

REPORT ON BOILERS.

No. 23400.

Received at London Office

30 OCT 1946

Date of writing Report 21st OCT. 1946. When handed in at Local Office 24th OCT. 1946. Port of GREENOCKNo. in Survey held at
Reg. Book.

GREENOCK

Date, First Survey 16th MAY. 1946. Last Survey 11-10-46 19

on the

SING SC.

JALARAJAN

(Number of Visits 37.)

Gross
Tons
Net

Built at Port GLASGOW

By whom built

LITHGOWS LTD

Yard No. 1015. When built 1946

Engines made at GREENOCK

By whom made

JOHN G. KINCAID & CO. LTD

Engine No. 773 When made 1946

Boilers made at GREENOCK

By whom made

do

Boiler No. 773 When made 1946

Nominal Horse Power 575 HP.

Owners

SCINDIA STEAMSHIPS (LONDON) LTD

Port belonging to BOMBAY

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

COLVILLE LTD

(Letter for Record S)

Total Heating Surface of Boilers

8715^{ft} ✓

Is forced draught fitted 40 ✓

Coal or Oil fired Coal

No. and Description of Boilers

3 S.E. multitubular ✓

Working Pressure 220 lb ✓

Tested by hydraulic pressure to

380 ✓

Date of test

6-8-46
13-8-46
19-8-46

No. of Certificate

2431
2432
2433

Can each boiler be worked separately 40 ✓

Area of Firegrate in each Boiler

67.5 ✓

No. and Description of safety valves to each boiler

1 Double opening 144. ✓

Area of each set of valves per boiler

per Rule

7.73 ✓

as fitted

7.96 ✓

Pressure to which they are adjusted

225 lb ✓

Are they fitted with easing gear 40 ✓

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

1'-11" ✓

Is oil fuel carried in the double bottom under boilers No ✓

Smallest distance between shell of boiler and tank top plating

2'-1" ✓

Is the bottom of the boiler insulated 40 ✓

Largest internal dia. of boilers

15'-6" ✓

Length

12'-6" ✓

Shell plates: Material

S

Tensile strength

29/33 tons ✓

Thickness

1/2" ✓

Are the shell plates welded or flanged

No ✓

Description of riveting: circ. seams

end DR

inter. ✓

long. seams

TRDBS ✓

Diameter of rivet holes in

circ. seams

1/2" ✓

long. seams

1/2" ✓

Pitch of rivets

4.207" ✓

10.25" ✓

Percentage of strength of circ. end seams

plate

64.4

rivets

44.3

Percentage of strength of circ. intermediate seam

plate

85.3

rivets

✓

Percentage of strength of longitudinal joint

plate

85.3

rivets

87.7

combined

Thickness of butt straps

outer

1 5/32" ✓

inner

1 9/32" ✓

No. and Description of Furnaces in each Boiler

3 Morison corrugated ✓

Material

S ✓

Tensile strength

26/30 tons ✓

Smallest outside diameter

3'-10 9/16" ✓

Length of plain part

top

✓

bottom

Thickness of plates

crown

25/32 ✓

bottom

✓

Description of longitudinal joint

Weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓

End plates in steam space: Material

S ✓

Tensile strength

26/30 tons ✓

Thickness

1 3/8" ✓

Pitch of stays

21 1/2" ✓

How are stays secured

DN & loose washers ✓

Tube plates: Material

front

S ✓

back

✓

Tensile strength

26/30 tons ✓

Thickness

7/8" ✓

13/16" ✓

Mean pitch of stay tubes in nests

8.69" ✓

Pitch across wide water spaces

1-1/2" ✓

Girders to combustion chamber tops: Material

✓

Tensile strength

29/33 tons ✓

Depth and thickness of girder

at centre

11" 1 7/8" ✓

Length as per Rule

3'-5 1/2" ✓

Distance apart

10" ✓

No. and pitch of stays

in each

4 @ 8" ✓

Combustion chamber plates: Material

Tensile strength

26/30 tons ✓

Thickness: Sides

23/32 ✓

Back

1 1/16" ✓

Top

23/32 ✓

Bottom

27/32 ✓

Pitch of stays to ditto: Sides

8" x 10" ✓

Back

8 5/8" x 8 5/8" ✓

Top

8" x 10" ✓

Are stays fitted with nuts or riveted over Nuts ✓

Front plate at bottom: Material

S ✓

Tensile strength

26/30 tons ✓

Thickness

7/8" ✓

Lower back plate: Material

S ✓

Tensile strength

26/30 tons ✓

Thickness

27/32 ✓

Pitch of stays at wide water space

13 1/2" x 8 5/8" ✓

Are stays fitted with nuts or riveted over

Nuts

Main stays: Material

S ✓

Tensile strength

28/32" ✓

Diameter

At body of stay,

or

Over threads

3 3/8" ✓

No. of threads per inch

6 ✓

Screw stays: Material

W. I. ✓

Tensile strength

21.5 tons ✓

Diameter

At turned off part,

or

Over threads

1 3/4" ✓

No. of threads per inch

9 ✓

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Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, or Over threads 1 7/8" ✓
No. of threads per inch 9 ✓
Tubes: Material S ✓ External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 5/16" ✓ 3/8" ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 3/4" x 3 3/4" ✓ Manhole compensation: Size of opening in shell plate 16 1/2" x 20 1/2" ✓ Section of compensating ring 3 1/2" x 2 9/16" x 1 1/2" ✓ No. of rivets and diameter of rivet holes 42 @ 1 7/8" ✓
Outer row rivet pitch at ends 10 3/8" ✓ Depth of flange if manhole flanged 3 1/4" ✓ M. Neil type door ✓ 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 _____ Thickness of crown _____ No. and diameter of stays _____
How connected to shell _____ Inner radius of crown _____
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

Manufacturers of

Tubes
Steel forgings
Steel castings

Number of elements _____ Material of tubes _____ Internal diameter and thickness of tubes _____
Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and the boiler be worked separately _____
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____
Area of each safety valve _____ Are the safety valves fitted with casing gear _____
Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: _____
tubes _____ forgings and castings _____ and after assembly in place _____
Are drain cocks or valves fitted to free the superheater from water where necessary _____

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

The foregoing is a correct description.
For JOHN G. KINCAID & CO., LIMITED.
H. M. Gemmell Chief of Technical Staff

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith yes (If not state date of approval.)
while building { During erection on board vessel - - - } Total No. of visits _____

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

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

These boilers have been constructed in accordance with the Rules & approved plans
The materials & workmanship are sound & good. The safety valves have been adjusted under steam to a safe working pressure 226 lbs/sq in
For recommendations please see machinery report

Survey Fee ... £ : : When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

SEE ACCOMPANYING MACHINERY REPORT



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