

# CASE **STUDY**

**HAYLEY 247 DEXIS**

**PUMP  
REFURBISHMENTS  
SET TO SAVE CAR  
MANUFACTURER  
£184k+ IN ANNUAL  
COSTS**

CS135

 **HAYLEY 247**  
DEXIS

## HAYLEY DEXIS

### MECHANICAL ENGINEERING SERVICES // AUTOMOTIVE

Focus on **value**

**TRACK  
UP**

#### THE SITUATION

A car manufacturer had four long-coupled end suction pumps that had been deemed beyond economical repair by another third party repairer. Each new replacement pump would cost £18k on a 5-6 month lead-time from the USA, meaning an expensive and drawn-out process for the customer. HAYLEY 247 DEXIS Pump Services team was given the opportunity to offer a second opinion.

A pump was sent to the HAYLEY 247 DEXIS facility, installed on the state-of-the-art test rig and its performance analysed. Its hydraulic efficiency was down at 38.3%. Work began on a strip and inspection with reports of both processes submitted to the customer.

#### THE SOLUTION

The customer was keen to proceed and the team set to work. This started with the heavily eroded volute casing being coated with Belzona 1111, a metal repair coating. The volute casing was then re-profiled to suit the impeller vane tips and Belzona 1341 efficiency coating was applied to improve the units' hydraulic efficiency, flow rate and head characteristics. Flow rate was an important factor in the customers' operation, and this was identified as a key metric for improvement prior to the refurbishment.

The pumps' seals were also upgraded to the latest EagleBurgmann SN Single cartridge seals, with bearing isolators installed to help

#### KEY VALUE AREAS



**SPEND**



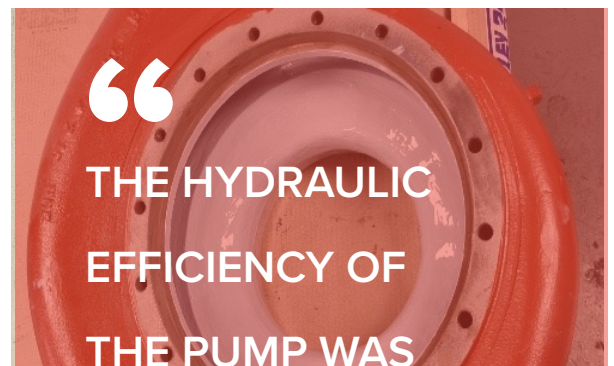
**SERVICES**

eliminate bearing contamination. Reassembly of the unit was completed, and the pump was re-tested before being shipped back to the customers' facility.

#### THE RESULT

Refurbishment and upgrade cost the customer significantly less than what they had been quoted for a new replacement pump, from the American OEM. By providing this service, HAYLEY 247 DEXIS enabled the customer to secure a capital expenditure saving of £11.5k and cut the delivery lead-time down to just 2.5 weeks.

It was calculated that the refurbished pump would deliver an annual energy cost-saving of £14.5k, based on the following performance test results:



**INCREASED 48.3%.**



- Hydraulic efficiency: increased to 48.3%
- Flow rate: increased from 77.3% to 85.1%
- Motor absorbed power: reduced from 42.6kW to 40.8kW
- Pump differential head: increased from 20.6m to 23.5m

The customer is now looking to roll-out a comprehensive programme of pump refurbishments at their site, including all 12 active pump assets. By doing this, the customer will benefit from an annual energy cost-saving of around £173k. The reduction in energy consumption will also have a positive impact on the company's current environmental initiatives.

## 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](http://www.hayley-group.co.uk/branch-finder).

## KEY SOLUTIONS

HAYLEY 247 DEXIS pump refurbishments.

Belzona 1111 & Belzona 1341 coatings.

EagleBurgmann SN single cartridge seals.

## KEY RESULTS

Possibility for huge energy savings created.

TCO for refurbished pump reduced significantly.





**HAYLEY**

**DEXIS**