

Rpt. 5a.

REPORT ON BOILERS.

No. 67297

WED. MAR. 13. 1912

Date of writing Report 11th Mar. 1912 When handed in at Local Office 11 MAR 1912 Port of LIVERPOOL

No. in Survey held at Liverpool

Date, First Survey 6 Sept 11, Last Survey 5th Mar. 1912

Reg. Book.

367 on the Auxiliary Boiler of the STEEL S.S. "AKAIBO"

(Number of Visits 11.) Gross 3814
Tons Net 2423

Master

Built at Middlesbrough By whom built J. H. Dixon & Co. Ltd. When built 1902-4

Engines made at Hartlepool

By whom made Richardsons, Walsgate & Co. Ltd. when made 1902

Boilers made at Liverpool

By whom made D. Rollo & Son. when made 1911

Registered Horse Power 436

Owners (The Dumbarton & Co. Ltd. Mgrs. Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel The Steel Company of Scotland Ltd.

(Letter for record S.) Total Heating Surface of Boilers 1610 sq ft Is forced draft fitted yes No. and Description of

Boilers One cylindrical multitubular Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 8-12-11

No. of Certificate 1948 Can each boiler be worked separately yes Area of fire grate in each boiler 33.66 sq ft No. and Description of

safety valves to each boiler two, spring loaded Area of each valve 5.94 sq in Pressure to which they are adjusted 180 lb.

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork 20 in Mean dia. of boilers 12'-0" Length 11'-11"

Material of shell plates Steel Thickness 1 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams D.R. L. long. seams T.R. D.B.S. Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 8 1/16

Top of plates or width of butt straps 16 3/4 Per centages of strength of longitudinal joint rivets 83.63 plate 86.04 Working pressure of shell by

rules 198.5 Size of manhole in shell 16" x 12" Size of compensating ring 8" x 1 3/32 No. and Description of Furnaces in each

boiler One Monom. Anfractu. Material Steel Outside diameter 3'-8 1/4 Length of plain part top 37'-9 bottom 37'-9 Thickness of plates crown 3 17/32 bottom 3 17/32

Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 184.9 Combustion chamber

plates: Material Steel Thickness: Sides 9/16 Back 19/32 Top 9/16 Bottom 7/8 Pitch of stays to ditto: Sides 8" x 7 1/2 Back 8 3/8 x 7 1/2

Top 7 1/2 x 7 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181.5 Material of stays Steel AREA Diameter at

smallest part 1.45 Area supported by each stay 62.8 Working pressure by rules 184 End plates in steam space: Material Steel Thickness 1 1/16

Pitch of stays 18 1/2 x 14 How are stays secured D.N. Working pressure by rules 197.8 Material of stays Steel AREA Diameter at smallest part 6.1

Area supported by each stay 259 Working pressure by rules 244 Material of Front plates at bottom Steel Thickness 1 3/16 Material of

Lower back plate Steel Thickness 1 3/16 Greatest pitch of stays 13 1/2 x 8 3/8 Working pressure of plate by rules 180.7 Diameter of tubes 2 1/2

Pitch of tubes 3 3/4 x 3 3/8 Material of tube plates Steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays 8 3/16 Pitch across wide

water spaces 13 1/2 Working pressures by rules 252 lb. Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 8 1/4 x 13 1/8 Length as per rule 30 3/32 Distance apart 7 Number and pitch of Stays in each 3 @ 7 1/2

Working pressure by rules 183 Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

The foregoing is a correct description,

J. H. Howie

Manufacturer.

Dates of Survey During progress of work in shops - - - while During erection on board vessel - - - building

1911. Sept 6. Oct 4. 9. 13. 26. Nov 11. Is the approved plan of boiler forwarded herewith Rpt. No. 66999.
14. 30. Dec 8. Mch 1. 5. Total No. of visits 11.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey. The material and workmanship are of good description.

Survey Fee ... £ 4 : 4 :

Travelling Expenses (if any) £ :

When applied for

When received

11 MAR 1912

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

LIVERPOOL. 12 MAR 1912

Assigned

See report attached

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