

# MOBILE<sup>AE</sup>

## Use FIBA for Convenient, Economical Cylinder Recertification

Use **MOBILE<sup>AE</sup>** to recertify steel cylinders. **MOBILE<sup>AE</sup>** uses acoustic emission technology (AET) to test cylinders on or off trailers. Our AET,

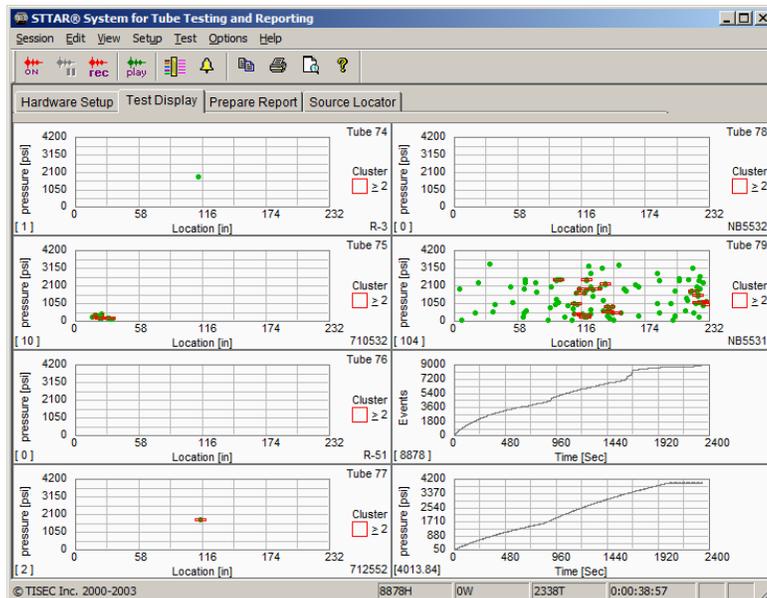
- Complies with U.S DOT & Transport Canada requirements
- Can inspect up to 16 cylinders at once.

U.S. DOT special permit for AET on 3T, 3A, 3AA, and 3 AAX cylinders.

**Call FIBA Canning for all your trailer retest requirements.**



**MOBILE<sup>AE</sup> is an economical tool for cylinder recertification. Tubes are tested on the trailer using a lower test pressure than hydrotesting.**

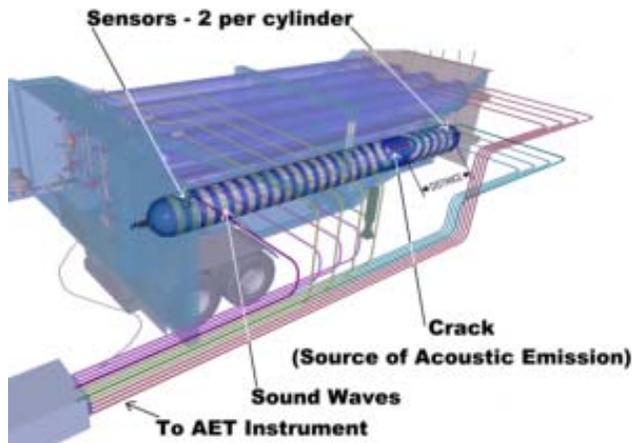


Reports are automatically generated using our **System for Tube Testing And Reporting STTAR** software. The software is used to track test pressure and acoustic events from active flaws in the cylinder's wall. Acoustic events originating from active flaws in the cylinder are identified and located for follow-up ultrasonic testing. Results from up to 16 tubes may be viewed simultaneously.

Follow-up ultrasonic inspection is required only if the acoustic emission test detects an active flaw in the cylinder. Both our AE and UT inspections use the latest ASME standards as guidelines.

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## AE Inspection Procedure

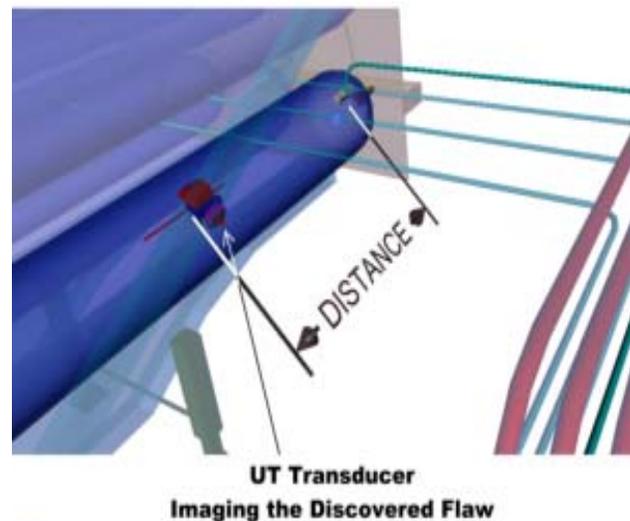


Our AE inspection procedure follows the *ASTM E 1419 – Standard Test for Examination of Seamless, Gas-Filled, Pressure Vessels Using Acoustic Emission*. Our instrumentation is calibrated on each tube tested. After calibration, the tubes are loaded to 110%. During this loading period active flaws, if present, in the cylinder's wall will emit high frequency sound waves. These sound waves travel longitudinally in the cylinder until they are detected by the piezoelectric sensors located at each end of the cylinder. The relative time-of-flight of the sound wave at each transducer is used to locate the flaw longitudinally.

## Follow-up UT Inspection

A follow-up ultrasonic inspection is required only if the AE inspection detects an active flaw during the loading period. Our inspection procedure follows *ASTM E 2223 Standard Practice for Examination of Seamless, Gas-Filled, Steel Pressure Vessels Using Angle Beam Ultrasonics*.

These follow-up tests use 45° and 70° shear waves to locate and size detected flaws accurately. Ultrasonic transducers are scanned longitudinally and circumferentially along the cylinder's OD during this test.



## Qualified and Experienced Staff

With thousands of cylinders tested in the United States, Canada, Asia, and Australia we have a proven track record for high quality nondestructive testing services and safety. For more information, or to schedule inspections, contact us at:

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