

NON-ENTRY TANK CLEANING CASE STUDY

OIL REFINERY - DENMARK



200CH/X PUMP CASE STUDY



The Client, a Danish oil refinery, contacted Pioneer with the aim of producing a pumpset that would be able to assist with their 'Non-Entry' tank cleaning system, designed for the de-sludging of bulk fuel and chemical storage tanks.

THE REQUIREMENTS

The nature of the application at hand meant that the client required a high pressure pumpset capable of producing flows in excess of 1000m³/hr at 11 bar of pressure.

Due to the hazardous environment, the pumpset in question would also have to be 'rig safe' to ensure that it was able to be used whilst on site.

THE METHOD

Following consultations with the client, it became clear that the Pioneer Pump 200CH, 8" High Pressure pumpset from our rental fleet was able to produce the exact flows and pressure required.

The top of the range 'Non-Entry' tank cleaning system is designed for the de-sludging of bulk fuel and chemical storage tanks by the control and circulation of a high velocity liquid stream through direct-able nozzles fitted to the tank shell.

This process reduces downtime on the refinery saving hundreds of thousands of pounds in lost revenue. The 'Non-Entry' method is also much safer than historic methods of manual tank cleaning.

Depending on the size of the tank and the product stored, up to four sets of tank sweeps may be required, with each of them - where possible - spaced evenly around the tank perimeter.

This process prevents a build-up of sludge on the tank floor by creating movement in the oil inside the tank. The movement ensures that any solids are suspended in the mobile oil and do not settle on the tank floor.

The nozzles can be rotated 200 degrees either manually from the outside of the tank by means of a hand wheel, or the unit can be hydraulically controlled.

THE RESULTS

Since the first successful trial, the client has repeatedly utilised the 200CH/X pumps for this application throughout Europe.

Both the client and the end users were impressed with the reliable performance of the 8" high pressure pumpset and service from the Pioneer team.

In addition to this, the ATEX certification gave the users reassurance that the pumps in use would be safe for the strict hazardous environments they were being used for.

ATEX CERTIFIED
PUMPSET

1000m³/hr FLOW
RATE

PUMP FEATURES

- Fitted with air intake Chalwyn Valves and spark arrestors
- 8" Discharge

PERFORMANCE DETAILS

- Standard Max Flow: 1240m³/hr
- Standard Shut-Off: 140m
- Rated Power @ BEP: 410kW
- Fuel Tank Size: 767l

RESULTS

- Reduced end-user downtime
- Increased client's profitability
- Pumpsets safe to use across Europe