STADT - LEAN PROPULSION®

SATISFIED CUSTOMERS
EXPERIENCING THE **STADT LEAN DRIVE**

*From PGS*

PGS operates a fleet of seismic research vessels, and is one of the biggest companies in this marked.

The vessels operates all over the world, very often in very remote locations where service facilities are not available. Reliability and efficiency is very important for both our own vessels as well as the support and escort vessels we use. STADT Lean Propulsion® was chosen by one of our suppliers of support vessels in cooperation with PGS, and we are happy to see it has lived up to all our expectations.

Very few, if any undesired failures over 5 years in operation, tells us that this is the right choice for these vessels.

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**Einar Nielsen**  
*VP Special Projects, PGS*
EXPERIENCING THE **STADT LEAN DRIVE**

*From MS SANCO SPIRIT - Seismic Research Vessel*

Sanco Spirit has been a very successful ship for us and charters since it went in to operation in 2009. STADT Lean electric propulsion technology has proven itself to be extremely reliable over the years. The ship has not gone off-hire at any time, and the crew has maintained the system easily with a very limited need for support from STADT.

The robust and highly efficient drive technology has given the ship a minimal fuel consumption at all relevant operation point, including DP, and transit.

The system is remarkable in its compact design, and the Lean Propulsion® technology enabled the designers of the ship to avoid any liquid pipes for cooling or ventilation to be used in switchboard rooms where also the STADT drives are located. Big power transformers used by most other drive manufacturers are completely eliminated, as well as the EMC noise and harmonic distortion from the drives.

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*Ronny Muren*

*Captain of MS Sanco Spirit*
EXPERIENCING THE **STADT LEAN DRIVE**

*From MS HARTO - Purse Seiner, Trawler*

We installed the STADT diesel-electric propulsion in 2008 – now more than 10 years ago. It was a pioneer project, and many thought we were crazy - not using a main diesel engine. Over the 10 years of fisheries in the northern Atlantic, we have seen that the STADT-technology has given us a very robust ship that operates very silent by all means. Extremely low noise when we are searching for the fish, operating with only one genset instead of all the 4 that are in place. It gives a better catch, and we have a very high comfort onboard, in particular when we should go to sleep. The unique noise-free STADT technology does not disturb our sensitive fishing sensors.

It has also been a great advantage for us the redundancy built in to the system, from power generation through switchboard and electric propulsion motor drive arrangements. We have so far never been out of service, and STADT has helped us in an excellent way the very few times something needed to be serviced.
EXPERIENCING THE **STADT LEAN DRIVE**

*From Nam Cheong Ltd*

Nam Cheong chose Lean Propulsion® for their serie of 16 equal anchor handling towing supply newbuilt vessels, NCA80E design, 85T BP, DP2, ABS classified.

STADT designed and delivered the entire electric propulsion system, from Main Switchboards, Lean Drives and AC motors for main propulsion and thrusters, transformers, Power Management System etc.

They have now operated all over the world, to the full satisfaction of Nam Cheong and their partners.

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Kwan Seng Fatt

**GM (Newbuilding), Nam Cheong Ltd**
EXPERIENCING THE **STADT LEAN DRIVE**

**DNV GL confirmation from MS Sanco Spirit**

The STADT Lean Drives are designed without transformers and filters, and is of air cooled execution.

The STADT Lean Drives are located in switchboard room and do not generate any electric disturbance at all. This is due to its bypass operation performed by an Air Circuit Breaker in the drive.

Measurements obtained during sea trails proved that there was no electromagnetic noise transmitted from the STADT Lean Drives. The system delivers a pure sine voltage and current to the electric main propulsion motors. Thus unscreened, single core power cables could be used between drive and propulsion motors.

Due to the design of the STADT Lean Drives system, it does not disturb the voltage in the main switchboard. THD levels less than 3% was verified. Since the STADT Lean Drive system uses bypass operation, the electrical losses was minimized to the losses found in cabling and the ACB - which is negligible.