

Tests of ¹²Steel Plates and Rivets to be used in the construction of Boilers to be made by Messrs J. Richardson & Sons of Hartlepool, for Messrs Irvine & Co's Vessel No. 34 Port West Hartlepool 1880

No.	MAKERS OF STEEL.	DATE OF TEST.	WHERE TESTED.	TENSILE TESTS OF PLATES.											TEMPER TESTS OF PLATES.				SHEARING TESTS OF RIVETS.								
				Purpose intended for.	Number of Plates Selected from.	Surveyor's Mark on Plate, and Test-piece.	Dimensions of Test-piece.			Ultimate Stress.		Contraction of Area at Fracture.	Stress Per Sq. Inch of Fractured Area.	Extension.		No. of Test.	For what purpose intended.	Dimensions.		Required Curve.	RESULTS.	No. of Test.	Diamtr. of Rivet.	Area of Rivet.	Ultimate Stress.		SKETCH OF JOINT AND REMARKS.
							Br'dth.	Thick- ness.	Area.	Total.	Per Square Inch.			In Sin.	Per Cent.			Br'dth.	Thick- ness.						Total.	Per Sq. Inch.	
							Inches.	Inches.	Sq. Ins.	Tons.	Tons.	Per Cent.	Tons.	Inches.		Inches.	Inches.				Inches.	Sq. Inches.	Tons.	Tons.			
1	Messrs The Steel	1880	Steel Company's	Fire box		R	1.23	.39	.48	13.54	28.2				28.1	2616				Satisfactory							
2	Comp ^y of Scotland	"	Works, Gt. Brit.	"			1.14	.43	.49	14.4	30.0				26.5	1033				"							
3	Limt.	"	"	"			1.22	.42	.504	14.8	29.3			Rej	16.4 x	789				"							
4	"	"	"	"			1.2	.455	.546	11.45	20.9		(bad sample)	Rej	7.8 x	1332				"							
5	"	14/12	"	Back tube pt.			1.22	.54	.817	25.	30.6			Rej	14.8	3809 x 2				"							
6	"	23/12	"	"			1.25	.705	.881	22.9	26.0				25.7	5752				"							
7	"	30/12	"	Fire box			1.24	.44	.558	15.4	24.5				23.4 x	455				"							
8	"	"	"	"			1.275	.45	.573	15.8	24.5				20.3 x	1146				"							
9	"	15/12	J. Blecham	Furnace Crown			.84	.505	.424	12.1	28.4				23.0	1182				"							
																1481				"							
																1637				"							

Note - The results of tests on samples Nos. 1134, 1190 and 1143, being unsatisfactory the plates represented were rejected.

The plates sent from Blecham were all annealed, the test pieces being treated similarly.

MM
3.3.81

Invoice 37 ss

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