

Case Study

VPM 4310 Integrated Tank Gauging System provides an accurate, reliable and cost-effective upgrade for the harbour tug Lodsinn



Part of the **TankWatch** product group

Proven Results

- Accuracy and reliability of the vessel's fuel, service and water tank gauging system has been greatly improved; increasing efficiency and saving money
- The VPM 4310 Integrated Tank Gauging system was easily installed and commissioned by the owner's engineering staff, without the need for specialist support from PSM
- Based around PSM's marine proven tank gauging products, the VPM 4310 system has a minimal maintenance requirement, and is future-proofed with the ability to be upgraded as requirements change



Customer

Vestmannaeyjar Harbour company provide the port services for the commercial and tourist vessels that use the Westman Islands harbour located off the south coast of Iceland.

Application

At the heart of the harbour services is the 105 tonne DWT tugboat Lodsinn. Built in 1998, it was recognised that the existing tank gauging system was proving unreliable with increasing maintenance costs.

Through their local sales partner, Akor ehf, PSM were asked to provide a system solution to be retrofitted. It was important that the total project costs met budget, so in addition to a low purchase price, the costs for installation and commissioning of the new system also had to be minimised.

A total of seven fuel, service and water tanks with heights between 2 and 4.5 m are measured by the system.

Solution

Designed for smaller vessels, and providing electronic measurement with a centralised display, [VPM 4310](#) is a packaged system offering clear accuracy and functional advantages compared to mechanical and visual level gauges.

ICT 1000 smart hydrostatic level transmitters are used with submersed in-tank mountings. These are connected via RFM 1 interface modules and the complete system is powered by a single FRM ISR power supply module. Local display, control and alarm handling is provided by a VPM 4300 operator panel.

These components were supplied ready configured, so only local cabling was required by the owner's engineering team.

Marine proven components

PSM has drawn upon thirty years of global marine application experience, developing products that offer the highest possible standards in terms of performance, versatility, functionality and reliability.

Where required, parts are certified for installation in a hazardous area and approved by major classification societies for use in marine applications. They are suitable for fuel, lube oil, water, bilge and ballast level tanks.

Cost-effective and simple to operate

VPM 4310 allows the benefits of electronic measurement transmitters and centralised display with alarm handling to be used for fuel and service tanks, but at a reduced cost compared to a radar based inventory systems or transmitters connected to a PLC running custom software.

Each system is delivered configured to suit the application, based on the actual number, size and type of tanks to be measured.

Level transmitters terminate in the connection modules which require just one 4 wire cable to distribute power and communications.

The display presents the operator with a clear display of all tank level measurements and alarm states. Each tank is depicted by a bar graph with text information for level, volume and temperature.

Proven Results

The Chief Engineer of the Vestmannaeyjar Harbour company said: *"We are completely satisfied with the VPM 4310 system, and it has meet all our operational and budgetary requirements. We were greatly impressed with the support from both Akor and PSM during the sales and installation work."*