CAMERON
A Schlumberger Company

CMP-1600

Mud pump

APPLICATIONS

- Environments with high discharge pressure and heavy mud flow

BENEFITS

- Increases uptime and operational efficiency through decreased pitting, wear, and probability of leaks
- Streamlines transportation through reduced footprint, height, and weight
- Provides easy access for maintenance and inspection

FEATURES

- Fabricated steel construction and high-strength power frame with rear-mounted drive motor
- Balanced, forged crankshaft for minimal vibration and increased service life
- Premium roller bearings constructed using advanced materials that offer up to seven times the service life in contaminated lubricants
- Replaceable crosshead guides in frame
- Pressurized oil lubrication system with easily accessible external lines for simplified maintenance
- Increased oil filtration with magnetic suction strainer and dual filter at pressure line
- Optional cooling system equipped with water or air heat exchanger
- Interchangeable fluid end modules
- Closed-loop pressurized freshwater liner wash system
- Suction manifold equipped with front or side inlet connections
- Discharge piping connected from either side
- Easily accessible, fully open piston and liner chambers

The CMP-1600 mud pump is a single-acting reciprocating triplex mud pump built to accommodate discharge pressure up to 7,500 psi and fluid flow up to 826 galUS/min [3,127 L/min]. Building upon the success of the WH-Series 1612 onshore mud pump, this 1,600-hp mud pump was designed with increased reliability, improved maintainability, and reduced weight and footprint.

Advanced pump reliability

The CMP-1600 mud pump uses several advancements for improved pump reliability. The main bearings are constructed with advanced materials and treatments that can improve bearing life several times over compared with previous-generation pumps. To increase drive strength, the CMP-1600 mud pump provides carburized and hardened gear tooth surfaces that resist pitting and wear. In addition, robust tube and shell heat exchangers are used to reduce the probability of leaks and downtime.

The CMP-1600 mud pump is engineered to produce high flow rates, even at low operating speeds, which reduces stress and wear of components. The long stroke design reduces the number of load reversals in critical components and increases the life of fluid end parts.

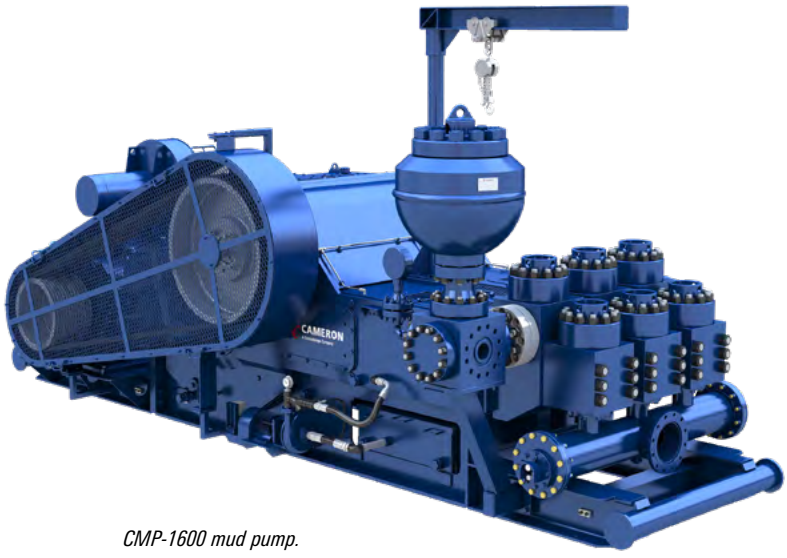
Enhanced serviceability

The strategic placement and improved serviceability of the mud pump's critical components enable much safer and easier access during maintenance and inspection. The two-piece, quick-release piston rod enables piston removal without disturbing the liner, helping to minimize downtime when replacing fluid parts.

For added simplicity, all sensors, monitoring devices, and optional instruments are wired to a single junction box—eliminating the time-consuming challenges associated with individual wiring.

Integrated frame

A redesigned frame delivers superior strength and rigidity with 15% less weight compared with previous models. Moreover, the skid of the CMP-1600 pump is now integrated into the structural frame to reduce its footprint, height, and weight—enabling easier transportation.



CMP-1600 mud pump.

CMP-1600

CMP-1600 Mud Pump Continuous-Duty Performance Data [†] [‡] [§]

			1,600-hp, 7,500-psi, 12-in [305-mm] stroke									
Pump speed, stroke/min			120	110	100	90	80	70	60	50	40	30
Max. input power, hp			1,600	1,326	1,205	1,085	964	844	723	603	482	362
Liner size, in [mm]	**Max. discharge pressure, psi [MPa]**	**Volume per stroke, galUS [L]**	**Output, galUS/min [L/min]**									
4.50 [114]	7,500 [52]	2.48 [9.38]	297 [1,124]	273 [1,033]	248 [939]	223 [844]	198 [750]	174 [659]	149 [564]	124 [469]	99 [375]	74 [280]
5 [127]	6,722 [46]	3.06 [11.58]	367 [1,389]	337 [1,276]	306 [1,158]	275 [1,041]	245 [927]	214 [810]	184 [697]	153 [579]	122 [462]	92 [348]
5.50 [140]	5,555 [38]	3.70 [14.01]	444 [1,681]	407 [1,541]	370 [1,401]	333 [1,261]	296 [1,120]	259 [980]	222 [840]	185 [700]	148 [560]	111 [420]
6 [152]	4,668 [32]	4.41 [16.69]	529 [2,002]	485 [1,836]	441 [1,669]	397 [1,503]	353 [1,336]	308 [1,166]	264 [999]	220 [833]	176 [666]	132 [500]
6.50 [165]	3,977 [27]	5.17 [19.57]	621 [2,351]	569 [2,154]	517 [1,957]	465 [1,760]	414 [1,567]	362 [1,370]	310 [1,173]	259 [980]	207 [784]	155 [587]
7 [178]	3,429 [24]	6.00 [22.71]	720 [2,726]	660 [2,498]	600 [2,271]	540 [2,044]	480 [1,817]	420 [1,590]	360 [1,363]	300 [1,136]	240 [909]	180 [681]
7.50 [191]	2,987 [21]	6.89 [26.08]	826 [3,127]	757 [2,865]	688 [2,604]	620 [2,347]	551 [2,086]	482 [1,825]	413 [1,563]	344 [1,302]	275 [1,041]	207 [784]

[†] Based on 90% mechanical efficiency.

[‡] Based on 100% volumetric efficiency.

[§] Note: All specifications are subject to change. Information important to a particular application should be verified by Cameron.

products.slb.com/mudpumps

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