

CPT-179

Single-pump cement truck

APPLICATIONS

- Cementing services
- Slow-, intermediate-, and high-rate pumping services
- Low- and medium-range pressure testing
- Remedial cementing or squeeze jobs requiring pumping at low flow rates

BENEFITS

- Easy to operate with small, efficient crews
- Low maintenance due to rugged build
- Quick rig-up and rig-down with hose-reel system

FEATURES

- 8,000-psi [55-MPa] standard operating limit using hose reel; 10,000-psi [69-MPa] optional limit using treating iron
- Advanced real-time feedback and hydraulic diagnostics using a touchscreen
- Cummins ISX15 485-hp, EPA 2013 engines with emissions monitoring
- Heavy-duty Kenworth C500 oilfield chassis
- Individually operable 5x6 and 4x5 centrifugal pumps with variable speed controls
- CemNET* advanced loss-control fiber technology feeder for fluid loss control
- 120-ft [36.5-m] high-pressure hose reel system with isolation for treating iron option
- Single 500-lbm [227-kg] electric crane
- Pneumatically controlled ladders for safer access to all working areas
- Superior LED-based lighting system

The CPT-179 unit is a low-maintenance, rugged, single-pump cement truck for land cementing operations requiring up to 400 hhp. The unit's design complies with Canada's stringent 75% Frost Law road regulation, making it suitable for year-round operation in cold environments, even during the spring thaw. The ergonomically designed three-person climate-controlled operators' cabin protects personnel from harsh environmental conditions and provides ample sound insulation.

The truck's dual-speed transfer case enables pump rates from 0.4 bbl/min to 8 bbl/min [0.06 m³/min to 1.3 m³/min] while mixing on the fly using Mark III SLURRY CHIEF* cement mixing equipment. All unit valves are wire driven—electric-over-pneumatic for those on the water tree and electric-over-hydraulic for those on the high-pressure manifold—both with real-time position feedback.

The CPT-179 unit features an equipment interface module (EIM) that acts as both an electronic pressure trip and a backup data acquisition system for the primary distributed control unit (DCU). The SlurryAirSeparator* mechanical cement slurry defoamer removes entrained air from the slurry, and when combined with a retractable 55-ft³ [1.6-m³] surge can, enables good cement delivery and slurry density. The unit can also be operated with a gooseneck for direct cement delivery from a silo or air slide.



CPT-179 single-pump cement truck.†

†The photograph may not be an exact representation of current production; be sure to review the specifications.

CPT-179

CPT-179 Specifications

General

Chassis	8×6 Kenworth C500 chassis with tridem drive
Length	38.35 ft [11.69 m]
Width	8.2 ft [2.49 m]
Height	13.1 ft [4 m]
Weight	53,500 lbm [24,267 kg]
Engine	Cummins ISX15 EPA 2013; 485 hp [362 kW] at 1,800 rpm; 1,650 lbf.ft [2,239 N.m] at 1,200 rpm
Transmission	Allison Transmission® 4700 OFS
Transfer case	Namco 2 speed, 2:1 ratio
Diesel fuel capacity	28.5-in [72-cm] diameter aluminum tank, 150-galUS [0.57-m ³] capacity
Engine emission certification	US Environmental Protection Agency (EPA) 2013

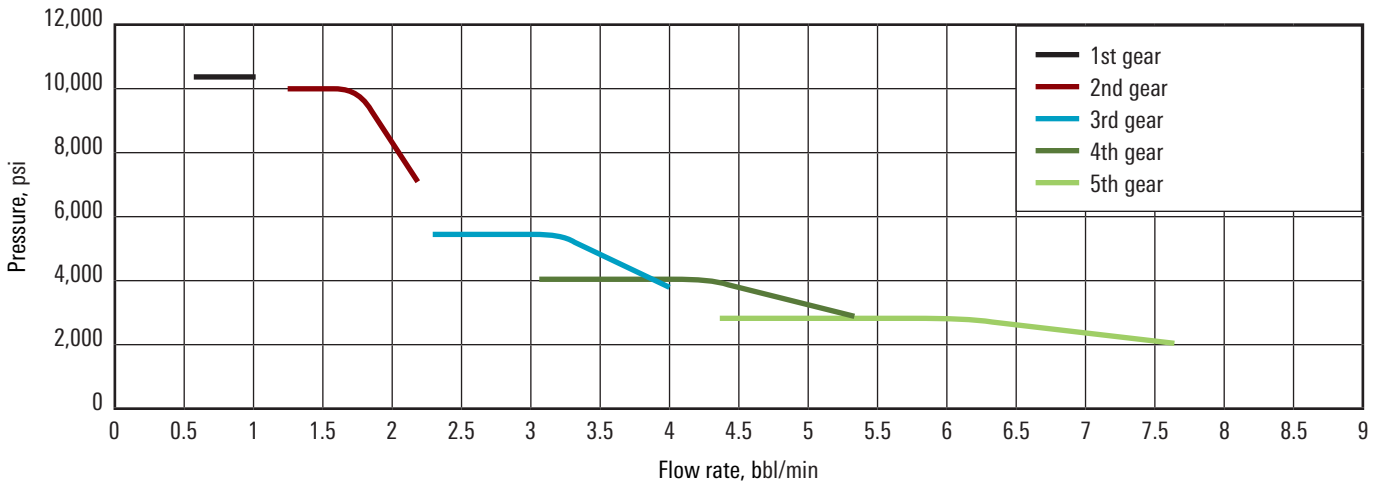
Triplex Pump

Model	MSI Compact (Shorty)
Type	TIH-600 Hybrid Series
Stroke	6 in [15 cm]
Main shaft	2,000 rpm
Fluid end	3.5 in [9 cm]
Max. discharge pressure	10,394 psi [72 MPa]
Max. flow rate	7.8 bbl/min [1.2 m ³ /min] at transfer case 1:1 3.9 bbl/min [0.6 m ³ /min] at transfer case 2:1
Max. available power	298 kW

Additional Equipment

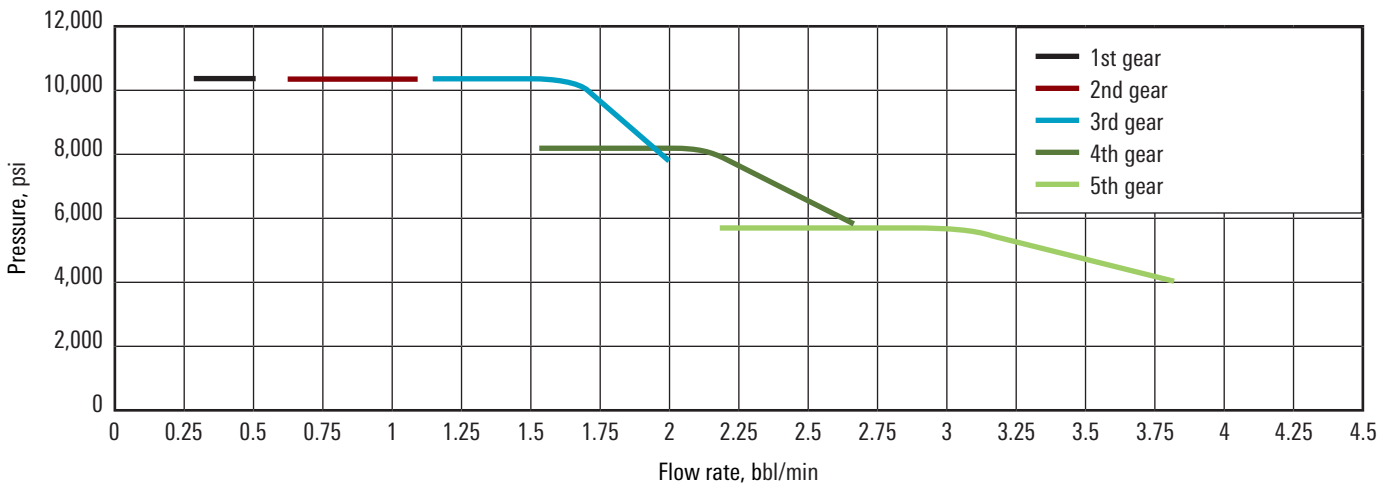
Discharge manifold	15,000-psi [103-MPa] max. working pressure
Two displacement tanks (each)	6.9 bbl [1.10 m ³]
Treating hose (provided on reel)	8,000-psi [55-MPa] max. working pressure
Cement mixer	Mark III SLURRY CHIEF cement mixing equipment
Pressurizer pump	5x6 centrifugal pump
Makeup/injector pump	4x5 centrifugal pump
Nonradioactive flowmeter/densitometer	Endress+Hauser Promass 83F
Gauges	Display on touchscreen and analog backup panel
Articulated jib crane	Standard
Equipment interface module	Equipped with latest firmware

3.5-in Plungers, 485-hp CPT-179 with 4.61 Internal Ratio



MSI Hybrid 600 pump curve with no reduction at transfer case.

3.5-in Plungers, 485-hp CPT-179 with 9.22 Internal Ratio



MSI Hybrid 600 pump curve with ×2 reduction at transfer case.