



SMARTGAINS

DISCOVER HOW CASTROL
INPUT INTO A ROOT CAUSE
ANALYSIS INVESTIGATION
**REDUCED OIL COSTS BY
20% AND CUT CAMSHAFT
FAILURES TO ZERO.**



FOCUS

A customer operated a semi-submersible surface production platform which had been converted from a drilling asset. The original power generation diesel engines were not rated high enough for surface production, so the old engines had been upgraded. These new engines reported frequent camshaft failures and often only two of the four engines were operating, reducing power generation and production capability.

IMPROVE

During the subsequent root cause analysis (RCA) it was determined that the larger replacement diesel engines had affected the structural stiffness and thus vibration levels, and allied to insufficient cooling water the lubricant was overheating and rapidly oxidating. These were the primary causes of the frequent camshaft failures. Complete re-engineering of the engine room was not feasible hence the need for other solutions.

Our expert studied our portfolio of products, and knowing that 10W/40 had been used successfully on a similar engine (which was higher rated than the OEM specification), recommended an upgrade to the lubricant.

MEASURE

Since our intervention there have been zero camshaft failures, drain frequency intervals have doubled and oil consumption cut by 20%. The asset has gone from being the worst performing asset in a fleet of 16 to the best performer. This one intervention by our expert provided the customer with savings over \$23,000.

The increased performance from the solution recommended by our SmartGain experts led to this customer switching to our high-performance engine oil across their fleet.

Talk to your local Castrol Sales Representative
to discover how we can help your business work even smarter

SMARTGAIN AREA	IMPROVEMENT	COST TO CUSTOMER TO IMPLEMENT CHANGE	CREATED VALUE PER YEAR
••• Oil drain frequency	Increased oil drain frequency from 500 hours to 1,000 hours Reduced oil changes from 8.75 to 7.5 per year (saving 17.5 hours of engineer time at \$150 per hour)	N/A	100% increase in oil life \$2,625
•• Oil consumption costs	\$1.83 / litre @ 2,000 litres per month = \$43,920 per year, to \$2.93 / litre @ 1,000 per month = \$35,160 per year	N/A	\$11,388
•• Waste oil costs	12,000 litres less waste oil per year @ \$0.25 per litre	N/A	\$3,000
• Camshaft failure	Reduction of camshaft failure from 1 per year to zero (replacement cost \$2,500 and 24 hours of engineer time @ \$150 = \$3,600)	N/A	\$6,100 and zero failures
TOTAL			\$23,113
•• SMARTGAINS AGGREGATION Estimated total savings across all 16 assets in the fleet (4x Cat 3516 & 12x MTU class 3)			\$86,000

••• Castrol verified values •• Credible assumptions based on market knowledge • Estimated mitigated costs, risk, or created value.

Based on a case study from a single customer. SmartGain results can vary depending upon the type of equipment used, its maintenance, operating conditions, and any prior lubricant used.

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IT'S MORE THAN JUST OIL. IT'S LIQUID ENGINEERING.

