

CASE STUDY



CUSTOMER

Union Electric Steel

SECTOR

Industrial &
Manufacturing

SERVICE

Pump Overhaul and
Repair

Gas Pump

A Lamson Corp gas pump had come in for repair with severe wear and issues including damaged impellers and bearings and a bent shaft. The customer required the pump to be returned in as short a timescale as possible due to its importance to their operations.

WHY HOUGHTON INTERNATIONAL?

- Having previously repaired motors for the customer we were able to expand our services and offer pump repairs too
- Based locally with 24/7 response and the ability to offer urgent repairs
- Innovative, problem solving approach to maintain operations while spares were manufactured



THE SOLUTION

The customer required the pump to be repaired and reinstalled in as short a timescale as possible to minimise the time frame that the pump was out of service. Initial repairs were agreed with the customer, such as welding of the impellers, with the objective of getting the pump back into service as quickly as possible.

One impeller was beyond repair so this was removed and one stage of the pump was taken out. This meant the pump could still be used by the customer for lighter duties whilst a number of new spare parts were manufactured.

A new set of impellers and a new shaft were manufactured, with the Houghton International team making modifications to improve the design and reverse engineering components where necessary. To ensure that a second set of replacement parts would be available for future repair work, an additional set of spares comprising of the impellers and shaft were also produced.

New impellers were designed in order to optimise the pump's efficiency. This process was done entirely in house, including identifying the improvements, producing CAD designs, then casting and machining the parts.

THE RESULT

The new parts were manufactured in-house to reduce cost and lead times, using CAD design software to identify and implement modifications to the impellers to help improve efficiency, ultimately reducing the cost to run the pump.

The Houghton International team liaised with the customer throughout the repair to ensure minimal disruption was caused to their operations, working to meet the customer's requirements and ensuring the pump could be put back into service with short-term repairs whilst new parts were manufactured.

The Houghton International site team were responsible for the removal and reinstallation of the pump on site and transportation to the Houghton International workshop and shifts were allocated to ensure 24 hour working on the pump to reduce the timescale for the repair.



Houghton International successfully completed repair work on a gas pump for Union Electric Steel.

In order to meet our needs Houghton International were able to make short-term adjustments so the pump could be temporarily put back in service, and they worked to meet the required timescales throughout the job. The team went above and beyond to identify improvements that could be made to help ensure the pump was operating efficiently. Following the successful reinstallation of the pump on site, it is now back in operation."

John Caffrey, Director, Union Electric Steel

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