

# PCTLR-521A Double pump cementing trailer

## 1.Overview

PCTLR-521A Double pump cementing trailer adopts TPH400 plunger pump as cementing pump.

The whole unit is mainly composed of semi-trailer chassis, two main engines, two transmissions, two TPH400 triplex pumps, C7 hydraulic power unit, air system and ACM-IV.1 auto mixing system.

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 plunger pumps with same plunger size, TPH400 pump has features of maximum operation pressure, long stroke and high self-priming capacity.

## 2.General specification

Max. working pressure: 95.2 MPa (14,000Psi W/ 4" fluid end)

Max. flow: 2.7 m<sup>3</sup>/min(w/ one 4" and one 4 1/2" Fluid End)

Density range: 1.3-2.5g/cm<sup>3</sup>

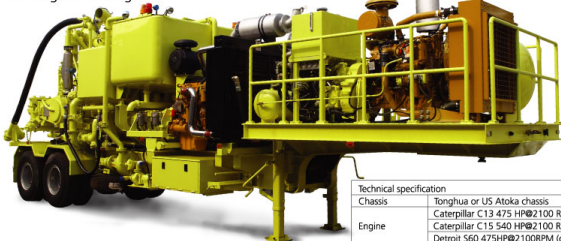
Auto control precision: ±0.02 g/cm<sup>3</sup>

Mixing capacity: 0.3-2.3m<sup>3</sup>/min

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

Overall dimension (mm): 11240(L) x 2500(W) x 4100 (H)

Net weight: 28000kg



Technical specification			
Chassis	Tongshus or US Atoksa chassis		
Engine	Caterpillar C13 475 HP@2100 RPM (2 sets) Caterpillar C15 540 HP@2100 RPM (optional) Detroit 560 475HP@2100RPM (optional)		
Transmission	Allison 4700DF5 (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 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	138MPa	96MPa	77MPa
Max. flow	0.86 m <sup>3</sup> /min	1.2 m <sup>3</sup> /min	1.52 m <sup>3</sup> /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 <sup>3</sup> /min@0.78MPa)		
Slurry recirculating/booster pump	SERVA RA56 (3.7 m <sup>3</sup> /min@0.45MPa) (two sets)		
Densitometer	Micro Motion F300 non-radioactive densitometer		
Computer system	AB PLC		
Others			
Mixing tank	12 BBL (2 m <sup>3</sup> )	Fuel tank	900 L
Measuring tank	2x10 BBL (2x1.5 m <sup>3</sup> )	Hydraulic oil tank	170 L
		Air tank	80L

## 3.Features

- Auxiliary C7 Power unit.
- SPS non-leakage packing system.
- Emergency kill system of air inlet shutoff.
- High energy recirculating jet mixing system.
- Portable wireless/ wired data acquisition system.
- Simplify operation, adapts to working habits in oilfield.
- Off-center dry cement valve avoids bulk cement from choking.
- 10" operation screen, convenient to monitor the working data.
- F300 Non-radioactive densitometer is easy to wash, safe and reliable.
- TPH400 inline installation, makes the maintenance and service of pumps easier.
- Plunger pump overpressure protection system, engine goes back to idle automatically, transmission shifts to neutral position.
- Domestic or imported trailer chassis, Low deck, Heavy duty, high temperature, desert type trailer chassis are available.