

The words FORGINGS or CASTINGS, IRON or STEEL, should be struck out as may be required.

Received at

Office,

18

Lloyd's Register of British and Foreign Shipping.

(Report on Machinery, No. 20216 Port Newcastle)

No. 640A ENGINE FORGINGS OR CASTINGS.

I have to report that the Iron or Steel Forgings or Castings, as herein described, manufactured by John Spencer & Sons of Newburn on Tyne for the Engines No. being constructed by

of S.S. "Charles Howard" for the Ship No. being built by

S.S. "Charles Howard" of Sunderland have been inspected by me as set forth below, and found to be, so far as can be seen, sound and good

Mark on Forgings.

Lloyd's

No. 640A
P.S. 2.87

Survey fee £ 1-1
Expenses 0-4-4

P. M. Salmon.

Sunderland.

	CRANK SHAFT.	STRAIGHT SHAFTING.		
		THRUST SHAFT.	INTERMEDIATE SHAFTS.	PROPELLER SHAFT.
Material* - - -	crank pin & web of cast steel (B. M. process)			
How made - - -	body of crank pin cast & forged			
Dimensions - - -	9 1/2" diam.			
Progress on Inspection - - -	cast & finished			
Dates when Inspected - - -	4, 14, 19, 22, 24 Feb 1887			

PARTICULARS OF TESTS APPLIED TO CASTINGS:-

Tensile tests.

Mark on test piece	Length	Diam.	Ultimate Stress in Tons	% Elongation	Appearance of fracture
WA 90	5"	757"	30.2	14.8	Silky
WA 90	5"	754"	29.2	23.0	dl

Cold bending tests

Mark on test piece	Length	Dimensions	Angle passed through	Remarks
WA 90	8"	1 1/4 square	90°	Not broken
WA 90	8"	1 1/4 square	90°	Not broken

* If of iron, state whether scrap or puddled iron. If of steel, state whether made on the Bessemer or the Siemens-Martin process.