

Tan Delta solves Asian marine maintenance crisis

Key Business Benefits

FINANCIAL

Avoids repair bills of \$ hundreds of thousands
Reduces oil usage by up to 50%
Can reduce insurance premiums, providing instant ROI

OPERATIONAL

Reduces downtime
Acts as advanced warning system
Offers optimal servicing

ENVIRONMENTAL

Estimated 40,000 litres of oil saved p/a
Reduces waste oil disposal
Reduces logistical deliveries

BACKGROUND & SCENARIO

Historically, marine diesel engines either failed prematurely, or suffered from poor luboil analysis lab reports, leading to a lack of sufficient electrical generating power needed for the crane operations.

Lubrication oil-related failure is the most common cause of main engine damage and a major contributing factor to auxiliary engine breakdowns, a report by 'The Swedish Club' reveals. Main engine damage is an expensive category of claims that occurs far too frequently, and statistically, a vessel will suffer between one and two incidences of main engine damage during its lifetime. The Swedish Club report goes on to say that the most expensive type of main engine damage is on crankshaft and associated bearings.

A large 50,000 Dwt self-discharging bulk carrier was acting as a 'Mother Ship' in Asia, receiving coal and discharging the cargo using its cranes, into smaller 1,500 Dwt+ feeder vessels. It was identified by the vessel operator that there was a need for predictive maintenance on the larger vessel, to reduce failures and downtime, as well as improve overall operational efficiencies.

Tan Delta was able to assist with a solution to this problem with its intelligent oil condition monitoring provision, enlisting the help of one of its Distributors, Leo Maritime, to fulfil the order including the on-site install and customer aftercare.

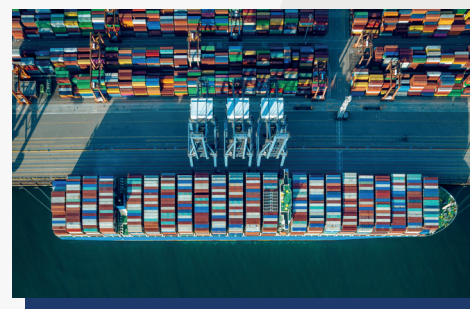
AVOIDABLE COSTS

As The Swedish Club research correctly goes on to identify, failure repairs can run to \$1.2M USD per claim, as spare parts are expensive and the repairs are extremely labour intensive. Dry dock costs can add up to a significant additional cost of more than \$100,000 per day. Furthermore, the off-hire opportunity cost needs to be factored in, too – what contracts could the vessel be fulfilling while it is in dry dock at huge expense, undergoing extended repairs? These direct and indirect costs are avoidable altogether, with intelligent Tan Delta oil condition monitoring solutions.

THE SOLUTION

Seven Tan Delta sensors were integrated via a SENSE-3 Gateway and installed on board the larger vessel, on six diesel engines (3 x CAT & 3 x MAN).

The customer now has access to live predictive data and will be automatically alerted if there is any contamination or should any oil condition anomalies occur.





Whether it's white metal contamination in a main engine, or water ingress in the stern tube – both potentially enormous cost incidents – the operator can now act immediately and plan maintenance based on actual need.

Authorised Tan Delta engineers from Leo Maritime undertook the survey locally in Asia and guided the installation of the Gateway and seven sensors, supported remotely by Tan Delta's experienced UK-based staff. Using the Tan Delta portal, client technical staff were then able to monitor the luboil condition from their offices in Asia and Europe, with oversight and guidance from Tan Delta and its distributor as required.

Potentially catastrophic failures can now be nipped in the bud immediately at source, before they happen. The ship's owners therefore now have the peace of mind of knowing that the vessel won't be out of action for any longer than necessary, for any lube oil-related maintenance issues.



Distributor View

Peter Tedder MBA, FIMarEST,

HEAD OF GLOBAL MARINE, LEO MARITIME LTD – TAN DELTA AUTHORISED DISTRIBUTOR

“This is a classic deployment for Tan Delta technology, where the operators were unaware of the full capabilities of the Gateway and sensors until they saw them in action.

Once ship owners have Tan Delta onboard, the relief is palpable – the realisation that they have significantly reduced the chances of main engine or other serious mechanical failure is what makes the job so satisfying.

In reality, the hope is that once we install Tan Delta technology, ‘nothing happens’. That might not sound too exciting to some. But suggest it to the owner who has just had a

\$1.2M repair bill plus significant additional on-costs, and he's suddenly very interested. Predictive maintenance is here to stay and will not only help you save a lot of money over the next 10 years or more; installing Tan Delta technology will also put your business in better shape from an ESG/CSR perspective, too.”

Tan Delta View

Chris Greenwood, CEO, TAN DELTA SYSTEMS PLC

“Our technology works in multiple sectors and environments, however it is arguably in Commercial Marine applications where the cost/benefit equation is such a no-brainer.

For operators who want to reduce the chance of catastrophic engine or hydraulic failure that can cripple marine operations and profits, Tan Delta technology is a must-have preventative weapon.

So valuable is our technology as a failure prevention tool, that certain insurance companies will offer a 5% discount if you have Tan Delta technology integrated into all of your vessels' lubeoil environments.

According to DNV and Lloyds List, lubricant-related machinery damage or failure has been the main driver of a surge in commercial marine safety incidents in recent years. So the opportunity is there for all commercial marine



operators to run even tighter ships and make sure they have our best-in-class oil condition monitoring on board.”



Email info@tandeltasystems.com to see how Tan Delta technology can rapidly start to improve your Marine maintenance regimes, now.

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