# CASE STUDY

## **HAYLEY 247 DEXIS**

HAYLEY 24

PUMP REFURBISHMENTS SET TO SAVE CAR MANUFACTURER c.£173k IN ANNUAL ENERGY COSTS



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CS101

#### **HAYLEY DEXIS**

MECHANICAL ENGINEERING SERVICES // AUTOMOTIVE

Focus on value



#### 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 leadtime from the USA, meaning an expensive and drawn-out process for the customer. HAYLEY 247 DEXIS Industrial Pumps team were 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 reprofiled 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.

#### **KEY VALUE AREAS**



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

> BY IMPLEMENTING THE REFURBISHMENT PROGRAMME FOR 12 MORE PUMPS, THE CUSTOMER WILL SAVE AROUND £173k P.A.

> > **99**

It was calculated that the refurbished pump would deliver an annual cost-saving of £26.2k, based on the following:

- Electricity tariff: 34p/kWh
- Operating hours: 24
- Pump power: 55kW
- Previous annual energy cost: £163,812
- Total efficiency improvement post-refurb.: 16%

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/branchfinder.

#### **KEY SOLUTIONS**

Belzona 1111.

Belzona 1341.

EagleBurgmann Cartex Single Seals.

#### **KEY RESULTS**

Energy cost-saving of £26,210 secured.

TCO for refurbished pump reduced.

Leadtime reduced by 18-20 weeks.



