

GLASGOW REPORT No. 66469 1- OCT 1942
REPORT ON BOILERS. No. 66113

Received at London Office

17/8
9
ing Report 21.9.42 When handed in at Local Office 24.9.42 Port of Glasgow
Size of
Survey held at Clydebank Date, First Survey 31.1.41 Last Survey 10.9.1942
on the "EMPIRE PENNANT" (Number of Visits 188) Tons { Gross 7043.49.
Net 4908.57.
Built at Glasgow By whom built Tithgows & Co. Yard No. 972. When built 1942
No. and date made at GLASGOW. By whom made DAVID ROWAN & Co. LTD. Engine No. 1117. When made 1942.
made at Clydebank By whom made John Brown & Co. LTD. Boiler No. A.60 When made 1942
rivet holes
Horse Power Owners Ministry of War Transport. Port belonging to Grunwick

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

water be shut
Manufacturers of Steel Colvilles & Co. (Letter for Record S.)
Heating Surface of Boilers 5920 ft Is forced draught fitted Yes Coal or Oil fired Coal
Description of Boilers 2 multitubular Working Pressure 220
by hydraulic pressure to 380 Date of test 13.8.42 No. of Certificate 21149
of Firegrate in each Boiler 66.6 ft No. and Description of safety valves to each boiler 2-3 1/4" S. L.
of each set of valves per boiler { per Rule 15.74
as fitted 16.58 Pressure to which they are adjusted 220 lb Are they fitted with easing gear Yes
se of donkey boilers, state whether steam from main boilers can enter the donkey boiler
test distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers No
test distance between shell of boiler and tank top plating 26" Is the bottom of the boiler insulated Yes
est internal dia. of boilers 16' 1 3/4" Length 12' 0 1/2" Shell plates: Material S Tensile strength 29-33
ness 1 35/64" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R.
inter. hil
seams T.R.D.B.S. Diameter of rivet holes in { circ. seams B. 1 9/16 F 1 3/8 Pitch of rivets { 10 3/16"
long. seams 1 9/16"
Percentage of strength of circ. end seams { plate F60 B. 62.7
rivets 44.7 47 Percentage of strength of circ. intermediate seam { plate hil
rivets 85.5
percentage of strength of longitudinal joint { plate 85.26
rivets 88.13 Working pressure of shell by Rules
Thickness of butt straps { outer 1 1/64"
inner 1 19/64" No. and Description of Furnaces in each Boiler 4 Deighton
Tensile strength 26-30 Smallest outside diameter 3'-5 1/4"
Material S Thickness of plates { crown 5/8"
bottom 5/8" Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules
d plates in steam space: Material S Tensile strength 26-30 Thickness 1 13/32" Pitch of stays 20.5"
Working pressure by Rules 15 1/16"
be plates: Material { front S
back S Tensile strength 26-30 Thickness 25/32"
Working pressure { front
back
can pitch of stay tubes in nests 10" Pitch across wide water spaces 14" Working pressure { front
back
orders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder
centre 10" x 1 3/4" Length as per Rule 30.6" Distance apart 9 3/8" No. and pitch of stays
each 3-8 3/4" Working pressure by Rules Combustion chamber plates: Material S
Tensile strength 26-30 Thickness: Sides 25/32" Back 2 1/32" Top 25/32" Bottom 25/32"
Pitch of stays to ditto: Sides 8 3/4" x 9 3/8" Back 8 1/2" x 8" Top 9 3/8" x 8 3/4" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules Front plate at bottom: Material S Tensile strength 26-30
Thickness 15/16" Lower back plate: Material S Tensile strength 26-30 Thickness 53/64"
Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts
Working Pressure Main stays: Material S Tensile strength 28-32
Diameter { At body of stay 3 1/2" - 3 1/4"
Over threads No. of threads per inch 6 Area supported by each stay
Working pressure by Rules Screw stays: Material S Tensile strength 26-30
Diameter { At turned off part
Over threads 1 5/8", 1 3/4", 1 7/8", 2 1/4" No. of threads per inch 9 Area supported by each stay

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Working pressure by Rules ☒ Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 3/4" or Over threads 1 1/4"
No. of threads per inch 9 Area supported by each stay 3" Working pressure by Rules ☒
Tubes: Material S External diameter { Plain 3" Thickness { 8 W.G. No. of threads per inch 9
Pitch of tubes 4 1/8" x 4 3/16" Working pressure by Rules 3" Manhole compensation: Size of
shell plate Section of compensating ring No. of rivets and diameter of rivet holes
Outer row rivet pitch at ends Depth of flange if manhole flanged 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
Internal diameter Working pressure by Rules Thickness of crown No. and d
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes
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 sh
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 pressu
Rules Pressure to which the safety valves are adjusted Hydraulic test
tubes forgings and castings and after assembly in place Are drain
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

John Brown & Company, Limited.
The foregoing is a correct description,
W. G. Brown Manu

Additional visits since Glo 65422 on Engines:-

Dates { During progress of work in shops - 1942 Feb. 9. 11. 16. 19. 23. 26 Mar. 2. 5
19. 24. 25. 27. 31 Apr. 2. 3. 13. 15. 16. 17. 22. 23. 24. 27. 29 May 1. 7. 8. 11. 13. 14. 15. 18. 22. 25. 28. 29 Jun
while building { During erection on board vessel - 8. 9. 10. 11. 12. 15. 17. 18. 22. 24. 25. 26. 29 Total No. of visits 90 plus 98 on Engine apt = 188
July 1. 2. 3. 6. 7. 8. 10. 13. 14. 15. 17. 27. 29. 30. 31 Aug 3. 5. 7. 10. 11. 12. 13. 14. 17. 18. 20. 21. 26. 28. 31 Sep. 1. 2. 3. 1

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. 65763 Res.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under special survey in accordance with the approved plan, and The Society's Rules and Requirements the material and workmanship are good

The requirements of The Ministry of Shipping specification have been carried out satisfactorily.

Survey Fee Spec £ 32-5 } When applied for, 30 SEP 1942 19
Travelling Expenses (if any) £ 8-1 } When received, 19

Committee's Minute GLASGOW 30 SEP 1942

Assigned referred for completion

Jas. Cairns
Engineer Surveyor to Lloyd's Register of Shipping

GLASGOW 22 DEC 1942
L Lloyd's Register Foundation