

REPORT ON BOILERS.

No. 55512

8-MAR-1949

Received at London Office

2 MAR 1949

HULL

Date of writing Report 19..... When handed in at Local Office 19..... Port of

No. in Reg. Book. Survey held at Date, First Survey 23. 3. 48 Last Survey 7. 2. 1949

95617 on the Steam Trawler ST. LEANDER". (Number of Visits 17.....) Gross 658 Tons Net 282.

Master Built at Beverley By whom built Cook, Welton & Gemmell, Ltd. Yard No. 799 When built 1949

Engines made at Hull By whom made C. D. Holmes & Co., Ltd. Engine No. 1775 When made -do-

Boilers made at -do- By whom made -do- Boiler No. When made -do-

Nominal Horse Power M.N. 230 Owners T. Hamling & Co., Ltd. Port belonging to Hull

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby-Frodingham Steel Co., Scunthorpe. (Letter for Record S.....)

Total Heating Surface of Boilers 3971 sq. ft. (2831 + Spt. 1140) Is forced draught fitted Yes Coal or Oil fired oil

No. and Description of Boilers One S.E. multitubular Working Pressure 225 lb/sq. in.

Tested by hydraulic pressure to 390 lb. Date of test 10.1.49 No. of Certificate 4318 Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 D. Sp. 3 1/2"

Area of each set of valves per boiler { per Rule approved as fitted 19.2 Pressure to which they are adjusted 230 lb. Are they fitted with easing gear Yes

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 20' Is oil fuel carried in the double bottom under boilers none

Smallest distance between shell of boiler and tank top plating open floor Is the bottom of the boiler insulated No

Largest internal dia. of boilers 16'0" Length 11'0" Shell plates: Material S.M. Steel Tensile strength 31/35 tons

Thickness 1 1/2" Are the shell plates welded or flanged No Description of riveting: circ. seams { end 2 R.L. inter long. seams 3 R.D.B.S. Diameter of rivet holes in { circ. seams 1.15/32" long. seams 1.1/2" Pitch of rivets { 3.7/8" 9.9/16"

Percentage of strength of circ. end seams { plate 62.2% rivets 43.3% Percentage of strength of circ. intermediate seam { plate 84.31% rivets 85.6% combined 85.7%

Percentage of strength of longitudinal joint { plate 85.6% rivets 85.7% Working pressure of shell by Rules -

Thickness of butt straps { outer 1.5/32" inner 1.9/32" No. and Description of Furnaces in each Boiler 3 Deighton type corrugation

Material Steel Tensile strength 26/30 tons Smallest outside diameter 3'11.1/32"

Length of plain part { top bottom Thickness of plates { crown 47/64" bottom Description of longitudinal joint welded

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

End plates in steam space: Material steel Tensile strength 26/30 Thickness 1.17/64" Pitch of stays 18 5/8" x 19 1/4"

How are stays secured double nuts and washers Working pressure by Rules -

Tube plates: Material { front steel back -do- Tensile strength { 26/30 tons -do- Thickness { 31/32" 29/32"

Mean pitch of stay tubes in nests 9 1/2" x 9 1/2" Pitch across wide water spaces 14 1/4" Working pressure { front back 26/30 tons

Girders to combustion chamber tops: Material Steel Tensile strength 29/33 tons Depth and thickness of girder

at centre 9 1/2" 2 @ 7/8" Tk. Length as per Rule 2'10 1/4" Distance apart 9 1/4" No. and pitch of stays

in each 3-8 1/4" Working pressure by Rules - Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 3/4" Back 23/32" Top 23/32" Bottom 15/16"

Pitch of stays to ditto: Sides 9 3/4" x 8 1/4" Back 9 1/8" x 8 5/8" Top 9 1/4" x 8 1/4" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules - Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 31/32" Lower back plate: Material steel Tensile strength 26/30 tons Thickness 29/32"

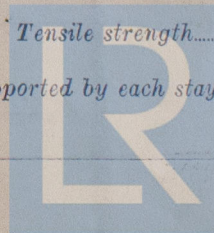
Pitch of stays at wide water space 14 1/4" x 8 5/8" Are stays fitted with nuts or riveted over nuts

Working pressure - Main stays: Material steel Tensile strength 28/32 tons

Diameter { At body of stay 3.3/8" No. of threads per inch 8 Area supported by each stay -

Working pressure by Rules - Screw stays: Material steel Tensile strength 26/30 tons

Diameter { At body of stay 1.3/4" No. of threads per inch 10 Area supported by each stay -



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"ST. LEANDER".

Working pressure by Rules - Are the stays drilled at the outer ends No ✓ Margin stays: Diameter ~~XXXXXXXXXX~~ Over threads 1 7/8" & 2" Rpt. 4
No. of threads per inch 10 ✓ Area supported by each stay - Working pressure by Rules -
Tubes: Material Seamless steel ✓ External diameter { Plain 3 1/2" ✓ Stay 3 1/2" ✓ Thickness 7 W.G. ✓ No. of threads per inch 9 ✓
Pitch of tubes 4 3/4" x 4 3/4" ✓ Working pressure by Rules 7/16" Manhole compensation: Size of opening Reg. B
shell plate 16" x 12" ✓ Section of compensating ring 4' 11 1/4" D x 1 1/2" Tk. ✓ No. of rivets and diameter of rivet holes 106 - 1 1/2" ✓
Outer row rivet pitch at ends 10 3/4" ✓ Depth of flange if manhole flanged 3 1/4" in dome ✓ Steam Dome: Material Steel ✓
Tensile strength 26/30 tons ✓ Thickness of shell 3/4" ✓ Description of longitudinal joint S.R.L. ✓
Diameter of rivet holes 1.1/32" ✓ Pitch of rivets 2.1/4" ✓ Percentage of strength of joint { Plate 54 ✓ Rivets 43.8 ✓
Internal diameter 2' 9" ✓ Working pressure by Rules - Thickness of crown 15/16" ✓ No. and diameter
stays 2-2.3/8" ✓ Inner radius of crown Flat ✓ Working pressure by Rules -
How connected to shell D.R. ✓ Size of doubling plate under dome 4' 11 1/4" D x 1 1/2" Tk. ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1 1/2" - 4" ✓

Type of Superheater ME LE SCO R.B. Type. ✓ Manufacturers of { Tubes see Manchester ✓
Steel forgings Certificates Nos. C.6696/7 ✓
Steel castings
Number of elements 48 ✓ Material of tubes Steel ✓ Internal diameter and thickness of tubes -
Material of headers steel ✓ Tensile strength - Thickness - Can the superheater be shut off or Is there
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 ✓ Flywh
Area of each safety valve 1.76 sq.in. ✓ Are the safety valves fitted with casing gear Yes ✓ Working pressure as p
Rules 225 lb. ✓ Pressure to which the safety valves are adjusted 230 lb. ✓ Hydraulic test pressur
tubes - forgings and castings - and after assembly in place 675 lb/sq.in. ✓ Are drain cocks Flywh
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, *h.c.*
FOR CHARLES D. HOLMES & CO., LTD. *h.c.*
Manufactured

Dates of Survey while building { During progress of work in shops - 1948. Mar 23. Nov. 4. 29. Dec. 13. 14. 24.
1949. Jan 3. 7. 10. 13. 18. 19. ✓ Are the approved plans of boiler and superheater forwarded herewith 16/10/ ✓
(If not state date of approval.)
During erection on board vessel - - - see machinery report. Total No. of visits 17. ✓

Is this Boiler a duplicate of a previous case Yes ✓ If so, state Vessel's name and Report No. "ST. APOLLO" - Hull Rpt. No. 5 ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The boiler has been constructed and installed under Special Survey
in accordance with the Secretary's letters, approved plans and the Rules.
The materials and workmanship are good.
The boiler was examined under hydraulic test of 390 lb/sq.in. on completion
and found sound and tight.
The safety valves were adjusted under steam to 230 lb/sq.in. and an
accumulation test held.

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

M. Chambers.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 1 APR 1949

Assigned See F.E. mch. rph.



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