydraulic high pressure water pump for AquaLock. Prod. nr. 30.11.01 (19 l/min @ 210 bar)
- Pressure gauges (7) stainless steel type
- Water tank stainless steel 105 ltr. Prod. nr. 30.11.10
- Different rod racks
- Arctic conditions: Aerohydraulic 520 mineral oil (-66/+100°C)
- Hydraulic Break Out Clamp to loosen rods 63-100 mm
- Clip-on planetary gear box to increase augering torque to 4.0 kNm

