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Saft introduces Li-ion battery technology for marine propulsion and auxiliary systems

- *Li-ion technology offers significant performance and TCO (Total Cost of Ownership) advantages*
- *Hybrid propulsion using batteries is of growing interest for ships and boats as it enables them save fuel and reduce CO₂ emissions*

Paris, August 26, 2010 – Saft, the world specialist in the design and manufacture of high-tech industrial batteries, is at SMM 2010 to introduce its advanced Li-ion (lithium-ion) battery technology that offers interesting new possibilities for the creation of highly efficient and cost-effective marine propulsion and auxiliary systems. Visitors to Stand 16 in Hall B4 are invited to meet Saft's expert team to discuss the potential performance, weight-saving and TCO (Total Cost of Ownership) advantages of Li-ion batteries in a wide variety of demanding marine applications.

Saft has a wealth of experience in the marine industry as a supplier of battery systems for emergency back-up, lighting, engine starting and other auxiliary systems. The use of Li-ion batteries for ship and boat propulsion applications is therefore a natural progression for Saft, based particularly on its broad expertise in delivering advanced battery systems for the railway and automotive industries as well as underwater applications.

Li-ion technology advantages

Li-ion battery technology can offer a number of key advantages for designers in the marine industry including : high-power and/or energy storage in a compact space and weight-saving package, high-efficiency, long calendar and cycle life – even when operating in extreme temperatures, zero-maintenance requirements.

Saft anticipates that Li-ion technology will be of particular interest for hybrid propulsion systems in which the batteries work in conjunction with diesel (or possibly gas turbine) generators and electric motors. The specific advantages of this hybrid power approach will vary according to the type of application:

Work boats

Hybrid power could offer significant improvements in fuel efficiency and CO₂ savings for work boats that spend most of their time at sea moving into position and only operate at full power for very short periods. So rather than sizing a diesel engine for peak power it can be

specified at a more economical size for average power, with the extra power drawn from the batteries when required.

One particular target is tug boats where in a hybrid configuration a battery system operates in parallel for low power operation, and is then combined together with a significant boost from a single diesel generator for infrequent high power operations.

There is also scope for load-levelling type applications (similar to diesel-electric trains) in which the diesel generator is maintained at a constant load – typically 80% of capacity - saving fuel, cutting CO₂ emissions and reducing maintenance.

Passenger ships

Hybrid or full electric mode could be an attractive option for passenger ferries and shuttles that spend much of their operational life in harbour for docking and undocking. Switching to clean electric power when in harbour could save considerable CO₂ emissions, helping port authorities to meet their environmental targets; it also offers much quieter operation that will reduce the impact on the local community.

Leisure boats

In leisure boats, such as yachts, a hybrid system will enable the vessel to switch to battery power for silent, low-speed running when entering harbour, helping to meet the growing demand from port authorities to reduce CO₂ emissions. The battery could also support hotel loads when the yacht is moored, providing a green, quiet and vibration-free alternative to running diesel-generators, especially when waiting for access to harbour power points.

About Saft

Saft (Euronext: Saft) is a world specialist in the design and manufacture of high-tech batteries for industry. Saft batteries are used in high performance applications, such as industrial infrastructure and processes, transportation, space and defence. Saft is the world's leading manufacturer of nickel batteries for industrial applications and of primary lithium batteries for a wide range of end markets. The group is also the European leader for specialised advanced technologies for the defence and space industries and world leader in lithium-ion satellite batteries. Saft is also delivering its lithium-ion technology to new applications in clean vehicles and renewable energy storage. With approximately 4,000 employees worldwide, Saft is present in 18 countries. Its 15 manufacturing sites and extensive sales network enable the group to serve its customers worldwide. Saft is listed in the SBF 120 index on the Paris Stock Market.

For more information, visit Saft at www.saftbatteries.com

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