

Original Installation



What happened?

- During a routine check a fuel oil spill was noticed within a pump pit
- The operator identified the origin of the leak and shut down the related operations

Findings and key learning points

- The source of the leak was identified as a broken coupling located between a pipework flange and a pressure indicator (see upper photos)
- Prolonged vibrations from the pump had caused fatigue failure of the coupling
- The directly mounted pressure indicator was replaced with a capillary type of indicator. The flexible tube between the instrument and the connection point prevents transmission of vibrations (see lower photos)

Revised Installation



Recommendation

- It is recommended that operators check for installations where transmission of vibration could lead to a fatigue failure and, where identified, re-design the installation
- Consideration should be given to using capillary connections for pressure indicators rather than fixed connections where vibration is present