

Sunderland report No 14105. S.S. "Federation".

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

No. 3441.

## TESTS OF BOILER STEEL.

Tests of 11 Steel Bars manufactured by Messrs D. Colville & Sons of Motherwell for Boiler No. 346/D to be constructed by Messrs The North Eastern Marine Engineering Co. Sunderland for

Date first visit July 30<sup>th</sup> 1886 last visit No. of visits

The specified in the accompanying copy of Advice Notes were rolled from charges. The tensile test has been applied to 2 samples as set forth below, and the temper and bending tests to a piece from each bar.

No.	Purpose.	Charge Mark.	No. of plates or bars in same charge	Mark on plate and test piece.	Dimensions.			Ultimate Stress.		Exten. in 8 ins.	Remarks.
					Thickn.	Brdth.	Area.	Total.	Sq. Inch.		
					Ins.	Ins.	Ins.	Tons.	Tons.	%	
1	Round Bar 1 3/4 Dia D518			28	1.26	Dia	1.247	37.12	29.7	26.5	
2	" " " " "			29	1.26	"	1.247	34.94	28.0	28.0	

Fee ..... £ : :

Expenses £ : :

£ : :

To be paid by

A. M. Doue

Surveyor, Lloyd's Register,

Glasgow

16.8.86