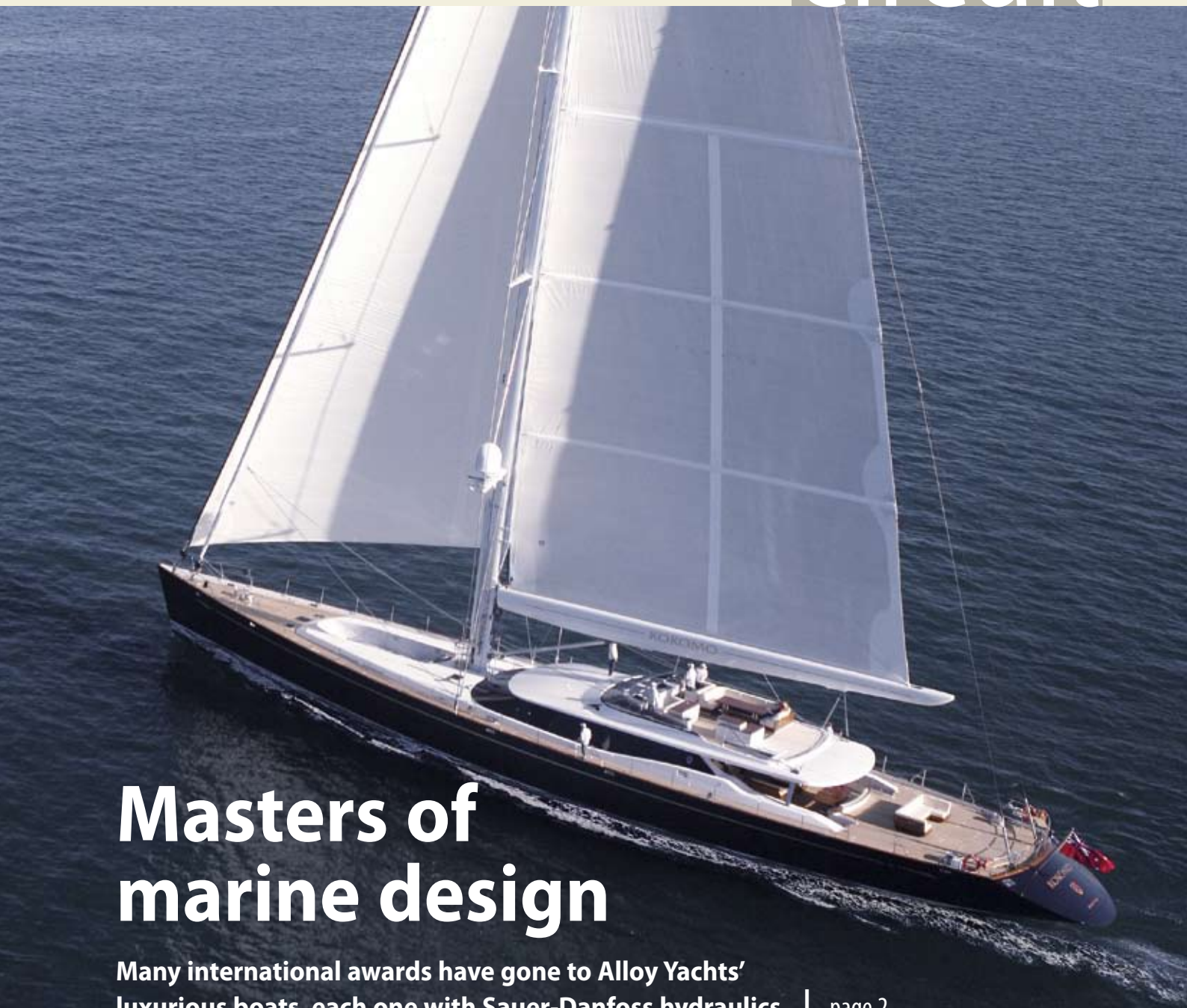
SAUER DANFOSS

the circuit

Inside



Masters of marine design

Many international awards have gone to Alloy Yachts' luxurious boats, each one with Sauer-Danfoss hydraulics. | page 2

An optimistic spirit

Record attendance at Bauma 2007 highlighted the optimism strongly evident on many of our major markets. Our primary objective is to make the most of this positive mood by providing our customers with the efficient hydraulic solutions they need to satisfy growing and increasingly complex demands. With many of our components now PLUS+1™ Compliant - enhancing our system development capabilities - we consider ourselves well equipped to make 2007 another excellent year.

We have for some years enjoyed a rapidly expanding market share. Last year was the culmination of our efforts so far, bringing in our best ever result. The escalating demand for our products was particularly clear in the fourth quarter of 2006, where the number of orders received exceeded the previous year by 25%.

The forecast for this year looks largely similar to 2006, when Europe and Asia represented our main growth markets, especially North and East Europe, China and South Korea.

In the Americas growth has clearly slowed, but we are still managing to surpass the performance of our competitors. South America is growing at a good pace, and agricultural equipment sales in the entire Americas region are at their best level in years due to high commodity prices associated with ethanol growth. Sales are being negatively impacted, however, by the poor U.S. housing market, higher interest rates and higher oil prices, which are affecting almost all small and medium applications, including road building.

We continue to consolidate our range of products and systems, optimize our technical services and strengthen our customer relations. Our results suggest that we are on the right track. The challenge today is to exploit the potential for even greater achievement.

Stefan Koenig
Vice President Sales & Marketing APAC Regione

Ingenuity rides

Two nominations for the Boat International 2007 World Superyacht Awards reconfirm Alloy Yachts' reputation as a top-ranking builder of luxury yachts. Since 1991, 16 international awards have gone to the New Zealand company. Every winner carries Sauer-Danfoss hydraulic components.

The sight of Alloy Yachts' impressive boats slicing through the waves is a familiar one in the world's prominent superyacht regattas, not to mention among the spectator fleet at the America's Cup. Few can compete with the masterful designs and high quality construction that are the hallmark of the New Zealand company.

Recognized by 16 awards in just as many years, such a world-leading reputation cannot fail to instill the highest possible expectations in Alloy Yachts' customers – expectations that are passed on to key component suppliers such as Sauer-Danfoss.

For Alloy Yachts managing director Tony Hambrook, there is quite simply no room for cutting any quality corners.

"Our customers are wealthy people who often do not have much spare time. They expect everything to work just as it is designed to," he says. "Today we are putting more and more functions on board to meet our customer requirements."

As Alloy Yachts builds many components itself, the company has a cautious approach to the suppliers it brings in. Sauer-Danfoss has been a trusted supplier of hydraulic components since the very beginning more than 20 years ago. PVG load-independent directional valves have been used on all of the 25 sailing yachts Alloy Yachts has produced to date and all but one of the company's motor yachts. Like the valves, Sauer-Danfoss OMS 400 motors and Series 51 160ccm variable displacement motors fulfill the needs of various functions.

Proportional versatility

Some 50 PVG 32 and 120 valve sections have traditionally been used on each yacht for the main hydraulic system, distributing propor-

the ocean wave

tional flow to the sail-handling winches, anchor winches, thrusters, stern doors and the launch crane for the onboard speed boat. But, since Sauer-Danfoss launched the PVG 100 in 2005, Alloy Yachts has found the post-compensated, load-independent directional control valve meets its requirements more closely than the PVG 120.

"We found the PVG 100 to be more compact and easier to mount because it has the same thread as the British Standard Pipe fittings we use," Hambrook says.

Based on common hardware, the PVG 32 and PVG 100 can be fitted together in customized valve assemblies that reduce the number of potential leak points, hoses and fittings – contributing to the high performance and reliability that Alloy Yachts' customers seek.

With up to 20 tons of load on the sail when changing direction or sailing close to the wind, the ability of the winches to pull the rope in gradually and smoothly with minimum stress is crucial – and dependent on Sauer-Danfoss valves. The OMS 400 motors power the hydraulic rope tensioners on the winches, up to ten of them on each yacht depending on its size.

The proportional capability of the load-sensing valves is similarly important for the thrusters, enabling yachts to be inched carefully into dock despite a strong wind or current.

High wind performance

On the two yachts currently under construction – the 170ft (52m) ketch Mondango and the Red Dragon, a sloop of the same length – Alloy Yachts has chosen to employ the Series 51 variable displacement motors on the thrusters for the first time. Representing an upgrade from 90 to 140HP, the thruster motors enable sideways movement at wind speeds of up to 20 knots, compared to 15 previously.

"We had received a request to increase the horsepower to 140 but could not find a suitable fixed displacement motor. With the Sauer-Danfoss variable displacement motor, we are able to bridge the gap," says Hambrook.

Alloy Yachts has built a name on constructing luxury sailing and motor yachts to the requirements of individual customers. Each one has a personality of its own. The flexibility inherent in Sauer-Danfoss valves and motors contributes to the uniqueness that makes so many of the boatyard's superyachts outright winners.

Danfoss (New Zealand) Limited is the sole authorized distributor of Sauer-Danfoss products in New Zealand. For more information on Alloy Yachts, see www.alloyyachts.com

***Article 1**. For further information: TheCircuit@Sauer-Danfoss.com*

Taking a LOAD OFF

Truck-mounted forklifts with a Sauer-Danfoss hydrostatic transmission are a successful business for HIAB, the global market leader in load-handling solutions for the road.

Lightweight but robust, truck-mounted forklifts have revolutionized the distribution and logistics industry since HIAB developed the concept in the mid-eighties. Today the core M8 model and the new, smaller M5 are more agile and durable than ever, making them an indispensable workhorse for loading and unloading goods trucks in all kinds of terrain.

Sauer-Danfoss hydrostatic transmissions, comprising a Series 40 variable displacement axial piston pump and steering motors, are standard across the range. Designed for medium power applications with maximum loads of 345 bar (5000 psi), the systems offer the benefits of an infinitely variable

speed range in both forward and reverse modes, space-saving compactness and the outstanding reliability on which HIAB's customers depend.

"Our machines are dragged along behind trucks in all elements, so they need to be robust. Because of the remote nature of some of our applications, there is no room for risk. We have used Sauer-Danfoss for over ten years. Theirs are some of the best parts you can fit," confirms engineering director at HIAB in Ireland, Kevin Turnbull.

Preparing for a challenge

Using the Series 40 transmission, HIAB can fulfill the requirements of the U.S. Tier III exhaust emission regulations for vehicles up to 50HP, which will be enforced in 2008. Preparations are underway to tackle the more challenging Tier IV regulations that will apply from 2012.

As part of that process, HIAB is currently testing the new Sauer-Danfoss H1 45ccm closed circuit variable displacement axial piston pump, complete with an integral electro-hydraulic servo piston for the highest possible power density. The H1 range is particularly designed for a future of electrical controls and increasingly complex functionality.

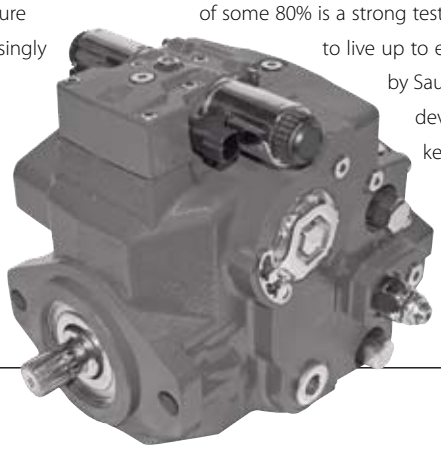
"For us, H1 is a big leap in technology as currently the reliability of our truck-mounted forklifts has been achieved by simple components with no electronics," Turnbull explains. "However, with the ever-changing engine emission legislation, we may have to use electronics to control our engines."

Flexible fine-tuning

A key advantage of the H1 pump is its capacity to be fine-tuned to individual applications, including anything from glass to timber to food products. The HIAB development team is also impressed by the pump's direct drive and anti-stall modes, which accommodate both the experienced and novice driver.

"The direct drive and anti-stall modes make it two pumps in one. The fly-by-wire technology and flexible tuning could be beneficial to us in the future," says Turnbull.

In the meantime, the Series 40 transmission continues to contribute to the success of HIAB's M8 and M5 forklifts. Right now, a global market share of some 80% is a strong testimony of their ability to live up to expectations. Assisted by Sauer-Danfoss, proactive development is all set to keep HIAB ahead of the game.



***Article 2**. For further information: TheCircuit@Sauer-Danfoss.com*

Where the grass is always greener...

Light, quiet and reliable – the Toro Reelmaster® 5010 Series of fairway mowers and the Sauer-Danfoss LPV pump are made for each other.

Acres of smooth, green turf are a golfer's dream and the lifeblood of every successful golf course. The new Reelmaster® 5010 Series from Toro satisfies all requirements to a tee. A light footprint, exceptional quality of cut, low noise and high operator comfort are built into the four fairway mowers in the series, each with the new Sauer-Danfoss LPV direct displacement control pump at the heart of the closed circuit traction system.

From the moment Toro had outlined the concept for the new generation of fairway mowers, Sauer-Danfoss was brought in to work on the machines' design. The development of the LPV pump was a key part of the process.

Despite the potential risk, Jeff Drake, principal design engineer at Toro, was willing to base the new machine design on a component that was not yet fully developed and tested.

"It was a necessary component for which we provided the test-bed. We wanted a displacement we could use to get pressures down and achieve flow rates that would increase the life of the working components, decrease operating oil temperatures and reduce noise.

"The result was a win-win situation," he says.

Long, strong life

For Toro, the unique advantages of the LPV pump include the integrated neutral return mechanism, eliminating the need for an external mechanism to bring the pump back to neutral and avoid unintended vehicle movement. Apart from making the pump more compact, the internal mechanism is immersed in oil, ensuring constant lubrication and protection from dust, dirt and other external wear and tear. A long life of reliable performance with minimum service is, thus, guaranteed.

"The pump's role in the consistent acceleration and deceleration of the machine is crucial because of the turf's sensitivity to tearing," Drake adds.

The LPV pump is up to 4dB quieter than competitor pumps and offers three displacements in one housing – 25, 30 and 35ccm – ideal for the four Reelmaster 5010 models with their horsepower range of 28 to 44.2. Charge flow is provided via the returning oil from the steering system, removing the need for an integral or separate charge pump and, as a result, contributing further to the LPV's compact design.

Ergonomic steering

In addition to the noise reduction, machine operators will appreciate the ergonomic design of the light, tilt steering mechanism. For this, Sauer-Danfoss has supplied an OSPM steering unit and integrated column with gas shock.

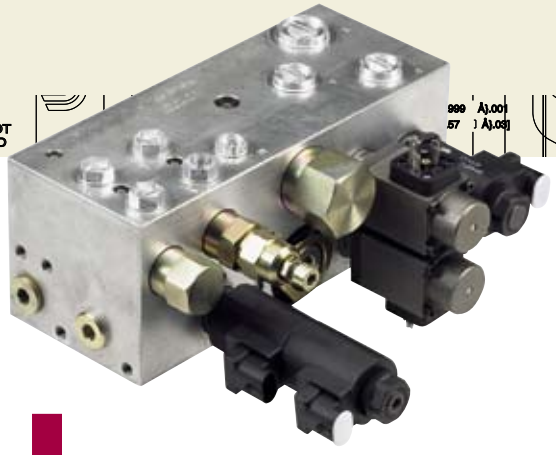
"We eliminated the bearing side load from the hydraulic steering unit by positioning the tilt mechanism joint between the steering unit and the steering wheel," Drake explains. "Now, when operators grab the wheel as they get on or off the machine, the load goes into the bearings on the tilt column and isolates the side load from the hydraulic steering unit. Not only does this provide increased durability, it also helps deliver the improved operator comfort."

Two of the models in the Reelmaster 5010 Series additionally utilize a Sauer-Danfoss AKM Group 1 reel drive motor with customized Toro twist flange on the cutting heads. The same component is used on other Toro machines.

Both the steering unit and the LPV pump have helped Toro along the way to its weight reduction goal. Overall machine weight is up to 10% less than that of previous models – a key contributor in minimizing turf compaction.

Life on the fairway has never looked greener since the launch of the Reelmaster 5010 Series. Healthier turf with a clean, high quality cut is the hallmark of mowers of distinction. Now operators get a quieter, more comfortable ride thrown in.

***Article 3**. For further information: TheCircuit@Sauer-Danfoss.com*



Better than THE BEST

For more than four decades, the Elgin Pelican has held the title of premium three-wheel broom sweeper on the US market. This spring brought the first challenger to its position. Sauer-Danfoss has supplied the hydraulic system for the new Pelican – a sweeper of familiar high quality.

No prizes for guessing why Elgin Sweeper has spent five years developing the successor to its unique Elgin Pelican. Since its launch in 1964, the three-wheel broom sweeper has stood alone on the market, unrivalled for its smooth responsiveness and performance on the road. That's a record hard to beat.

Elgin's new, redesigned Pelican has now been launched – a machine so well considered and thoroughly tested that new product development manager John Abramowski is confident of a flawless operation from word go.

"Until we could make a revolutionary jump with our machine, we didn't really want to tamper with it," he explains. "We needed to meet or exceed every characteristic of our previous machine. Today we have a sweeper that sweeps better and is more comfortable for the operator."

Sauer-Danfoss closed-loop hydraulics are integrated in the key sweeping, debris conveyance and propel functions. With the impeccable reputation of the original Elgin Pelican to live up to, high efficiency and reliability were unspoken criteria.

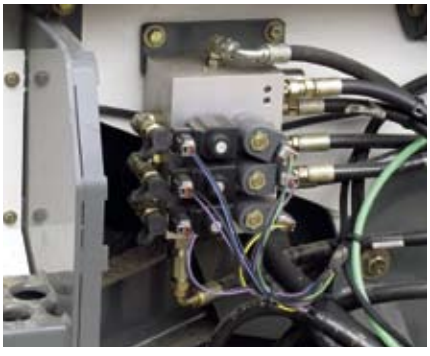
"Sauer-Danfoss is one of our premium suppliers. We worked very closely with them to define the system that would meet our needs. They put together components that allowed us to achieve all our desires," says Abramowski.

Floating the brooms

The sweep function on the new Pelican has gained from hydraulically floated brooms that automatically follow road contours – made possible by Sauer-Danfoss XRP electro-proportional pressure-reducing/relieving cartridge valves. Compared to pneumatic broom-floating solutions, this approach taps into the hydraulic system already serving other needs of the machine, saving on space, components and costs. Abramowski has no doubt that operators will greatly appreciate this unique, sophisticated feature.

"Previously the operator's skill level had to be high. They had to know when to stop and adjust the brooms to the contours of the road so the brooms were not worn out.

"The valves also take the brooms off the road when the sweeper goes into reverse. This really improves efficiency and allows less experienced operators to drive without fear of broom damage."



Neat work hydraulics

When conveying debris into the hopper, Sauer-Danfoss' electrically actuated hydraulic integrated circuit blocks (HICs) and an OMP200 orbital motor ensure an efficient operation, working well with the new conveyor system with its scoop-shaped cleats. Hopper lift, tilt and dump functions are equally smooth and precise, each of them accommodated by Sauer-Danfoss cartridge valves. The work function valves are all neatly incorporated in the machine's three HICs, with flow supplied by D-series tandem gear pumps.

Giving the new Pelican the same responsiveness and feel of the original popular machine was of particular importance to Elgin Sweeper. For this, Sauer-Danfoss provided a hydrostatic transmission system comprising a Series 90 55ccm axial piston variable displacement pump and two Series 51-1 60ccm bent axis variable displacement cartridge motors. The electronically-controlled system has enabled Elgin Sweeper to achieve a propel function that is smoother than ever. Two Sauer-Danfoss OSPB steering units secure comfortable steering on the left or right side of the machine.

Positive feedback

Prior to market launch, Elgin Sweeper invited a group of customers to test whether the new model lives up to their expectations. The feedback was positive.

"One customer even reported that an operator hid the pre-production sweeper at the end of his shift to make sure he could use it the next day," says Abramowski.

The next hurdle for Elgin Sweeper and the Pelican will be the enforcement of the U.S. Tier III emission regulation for engines below 100HP in 2008. With the new, forward-thinking electrohydraulic system from Sauer-Danfoss, there are many opportunities to explore. Meeting modern requirements is all part of the design.

***Article 4**. For further information:*
TheCircuit@Sauer-Danfoss.com

Proven technology at a fast crawl

Sauer-Danfoss worked closely with Liebherr and John Deere to develop the John Deere 605C, a versatile, high-performing crawler loader at the top of its class.

The design challenge was clear-cut when Liebherr brought in Sauer-Danfoss to develop a powerful hydrostatic system for John Deere's new generation crawler loader. Following the success of the John Deere 650J crawler dozer, the aim was to design a new generation machine as closely based on this role model as possible.

That goal has been achieved. Since its launch in North America, the John Deere 605C has been successfully received as an agile, efficient and easily controllable choice for all kinds of construction work – and a machine with unrivalled market potential. The Sauer-Danfoss microcontroller, sensors, pumps and motors integrated in its hydrostatic transmission are well tried and tested and already used on tens of thousands of John Deere crawlers throughout North America. Such part commonality is a huge market benefit, as John Deere project manager Bryan Christy explains:

"The 605C has 80% part commonality with our existing designs - that's unheard of in a new machine platform. As a result, our customers and dealers already have the tools and technology for servicing, diagnostics and worn part replacement."

Part of a team

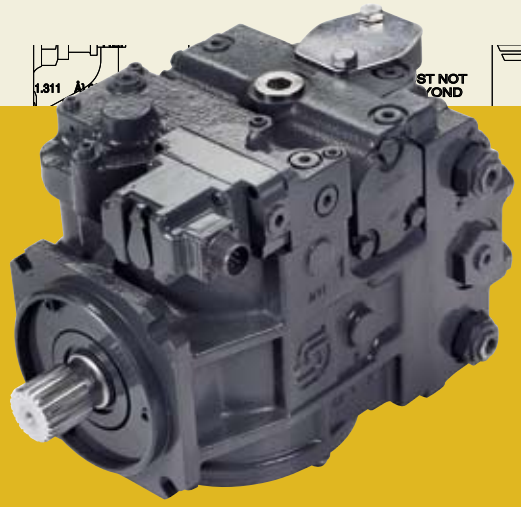
In designing the integrated hydraulic system for the small yet highly powerful 605C, Sauer-Danfoss participated in the productive teamwork initiated by Germany-based Liebherr and U.S.-based John Deere in 1997. Today Liebherr builds a number of John Deere crawler loaders, crawler dozers and wheel loaders.

Although Sauer-Danfoss has for many years delivered systems and components to John Deere, the project marked the first cooperation with Liebherr. Project manager at Liebherr's Austrian plant, Richard Kratzer is highly positive about the new working relationship.

"I was surprised at how good the support from Sauer-Danfoss was," he says. "Not many suppliers can really fulfill the needs of a machine like the 605C. Based on our experience with this project, Sauer-Danfoss will always be a choice."

Working closely with Christy from John Deere and Kratzer from Liebherr, Sauer-Danfoss project leader Tom Braun was responsible for coordinating the overall development of the hydrostatic system. He, too, appreciated the constructive three-way dialogue.

"Meeting the expectations of two world-class



players in the world of construction was a big challenge. It has been a great experience for us," he adds.

Finely-tuned software

A major part of the system design process involved the software for the Sauer-Danfoss MC300 microcontroller. Carefully tuned to reflect the intrinsic needs of the machine, the microcontroller enables convenient calibration and diagnostics without the need for any additional service tools. Special features include automatic load-sensing and adjustment of the drivetrain to maintain peak engine rpm and efficiency, infinitely variable ground speeds up to 9kph (5.5mph), closed loop traction control, smoothly controlled power turns, and fast reversibility for maximum productivity.

Software aside, the Sauer-Danfoss hardware on the machine stands out for its strong similarity with the Sauer-Danfoss pumps and motors on the 650J crawler dozer. Two Series 51 bent axis variable displacement motors and Series 90 axial piston displacement pumps drive the independently controlled tracks on each side of the machine. On the motors, only the motor shift solenoids were changed to accommodate the machine's 24-volt system. Simple configuration changes were also made to the pumps to facilitate mounting on the rear-engine 605C.

The entire system, including a fan pump and hydraulic pump, was assembled by Sauer-Danfoss prior to shipping to Liebherrr along with the relevant documentation and service parts list.

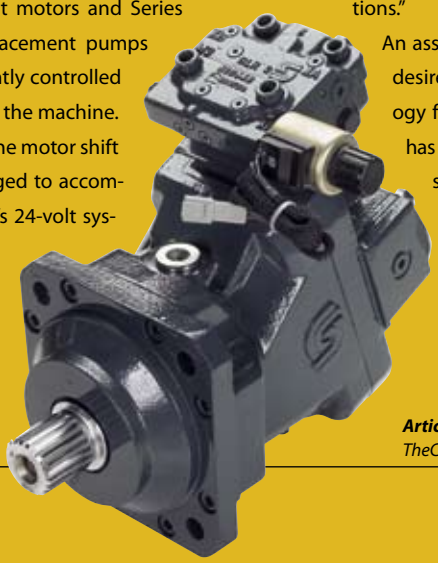
"It is a very flexible system where Sauer-Danfoss has met all the requirements we had, and the components fit perfectly," says Kratzer.

Total machine control

To satisfy the requirements of the U.S. market, two optional configurations are available for total machine control – a V-pattern FNR lever with pedal steering and brake pedal or dual-axis joystick with brake pedal. Another important aspect of the development project was to ensure the Sauer-Danfoss pumps and motors worked optimally in both configurations.

"Customers look for productivity, efficiency, uptime, ease of diagnostics and durability," says Christy. "The machine lives up to all expectations."

An assignment that began with the desire to transfer proven technology from one machine to another has clearly demonstrated what strong customer-supplier teamwork can achieve. John Deere, Liebherr and, now, the U.S. market are very happy about the result.



***Article 5**. For further information: TheCircuit@Sauer-Danfoss.com*

Neat display of strength

The DP200 Series graphical terminal has special features that make it an ideal, cost-efficient solution for monitoring and tracking machine performance.

Stand-alone gauges for fuel, water temperature and engine speed become obsolete with the arrival of the new DP200 Series graphical terminal from Sauer-Danfoss. Designed to display and store engine and hydraulic data on mobile applications, this compact, competitively-priced unit is ideal for OEMs looking to differentiate themselves in the marketplace.

Among the unique features is the USB port located at the front, enabling a direct connection to be made with the machine's CAN network. This means no intermediary device is required to convert the USB signal to CAN data format.

To eliminate all risk of overloading the CAN bus, an optional second CAN port can be fitted as a dedicated port for operational data and control signals. Additional analogue/digital inputs can be fitted for sending and receiving signals from sensors not connected to the CAN network.

Application flexibility

The 8- to 62-volt power supply range is a main contributor to the terminal's extreme flexibility. Even 48-volt forklift trucks can be easily accommodated without use of a power voltage converter.

With its attractive, modern design, the monochrome DP200 series comprises a standard version, with a J1939 software package, and a PLUS+1™ Compliant version, which can be programmed using PLUS+1 GUIDE software.

OEMs can confidently dispense with individual, space-consuming gauges. The ruggedly housed DP200, including four configuration buttons and backlight, is easily installed – for a clear, compact overview of operational performance day and night.

***Article 6**. For further information: TheCircuit@Sauer-Danfoss.com*

Version 3.0 – visibly stronger

PLUS+1™ GUIDE 3.0 is a significant step up from the previous version of the powerful programming tool. More user friendly, more versatile, it brings Sauer-Danfoss closer yet to the ultimate product development environment.

Twice-yearly software updates mean there is always something to look forward to from the PLUS+1™ GUIDE development team. As dynamic as ever, the latest release - PLUS+1 GUIDE 3.0 – reconfirms Sauer-Danfoss as the supplier of one of the most advanced programming tools on the market for mobile machine control.

The application development environment in PLUS+1 GUIDE sets new standards for OEM-developed control systems. Designed for use with Sauer-Danfoss PLUS+1 microcontrollers, I/O modules and the broadening range of PLUS+1 Compliant components, GUIDE (Graphical User Integrated Development Environment) appeals directly to those OEMs for whom customized mobile machine control is the future.

"Although the many programming choices can create the appearance of complexity, GUIDE makes it really easy for customers just to grab and use what they need," says application software portfolio product manager Fred Bezat.

"Our target is that customers eventually will be able to choose whether to build up their control systems from scratch, modify them from a GUIDE template, or download a completely qualified software solution for a vehicle application."

GUIDE 3.0 contains some 30 new basic components for building more powerful applications in the programming environment, along with a host of features that increase development productivity. The new preview display simulator, for example, eliminates the need for a CAN-bus connection to a physical display in order to view a graphical program developed in the screen editor. Using the simulator, programming engineers can check and debug display functionality swiftly and efficiently from their desktop.

Another new feature of the display screen editor is the ability to import JPEG and other image formats in addition to standard bit-map images. Combined with new text fonts, this gives greatly improved versatility when designing displays.

Within the service tool, a modular toolbox allows programmers to select which specific data is shown on individual service screens. This enables the development of separate, customized screens for final vehicle calibration in production, maintenance tasks or control system development. A new data-logging feature records vehicle and operator productivity and monitors machine performance, while supporting the extraction and analysis of data gathered from predefined checkpoints during operation and stored on microcontrollers.

"The developer can also identify critical system components during application software development and then use GUIDE to verify that required programmed devices are properly connected," says Bezat.

Overall the move toward the familiar look and feel of Microsoft® Windows® makes GUIDE 3.0 significantly more user-friendly than its predecessor. Equipped with powerful graphical development features and fresh opportunities for display design, the upgraded GUIDE has visible new strength.

***Article 7**. For further information: TheCircuit@Sauer-Danfoss.com*

PLUS+1™ by SAUER-DANFOSS

Compliance with a BIG plus

PLUS+1™ Compliance is making a big impact on intelligent mobile machines. Vastly reduced programming times and optimized control systems make life easier for Sauer-Danfoss customers in reaching their operational goals.

A number of customers experience that programming their control systems takes just half the time with PLUS+1 GUIDE software. Now that a significant proportion of the Sauer-Danfoss product portfolio has passed the PLUS+1 Compliance test, the user benefits of this advanced approach to customized mobile machine control are being ever more widely felt.

The growing Sauer-Danfoss range of PLUS+1 Compliant components today includes joysticks, sensors, sectional valves, cartridge valves and H1 pump and electrical displacement controllers.

Smooth, responsive controls

In all cases, the purpose of PLUS+1 Compliance is to maximize machine productivity and minimize operator fatigue via a smooth, highly responsive control system. Because the software blocks for each component have been fully tested and optimized, the need for fine-tuning is drastically reduced, and over-responsive controls are eliminated.

"This is what our customers are demanding," says PLUS+1 product manager Dan Ricklefs. "Without PLUS+1 Compliance, attaining this level of functionality is much more difficult."

Hours of programming in seconds

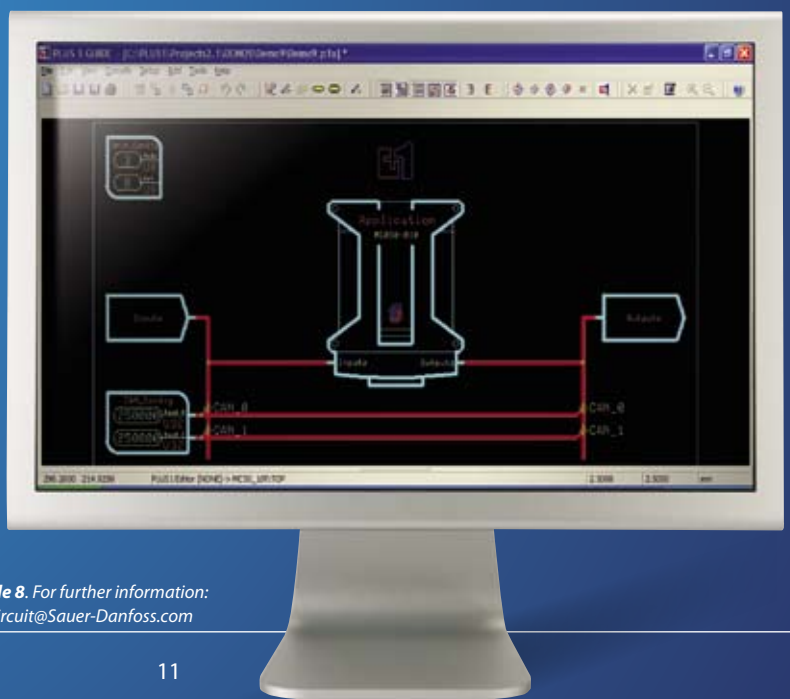
Programming with PLUS+1 technology is made superbly simple by the PLUS+1 GUIDE tool. Here machine programmers can find the whole library of software blocks for compliant components – each block comprising features that previously had to be programmed one by one. By dragging the icons from the library and dropping them on the workspace, stringing any number of application functions together could not be easier.

"In many of these PLUS+1 Compliant functional blocks, we have hundreds of hours of programming and testing which the user can drag and drop in seconds," explains PLUS+1 Compliance project leader James Dorfler.

"Because there are common interfaces between blocks, you can easily alter a program without having to start again. That makes for easy system development. We have customers who claim to have reduced programming time by 50%."

The user manual and technical notes that accompany all PLUS+1 Compliant components provide a step-by-step guide to physically wiring the components up to a microcontroller. By the time a new machine is ready for startup, the operating parameters are already set to provide the optimal performance. So it should come as no surprise to find that validation time is reduced.

Simple programming, complex functionality and advanced controls – PLUS+1 Compliance sets the scene for sophisticated mobile machinery with a fast time to market and a keen competitive edge.



***Article 8**. For further information: TheCircuit@Sauer-Danfoss.com*

PLUS+1™ focus at Bauma

Seamlessly integrated systems based on PLUS+1™ technology were the core highlight of the Sauer-Danfoss booth at Bauma 2007 in Munich – the world's largest exhibition for the construction and mining industries. Supported by the booming construction markets of the EU and Asia-Pacific, the organisers recorded the best-attended event ever.

Sauer-Danfoss pulled out all the stops to demonstrate the major opportunities for OEMs to meet future performance requirements using the wide range of PLUS+1 Compliant products now available – an effort that brought a highly positive response from existing customers and other visitors.

The speed and ease of developing integrated machine controls was shown by an attractive video at the center of the booth. A plexi-glass model of a telehandler displayed some of the application areas where PLUS+1 Compliant components can make an important difference to machine efficiency.

For visitors interested in gaining a thorough overview of PLUS+1 Compliance, Sauer-Danfoss hosted seminars in English and German. The seminars provided insight into the technology, the components and the newly released version of the graphical programming tool – PLUS+1 GUIDE 3.0.

Exhibition update

Meet Sauer-Danfoss representatives at these exhibitions during 2007:

Finland	
Hydraulics & Pneumatics 07	September 4-6
Denmark	
HI Industri	September 4-7
Korea	
Conex Korea 2007	September 6-10
Poland	
HPS 2007	September 11-14
Czech Republic	
International Engineering Fair	October 1-5
U.S.A.	
International Construction & Utility Equipment Expo	October 16-18
Germany	
Agritechnica	November 13-17

Key component supplier acquired

Sauer-Danfoss has set its sights on becoming the market's leading supplier of steering columns following the acquisition of long-time Danish supplier, Diesella Produktion.

The two companies' relationship dates back to 1966, when Sauer-Danfoss took on the responsibility for designing the steering columns produced by Diesella and obtained the sales and distribution rights. Improved delivery speed and flexibility are the motivating factors behind the acquisition.

Diesella will be integrated in the Sauer-Danfoss steering unit business unit.

the circuit

"The Circuit" is published by Market Communication, Sauer-Danfoss Sales & Marketing, and has a circulation of approx. 13,000 copies in English, German, French, Spanish, Portuguese, Italian, Danish and Russian.

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