



## New Eaton HP30 high-pressure motor is the workhorse behind the SIMCO 2800 HS (HT) drilling rig

**Location:**

Osceola, Iowa

**Segment:**

Mining: Water well, geotechnical, environmental, mineral exploration, and more.

**Challenge:**

Specifying a motor that would match the high efficiency needs of the 2800 HS (HT) series drill rig and allow shifting on the fly from high torque to high speed.

**Solution:**

Eaton® Char-Lynn® HP30 Series motor.

**Results:**

HP30 is used on the standard drillhead for the SIMCO® 2800 HS (HT) series drill rig.

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*“While Eaton’s 10,000 Series motor served us well for many years, we really like the updated features of the HP30 motor. The HP30’s 60/40 split of torque and speed better meets our needs for mud rotary drilling versus the 50/50 split of the 10,000 Series.”*

*Steve Jurshak, SIMCO Director of Engineering*

**Background**

SIMCO Drilling Equipment, Inc. of Osceola, Iowa, is relying on Eaton’s new Char-Lynn HP30 Series disc valve motor for its SIMCO 2800 HS (HT) drilling rig. The HP30 high-pressure motor powers the standard drillhead on the all-hydraulic, tophead-drive rotary drill used for water well, geothermal, and auger drilling.

Eaton products are supplied to SIMCO by Power Systems, an Eaton distributor that has been servicing the account for over 25 years.

Paul Breitbarth, sales/branch manager at Power Systems’ Ankeny, Iowa location, has been personally serving SIMCO’s needs for 17 of those years. So when the OEM was considering improved power options for its new 2800 HS (HT) drill rig, Breitbarth was its natural go-to power expert.

**Challenge**

The machine’s standard drillhead was originally equipped with Eaton’s Char-Lynn 10,000 Series disc valve motor in the late 1970s. Ten years later, SIMCO worked closely with Eaton on final revisions of its new 10,000 Series two-speed motor and was one of the first customers for the new motor by offering it on the 2800 HS (HT) optional drillhead.

Now SIMCO needed a motor update that would match the high efficiency needs of the 2800 HS (HT) drill rig, plus offer the capability to shift on the fly from high torque to high speed, even under dynamic loading.

**Solution**

After analyzing the 2800 HS (HT) design and performance criteria, Breitbarth determined that the high-pressure rating



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of Eaton's HP30 motor made it a powerful workhorse for the drill rig.

"The HP30's higher output torque would enhance the total performance of the machine," Breitbarth said, "and it would offer smooth, two-speed, on-the-fly shifting as well."

#### Results

SIMCO concluded that the HP30 matched what all its rigs are built upon—high-pressure hydraulic systems providing big performance in compact packages. The OEM has replaced the Eaton 10,000 Series motor with the HP30 on the 2800 HS (HT) drill rig's standard drillhead.

"While Eaton's 10,000 Series motor served us well for many years, we really like

the updated features of the HP30 motor," said Steve Jurshak, SIMCO's director of engineering.

"The HP30's 60/40 split of torque and speed better meets our needs for mud rotary drilling versus the 50/50 split of the 10,000 Series."

"SIMCO's selection of the HP30 motor reflects Eaton's leadership in technology and product development in driller-type motors," added Eric Rice, Eaton area sales manager.

"The motor's higher starting torque efficiency, lower pressure drop, and smoother two-speed shifting than competitive models make it a real standout."



*Eaton's Char-Lynn HP30 high-pressure motor powers the standard drillhead on SIMCO's 2800 HS (HT) drilling rig.*

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