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REPORT ON BOILERS.

No. 19821.

3 FEB 1953

Received at London Office

of writing Report... 27th Jan 53... When handed in at Local Office... 2nd Feb. 53... Port of... MIDDLESBROUGH.
 in Survey held at... Stockton-on-Tees... Date, First Survey 7th Nov. 1952... Last Survey 26th Jan. 1953.
 on the... M.T. MADELEINE... (Number of Visits... 20...)
 at... By whom built... Yard No... When built...
 diameter... nes made at... By whom made... Engine No... When made...
 rs made at Stockton-on-Tees... By whom made Stockton Chemical Engineers & Riley Boilers Ltd., Boiler No. 7289/7290... When made 1953.
 al Horse Power... Owners... Port belonging to...

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel... Appleby Frodingham Steel Co... (Letter for Record... S...)
 Heating Surface of Boilers 2190 sq. ft. each boiler... Of Superheaters...
 for Register Book... Is forced draught fitted... Yes... ~~XXXX~~ Oil fired... Yes...
 and Description of Boilers 2 S.E. Multitubular... Working Pressure 150 lbs/sq. in.
 by hydraulic pressure to 275 lbs... Date of test 20.1.53... No. of Certificate 7386/7... Can each boiler be worked separately...
 of Firegrate in each Boiler... No. and Description of safety valves to each boiler...
 of each set of valves per boiler { per Rule... as fitted... Pressure to which they are adjusted... Are they fitted with easing gear...
 use of donkey boilers, state whether steam from main boilers can enter the donkey boiler...
 lest distance between boilers or uptakes and bunkers or woodwork... Is oil fuel carried in the double bottom under boilers...
 lest distance between shell of boiler and tank top plating... Is the bottom of the boiler insulated...
 est internal dia. of boilers 13'0" Length 11'6" Shell plates: Material steel... Tensile strength 29.33...
 sion welded, state name of welding Firm... Have all the requirements of the Rules for Class I vessels...
 complied with... Thickness 29/32" Are the shell plates welded or flanged... No... Description of riveting: circ. seams end... D.R. Lap...
 seams... T.R. DBS... Diameter of rivet holes in { circ. seams 1.1/16" inter... 3.224...
 { long. seams 1.1/16" Pitch of rivets 7.1/16"
 entage of strength of circ. end seams { plate 66.7% rivets 53.69 Percentage of strength of circ. intermediate seam { plate... rivets...
 entage of strength of longitudinal joint { plate 84.9... rivets 103... W.P. on shell - 155 lbs/sq. inch...
 { combined...
 kness of butt straps { outer 23/32" inner 27/32" No. and Description of Furnaces in each Boiler 3 - Morrison...
 rial steel... Tensile strength 26.30... Smallest outside diameter 3'0 1/4"
 th of plain part { top... Thickness of plates 13/32" Description of longitudinal joint welded...
 { bottom...
 nsions of stiffening rings on furnace or c.c. bottom...
 plates in steam space: Material steel... Tensile strength 26.30... Thickness 29/32" Pitch of stays 18" x 15 1/2"
 are stays secured... double nuts and washers screwed into each plate...
 e plates: Material { front steel... Tensile strength 26.30 Thickness { 23/32" back 3/4"
 pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13"
 ers to combustion chamber tops: Material steel... Tensile strength 28.32... Depth and thickness of girder
 ntre 8 1/2" x 1 1/4" Length as per Rule 2'8.5/32" Distance apart 9 1/2" No. and pitch of stays
 ch Solid - welded... Combustion chamber plates: Material steel...
 le strength 26.30 Thickness: Sides 21/32" Back 11/16" Top 21/32" Bottom 21/32"
 of stays to ditto: Sides 10" x 10" Back 11 1/4" x 9" Top - Are stays fitted with nuts or riveted over nuts...
 t plate at bottom: Material steel... Tensile strength 26.30
 nness 23/32" Lower back plate: Material steel... Tensile strength 26.30 Thickness 11/16"
 of stays at wide water space 13" Are stays fitted with nuts or riveted over nuts...
 stays: Material steel... Tensile strength 28.32
 eter { At body of stay... No. of threads per inch 6
 { Over threads 2 1/2"
 w stays: Material steel... Tensile strength 26.30
 eter { At turned off part... No. of threads per inch 9
 { Over threads 1 5/8"

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Are the stays drilled at the outer ends..... No. Margin stays: Diameter (At turned off part, or Over threads) 1 1/4" ✓

No. of threads per inch 9
ERWS Plain tubes.

Tubes: Material H.R. Weldless steel. External diameter (Plain 2 1/2" ✓, Stay 2 1/2") Thickness 10 W.G. ✓ 5/16" No. of threads per inch 9

Pitch of tubes 3 3/4" x 3 3/4"

Manhole compensation: Size of opening

shell plate 21 x 17" Section of compensating ring 8 3/4" x 1 1/8" ✓ No. of rivets and diameter of rivet holes 52 - 1.1/16"

Outer row rivet pitch at ends 7.1/16" 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..... Thickness of crown..... No. and diameter of stays..... Inner radius of crown.....

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..... 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 from the boiler.....

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.....

Pressure to which the safety valves are adjusted..... Hydraulic test pressure.....

tubes..... forgings and castings..... and after assembly in place..... Are drain cocks.....

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.....

For and on behalf of STOCKPORT CHEMICAL ENGINEERS & BOILER MAKERS LTD. The foregoing is a correct description, 3.4.51

Dates of Survey while building

During progress of work in shops	1952. Nov. 7. 13. 21 Dec. 3. 11. 19. 30 (1953) Jan. 8. 14. 20. Blr. 7289.
During erection on board vessel	1952. Nov. 7. 13. 21. Dec. 3. 11. 19. 30. Jan. 14. 20. 26. Blr. 7290.

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

Total No. of visits for two Boilers. 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 in accordance with the Rule Requirements and approved plan.

The materials and workmanship are good and on completion these boilers were hydraulically tested at 15 lbs/sq.inch and found satisfactory.

These boilers are being forwarded to Landskrona for Oresundsvarvet Aktiebolags Ship No.126.

Survey Fee £ 66 : - : - When applied for 2.2. 19. 53.

Travelling Expenses (if any) £ : : : When received 19.

TUESDAY 21 JUL 1953

Committee's Minute.....

Assigned.....

See F.E. mch. rpl

L. J. Hornum & Son

Engineer Surveyor to Lloyd's Register of Shipping



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