SUCCESS STORY

Power Management in Mobile Equipment

Newly designed mobile pump increases mobile machine performance on the job

CHALLENGE

Due to environmental regulations and engine power limitations, engine power management is becoming more critical in mobile equipment. The challenge facing mobile equipment OEM's is trying to manage the use of available engine power more effectively.

Simply increasing the size of the engine to increase machine performance is not always a solution. Often, OEM's need to make their machines more efficient and leverage all available power, while not stalling the engine. In addition, environmental regulations are restricting engine size and emissions. In summary, OEM engineers need to find a way to do more with less.

SOLUTION

The new P1 M Series was developed specifically for the OEM mobile application market. This next-gen P1 M Series product has a smaller envelope size than most pumps currently on the market and provides higher power density for applications with best-in-class speed ratings. The P1 M Series operates at its finest when combined with Electronic Displacement Control (EDC).

When encountering varying load sizes during operation, the P1 M Series and EDC accomplish power management by limiting torque output to the exact amount necessary to execute the task thereby maximizing efficiency, reducing fuel consumption and minimizing emissions.

Customer
OEM

Application
Mobile Equipment

Solution
P1 M Series & EDC

Results
- Fuel Savings & Lower
- Emission Levels
- Improved Machine Response

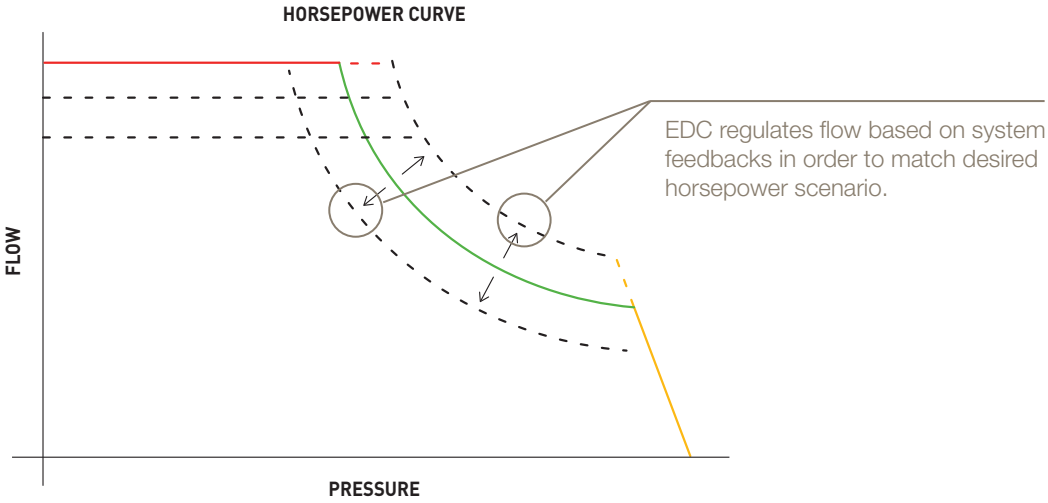
ENGINEERING YOUR SUCCESS.

As engine speeds and power output requirements often vary, the P1 M Series with EDC on a piece of mobile equipment adjusts the HP curve by limiting displacement and providing the exact amount of power needed to accomplish each task improving system efficiency.

When a machine encounters heavier loads, pressures too high risk an engine droop or stall. EDC de-strokes the pump and limits torque output which prevents pressures from climbing too high. Power management enables the machine to continue operation rather than stall.

Compared to a load sense system, EDC increases operator control; enabling stable, and precise movements and increased machine productivity. Additionally, using EDC over a load sense system reduces the number of valves and hoses needed for installation.

P1 M Series Pump



EDC regulates flow based on system feedbacks in order to match desired horsepower scenario.

P1 M SUCCESS FACTORS

- High Power Density
- Compact Design
- Low Hysteresis
- Patented Inlet Design
- High Efficiency & Speed Capabilities
- Longer pump life Short Lead Times

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