Hybrid Inspection Tool
Long-range, internal pipe inspection

The hybrid inspection tool (H.I.T) was developed to provide a video inspection tool for long-range, internal pipe inspection. It is designed to meet all internal pipe inspection requirements for both topside offshore installations and subsea applications.

FEATURES

- High-resolution and real-time video
- Easily adaptable to different pipe sizes
- Provides easy-to-evaluate inspection data
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The H.I.T delivers efficiencies in time and cost while reducing risk associated with inspection. It combines features of traditional tethered and free-swimming inspection tools.

Internal inspection of topside piping on offshore installations is challenging due to pipe configurations and their multiple bends. The H.I.T. overcomes this challenge and provides a solution connected to a control cabinet by an optic fiber cord. Real-time and high resolution videos are transmitted through the optic fiber, simultaneously as the inspection operator controls the pan, tilt, and zoom capabilities of the camera.

When the H.I.T. is propelled forward, the patented optic fiber dispenser, attached to the tool, pays out fiber. The tool can be controlled and stopped at identified locations in the pipe so that findings can be scrutinized.

The system eradicates the known limitations of friction and tensions acting on umbilical cables through bends. The internal battery pack in the H.I.T. provides power to the camera, and supports camera movement and fiber optic transition.

The H.I.T. has successfully completed inspections offshore, both subsea and topside with full data coverage of the pipelines inspected.

Applications
» Pipes with multiple bends
» Difficult pipe configurations
» Long-range, internal pipe inspection

Benefits
» High-resolution, real-time video during inspection
» Easily adaptable to different pipe sizes
» Digital storage of information

Capabilities
» Propulsion by pig
» No umbilical needed, releases a hair-thin fiber coil, giving live video feed, where the coil will be detached and re-moved once the tool reaches its end destination
» Cannot be used on unpiggable pipelines (requires a launcher and a receiver)