STEAM LOCOMOTIVE AND HISTORICAL BOILER
ULTRASONIC THICKNESS TESTING CHECKLIST
BSB 0600-05 Attachment 6 Rev 2

BOILER INFORMATION

NC NO:	DATE:

Barrel: Minimum Thickness_____. Thickness Used in Calc._____ MAWP_____

Stayed Surfaces: Minimum Thickness _____. Thickness Used in Calc._____ MAWP_____

Maximum pitch of staybolts in firebox_____ Minimum Thickness of Tubesheet_____

INSPECTION INTERVAL:	**INITIAL** ☐ **RECURRING** ☐
INSPECTOR NAME:	INSPECTOR SIGNATURE:

Make and Model of UT Thickness Tester	
Serial Number of UT Thickness Tester	
Calibration Standard Used	
Name of Tester	
Signature of Tester	
Date of Testing	

Measurements:
Barrel Diameter_____in.
Tubes: O/S Diameter_____in. Length_____ Quantity_____
Firebox: Width_____in. (Front to Back) Height_____in. (Top of grates to Crownsheet)
Or, Diameter_____in. Length_____in. Staybolt Pitch_____in.
Firebox Tubesheet: Width_____in. Height_____in. Staybolt Pitch_____in.
Crownsheet: Width_____in (Side to Side) Length_____in. (Front to Back)
Comments_____

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	DESCRIPTION	ACC	REJ	REMARKS
#1	**ULTRASONIC THICKNESS TESTING** **At a minimum, UT testing is required during the Initial Certification and at Interval 5 for the Historical Boiler inspection cycle. This procedure should be used whenever it is necessary to test the thickness of metals for Steam Locomotive and Historical boilers in addition the minimum requirements.**			
	The following table shall be used to record thickness readings. The table will be retained for comparison during future inspections. Has the table been completed?	☐	☐	
	Have the personnel performing the UT thickness testing been accepted by the jurisdiction?	☐	☐	
	Have the equipment, calibration standard and operator been recorded at the end of the table?	☐	☐	
	When calculating MAWP and areas of general thinning are found or where grooved thinning is found the followings rules apply, were the guidelines followed? 1. Use readings in an area of generalized thinning if it exceeds 3" in diameter. 2. Use readings in an area with grooved thinning when it exceeds 2".	☐ ☐	☐ ☐	
	The number of readings taken for the **initial** testing of **stayed** areas shall be taken and recorded on a grid not exceeding the maximum staybolt pitch. 1. Additional readings may be taken around each staybolt to determine if localized thinning has occurred. Was this necessary? 2. Particular attention should be given to the joint between the staybolt and the plate. Were any thinning areas found in these locations?	☐ ☐	☐ ☐	
	The number of readings taken for the **initial** testing of **un-stayed** areas shall be taken and recorded on a grid not exceeding 12". Additional reading should be taken if conditions warrant. Was the 12" maximum grid adhered to?	☐	☐	
	Recurring UT testing shall be performed by randomly checking **10%** Areas of thinning identified during previous inspections should be given particular attention. Is the recurring testing?	☐	☐	

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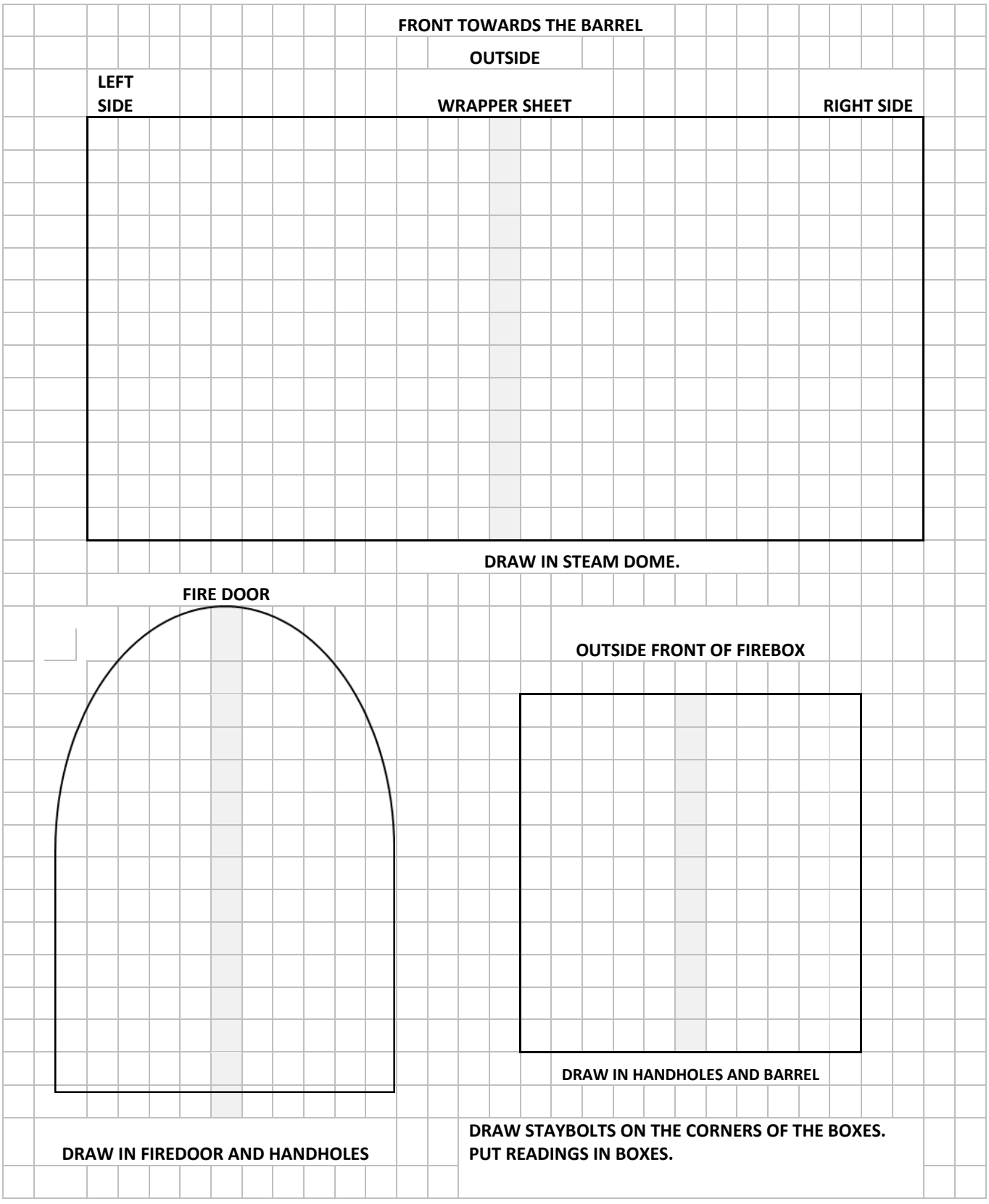

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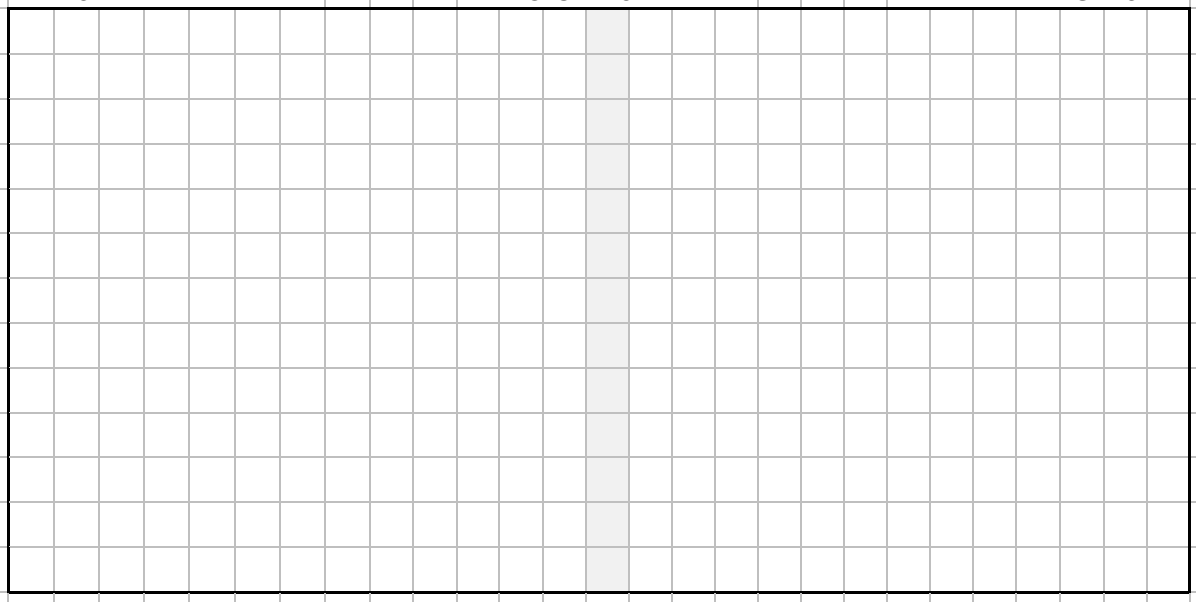
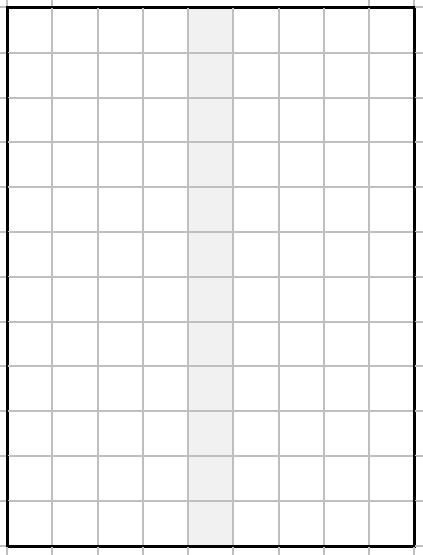
FRONT TOWARDS THE BARREL

INSIDE FIREBOX

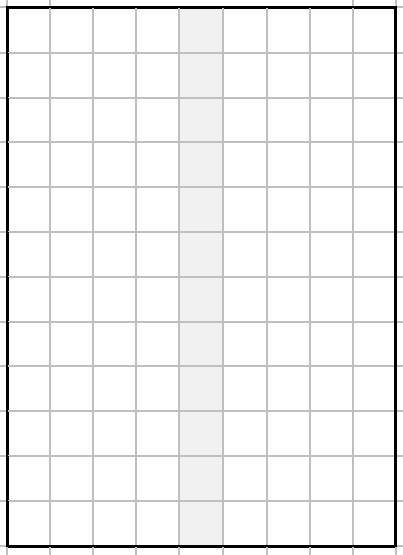
LEFT SIDE CROWN SHEET RIGHT SIDE



INSIDE FIREDOOR WALL



INSIDE FRONT OF FIREBOX



DRAW IN FIREDOOR AND HANDOLES

DRAW IN BARREL

DRAW STAYBOLTS ON CORNERS OF THE GRAPH. WRITE READINGS IN BOXES.

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