ULTRASONIC INSPECTION TECHNIQUE SHEET

DOCUMENT INFORMATION

Standard:	AMS-STD-2154E	**Revision:**	A
Date:	Jan 6, 2026	**Procedure:**	-

PART INFORMATION

Part Number:	-	**Part Name:**	-
Material:	-	**Material Spec:**	-
Part Type:	Tube	**Drawing:**	-

INSPECTOR INFORMATION

Inspector:	-	**Level:**	-
Certification:	-	**Organization:**	-

ACCEPTANCE CLASS

A

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1. PART INFORMATION

Parameter	Value
Part Number	-
Part Name	-
Material	-
Material Specification	-
Part Type / Geometry	Tube
Drawing Number	-
Heat Treatment	-

Dimensions

Dimension	Value
Thickness	25.0 mm
Length	100.0 mm
Width	50.0 mm
Hollow Part	Yes

2. EQUIPMENT

Equipment	Value
Manufacturer	-
Model	-
Serial Number	-
Software Version	-

Transducer

Transducer Parameter	Value
Probe Model	-
Frequency	5.0 MHz
Type	-
Element Diameter	0.500 inches
Couplant	-

Performance Parameters

Vertical Linearity	95%
Horizontal Linearity	90%
Entry Surface Resolution	0.125 inches
Back Surface Resolution	0.050 inches

3. CALIBRATION

Calibration Parameter	Value
Standard/Block Type	-
Reference Material	-
Block Dimensions	-
Block Serial Number	-
Last Calibration Date	-
Metal Travel Distance	18.7 mm

Flat Bottom Holes (FBH)

P/N	” T y p e	Ø FBH (inch)	Ø FBH (mm)	B (mm)	H (mm)
-	area	3/64	1.19 mm	0.0 mm	19.1 mm
-	area	3/64	1.19 mm	0.0 mm	19.1 mm
-	area	3/64	1.19 mm	0.0 mm	18.1 mm

3.1 CALIBRATION BLOCK DIAGRAM

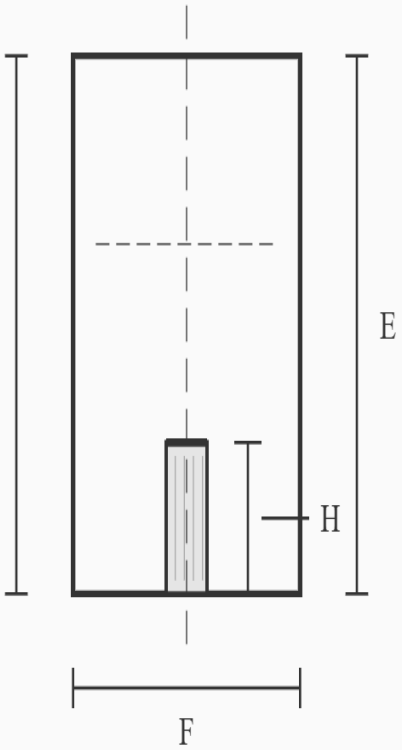

FIG. 1 Standard Set Block Dimensions

4. SCAN PARAMETERS

Parameter	Value
Scan Method	Immersion
Technique	Bubbler
Scan Type	-
Scan Pattern	spiral
Coupling Method	-

Speed & Coverage

Scan Speed	100 mm/s
Scan Index	70 %
Coverage	100%
Water Path	0.7 mm

Instrument Settings

Pulse Repetition Rate (PRF)	1000 Hz
Gain Settings	-
Alarm Gate Settings	-

5. ACCEPTANCE CRITERIA

ACCEPTANCE CLASS

A

Stringent - Secondary Structure

Criterion	Limit
Single Discontinuity	5/64" (2.0mm) FBH response
Multiple Discontinuities	2/64" FBH (centers <1" apart)
Linear Discontinuity	1" max length - 3/64" response
Back Reflection Loss	50%
Noise Level	Alarm level

Special Requirements

For primary airframe structure, engine and transmission components

6. SCAN DETAILS & DIRECTIONS

Dir.	Wave Mode	Angle	Freq.	Make	Probe	Remarks
A	LW 0° (Primary Surface - E2375 Fig.6)	0°	-	-	-	-
B	LW 0° (Adjacent Side - E2375 Fig.6)	0°	-	-	-	-
C	LW 0° (Third Face / Radial from OD)	0°	-	-	-	-

8. SCAN PLAN & REFERENCE DOCUMENTS

The following reference documents are associated with this technique sheet:

#	Document Title	Description	Category	File Reference
1	**UT Scan Planning Guide**	Complete guide for scan planning and execution	Planning	scan-plan-guide.docx
2	**TCG for Shear Wave Calibration**	Time Corrected Gain calibration procedures for shear wave testing	Calibration	tcg-shear-wave-calibration.docx

NOTE

The documents listed above provide detailed procedures, calibration guides, and reference materials.

Refer to these documents for complete inspection methodology and compliance requirements.

8. DOCUMENTATION

Inspector

Inspector Name	-
Certification Number	-
Level	-
Certifying Organization	-

Customer & Document

Customer Name	-
Purchase Order	-
Part Serial Number	-
Inspection Date	Jan 6, 2026
Procedure Number	-
Drawing Reference	-
Revision	A

9. APPROVAL SIGNATURES

Role	Name / Signature	Date	Comments
Prepared By	_____	Jan 6, 2026	
Reviewed By (Level III)	_____	_____	
Approved By	_____	_____	

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