

Material Handling



Improve speed to market

### More efficient machine design

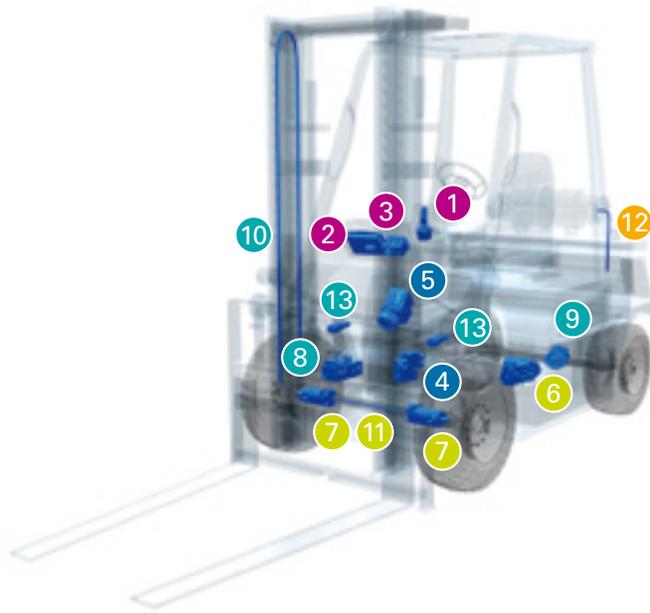
Eaton offers the EPACS steering control system package, which helps engineers save up to \$200,000 in development costs for each new design brought to market. It reduces the time and expense required for Lift truck Manufacturing Engineering Managers to create machines with electronic correlation between the steering wheel and the steered wheels.

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Ideals that Endure

# Shorter development times bring competitive advantages



## Application area

- Propel Circuit
- Work Circuit
- Steering System
- Engine Solutions
- Vehicle Management System

## Eaton is in the details

1. Electronic Controls
2. HMI Display
3. Switches
4. Priority Valve
5. Steering Control Unit
6. Propel Pump
7. Propel Motor
8. Electrical Hydraulic Control Valve
9. Gear Pump
10. Medium Pressure Hoses
11. High Pressure Hose
12. LPG Hose
13. Counter Balance Valve

## Eaton EPACS steering control system

In lift trucks with hydrostatic steering, the alignment between the steering wheel and the steered wheels can change during operation, due to internal leakage within the steering control unit.

Eaton's Electronic Proportional Active Control Steering System (EPACS) automatically maintains integrity between the movement of the steering wheel and the angle of the steered wheels.

### How it works

Control Steering System (EPACS) uses a position sensor on the input of the steering unit and a position sensor on the kingpin of one of the steered wheels to report their relative positions to an onboard computer. When internal leakage occurs within the steering control unit, the computer detects it and then applies make-up flow to synchronize the steering wheel and the steered wheels. Since the steered wheels are not readily visible, such synchronization gives the operator a better indication of machine direction based on

the position of the steering wheel knob, improving both the safety and the efficiency of vehicle operation.

EPACS also allows for flexibility in steering knob placement, which means more comfort and control for the operator, and translates to greater productivity and profitability for your business.

### Easy Implementation

The Eaton EPACS system is a turnkey solution that requires no complex programming or frequent adjustment. The system's controller learns the

relationship between the steering components in less than a minute, and memorizes it from then on.

### System Integration

Assembly is simple and fast—the entire system requires only four wires and three connectors. The controller mounts on each vehicle in the same manner as a steering Orbitrol. Displacement sizes are available from 51 cm<sup>3</sup>/rev to 737 cm<sup>3</sup>/rev and meet the requirements of a range of applications.

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