Tuning-Fork Density Tool

Provides industry-standard fluid-density measurement based on vibrating-fork technology



Applications

- Fluid identification
- Fluid holdup

Features and Benefits

- Combinable with all HD telemetry tools for comprehensive evaluation
- Tuning-fork technology for nonradioactive fluid density determination
- Compact, versatile, and robust
- Unaffected by deviation

Tool Description

The Weatherford tuning-fork density tool is an HD, nonradioactive fluid identification tool that is not affected by well inclination. It provides an industry-standard fluid-density measurement based on vibrating-fork technology.

Optimized for either pure gas or oil-water environments, it can also function as a useful free-gas indicator.

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Tuning-Fork Density Tool

Specifications

Ratings and Dimensions

Maximum temperature	350°F (177°C)
Maximum pressure	15,000 psi (103.4 MPa)
Diameter	1.69 in. (43 mm)
Length	30.27 ft (769 mm)
Weight	9.5 lb (4.3 kg)
Tensile strength	15,000.0 lbf (6,803.9 kgf)
Measure point	6.9 in. (175 mm) from bottom of tool
Materials	Corrosion-resistant materials used throughout

Measurements

Sensor	Acoustic
Range	0 to 1.25 g/cc or better
Accuracy	+/-0.01 g/cc or better
Resolution	0.01 g/cc
Response time	< 1 second

Hardware Characteristics

Combinability	All HD tools: GR, CCL, iQ™, RADii®, RAS™, PLT
Tool positioning	Centralized
Acquisition mode	Real time with telemetry control unit (TCU) Memory with memory logging tool (MLT)

Electrical Specifications

Voltage/current	50 V DC at 20 mA 19 V DC at 50 mA

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