Power on Demand in Agriculture Hydraulic Systems

For savings in fuel and noise, look no further than Eaton’s Hydraulic system advancements in hydraulic power systems!

A new method to utilize a variable displacement piston pump with load dependent pump controller leads to significant improvement in fuel efficiency and noise reduction.

The load demand controller on Eaton’s Open Circuit Piston pumps is key to delivering greatly improved fuel economy. This technology allows the driver to easily operate the vehicle at optimum efficiency and cycle times due to perfectly matched pressures and flow rates to the load demand. Load dependent control of the hydraulic pump provides precise machine control and higher system efficiency. The pump responds to system demand by delivering the exact amount of oil flow required to perform the operation.

System pressure is completely dependent upon load requirements; eliminating lost energy to needless heat generation of conventional systems. When no function is required, the load demand controller automatically destrokes to zero output flow. The fuel savings when transporting loads are significant compared to a conventional gear or vane pump system that constantly pumps high flow throughout the system during transport.

Benefits
- Dramatically lowers fuel consumption
- Increases productivity by giving the operator smooth control
- Improves structural life of body

Optional features such as pump flow sensing allows the control system to automatically and very rapidly shut down the pump flow if a hose is broken or other fault is determined. Eliminating substantial oil spills further reduces environmental impact and exposure to expensive cleanup costs. Flow sensing is optional on any of Eaton’s Open Circuit Piston pumps.