

REPORT ON BOILERS

No. 20334

6 JUL 1950

Received at London Office.

Date of writing Report. 19th JUNE 1950 When handed in at Local Office. D^o 19... Port of SOUTHAMPTON

No. in Reg. Book. Survey held at SOUTHAMPTON Date, First Survey. 19th DEC^r 49 Last Survey. 22nd APRIL 1950

2260 on the J.S. "AUTOCARRIER" (Number of Visits. 3) Tons { Gross. 985
Net. 362

Master. Built at GLASGOW By whom built. D. N. HENDERSON & CO. LTD. Engine No. - When built. 1931

Engines made at GLASGOW By whom made. D. N. HENDERSON & CO. LTD. Engine No. - When made. 1931

Boilers made at GLASGOW By whom made. D. N. HENDERSON & CO. LTD. Boiler No. - When made. 1931

Nominal Horse Power. 376 (2 BOILERS) Owners. BRITISH TRANSPORT COMM^y Port belonging to. LONDON

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

Manufacturers of Steel. (Letter for Record. -)

Total Heating Surface of Boilers. 4516 sq. ft. Is forced draught fitted. YES Coal or Oil fired. COAL.

No. and Description of Boilers. 2 LOCOMOTIVE TYPE MULTITUBULAR. Working Pressure. 200 lb^s.

Tested by hydraulic pressure to. - Date of test. - No. of Certificate. - Can each boiler be worked separately. YES

Area of Firegrate in each Boiler. 57.75 sq. ft. No. and Description of safety valves to each boiler. 2-COCKBURN HIGH LIFT 2 1/2" DIAM

Area of each set of valves per boiler. per Rule. APPROVED. as fitted. 7.94 sq. ft. Pressure to which they are adjusted. 200 lb^s. 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. WELL CLEAR Is oil fuel carried in the double bottom under boilers. -

Smallest distance between shell of boiler and tank top plating. OPEN FLOORS 8" Is the bottom of the boiler insulated. YES

Largest internal dia. of boilers. 11' 3" Length. 19' 8 1/2" Shell plates: Material. STEEL Tensile strength. 28/32 Tons^s.

Thickness. 1 1/2" Are the shell plates welded or flanged. - Description of riveting: circ. seams { end. DOUBLE RIVETTED
inter. DOUBLE RIVETTED

Long. seams. TREBLE RIVETTED. Diameter of rivet holes in { circ. seams. 1 1/8" ENDS 1 5/16" IN REAM
long. seams. 1 1/8" Pitch of rivets { 3.36"
8"

Percentage of strength of circ. end seams { plate. 66.4% rivets. 75.8% Percentage of strength of circ. intermediate seam { plate. 62% rivets. 60.2%

Percentage of strength of longitudinal joint { plate. 85.9% rivets. 90% Working pressure of shell by Rules. APPROVED 200 lb^s.

Thickness of butt straps { outer. 7/8" inner. 1" No. and Description of Furnaces in each Boiler. 3- DEIGHTON TYPE.

Material. STEEL Tensile strength. 26/30 Tons^s. Smallest outside diameter. 3' 7 1/4"

Length of plain part { top. Thickness of plates { crown. 5/8" bottom. 5/8" Description of longitudinal joint. WELDED.

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

End plates in steam space: Material. STEEL Tensile strength. 26/30 Tons^s. Thickness. 1 1/2" Pitch of stays. 16 1/2" x 15 1/2"

How are stays secured. NUTS & WASHERS BOTH SIDES Working pressure by Rules. APPROVED.

Tube plates: Material { front. STEEL back. STEEL Tensile strength. 26/30 Tons^s. Thickness { 1" (C.C.)
1 1/2"

Can pitch of stay tubes in nests. 8" Pitch across wide water spaces. 13 3/4" Working pressure { front. APPROVED.
back. APPROVED.

Orders to combustion chamber tops: Material. STEEL Tensile strength. 28/32 Tons^s. Depth and thickness of girder

centre. 8 3/4" x 2 Length as per Rule. APPROVED Distance apart. 8 1/4" No. and pitch of stays

each. 3 - 7" Working pressure by Rules. APPROVED Combustion chamber plates: Material. STEEL

Tensile strength. 26/30 Tons^s. Thickness: Sides. 1/16" Back. 1" Top. 1/16" Bottom. 1"

Pitch of stays to ditto: Sides. 8 1/4" Back. - Top. 8 1/4" Are stays fitted with nuts or riveted over. YES

Working pressure by Rules. APPROVED Front plate at bottom: Material. STEEL Tensile strength. 26/30 Tons^s.

Thickness. 1 1/2" Lower back plate: Material. STEEL Tensile strength. 26/30 Tons^s. Thickness. 1 1/2"

Pitch of stays at wide water space. 21 1/2" Are stays fitted with nuts or riveted over. YES

Working pressure. APPROVED Main stays: Material. STEEL Tensile strength. 28/32 Tons^s.

Diameter { At body of stay. 2 1/2" No. of threads per inch. 6 Area supported by each stay. APPROVED.
or Over threads. 2 3/4"

Working pressure by Rules. APPROVED Screw stays: Material. STEEL Tensile strength. 26/30 Tons^s.

Diameter { At turned off part. 1 1/2" No. of threads per inch. 9 Area supported by each stay. APPROVED.
or Over threads. -

Working pressure by Rules APPROVED Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part... or Over threads...
No. of threads per inch... Area supported by each stay... Working pressure by Rules...
Tubes: Material STEEL External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 8 LSG No. of threads per inch 9
Pitch of tubes 4" x 4" Working pressure by Rules Approved Manhole compensation: Size of opening to shell plate 20 3/4" x 16 3/4" Section of compensating ring 42" x 36" x 1 1/4" No. of rivets and diameter of rivet holes 44- 1 1/2"
Outer row rivet pitch at ends 8" Depth of flange if manhole flanged 3 3/8" 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... 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... 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 easing gear... Working pressure as per Rules... 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...
The foregoing is a correct description,
Manufacture...

Dates of Survey while building { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
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, which have not been constructed under special survey are in accordance with the approved plans & the requirements of Rules. The materials & workmanship are good. The boilers have been fired up & examined, found on placed in good order, afterwards examined & the safety valves adjusted under steam. The vessel is eligible in my opinion to be classed with this Society & to have notation of LMC 4.50 and BS 1.50

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

Robert D. Strachan
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute...
Assigned... *see minute on Rpl 9*