

REPORT ON BOILERS.

No. 41414

Received at London Office 12 OCT. 1921

Date of writing Report 10.10.1921 When handed in at Local Office 10.10.1921 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 1st Dec. 1919 Last Survey 3rd Oct 1921

Boat, Book, on the Twin screw motor vessel "MALIA" (Number of Visits 44) Gross Tons 3872 Net Tons 2339

Builder Built at Glasgow By whom built W. Hamilton & Co (No 377) When built 1921

Engines made at Glasgow By whom made Cammell Laird & Co When made 1921

Boiler made at Glasgow By whom made D. Rowan & Co (No 743) When made 1921

Registered Horse Power Owners J. & J. Brocklebank Port belonging to Liverpool

MULTITUBULAR BOILERS—

~~MANUFACTURED BY~~ OR DONKEY.—Manufacturers of Steel J. Colville & Sons W. Beardmore & Co. Ltd.

Number for record 5 Total Heating Surface of Boilers 1201 sq ft Is forced draft fitted No No. and Description of Boilers 1 Single ended multitubular Working Pressure 120 lbs Tested by hydraulic pressure to 240 Date of test 1-10-20

Area of fire grate in each boiler Oil fuel No. and Description of Safety valves to each boiler Two spring loaded Area of each valve 5.9 sq in Pressure to which they are adjusted 120 lbs

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

Smallest distance between boilers 18" casing and bunkers or woodwork 18" dia. of boilers 12'-0" Length 9'-6"

Material of shell plates S Thickness 23/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged No

Direction of riveting: cir. seams L.D.R. long. seams T.R. All Stays Diameter of rivet holes in long. seams 7/8" Pitch of rivets 5 5/8"

Width of butt straps 14" Per centages of strength of longitudinal joint rivets 88.4 plate 84.4 Working pressure of shell by rules 122 lbs

Size of manhole in shell 16" x 12" Size of compensating ring 30" x 26" x 7/8" No. and Description of Furnaces in each No. 2 Two plain Material S Outside diameter 45 9/16" Length of plain part top 5-10 3/4" bottom 6'-3 7/8" Thickness of plates crown 19/32 bottom 19/32

Description of longitudinal joint Weld No. of strengthening rings None Working pressure of furnace by the rules 123 Combustion chamber Material S Thickness: Sides 9/16" Back 17/32" Top 9/16" Bottom 11/16" Pitch of stays to ditto: Sides 9 3/4" x 9" Back 8" x 8 7/8"

If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 125 lbs Material of stays Iron Area at largest part 1.48 sq ft Area supported by each stay 70 sq in Working pressure by rules 125 lbs End plates in steam space: Material S Thickness 1 1/16"

How are stays secured S. nuts Working pressure by rules 121 lbs Material of stays S Area at smallest part 4.9 sq ft

Area supported by each stay 360 sq in Working pressure by rules 140 lbs Material of Front plates at bottom S Thickness 13/16" Material of rear back plate S Thickness 21/32" Greatest pitch of stays 13 Working pressure of plate by rules 128 Diameter of tubes 3"

Material of tube plates S Thickness: Front 13/16" Back 11/16" Mean pitch of stays 11 9/16" Pitch across wide spaces 14" Working pressures by rules 130 lbs Girders to Chamber tops: Material S Depth and thickness of girder at centre 7" x 1 1/4" Length as per rule 28 25/32" Distance apart 9" Number and pitch of Stays in each 2 @ 9 3/4"

Working pressure by rules 133 lbs Steam dome: description of joint to shell Yes % of strength of joint Yes

Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes

Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

Superheater. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Pressure to which each is adjusted Yes Is Easing Gear fitted Yes

VERTICAL DONKEY BOILER—

No. Description Manufacturers of steel

By whom made When made Where fixed Working pressure

by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Description of joint Working pressure of furnace by rules Thickness of furnace crown

Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,

D. Rowan & Co. Ltd. Manufacturer.

See accompanying Machinery report

During progress of work in shops --

During erection on board vessel --

Total No. of visits 44

Is the approved plan of main boiler forwarded herewith

" " " donkey " "

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

This boiler has been built under Special Survey and in accordance with the Rules, on completion it was tested by water pressure to 240 lbs per sq. in. and found satisfactory in all respects: it has been fitted on board in a satisfactory manner, tried under working conditions and found efficient. It has been fitted to burn Oil fuel. (F.P. above 150°F) in a satisfactory manner: the requirements of Section 49 of the Rules have been complied with.

The amount of Entry Fee .. £ :
 Special .. £ 8 0 :
 Donkey Boiler Fee .. £ :
 Travelling Expenses (if any) £ :

When applied for.
 11.10.21

When received.
 13.10.21

GLASGOW

11 OCT 1921

Committee's Minute

Assigned

See accompanying mach^y report

Engineer Surveyor to Lloyd's Register of Shipping

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