

REPORT ON BOILERS.

No. 30475

Received at London Office

10 OCT 1930

Date of writing Report

1930

When handed in at Local Office

9 OCT. 1930

Port of SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey

Last Survey

7 Oct 1930

on the S.S. "GOWER"

(Number of Visits)

Gross

Tons

Net

Master

Built at GOOLE.

By whom built GOOLE S.B. & R.C. LD.

Yard No. 291. When built 1930.

Engines made at SUNDERLAND.

By whom made N.E. MARINE ENG. CO. LD.

Engine No. 2753 When made 1930

Boilers made at SUNDERLAND.

By whom made N.E. MARINE ENG. CO. LD.

Boiler No. 2753 When made 1930

Nominal Horse Power

171.

Owners J.E. FISHER & CO.

Port belonging to SWANSEA

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

Manufacturers of Steel THYSSEN STEEL CO. MULHEIM. RUHR. & STEEL CO. OF SCOTLAND. (Letter for Record (S))

Total Heating Surface of Boilers 2940 sq ft Is forced draught fitted No. Coal or Oil fired COAL.

No. and Description of Boilers 2 CYLINDRICAL MARINE TYPE. 2 SB. Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs. Date of test 17-6-30 No. of Certificate 4104 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 38.75 sq ft. No. and Description of safety valves to each boiler 2 SPRING LOADED.

Area of each set of valves per boiler (per Rule 9.42 sq ft, as fitted 9.9 sq ft) Pressure to which they are adjusted 185 1/2 lbs. Are they fitted with easing gear Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.

Smallest distance between boilers or uptakes and bunkers or woodwork 3'-3" Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating 1'-9" Is the bottom of the boiler insulated No.

Largest internal dia. of boilers 12'-9 15/16" Length 10'-6" Shell plates: Material Steel Tensile strength 29/33 Tons

Thickness 1 1/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams (end 3 3/8", inter. 3 3/8")

long. seams T.R.D.B. Strip. Diameter of rivet holes in (circ. seams 1 3/32", long. seams 1 3/32") Pitch of rivets 7 3/4"

Percentage of strength of circ. end seams (plate 67.5, rivets 42.8) Percentage of strength of circ. intermediate seam (plate 85, rivets 85)

Percentage of strength of longitudinal joint (plate 85.8, rivets 87.3, combined 89.1) Working pressure of shell by Rules 182.2 lbs.

Thickness of butt straps (outer 25/32", inner 29/32") No. and Description of Furnaces in each Boiler 2 Corrugated, Doughton Section.

Material Steel Tensile strength 26/30 Tms. Smallest outside diameter 3'-6 5/16"

Length of plain part (top -, bottom -) Thickness of plates (crown 7/32", bottom 7/32") Description of longitudinal joint Weld.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 181.5 lbs.

End plates in steam space: Material Steel Tensile strength 26/30 Tms. Thickness 1 7/32" Pitch of stays 21" x 18"

How are stays secured D. Nuts. Working pressure by Rules 181.2 lbs.

Tube plates: Material (front Steel, back Steel) Tensile strength (26/30 Tms.) Thickness (7/8", 25/32")

Mean pitch of stay tubes in nests 10.75" Pitch across wide water spaces 14 1/2" x 9 1/4" Working pressure (front 188 lbs., back 188 lbs.)

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Tms. Depth and thickness of girder

at centre 8 1/4" x 1 5/8" Length as per Rule 31 1/2" Distance apart 10 1/2" No. and pitch of stays

in each 2 at 10" Working pressure by Rules 184 lbs. Combustion chamber plates: Material Steel

Tensile strength 26/30 Tms. Thickness: Sides 3/4" Back 23/32" Top 3/4" Bottom 3/4"

Pitch of stays to ditto: Sides 10 7/8" x 10" Back 10 7/8" x 9 1/4" Top 10 1/2" x 10" Are stays fitted with nuts or riveted over Nuts.

Working pressure by Rules 181.7 lbs. Front plate at bottom: Material Steel Tensile strength 26/30 Tms.

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 Tms. Thickness 29/32"

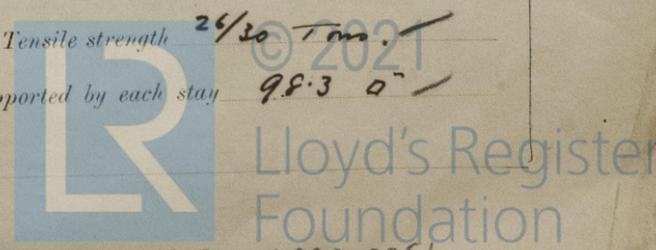
Pitch of stays at wide water space 15" x 10 7/8" Are stays fitted with nuts or riveted over Nuts.

Working Pressure 199 lbs. Main stays: Material Steel Tensile strength 28/32 Tms.

Diameter (At body of stay, 2 7/8", Over threads, 3 1/4") No. of threads per inch 6 Area supported by each stay 378 sq in

Working pressure by Rules 190 lbs. Screw stays: Material Steel Tensile strength 26/30 Tms.

Diameter (At turned off part, 1 3/4", Over threads, 1 3/4") No. of threads per inch 9 Area supported by each stay 98.3 sq in



Working pressure by Rules 183 1/16. Are the stays drilled at the outer ends No. Margin stays: Diameter ^(At turned off part, or Over threads) 2"
 No. of threads per inch 9. Area supported by each stay 128.8 Working pressure by Rules 191 1/16
Tubes: Material Steel External diameter ^{Plain} 3 1/2" Thickness ^{8 w.g.} 3/16" No. of threads per inch 9
 Pitch of tubes 4 5/8" x 4 5/8" Working pressure by Rules 230, 187, 191 1/16 Manhole compensation: Size of opening in end.
 shell plate 16' x 12' Section of compensating ring No. of rivets and diameter of rivet holes
 Outer row rivet pitch at ends Depth of flange if manhole flanged 3 7/8" **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} _____
 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 ^{Tubes} _____
 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 _____
 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 _____ 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 Yes.
 FOR THE NORTH EASTERN MARINE ENGINEERING CO. LTD.
 The foregoing is a correct description,
John Neill Manufacturer.

Dates of Survey ^{During progress of work in shops - -} Please see Mech. Rpt. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
^{while building} ^{During erection on board vessel - - -} Total No. of visits _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Boilers of this vessel have been built under Special Survey. The materials & workmanship are good. On completion they were satisfactorily fitted in the vessel and examined under a full head of steam. The Safety Valves were adjusted under steam and accumulation test carried out satisfactorily. For Notation see Machinery Report.

Survey Fee £ Charged on Machinery Report. When applied for, 192
 Travelling Expenses (if any) £ _____ When received, 192

Committee's Minute TUE. 11 NOV 1930
 Assigned See other report

J. Scott
 Engineer Surveyor to Lloyd's Register of Shipping.
Matthew Caldwell

