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SGM2 and SGM3 Fan Drive Motors Now Offer Bidirectional, Fan Reversing, and Outrigger Bearings

Sauer-Danfoss introduces new options for radiator cleaning and slewing applications.

AMES, Iowa, USA, April 28, 2010 – Sauer-Danfoss Inc. (NYSE:SHS) Sauer-Danfoss' SGM2 and SGM3 aluminum fan drive gear motors now offer three new features: integrated reversing and proportional valves; a bi-directional motor for remote HIC reversing valves with shaft seal protector and cast iron cover; and outrigger bearing for slewing, high vibration, and oscillating fan drive applications. These new features help OEMs achieve Tier IV and Stage 3B emissions compliance.

In addition to these features, the SGM3 also offers 250 bar [3600 psi] pressure capability across all displacements.

The SGM motors were introduced in April 2009 and now have been enhanced for high performance fan drive systems. "These fan drive motors are robust in dusty, dirty environments," says Rob Arndt, Product Sales Support Manager for Sauer-Danfoss. "With Tier IV and Stage 3B Emissions regulations, we'll have applications with higher horsepower fans, more aggressive duty cycles, and higher temperatures. Because new vehicle systems will reject more heat, the fans operate longer and more often for cooling."

Now, with the new features, SGM motors run both directions to quickly clean radiators of dirt and chaff, offering a compact system solution for high-performance Tier IV and Stage 3B fan drive systems. Arndt says, "The base models already helped recapture some of the lost power from the constraints imposed by emissions standards. These enhancements help recover additional power."

The enhancements to the best-in-class SGM motors continue to focus on key product attributes: increased performance, extended life or durability, and installation flexibility.

Increased Performance

On both the SGM2 and SGM3, two anti-cavitation shock valves are standard, with open transitional directional control valve spools, protecting the motors during high performance fan reversals.

Unlike other motors on the market, the SGM2 and SGM3 are not pressure de-rated due to poor valve performance. In addition, they're the only fan drive motors with two valves, helping to clip pressure spikes in both directions of fan rotation. These two features allow the OEM more power utilization, due higher pressure capabilities.

The SGM2 features the D03 valve, a two-position directional valve that controls fan rotation. The SGM3 features the D05. High-temperature seals allow operation from -20 C to 110 C.

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With its 250 bar pressure capability, the SGM3 can be applied on higher horsepower fans with increased cooling demands.

Greater Efficiency

The enhanced SGM fan drive motors trim fan speeds during optimal conditions, and they provide efficient reverse radiator cleaning. This reduces fuel consumption and operating costs due to excessive fan speeds and plugged radiators.

Extended Life/Durability

The SGM2 and SGM3 are the only aluminum fan drive motors on the market with a steel rear cover to handle higher pressure and durability requirements, with equally matched valves.

In addition, outrigger bearings provide increased capability for heavy metal fan blades and for machines that swing with high gyroscopic loads. Outrigger bearings mean the fan drive motors can be used with higher horsepower fans, shock loads, radial and axial loads, slewing and oscillating applications. A dust protector comes standard with the outrigger bearing for extended life.

New outrigger bearings are available for all existing SGM2 and SGM3 fan drive motors from Sauer-Danfoss. The motors come standard with 12- or 24V Deutsch connectors to handle dusty, dirty operating conditions.

Installation Flexibility

The SGM2 and SGM3 fan drive motors come assembled as one piece, including the factory sealed outrigger bearing and integrated reversing function. Engineered for tight spaces, they are the shortest on the market among similarly featured fan drive packages.

An electronic interface makes the SGM motors fully PLUS+1™ Compliant to integrate with PLUS+1 microcontrollers and other Compliant products, including sensors, joysticks and graphical display terminals.

About Sauer-Danfoss

Sauer-Danfoss Inc. is a worldwide leader in the design, manufacture, and sale of engineered hydraulic, electric, and electronic systems and components for use primarily in applications of mobile equipment. Sauer-Danfoss, with 2009 revenues of approximately \$1.2 billion, has sales, manufacturing, and engineering capabilities in Europe, the Americas, and the Asia-Pacific region. More details online at www.sauer-danfoss.com.

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PHOTO CAPTION: Sauer-Danfoss' SGM2 and SGM3 fan drive motors now offer bidirectional, fan reversing, and outrigger bearings.



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For Technical Issues:

Rob Arndt
Product Sales Support Manager

Sauer-Danfoss
Ames, Iowa, USA

Phone: +1 515-239-6243
rarndt@sauer-danfoss.com

For Media Information and Photos:

Americas:

Deb Engle

Essman/Associates
Des Moines, Iowa, USA

Phone: +1 515-282-7145
d.Engle@essmanassociates.com

Europe:

Warren Joiner

Sauer-Danfoss
Nordborg, Denmark

Phone: +45 7488 4375
wjoiner@sauer-danfoss.com

Asia-Pacific:

Kentarō Ide

Sauer-Danfoss-Daikin Ltd.
Osaka, Japan

Phone: +81 6-6395-6066
kide@sauer-danfoss-daikin.com