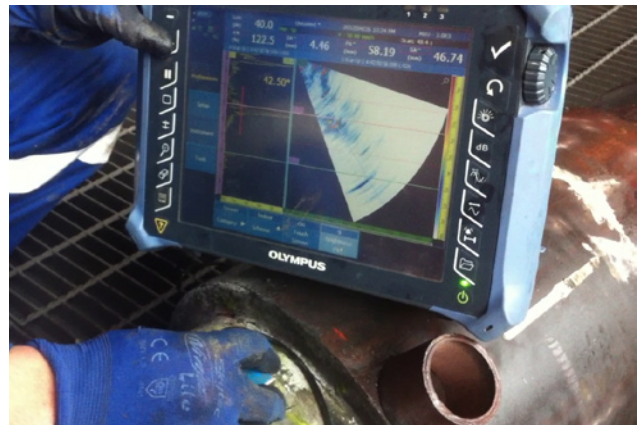


Manual Phased Array (MPA) Ultrasonic Inspection

Oceaneering offers manual phased array (MPA) ultrasonic inspection technology as an advanced method of assessing assets from the construction phase into their in-service operation.

MPA ultrasonic inspection advances the ultrasonic technology recognized as a viable alternative to radiographic testing and can be used with items/assets typically thought unsuitable for ultrasonic examination. The MPA technique can be used due to improved visualization and the capability to steer the ultrasonic beam through various angles from a single probe location.

MPA techniques allow for a reduced inspection time over conventional ultrasonic inspections by simultaneously generating multiple angles from a single probe.



FEATURES

Reduces inspection time compared to conventional ultrasonic inspection

Crack and corrosion detection and sizing

In-service monitoring/inspection of bolts/shafts

Manual Phased Array (MPA) Ultrasonic Inspection

Data Analysis

Sophisticated ultrasonic software on board the portable inspection instrument enables instant assessment of in-service flaws. Static data may also be collected for illustrative or monitoring purposes.

Benefits

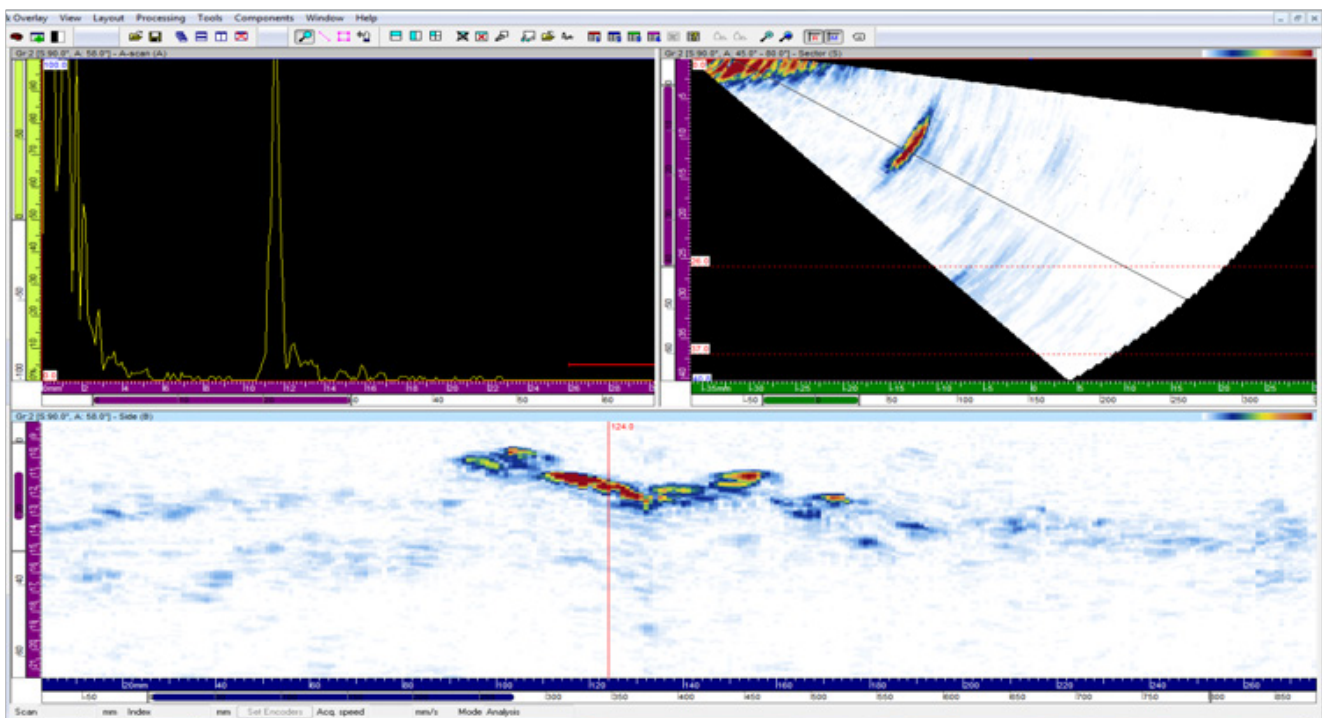
- » Radiation-free ultrasonic technique
- » Various probe types and frequencies available to suit a range of in-service applications
- » Interrogation of flaws with unfavorable orientations due to detection of diffracted responses

- » Beam steering provides improved inspection of limited access areas over other ultrasonic techniques
- » Battery-powered equipment provides operation independence from site utilities (8–10 hours of continuous use)
- » Typically requires less access than conventional ultrasonic testing techniques

Considerations

- » Surface preparation is required to enable inspection

Phased array can be used in a manual capacity to detect and size weld root erosion when access is not available for time of flight diffraction (TOFD) or radiography.



WELD ROOT EROSION

© 2019 Oceaneering International, Inc. All rights reserved.