

PCT-521A Double pump cementing truck

1. Overview

PCT-521A Double pump cementing truck is mainly utilized for cementing, acidizing, pressure testing and other fluid pumping jobs, with standard configuration of VOLVO FM440 6X6 chassis.

The input shaft of TPH400 pump is paralleled with centre line of engine, so the fluid end is located at the rear of unit. This inline installation feature makes the maintenance and service of pumps easier. Compared with other cementing pumps with same size of plunger, TPH400 pump has features of maximum operation pressure, long stroke and high self-priming capacity.

2. General specification

Max. working pressure: 14,000Psi (95.2 MPa, w/ 4" fluid end)
11,200Psi (76.2 MPa, w/ 4 1/2" fluid end)

Max. flow: 2.7 m³/min(w/ one 4" and one 4 1/2" Fluid End)
3.0 m³/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): 11300(L) x 2600(W) x 4200 (H)

Net weight: 33000kg



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	Allision 4700OFS (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 TPH400 Reciprocal, horizontal single action plunger pump		
Stroke	8"(203.2mm)		
Max. B.H.P.	600 BHP (447Kw)		
Gear ratio	8.6:1		
Fluid End	3 3/8"	4"	4 1/2"
Rated pressure	20,000PSI(138Mpa)	14,000PSI (96Mpa)	11,200PSI (77Mpa)
Max. discharge rate	0.86 m ³ /min	1.2 m ³ /min	1.52 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 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	12 BBL (2 m ³)	Fuel tank	400+300 L
Measuring tank	2X10 BBL (2X1.5 m ³)	Hydraulic oil tank	170 L
		Air tank	80L

3. Features

- TPH400 inline installation, makes the maintenance and service of pumps easier.
- The mixing power is partially supplied by chassis engine which increases the actual operation power of deck engine.
- High energy recirculating jet mixing system.
- Off-center dry cement valve avoids bulk cement from choking.
- Emergency kill system of air inlet shutoff.
- Plunger pump overpressure protection system.
- 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.
- Diesel fired coolant pre-heat system available. The heater allows the engine to be preheated before starting without the use of external power.