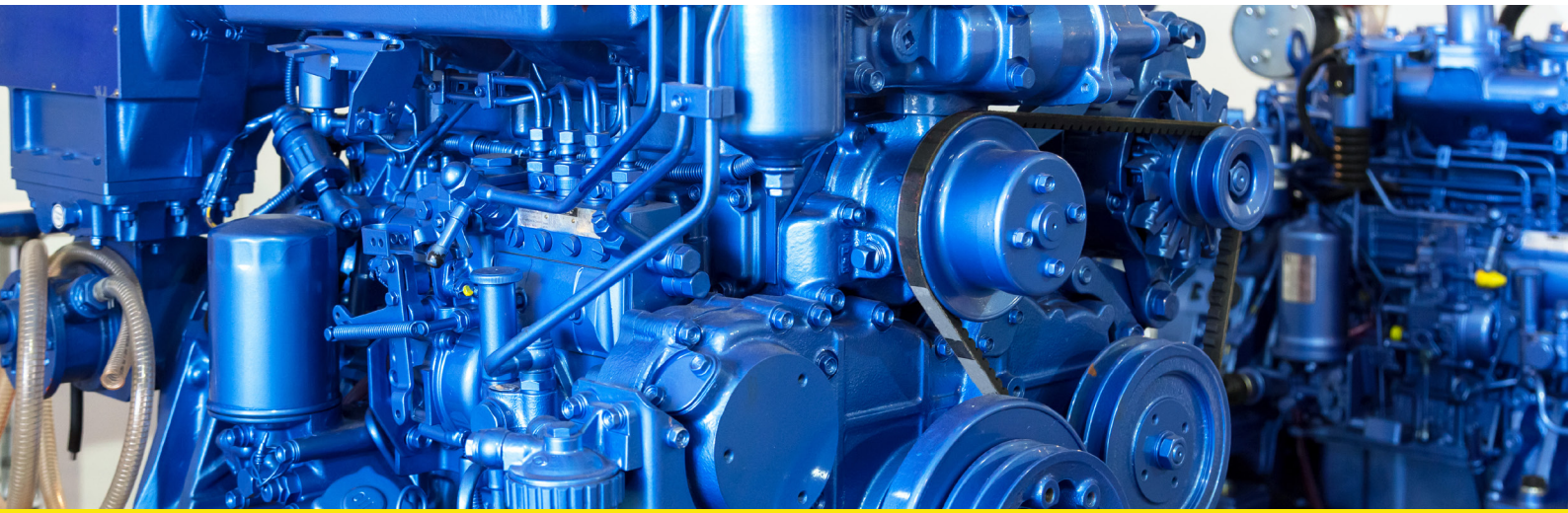
CASE STUDY

ENGINE

TANDELTA
Oil Condition Monitoring



REDUCED COSTS BY REAL-TIME DETECTION OF ALL OIL FAILURE AND WEAR MODES

Industrial Engine – Oil Condition Monitoring

Challenge

The challenge of generating electricity from a Bio Gas Engine powered by Methane is that the quality and cleanliness of the gas has a significant effect on the longevity and performance of lubricating oil. Regular oil sampling is a necessity to avoid catastrophic failures, however delays in getting results means that operational efficiencies are missed due to the conservative nature of managing laboratory oil sampling.

Solution

Tan Delta ran a series of trials comparing the performance of the Tan Delta Oil Quality Sensor (OQSx) with traditional laboratory sampling. The Tan Delta Express Kit was fitted to a set of Jenbacher 320 gas engines and the engines were run for 3 oil change cycles during which time traditional laboratory samples were also taken and the results from both were co-related. The Tan Delta OQSx tracked the laboratory analysis perfectly from clean to End Of Oil Life.

Benefits

Having the ability to see the current oil condition in real time has enabled the operator to increase the oil change interval and also reduce the number of laboratory samples being taken.

COMMERCIAL BENEFIT

Fitting this monitoring solution to a fleet of 35 engines has realised a saving of £125K per annum but also shown a reduction of 80% in catastrophic failures.

HIGHLIGHTS

Lower Operating Costs

Less downtime and less maintenance significantly reduced ongoing operating costs. on site

Improved Safety

Installing Tan Delta technology ensures equipment is in optimal condition making a safer working environment.

Help the Environment

Equipment efficiency improved on site. They reduced oil consumption, maintenance activity and costs and helped conserve the environment.

Reduced Wastage

Unnecessary oil waste was avoided by only changing oil which needs to be changed.

Robust technology designed to with-stand harsh industrial application

TAN DELTA SYSTEMS LTD 1 CARRERA COURT, CHURCH LANE, DINNINGTON, SHEFFIELD, S25 2RG UNITED KINGDOM

T +44 (0)845 094 8710 **F** +44 (0)845 838 6711 **E** info@tandeltasystems.com **W** www.tandeltasystems.com

TANDELTA

Service and Support from Tan Delta

The Tan Delta Customer Support team partners with customers to implement highly effective and commercial beneficial oil conditioning. Our experience and expertise enable customers to quickly and smoothly implement successful condition monitoring.

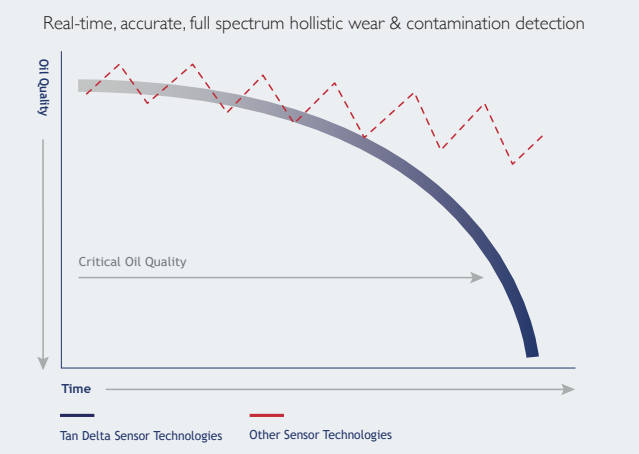
- The evaluation and identification of the commercial benefits that will be derived from the implementation of Tan Delta full spectrum hollistic real time oil condition monitoring.
- Support for the planning and efficient implementation of systems across large estates of equipment, including the integration into existing monitoring systems and operational procedures.
- Ongoing 24/7 global warranty support, technical support, advice and consultancy to ensure customers maximise the long term

Technology That Makes a Difference

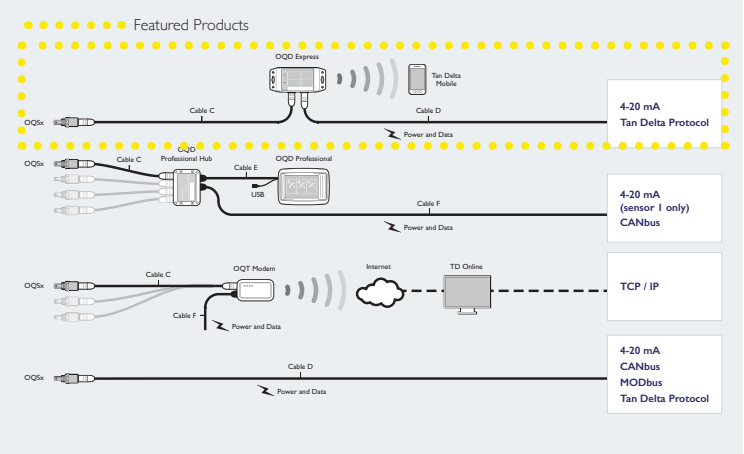
Tan Delta core technologies deliver unique oil condition monitoring performance that directly translates into significantly enhanced commercial benefits.

Tan Delta technology uniquely offers full spectrum hollistic oil condition monitoring in real time to a very high degree of accuracy. This ensures that any contamination and or wear, no matter the cause, is detected, quantitified and reported in real time. Nothing is missed.

OIL DEGRADATION



TAN DELTA SYSTEM ARCHITECTURE



About Tan Delta Systems

Tan Delta Systems Limited is a global leader in the development and supply of advanced oil condition monitoring technologies, products and systems.

Its products are trusted by the world's leading industrial and commercial companies to monitor oil condition, helping to optimise equipment productivity, reduce operating costs, thereby remaining competitive in a global economy.

All Tan Delta products are engineered and quality manufactured for long term continuous operation in the harshest commercial and industrial environments. Each product is carefully engineered and tested to withstand the long term effects of extreme shock, vibration, heat, cold, thermal shock, electrical interference and many more factors.

Tan Delta Head Office
1 CARRERA COURT
SHEFFIELD
UK

Company No. 06362470

TAN DELTA SYSTEMS LTD 1 CARRERA COURT, CHURCH LANE, DINNINGTON, SHEFFIELD, S25 2RG UNITED KINGDOM

T +44 (0)845 094 8710 **F** +44 (0)845 838 6711 **E** info@tandeltasystems.com **W** www.tandeltasystems.com TANDELTA