

Rpt. 5a.

REPORT ON BOILERS.

No. 17010.

Received at London Office -3 MAR 1931

Date of writing Report 14/1 1932 When handed in at Local Office 28 2 1031 Port of West Hartlepool
 No. in Reg. Book 1558 Survey held at West Hartlepool Date, First Survey 14-4-32 Last Survey 14-1-32
 on the Boilers to order of Odense Staalstøbs Værft Ved A.P. Møller (Number of Visits 20) Gross 6275.82 Tons Net 3676.03
 Master ✓ Built at Odense By whom built above firm Yard No. 43 When built 1931
 Engines made at Løpenhøgen By whom made 2. Bismarck & Wain Engine No. 1958 When made 1931
 Boilers made at West Hartlepool By whom made Central Marine Eng Works Boiler No. P326 When made 1931
 Nominal Horse Power 242 Owners Lootorg Jensen Port belonging to Tuapse

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel D Colville & Sons Ltd. (Letter for Record S)
 Total Heating Surface of Boilers 3628 sq ft. ✓ Is forced draught fitted yes Coal or Oil fired oil & exhaust gas
 No. and Description of Boilers Two single ended ✓ Working Pressure 150 lbs.
 Tested by hydraulic pressure to 275 lbs. Date of test 6.2.31 No. of Certificate 3790 Can each boiler be worked separately
 Area of Firegrate in each Boiler ✓ 6.6 sq ft. No. and Description of safety valves to each boiler 2 Cockburns improved high lift
 Area of each set of valves per boiler {per Rule 8.25 600# H.S. exhaust gases. as fitted 7.96 Pressure to which they are adjusted 150 lbs. Are they fitted with easing gear yes ✓
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no main boilers.
 Smallest distance between boilers or uptakes and bunkers or woodwork no bunkers or wood. Is oil fuel carried in the double bottom under boilers boilers placed on a platform.
 Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated yes.
 Largest internal dia. of boilers 12'-0" ✓ Length 11'-0" ✓ Shell plates: Material Steel ✓ Tensile strength 29/33 ✓
 Thickness 13/16 ✓ Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams {end DR lap ✓ inter. ✓
 long. seams J.R. D.B.S. ✓ Diameter of rivet holes in {circ. seams 1" ✓ long. seams 15/16 ✓ Pitch of rivets { 3 1/2" ✓ 6 1/2" ✓
 Percentage of strength of circ. end seams {plate 71 rivets 43 Percentage of strength of circ. intermediate seam {plate ✓ rivets ✓
 Percentage of strength of longitudinal joint {plate 85.6 rivets 97 combined 90 Working pressure of shell by Rules 150 lbs.
 Thickness of butt straps {outer 5" ✓ inner 3/4" ✓ No. and Description of Furnaces in each Boiler 2 Deightons ✓
 Material Steel ✓ Tensile strength 26/30 ✓ Smallest outside diameter 34 1/8" ✓
 Length of plain part {top ✓ bottom ✓ Thickness of plates {crown 3/8" ✓ bottom 3/8" ✓ Description of longitudinal joint welded ✓
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 154 lbs.
 End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 1/2" ✓ Pitch of stays 18" x 18" ✓
 How are stays secured Double nuts & washers Working pressure by Rules 178 lbs
 Tube plates: Material {front Steel back Steel Tensile strength { 26/30 ✓ Thickness { 22/32 ✓ 5/8" ✓
 Mean pitch of stay tubes in nests 7 1/4" x 11 1/4" Pitch across wide water spaces 14" x 7 15/16" Working pressure {front 157 lbs. back 160 lbs.
 Girders to combustion chamber tops: Material Steel ✓ Tensile strength 28/32 ✓ Depth and thickness of girder at centre 8 3/4" x 1 1/2" ✓ Length as per Rule 31 3/4" ✓ Distance apart 12" ✓ No. and pitch of stays in each 3 8" ✓ Working pressure by Rules 161 lbs.
 Tensile strength 26/30 ✓ Thickness: Sides 1 1/16" ✓ Back 5/8" ✓ Top 1 1/16" ✓ Bottom 1 1/16" ✓
 Pitch of stays to ditto: Sides 8" x 12 1/2" ✓ Back 9 1/2" x 9 3/8" ✓ Top 8" x 12" ✓ Are stays fitted with nuts or riveted over nuts ✓
 Working pressure by Rules 150 lbs. Front plate at bottom: Material Steel ✓ Tensile strength 26/30 ✓
 Thickness 29/32 ✓ Lower back plate: Material Steel ✓ Tensile strength 26/30 ✓ Thickness 29/32 ✓
 Pitch of stays at wide water space 14" x 9" ✓ Are stays fitted with nuts or riveted over nuts ✓
 Working Pressure 150 lbs. Main stays: Material Steel ✓ Tensile strength 28/32 ✓
 Diameter {At body of stay, 2 3/4" ✓ or Over threads ✓ No. of threads per inch 6 ✓ Area supported by each stay 18" x 18" ✓
 Working pressure by Rules 171 lbs. Screw stays: Material Steel ✓ Tensile strength 26/30 ✓
 Diameter {At turned off part, 1 5/8" ✓ or Over threads ✓ No. of threads per inch 9 ✓ Area supported by each stay 8" x 12 1/2" ✓

Working pressure by Rules 152 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 3/4" Over threads 1 3/4" ✓
No. of threads per inch 9 ✓ Area supported by each stay 9 3/8" x 11 3/4" Working pressure by Rules 165 lb ✓
Tubes: Material Weldless steel External diameter { Plain 2 1/2" ✓ Thickness { 10 W.G. ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 3/4" x 3 5/8" ✓ Working pressure by Rules 175 & 184 lb ✓ Manhole compensation: Size of opening in
shell plate 16" x 20" ✓ Section of compensating ring 20" x 13/16" ✓ No. of rivets and diameter of rivet holes 30 1 1/4" ✓
Outer row rivet pitch at ends 8 3/4" ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material none ✓
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 none Manufacturers of { Tubes 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 easing gear Working pressure as per
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure:
tubes 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 THE CENTRAL MARINE ENGINE WORKS.

(Ed. Gray & Co. Ltd.)

Manufacturer.

MANAGER DIRECTOR C.M.E.W.

Dates of Survey { During progress of work in shops - - - 1930 Dec. 15-16-19-22 Jan 6-8-12-14-16 Are the approved plans of boiler and superheater forwarded herewith Yes
while building { During erection on board vessel - - - 22-26-28-30 Feb 3-6 16-17-19-23-27 (If not state date of approval.)
Total No. of visits 20

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 built under Special Survey and are in accordance with the approved plan. The materials and workmanship are good. On completion they satisfactorily withstood the hydraulic test. The mountings have been examined and tested.

The boilers are being despatched to Odense.

The boilers have been fitted on board the vessel in accordance with the Society's Rules and under the supervision and to the satisfaction of the undersigned. The boilers can be fired both by exhaust gas from the main engine and by fuel oil from an I. Samuel White & Co. oil burning unit. For feeding purposes 2 I.P. Kae. Pumps, 7 1/2" x 5 1/2" x 12" simple, are fitted. The boilers examined under steam and the safety valves adjusted to 150 lbs. Recommend the vessel to have installation of 2 D.B. 150 LBS. in the Register Book.

Strickland

Survey Fee ... 24 ... £ 78 : 4 : 0

When applied for, 2. 3. 1931

Travelling Expenses (if any) £ :

When received, Received 19

Please see London letter C.H. dated 16th March 1931.

SURVEYOR TO LLOYD'S
REGISTER OF SHIPPING

R.D. Shilston.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 2 FEB 1932

Assigned

See F.G. Rpt.



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Lloyd's Register
Foundation