

REPORT ON BOILERS.

No. 102988

Received at London Office

28 JUN 1945

Date of writing Report 6. 7. 1945 When handed in at Local Office 6. 7. 1945 Port of NEWCASTLE-ON-TYNE.

No. in Survey held at NEWCASTLE-ON-TYNE.

Date, First Survey (1944) May 22 Last Survey July 2nd 1945

on the TANKER. S/S 'REGENT HAWK'.

(Number of Visits 92) Tons { Gross 8169 Net 4644

Built at NEWCASTLE. By whom built SWAN HUNTER & WIGHAM RICHARDSON. Yard No. 1701 When built 1945.

Engines made at NEWCASTLE. By whom made SH&WR. Engine No. 1776 When made 1945

Boilers made at NEWCASTLE. By whom made SH&WR. Boiler No. 1776 When made 1945.

Nominal Horse Power 617. Owners TRINIDAD LEASEHOLDS LIMITED. Port belonging to LONDON.

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY.~~

Manufacturers of Steel THE STEEL COMPANY OF SCOTLAND. (Letter for Record S.)

Total Heating Surface of Boilers 9990 sq. ft. Is forced draught fitted YES. Coal or Oil fired OIL.

No. and Description of Boilers 3 - SINGLE ENDED MULTITUBULAR. Working Pressure 220 lbs/sq. in.

Tested by hydraulic pressure 380 lbs/sq. in. Date of test 3. 31. 1. 45. No. of Certificate 9. 1140. Can each boiler be worked separately YES.

Area of Firegrate in each Boiler OIL FIRED. No. and Description of safety valves to each boiler 1 - COCKBURNS IMPROVED HIGH LIFT TYPE.

Area of each set of valves per boiler (per Rule 8.47 sq. in. as fitted 9.8 sq. in.) Pressure to which they are adjusted 220 lbs/sq. in. Are they fitted with easing gear YES.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler NO.

Smallest distance between boilers or uptakes and bunkers or woodwork 9". Is oil fuel carried in the double bottom under boilers YES.

Smallest distance between shell of boiler and tank top plating 2'-1". Is the bottom of the boiler insulated YES.

Largest internal dia. of boilers 16'-3". Length 11'-11/32". Shell plates: Material STEEL. Tensile strength 31/35 T.

Thickness 1 15/32". Are the shell plates welded or flanged NO. Description of riveting: circ. seams { end D.R. inter. ✓

long. seams TR. D.B.S. Diameter of rivet holes in { circ. seams 1 9/16". Pitch of rivets { 4.6 long. seams 1 9/16". 10 7/16".

Percentage of strength of circ. end seams { plate 66.03. rivets 42.11. Percentage of strength of circ. intermediate seam { plate 65.02. rivets 87.00.

Percentage of strength of longitudinal joint { plate 65.02. rivets 87.00. combined 87.45.

Thickness of butt straps { outer 1 1/8". inner 1 1/4". No. and Description of Furnaces in each Boiler 3 - DEIGHTON TYPE.

Material STEEL. Tensile strength 26/30 T. Smallest outside diameter 4'-1 1/8".

Length of plain part { top 6". bottom 6". Thickness of plates { crown 3/4". bottom 3/4". Description of longitudinal joint FIRE WELD.

Dimensions of stiffening rings on furnace or c.c. bottom NO.

End plates in steam space: Material STEEL. Tensile strength 26/30 T. Thickness 1 15/32". Pitch of stays 22" x 18".

How are stays secured SCREWED THRU PLATE & FITTED WITH NUT ON OUTSIDE.

Tube plates: Material { front STEEL. back STEEL. Tensile strength { 26/30 T. Thickness { 1". 27/32".

Mean pitch of stay tubes in nests 8 1/2" x 12 3/4". Pitch across wide water spaces 14" x 4 1/4".

Girders to combustion chamber tops: Material STEEL. Tensile strength 28/32 T. Depth and thickness of girder at centre 10 3/8" x 2 3/4". Length as per Rule 33 15/16". Distance apart 9 3/4". No. and pitch of stays in each 3 @ 8".

Combustion chamber plates: Material STEEL. Tensile strength 26/30 T. Thickness: Sides 23/32". Back 23/32". Top 23/32". Bottom 7/8".

Pitch of stays to ditto: Sides 8" x 9". Back 8 1/2" x 9 1/2". Top 8" x 9 3/4". Are stays fitted with nuts or riveted over ALL BACK & SIDE STAYS NUTTED AT BOTH ENDS EXCEPT STAYS THRU SHELL NUTTED INSIDE ONLY.

Front plate at bottom: Material STEEL. Tensile strength 26/30 T.

Thickness 1". Lower back plate: Material STEEL. Tensile strength 26/30 T. Thickness 1 1/32".

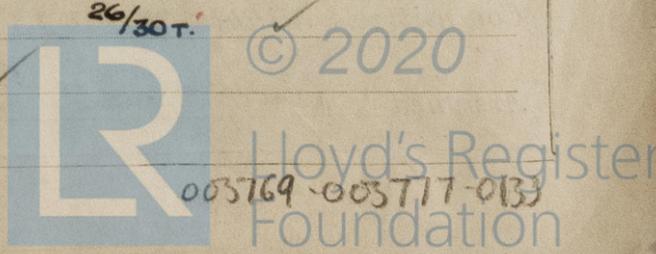
Pitch of stays at wide water space 17 1/4" x 9 3/4". Are stays fitted with nuts or riveted over SCREWED THRU PLATE & FITTED WITH NUT ON OUTSIDE.

Main stays: Material STEEL. Tensile strength 28/32 T.

Diameter { At body of stay, 3 3/4". No. of threads per inch 6. Over threads ✓

Screw stays: Material STEEL. Tensile strength 26/30 T.

Diameter { At turned off part, 1 3/4". No. of threads per inch 9. Over threads ✓



[2m. 4. 8. Copyable Ink.] (MADE AND PRINTED IN ENGLAND)

Are the stays drilled at the outer ends NO. Margin stays: Diameter { At turned off part, 2 1/4", 2 1/8", 2", 1 3/4"
 or Over threads

No. of threads per inch 9. ✓

Tubes: Material SEAMLESS STEEL. External diameter { Plain 3" ✓
 Stay 3" ✓ Thickness { 3/8" ✓, 5/16" ✓ No. of threads per inch 3. ✓

Pitch of tubes 4 1/4" x 4 1/4" ✓ Manhole compensation: Size of opening in shell plate 20" x 16" ✓ Section of compensating ring 2 @ 11" x 1 15/32" ✓ No. of rivets and diameter of rivet holes 38 @ 1 9/16" ✓

Outer row rivet pitch at ends 10 7/16" ✓ Depth of flange if manhole flanged 3" ✓ 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 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 N.E.M. SMOKE TUBE TYPE. ✓ Manufacturers of { Tubes TUBES LTD. ✓
 Steel forgings APPLEBY & FRODINGHAM CO. ✓
 Steel castings

Number of elements 67 PER BOILER. Material of tubes SOLID DRAWN STEEL Internal diameter and thickness of tubes 17 1/4" x 2.5 1/4" ✓

Material of headers FORGED STEEL. ✓ Tensile strength 26/30T. ✓ Thickness 1 5/8" ✓ Can the superheater be shut off and the boiler be worked separately YES. ✓ As a safety valve fitted to every part of the superheater which can be shut off from the boiler YES. ✓

Area of each safety valve 3.97 sq. ft. ✓ Are the safety valves fitted with easing gear YES. ✓

Pressure to which the safety valves are adjusted 220 LBS/SQ. IN. ✓ Hydraulic test pressure: tubes 1500 LBS/SQ. IN. ✓ forgings and castings 660 LBS/SQ. IN. ✓ and after assembly in place 440 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 YES. ✓

The foregoing is a correct description,
 G. J. Jewdy Director Manufacturer.

Dates of Survey { During progress of work in shops - -
 while building { During erection on board vessel - - - } See Machy. report

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 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 under Special Survey in accordance with the approved plans, and the Society's Rules, and the materials and workmanship are good.

The boilers have been efficiently fitted on board, and tested under steam with satisfactory results.

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

Travelling Expenses (if any) £ : : SEE MACHY. RPT. When received, 19

G. J. Jewdy
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Fri, 14 SEP 1945

Assigned See F.E. machy. rpt.