



F3.A3

Skid Mounted Cementing Unit

This is a double pump cementing skid equipped with plunger triplex pumps is new generation of cementing unit developed in recent years. The high energy mixing system and other hydraulic equipment is powered by the transmissions PTOs. The skid is very compact, so it is applicable for the areas with strict requirements for space, such as offshore drilling platform, etc. This unit is mainly utilized in cementing job, acidizing job, oil well pressure testing, and other fluid pumping job in offshore, on land or desert oilfield.

Dimensions & Weights

[L] 7.5 m [W] 2.5 m [H] 3.3 m [Weight] 22000 kg

Technical Specification

Max. working pressure: 14000 psi (with 4" fluid end of TPH400 pump)

Max. flow rate: 17.2 BPM (with 4.5"+4" fluid ends of TPH400 pump)

Density range: 1.3 ~ 2.5 g/cm³

Mixing capacity: 0.3 ~ 2.3 m³/min

Working ambient temperature: -20°C ~ +55°C

Displacement tank capacity: 20 bbl (2x10 bbl)

Mixing tank capacity: 8 bbl

Main Equipment

- Diesel engines: 2x Caterpillar C13 475 HP @ 2100 rpm; 2x Caterpillar C15 540 HP @ 2100 rpm (optional); 2x Detroit Diesel S60 600 HP @ 2100 rpm (optional); 2x OM502LA 600 HP @ 2100 rpm (optional)
- Transmission: 2x Allison 4700 OFS; 2x ZF TC Tronic (optional)
- Triplex Plunger pump: 2x Serva TPH400 [4" & 4.5" fluid end]; 2x Serva TPD600 [3.5" & 4.5" fluid end] (optional); 2x WET/TWS600 [3.5" & 4.5" fluid end] (optional)
- Centrifugal pumps: 2x Serva 6x5x11 (Recirculation & Boost pumps); 1x Serva 4x3x13 (Mix water pump); optional brands NOV Magnum Mission / Abran Sanat
- Densitometer: 1x Emerson Micromotion F300 (Non-radioactive)
- Mixert: 1x High energy mixing injector

Features

- High energy recirculation jet mixing system
- Off-center dry cement valve avoids bulk cement from choking
- Emergency shutdown system of air inlet shut off
- Plunger pump over pressure mechanical protection system
- Plunger pump over pressure electronic protection system
- Simplify operation, adapts to working habits in oilfield
- PLC-based control system with 12" operation screen
- Level indicator & level transmitter for displacement tank
- Level indicator & level transmitter for mixing tank
- Barrel counter for displacement tank
- Sight glass for fuel tank, hydraulic oil reservoir and lubrication tank
- Extra fuel tank (optional)
- Stainless steel control panel with engraved words in english
- PTO driven hydraulic system
- Air actuated butterfly valves
- High pressure manifold 15000 psi
- Turbine flowmeters for water & slurry
- 15000 psi Protector meters & 6" dial gauges for pressure indicating system
- Pressure transmitters 15000 psi
- All of platforms and walkway have been covered with grating
- Four lifting point structure
- Hydraulic oil cooler with electrical fan
- Pressure release line from high pressure manifold to displacement tank
- Guards for drive shafts & cardans

Note

Layout of equipment is variable according to type of selected plunger pumps.