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CASE STUDY

AMAZON FILTERS PROVIDE EFFECTIVE DIESEL FILTRATION OFF-SHORE TO ENSURE FPSO POWER SUPPLY

FIRST CLASS SERVICE
WORLD CLASS FILTERS

CLIENT
Major Oil & Gas Operator

LOCATION
Africa

SECTOR
Oil & Gas-Power

ABOUT THE PROJECT

Amazon was approached by a major Oil & Gas Operator, with whom Amazon had installed equipment - offshore Africa - seeking an alternate supplier for a ‘High Flow’ filter cartridge that was being procured from a Corporate filtration manufacturer. Due to the corporate product lead time being too long to meet operational requirements (which potentially could lead to a shut-down) and due to high operational costs (due to short operating lifetimes between changeouts), Amazon was tasked with resolving these issues.

The application is diesel filtration to protect turbines for on-board power generation. As the application is so critical, the importance of quality and service were paramount to the end user. Amazon met the required lead times whilst also offering a significant saving versus the unit costs of the corporate filter cartridge.

After some time of usage, short cartridge life was also presented to Amazon by the Operator. After investigation, the issue was traced back to a poor quality source of diesel, with very high contaminants present. This led to operational challenges with multiple change-outs per shift and associated increases in running costs - all against a backdrop of falling oil prices! Relaxing the Absolute retention rating of the filter was not possible due to exacting filtrate quality requirements and no extra space was available on-board to add additional filtration units. The only option was for Amazon to look at redesigning the cartridge on every level...

SOLUTIONS:

After a series of tests using different filter packs (done in the Amazon test laboratory) and analysis of returned used cartridges, production samples of prototype filters were quickly built and sent offshore for field tests.

Positive feedback was instant and several weeks of trials with run-times (now in days rather than hours) enabled a final selection to be made – which was a filter pack using multiple pleated layers of glass fibre media for maximum void volume and contaminant retention.

The bespoke pack was supported by stainless steel outer cage and core, to allow operation at high differential pressures whilst protecting the media in the rugged offshore environment.

Due to the performance and value proposition of the new filter cartridge, which Amazon managed to maintain at no detriment to unit pricing, alongside Amazon’s service and support, this enabled Amazon to win a long-term supply contract for the filters from the Operator.