

# REPORT ON BOILERS.

No. 70069

Received at London Office 9 NOV 1945

Date of writing Report 15-10-45 When handed in at Local Office 22-10-45 Port of GLASGOW

No. in Survey held at Reg. Book. GLASGOW Date, First Survey 21-9-43 Last Survey 2-10-45

APP. 34386 on the Motor Vessel "TAPTI" (Number of Visits 112) Tons {Gross 6650 Net 4800}

Master Built at GLASGOW By whom built CHAS. CONNELLY & CO. LD. Yard No. When built 1945

Engines made at GLASGOW By whom made BARCLAY CURLE & CO. LD. Engine No. 143 When made 1945

Boilers made at By whom made Boiler No. 143 When made 1945

Nominal Horse Power 149 Owners JAMES NOURSE LD. Port belonging to LONDON

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

Manufacturers of Steel Colvilles Ltd. (Letter for Record S. ✓)

Total Heating Surface of Boilers 1483 ft<sup>2</sup> Is forced draught fitted yes ✓ Coal or Oil fired Oil ✓

No. and Description of Boilers One Single Ended Working Pressure 120 lbs ✓

Tested by hydraulic pressure to 230 lbs Date of test 23-10-45 No. of Certificate 21806 Can each boiler be worked separately yes ✓

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler One - 2 1/4" S.H.S. Double ✓

Area of each set of valves per boiler {per Rule 6.86 sq ft as fitted 7.94 sq ft Pressure to which they are adjusted 120 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 Well clear Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Middle platform Is the bottom of the boiler insulated

Largest internal dia. of boilers 11'6" Length 11'0" Shell plates: Material S ✓ Tensile strength 29/33 tons ✓

Thickness 2 1/32" Are the shell plates welded or flanged No ✓ Description of riveting: circ. seams {end Double inter. 2.72" ✓

long. seams D.B.S. L.R. ✓ Diameter of rivet holes in {circ. seams 13/16" long. seams 3/4" ✓ Pitch of rivets {5 1/2" ✓

Percentage of strength of circ. end seams {plate 70.1 rivets 45.3 ✓ Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 86.3 rivets 90.5 ✓ Working pressure of shell by Rules combined 91.0

Thickness of butt straps {outer 1/2" inner 5/8" ✓ No. and Description of Furnaces in each Boiler 2 Doughton ✓

Material S ✓ Tensile strength 26/30 tons ✓ Smallest outside diameter 3'4 1/4" ✓

Length of plain part {top Thickness of plates {crown 3/8" bottom Welded ✓ Description of longitudinal joint

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

End plates in steam space: Material S ✓ Tensile strength 26/30 tons ✓ Thickness 5 5/64" ✓ Pitch of stays 17 7/8" x 15" ✓

How are stays secured Double nuts ✓ Working pressure by Rules

Tube plates: Material {front S back S ✓ Tensile strength {26/30 tons ✓ Thickness {1/16" 1/16" ✓

Mean pitch of stay tubes in nests 8.43" ✓ Pitch across wide water spaces 13 1/2" ✓ Working pressure {front back

Girders to combustion chamber tops: Material S ✓ Tensile strength 28/32 tons ✓ Depth and thickness of girder

at centre 2 @ 8 1/4" x 9 1/6" Length as per Rule 2'8 23/32" ✓ Distance apart 9 3/4" ✓ No. and pitch of stays

in each 2 @ 10 1/4" Working pressure by Rules Combustion chamber plates: Material S ✓

Tensile strength 26/30 tons ✓ Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 19/32" ✓

Pitch of stays to ditto: Sides 10 1/4" x 9 3/4" Back 10 1/4" x 9 3/4" Top 10 1/4" x 9 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 tons ✓

Thickness 11/16" ✓ Lower back plate: Material S ✓ Tensile strength 26/30 tons ✓ Thickness 21/32" ✓

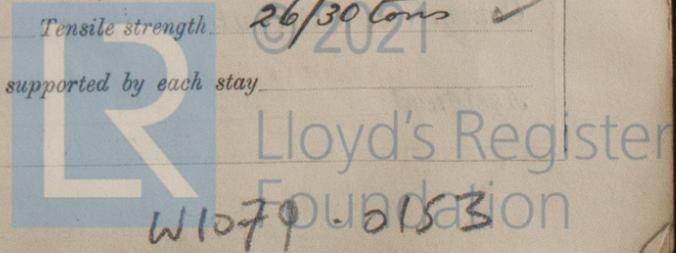
Pitch of stays at wide water space 13 1/2" ✓ Are stays fitted with nuts or riveted over Nuts ✓

Working Pressure Main stays: Material S ✓ Tensile strength 28/32 tons ✓

Diameter {At body of stay, 2 1/8" or 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 tons ✓

Diameter {At turned off part, 1 1/2" or Over threads 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 <sup>At turned off part,</sup>                      or                      Over threads 1 5/8"

No. of threads per inch 9 Area supported by each stay                      Working pressure by Rules                     

Tubes: Material S. External diameter <sup>Plain</sup> 2 1/2" <sup>Stay</sup> 2 1/2" Thickness <sup>11 W.G.</sup> 3/8" / 7/16" No. of threads per inch 9

Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules                      Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 19" x 3/4" No. of rivets and diameter of rivet holes 44 @ 1 1/16"

Outer row rivet pitch at ends 7 1/2" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material                     

Tensile strength                      Thickness of shell                      Description of longitudinal joint                     

Diameter of rivet holes                      Pitch of rivets                      Percentage of strength of joint <sup>Plate</sup>                      <sup>Rivets</sup>                     

Internal diameter                      Working pressure by Rules                      Thickness of crown                      No. and diameter of stays                     

How connected to shell                      Inner radius of crown                      Working pressure by Rules                     

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 <sup>Tubes</sup>                      <sup>Steel forgings</sup>                      <sup>Steel castings</sup>                     

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, A. Macneil Manufacturer.

Dates of Survey <sup>During progress of work in shops - -</sup> See attached Are the approved plans of boiler and superheater forwarded herewith Yes <sup>while building</sup> <sup>During erection on board vessel - - -</sup> Machinery report <sup>(If not state date of approval.)</sup>

Total No. of visits                     

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. MEGNA GLS. RPT. NO 68172

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the Rules and approved plans. The materials and workmanship are good. The boiler has been satisfactorily installed in the vessel, and the safety valves adjusted under steam to 120 lb/sq. inch

Survey Fee ... .. £                      When applied for,                      19                     

Travelling Expenses (if any) £                      When received,                      19                     

*See Mach. Rpt.*

W. Russell  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6 NOV 1945

Assigned SEE ACCOMPANYING MACHINERY REPORT

