

REPORT ON BOILERS.

No. 44074

Received at London Office 15 OCT 1924

Date of writing Report 10th Oct. 1924 When handed in at Local Office 13. 10. 1924 Port of Glasgow.

No. in Survey held at Glasgow. Date, First Survey 31. 7. 1924 Last Survey 4. 10. 1924

Reg. Book. on the Main Boiler for S/S. BERYL (Number of Visits 13) Gross Tons Net

Master Built at Troon. By whom built Ailsa Shipbuilding Co. Ltd. When built

Engines made at By whom made When made

Boilers made at Glasgow. By whom made The Forth S. B & E. Co. (1921) Ltd. When made 1924

Registered Horse Power 108 Owners Port belonging to

B/810 5.390

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

(Letter for record S.) Total Heating Surface of Boilers 1627 sq. ft. Is forced draft fitted No. No. and Description of Boilers One Cyl. Single end. Working Pressure 180 lb. Tested by hydraulic pressure to 320 lb. Date of test 4. 10. 24

No. of Certificate 16627 Can each boiler be worked separately Area of fire grate in boiler 50 sq. ft. No. and Description of safety valves to each boiler

Are they fitted with easing gear 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 Int. Main dia. of boilers 13'-6" Length 10'-6"

Material of shell plates S. Thickness 1/8" Range of tensile strength 28/32 T. Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams L.D.R. long. seams DBS/7R. Diameter of rivet holes in long. seams 13/16" Pitch of rivets 8/8"

width of butt straps 17/2" Per centages of strength of longitudinal joint rivets 85.37 Working pressure of shell by rules 18/4th. Size of manholes in shell 18 3/4" x 14 3/4" Size of compensating ring 33 x 29 x 1 1/8" No. and Description of Furnaces in each boiler 3 Brighton Material S. Outside diameter 44 1/4" Length of plain part top bottom Thickness of plates crown bottom 17/32"

Description of longitudinal joint Weld. No. of strengthening rings Working pressure of furnace by the rules 186 lb. Combustion chamber plates: Material S. Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 3/4" Pitch of stays to ditto: Sides 10 x 8" Back 10 x 8"

Top 9 x 8" If stays are fitted with nuts or riveted heads nuts. Working pressure by rules 183 lb. Material of stays S. Area at smallest part 73 sq. in. Area supported by each stay 80 sq. in. Working pressure by rules 188 lb. End plates in steam space: Material S. Thickness 13/32"

Pitch of stays 18 x 17" How are stays secured D.N. Working pressure by rules 183 lb. Material of stays S. Area at smallest part 5.27 sq. in. Area supported by each stay 306 sq. in. Working pressure by rules 186 lb. Material of Front plates at bottom S. Thickness 13/16" Material of Lower back plate S. Thickness 27/32" Greatest pitch of stays 4 3/8" x 8" Working pressure of plate by rules 212 lb. Diameter of tubes 3 1/2" Ex.

Pitch of tubes 4 3/4" Material of tube plates S. Thickness: Front 13/16" Back 25/32" Mean pitch of stays 11 7/8" x 8 3/4" Pitch across wide water spaces 14 1/2" Working pressures by rules 183 lb. Girders to Chamber tops: Material S. Depth and thickness of girder at centre 9 x 15 5/8" Length as per rule 33 1/16" Distance apart 9" Number and pitch of Stays in each 3 @ 8"

Working pressure by rules 212 lb. Steam dome: description of joint to shell none % of strength of joint

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

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type none Date of Approval of Plan Tested by Hydraulic Pressure to

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

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

VERTICAL DONKEY BOILER—No. Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

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

No. of 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

Lap of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates

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

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

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

Thickness of water tubes

The foregoing is a correct description, FOR THE FORTH SHIPBUILDING & ENGINEERING CO. (LINDSAY BURNET'S BOILER WORKS) Manufacturer.

Annual Survey Request. Dates of Survey while building

During progress of work in shops 1924 July 31 Aug 7. 13. 18. 21. 25 Sep 3. 11. 15 22 30 Oct 3. 4. During erection on board vessel Total No. of visits 13.

Is the approved plan of main boiler forwarded herewith " " " donkey " "

Sent to Lloyd's Register Foundation

002568-002576-0106

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been constructed under Special Survey in accordance with the Rules and approved plan. The materials and workmanship employed in its manufacture are sound and good.*

It will be fitted on board the vessel at Troon.

This boiler was securely fitted on board and tried under steam with satisfactory results

*A. L. G.
13/10/24*

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Entry Fee .. £	:	:	When applied for,
Special (Boiler) .. £ 10 : 16	:	:	14.10.24
Donkey Boiler Fee .. £	:	:	When received,
Travelling Expenses (if any) £	:	:	20.10.24

M. Lane

Engineer Surveyor to Lloyd's Register of Shipping.

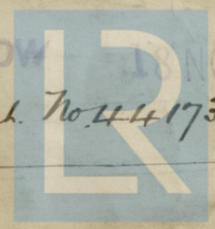
Committee's Minute
Assigned

GLASGOW 14 OCT 1924

TRANSMIT TO LONDON

W. M. G. G.

See G. R. No. 44173



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