Rpt. 5a.

REPORT ON BOILERS. No. 17809

Date of writing Report 11 - 3 - 1938 When handed in at Local Office 18 - 3 - 1938 Received at London Office MAR 19 1938 Port of West Hartlepool

No. in Reg. Book. Survey held at Hartlepool Date, First Survey 8th February, Last Survey 9th March, 1938

on the S.S. "Italian Prince" (Number of Visits 18) Tons { Gross 3478 / Net 1782

Master Built at Haverton Hill-on-Tees By whom built Furness S. B. Co Ltd Yard No. When built 1921-5-mo

Engines made at Sunderland By whom made Richardsons Westgarth & Co Ltd Engine No. When made 1921

Boilers made at By whom made Boiler No. When made

Nominal Horse Power 538 Owners Prince Line Ltd. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Total Heating Surface of Boilers *Is forced draught fitted* *(Letter for Record* *Coal or Oil fired*

No. and Description of Boilers **Working Pressure**

Tested by hydraulic pressure to *Date of test* *No. of Certificate* *Can each boiler be worked separately*

Area of Firegrate in each Boiler *No. and Description of safety valves to each boiler*

Area of each set of valves per boiler { *per Rule* / *as fitted* } *Pressure to which they are adjusted* *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 *Is oil fuel carried in the double bottom under boilers*

Smallest distance between shell of boiler and tank top plating *Is the bottom of the boiler insulated*

Largest internal dia. of boilers *Length* **Shell plates:** *Material* *Tensile strength*

Thickness *Are the shell plates welded or flanged* *Description of riveting: circ. seams* { *end* / *inter.* }

long. seams *Diameter of rivet holes in* { *circ. seams* / *long. seams* } *Pitch of rivets* { }

Percentage of strength of circ. end seams { *plate* / *rivets* } *Percentage of strength of circ. intermediate seam* { *plate* / *rivets* }

Percentage of strength of longitudinal joint { *plate* / *rivets* / *combined* } *Working pressure of shell by Rules*

Thickness of butt straps { *outer* / *inner* } **No. and Description of Furnaces in each Boiler**

Material *Tensile strength* *Smallest outside diameter*

Length of plain part { *top* / *bottom* } *Thickness of plates* { *crown* / *bottom* } *Description of longitudinal joint*

Dimensions of stiffening rings on furnace or c.c. bottom *Working pressure of furnace by Rules*

End plates in steam space: *Material* *Tensile strength* *Thickness* *Pitch of stays*

How are stays secured *Working pressure by Rules*

Tube plates: *Material* { *front* / *back* } *Tensile strength* { } *Thickness* { }

Mean pitch of stay tubes in nests *Pitch across wide water spaces* *Working pressure* { *front* / *back* }

Girders to combustion chamber tops: *Material* *Tensile strength* *Depth and thickness of girder*

at centre *Length as per Rule* *Distance apart* *No. and pitch of stays*

in each *Working pressure by Rules* **Combustion chamber plates:** *Material*

Tensile strength *Thickness: Sides* *Back* *Top* *Bottom*

Pitch of stays to ditto: Sides *Back* *Top* *Are stays fitted with nuts or riveted over*

Working pressure by Rules **Front plate at bottom:** *Material* *Tensile strength*

Thickness **Lower back plate:** *Material* *Tensile strength* *Thickness*

Pitch of stays at wide water space *Are stays fitted with nuts or riveted over*

Working Pressure **Main stays:** *Material* *Tensile strength*

Diameter { *At body of stay,* / *or* / *Over threads* } *No. of threads per inch* *Area supported by each stay*

Working pressure by Rules **Screw stays:** *Material* *Tensile strength*

Diameter { *At turned off part,* / *or* / *Over threads* } *No. of threads per inch* *Area supported by each stay*

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

[Tm.3,38.—Copyable Ink.]

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Working pressure by Rules — Are the stays drilled at the outer ends — Margin stays: Diameter {At turned off part. / or / Over threads}

No. of threads per inch — Area supported by each stay — Working pressure by Rules

Tubes: Material — External diameter {Plain / Stay} — Thickness {} — No. of threads per inch

Pitch of tubes — Working pressure by Rules — **Manhole compensation:** Size of opening in shell plate

Section of compensating ring — No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends — Depth of flange if manhole flanged — **Steam Dome:** Material

Tensile strength — Thickness of shell — Description of longitudinal joint

Diameter of rivet holes — Pitch of rivets — Percentage of strength of joint {Plate / Rivets}

Internal diameter — Working pressure by Rules — Thickness of crown — No. and diameter of stays

Inner radius of crown — Working pressure by Rules

How connected to shell — Size of doubling plate under dome — Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Smoke tube — Manufacturers of {Tubes Superheater Co Ltd. / Steel forgings do. / Steel castings}

Number of elements 6 each boiler — Material of tubes solid drawn steel — Internal diameter and thickness of tubes 15 mm. 2½ mm.

Material of headers steel. — Tensile strength — Thickness — Can the superheater be shut off and the boiler be worked separately Yes. — Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes.

Area of each safety valve 1·76 sq/ins. — Are the safety valves fitted with easing gear Yes. — Working pressure as per Rules 180 lbs. — Pressure to which the safety valves are adjusted 190 lbs. — Hydraulic test pressure: tubes 1,000 lbs sq/in forgings and castings 540 lbs sq/in and after assembly in place 540 lbs sq/in — Are drain cocks or valves fitted to free the superheater from water where necessary Yes.

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with ✓

The foregoing is a correct description,

— Manufacturer.

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

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case ✓ If so, state Vessel's name and Report No. ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Smoke tube superheaters fitted to port and starboard main boilers. Tested by hydraulic pressure 540 lbs per sq inch after assembly in place and finally examined under working conditions and found satisfactory.

Survey Fee ... ... £ : : } When applied for, 19

Travelling Expenses (if any) £ : : } When received, 19

L. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned