

CASE **STUDY**

DEXIS EUROPE

**COMPANIES
COLLABORATE TO
SIGNIFICANTLY IMPROVE
GEARBOX SERVICE LIFE
AT MAJOR AGGREGATES
SITE**

CS106



HAYLEY

DEXIS

HAYLEY DEXIS ENGINEERING SERVICES // AGGREGATES

Focus on **value** **TRACK
UP**

THE SITUATION

A major aggregates-producing quarry in Shropshire contacted their local HAYLEY DEXIS branch about a recently-repaired gearbox that was creating a lot of excess noise when operating. So much so that local residents had made several complaints. HAYLEY 247 DEXIS was immediately contacted, and the unit was removed from the line and sent to the workshop in Dudley. Here, it was drained of oil and subjected to a full strip, inspection, and report process. It was found that the gears were in an incredibly poor condition, with one tooth completely missing, this was a major cause of the noise and risked catastrophic breakdown.

THE SOLUTION

The poor standard of the previous repair job had led to the gears quickly becoming damaged and distorted. It was the responsibility of HAYLEY 247 DEXIS and specialist gear manufacturers and fellow DEXIS Europe member, Lamond & Murray, to identify the failure mode. A complete redesign and remanufacture of the gears was needed, as it was estimated that the existing gear grade would last less than six months in its current state.

Once approval was granted, work began on creating new gears using improved materials, heat treatment and precision-ground gear tooth profiles. It was also agreed that HAYLEY 247 DEXIS would supply and fit their Asset Minder condition monitoring solution to the new gearbox, giving the customer advanced warning alerts in advance of a potential failure.

KEY VALUE AREAS



SPEND



INCOME

THE RESULT

Once reassembled with the new components, the unit was thoroughly tested within the state-of-the-art facilities of HAYLEY 247. The gearbox performed impressively and was approved for dispatch back to the customers' quarry where it was promptly reinstalled.

The initial feedback from onsite engineers was that the noise problem had been totally eradicated, but this was only the beginning of the benefits that they are expected to be able to enjoy.

With more appropriate and durable materials used, as well as a higher-quality refurbishment, the service life of the gearbox has been significantly extended from the accepted 6 months to 6 years or more. As part of this, future maintenance costs have been significantly reduced. It is estimated that prior to the work, the customer would have had to their operation.

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”

spend in the region of £40k p.a to keep the unit from failing and bringing a costly stoppage.

Thanks to the condition monitoring solution, provided by HAYLEY 247 DEXIS, engineers are now able to closely monitor both the health and performance of the gearbox, allowing them to intervene with the machine prior to a failure occurring.

Since the project was completed, the success achieved has been replicated with several other gearbox units across various UK sites owned by the same customer.

CONTACT US!

Speak to your local HAYLEY DEXIS branch today!

You can find their details by using our online Branch Finder tool:

www.hayley-group.co.uk/branch-finder.

KEY SOLUTIONS

HAYLEY 247 DEXIS gearbox services

Lamond & Murray gear manufacturing

HAYLEY 247 DEXIS AssetMinder condition-based monitoring technology

KEY RESULTS

Gearbox service life extended.

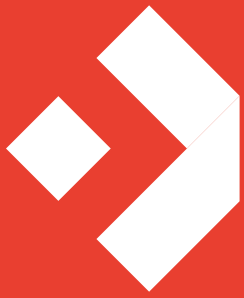
Risk of costly downtime minimised.

Maintenance costs significantly reduced.

Round-the-clock monitoring of asset health and performance enabled.

Noise issues on gearbox eradicated.





HAYLEY

DEXIS