

Success Story: Carlson Paving Products, Inc.

Market Served:
Asphalt paving

Carlson's CP-90 paver features a showcase of products from Eaton's Hydraulics Group.

New Carlson Paver Is Eaton Product Showcase

Location:

Tacoma, Washington

Segment:

Construction: asphalt paving

Challenge:

Hydraulic system package that would fit into a confined area, yet be accessible for service

Solution:

Eaton's pumps, motors, filters, and custom MCD valve manifold assemblies for all hydraulic connections

Results:

New Eaton product-equipped asphalt paver now in full production

Contact Information:

Jack Heeter
Eaton's Hydraulics Group
(541) 689-3514
jackheeter@eaton.com

Background

When Carlson Paving Products, Inc. of Tacoma, Washington, decided to expand its line of asphalt paving equipment, the company naturally turned to Eaton and Applied Industrial Technologies, a nationwide Eaton products distributor, for help.

Carlson customers know that applying asphalt evenly on a busy roadway requires top performing equipment that can get the job done on time and on budget. This is the reason why they have depended on Carlson's high-performing screeds and screed attachments for over 20 years—and the reason they asked Carlson to come up with a medium-sized asphalt paver that would outpace the competition.

Owned by Astec Industries, Carlson responded with its all-new, commercial-class CP-90 paver. The track-driven machine features a showcase of products from Eaton's Hydraulics Group and the application experience of the Applied® operation in Tacoma, Washington. Onboard are:

- **Eaton® 350 Series medium-duty, closed-circuit piston pumps and 72450 Series medium-duty piston motors**—Power track-drive system
- **Eaton 420 Series open-circuit piston pumps and custom Vickers® valve manifold system**—Control auger, conveyor circuit, and track tension functions
- **Char-Lynn® 2000 and 4000 Series motors**—Power auger and conveyor functions
- **Vickers® DG4V3-60 Series solenoid-operated directional valves as a**

custom valve assembly—Control auxiliary functions

- **Eaton 74348 medium-duty piston motors**—Control generator circuitry
- **Vickers filters**—Clean return oil in entire hydraulic system

Challenge

Applied has been Carlson's go-to source for Eaton products for some 10 years. With the CP-90 paver on the drawing board, Carlson called on Mike Yost, Applied fluid power specialist, for assistance in designing the machine's hydraulic system.

"The CP-90's overall compact design required a tightly packaged hydraulic system," Yost says.

"Therefore, space limitation was a design challenge. We needed to propose a package with system components that would fit into the confined area and be accessible for service, too."

EATON

Powering Business Worldwide

Eaton Corporation is a diversified power management company with 2009 sales of \$11.9 billion. Eaton is a global technology leader in electrical components and systems for power quality, distribution and control; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety. Eaton has approximately 70,000 employees and sells products to customers in more than 150 countries. For more information, visit www.eaton.com.

Solution

Yost contacted Jack Heeter, Eaton area sales manager, and other Eaton personnel for product recommendations that would meet the CP-90's design parameters.

Eaton's 350 Series mobile pump was at the top of the recommendation list, Yost says.

"The 350 Series pump is a natural for the application. It offers the power of two pumps in a single body package, and the 49-cc displacement size produces the hydraulic power required.

"We were able to provide an orderly circuit setup by placing all hydraulic connections on a custom MCD valve manifold assembly, which was also highly beneficial in the overall system design."

Results

With the customer's stamp of approval, the Eaton-powered hydraulic system was built into the first Carlson CP-90 paver that received overwhelming response during its debut at the 2008 CONEXPO-CON/AGG Exposition. The CP-90 is now in full production.



With Eaton products in tow, the Carlson CP-90 paver lays asphalt 8- to 15-feet wide.

Eaton
Hydraulics Group USA
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel: 952-937-9800
Fax: 952-294-7722
www.eaton.com/hydraulics

Eaton
Hydraulics Group Europe
Route de la Longeraie 7
1110 Morges
Switzerland
Tel: +41 (0) 21 811 4600
Fax: +41 (0) 21 811 4601

Eaton
Hydraulics Group Asia Pacific
Eaton Building
4th Floor, No. 3 Lane 280 Linhong Rd.
Changning District
Shanghai 200335
China
Tel: (+86 21) 5200 0099
Fax: (+86 21) 5200 0400