

PCTLR-621A Double pump cementing trailer

1. Overview

PCTLR-621A double pump cementing trailer is a trailer mounted complete mixing and pump unit equipped with TPB600 plunger pump. The whole unit is mainly composed of semi-trailer chassis, two main engines, two transmissions, two TPB600 triplex pumps, C7 hydraulic power unit with hydraulic system and ACM-IV.1 auto mixing system.

This unit is mainly utilized in cementing job, acidizing job, oil well pressure testing, and other fluid pumping job, applicable for cementing job in oilfield on land, in gobi desert and remote areas.

2. General specification

Max. working pressure: 105MPa (w/ 3" fluid end)

Max. flow: 4.2m³/min (w/ two 4 1/2" fluid ends)

Density range: 1.3~2.5g/cm³

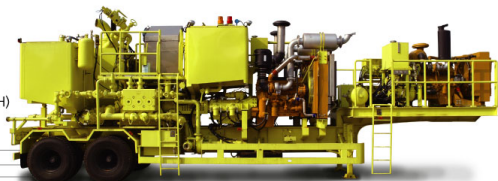
Auto control precision: ±0.02 g/cm³

Mixing capacity: 0.3~2.3m³/min

Working ambient temperature: -20°C ~ 50°C

Overall dimension (mm): 11240(L) x 2500(W) x 4000 (H)

Net weight: 27500kg



Technical specification				
Chassis	Tonghua or US Atoka chassis			
Engine	Caterpillar C13 475 HP@2100 RPM (2 sets) Caterpillar C15 540 HP@2100 RPM (optional) Detroit S60 475HP@2100RPM (optional)			
Transmission	Allison 47000FS (5 forward gears + neutral gear) (2sets)			
Hydraulic system	Powered by C7 power unit, closed loop for c-pumps, open loop for agitators			
Power unit	Caterpillar C7 300HP@2200RPM engine supplies power to hydraulic system			
Triplex pump (2 sets)				
Model/type	SERVA TPB600 Reciprocal, horizontal single action plunger pump			
Stroke	6" (152.4mm)			
Max. B.H.P.	600 BHP (447Kw)			
Gear ratio	4.6:1			
Fluid End	3"	3 1/2"	4"	4 1/2"
Rated pressure	14,140PSI(97.5 MPa)	10,000PSI(69 MPa)	7,958(56.1MPa)	6,290PSI(43.4MPa)
Max. flow	0.95 m ³ /min	1.27 m ³ /min	1.67m ³ /min	2.13 m ³ /min
ACM-IV.1 mixing system				
Mixer	High energy recirculating jet mixer			
Dry cement valve	off-center bulk cement metering valve			
Mixing Water pump	SERVA 4X3 (1.5 m ³ /min@0.78MPa)			
Slurry recirculating booster pump	SERVA RAS6 (3.7 m ³ /min@0.45MPa) (two sets)			
Densitometer	Micro Motion 3" F300 non-radioactive densitometer			
Computer system	AB PLC			
Others				
Mixing tank	8 BBL (1.4 m ³)	Fuel tank	900 L	
Average tank	20 BBL (2x1.5 m ³)	Hydraulic oil tank	170 L	
Measuring tank	2x10 BBL (2x1.5 m ³)	Air tank	80L	

3. Features

- Domestic or imported trailer chassis, Low deck, Heavy duty, high temperature, desert type trailer chassis are available.
- 1m³ surge tank available, utilized to make bulk delivery more stable so as to improve the accuracy of auto control system and slurry quality.
- Auxiliary C7 Power unit.
- High energy recirculating jet mixing system.
- Off-center dry cement valve avoids bulk cement from choking.
- Emergency kill system of air inlet shutoff.
- SPS non-leakage packing system.
- Plunger pump overpressure protection system, engine goes back to idle automatically, transmission shifts to neutral position.
- F300 Non-radioactive densitometer is easy to wash, safe and reliable.
- Simplify operation, adapts to working habits in oilfield.
- 10" operation screen, convenient to monitor the working data.
- Portable wireless/ wired data acquisition system.