

PCT-621A Double pump cementing truck

1. Overview

PCT-621A double pump cementing truck adopts TPB600 pump with the features of compact structure and light weight, with standard configuration of VOLVO FM440 6X6 chassis.

SERVA TPB600 pump has prominent features of smaller volume and lighter weight. With two pump back to back installation, the overall width will only be 2580mm which can extremely decrease the overall dimension (weight) of unit, especially applicable to truck-mounted units or offshore equipments.

2. General specification

Max. working pressure:

Max. pressure: 69 MPa(w/ 3 1/2" fluid end)

Max. pressure 97.5 MPa (w/ 3" fluid end)

Max. flow: 3.0 m³/min(w/ one 3" and one 4 1/2" Fluid End)
3.4 m³/min(w/ two 3 1/2" and one 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): 11450(L) x 2600(W) x 4200 (H)

Net weight: 30000kg

Technical specification				
Chassis	VOLVO FM440 6X6			
Engine	Caterpillar C13 475 HP@2100 RPM (2 sets)			
	Caterpillar C15 540 HP@2100 RPM (optional)			
	Detroit S60 475HP@2100RPM (optional)			
Transmission	Allison 4700OPS (5 forward gears + neutral gear) (2sets)			
Hydraulic system	driven by chassis and deck transmission PTO, closed loop for c-pumps, open loop for agitators			
	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(97.5Mpa)	10,000PSI(69Mpa)	7,958PSI (56.1Mpa)	6,290PSI(43.4Mpa)
Max. flow	0.95 m ³ /min	1.27 m ³ /min	1.67 m ³ /min	2.13 m ³ /min
ACM-III 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 RA56 (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	400+300 L	
Average tank	20 BBL (2 x1.5 m ³)	Hydraulic oil tank	170 L	
Measuring tank	2x10 BBL (2x1.5 m ³)	Air tank	80L	

3. Features

- 1m³ surge tank available, utilized to make bulk cement delivery more stable so as to improve the accuracy of auto control system and slurry quality.
- The mixing power is partially supplied by chassis which increases the actual operation power of main engine.
- 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.
- 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.
- Diesel fired coolant pre-heat system available. The heater allows the engine to be preheated before starting without the use of external power.

