

UK STEEL WORKS FIRE STANDBY CASE STUDY

STEEL WORKS, WALES



80CH PUMP CASE STUDY



The client, a large steel works company based in Wales, contacted Pioneer to design and supply on a hire basis, a duty and back-up pump system capable of maintaining the client's fire main system water pressure during essential, critical maintenance on a blast furnace.

THE REQUIREMENTS

Due to the nature of the application, the client required a high pressure pumpset capable of maintaining a fire system's water pressure in the event of a fire during the maintenance works for a blast furnace. The pumps were to operate both as the main duty pump and back-up pumps so reliability was vital to the operation.

THE METHOD

After an application survey of the site, Pioneer specified the 80CH, 3" super silenced High pressure diesel pumpset as the performance curves perfectly matched the requirements the client had stipulated.

The pumps were fitted with Deep Sea E400 Engine Controllers complete with a Telemetry Module.

With the use of pressure transducers in the discharge line that sent a signal (4-20mA) to the control panel, Pioneer were able to sequence the pumps to start and stop at the pre-determined pressure levels requested by the client.

Each of the engine controllers were fitted with a Telemetry Module, capable of sending SMS alerts in case of engine start, stop, failure, or a catastrophic pressure drop in the line. This method also allowed all stakeholders to see a live picture of the pump's dashboard via our website

THE RESULTS

Following installation, the client reported that the system worked perfectly and exceeded all expectations, with daily report and live notifications on the status of the pump sets.

Pioneer's team of specialist design engineers were congratulated on the design of the system which was commissioned and operational within the tight time scale requested by the client.

Since the completion of the works, the 80CH 3" High Pressure pumpset has become a staple pumpset used by numerous large industrial facilities as fire standby pumps, praised for its high performance and low running costs.

Telemetry modules are available on all Pioneer Pumpsets allowing the client to remotely operate their pumpsets and carry out reporting of statuses and fuel consumptions.

PRESSURE TRANSDUCERS

TELEMETRY MODULE

PUMP FEATURES

- Telemetry modules installed to allow for direct reporting of status
- Pressure Transducers installed to automatically activate pumps at pre-determined pressure levels

PERFORMANCE DETAILS

- Standard Max Flow: 245 m³/hr
- Standard Shut-Off: 116m
- Max Running Hours: 40 hours
- Enclosure dB(A) Rating 70dB(A) @ 7m

RESULTS

- Project Exceeded client expectations
- 2x pumpsets purchased for long term use