

REPORT ON BOILERS.

No. 57024
29 JUN 1936
20 MAY 1936

Received at London Office

Date of writing Report 19 1936 When handed in at Local Office 16.5.36 Port of Glasgow

No. in Reg. Book. 535 Survey held at Glasgow Date, First Survey 17.12.35 Last Survey 15.5.36

on the new steel S/S "BRYNYMOR" (Number of Visits 47) Tons { Gross Net

Master _____ Built at Buntisland By whom built Buntisland SBC Yard No. 197 When built 1936

Engines made at Glasgow By whom made Davie Rowan & Co. Ltd Engine No. 991 When made 1936

Boilers made at Glasgow By whom made Davie Rowan & Co. Ltd Boiler No. 991 When made 1936

Nominal Horse Power 377 Owners _____ Port belonging to Swansea

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Plate Steel Company of Scotland Ltd. Bass. Boilers Ltd. (Letter for Record 5)

Total Heating Surface of Boilers 1165 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended Working Pressure 220

Tested by hydraulic pressure to 380 Date of test 24.4.36 No. of Certificate 19712 Can each boiler be worked separately _____

Area of Firegrate in each Boiler 36 sq ft No. and Description of safety valves to each boiler Two direct spring

Area of each set of valves per boiler { per Rule 6.1960" as fitted 6.280" Pressure to which they are adjusted 220 lbs Are they fitted with easing gear _____

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 between main boilers Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 11'-6" Length 10'-6" Shell plates: Material steel Tensile strength 29.33 tons

Thickness 1 3/4" Are the shell plates welded or flanged no Description of riveting: circ. seams { end DR inter. _____

long. seams DRS TR Diameter of rivet holes in { circ. seams 1 3/16" long. seams 1 3/16" Pitch of rivets { 3.1875" 8"

Percentage of strength of circ. end seams { plate 62.7 rivets 49.7 Percentage of strength of circ. intermediate seam { plate _____ rivets _____

Percentage of strength of longitudinal joint { plate 85.15 rivets 92.7 combined 88.9 Working pressure of shell by Rules 222

Thickness of butt straps { outer 3 1/2" inner 3 1/2" No. and Description of Furnaces in each Boiler Two Weighton

Material steel Tensile strength 26.30 tons Smallest outside diameter 3'-4 3/4"

Length of plain part { top _____ bottom _____ Thickness of plates { crown 1 5/8" bottom _____ Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom _____ Working pressure of furnace by Rules 223

End plates in steam space: Material steel Tensile strength 26.30 tons Thickness 1 9/16" Pitch of stays 14" x 20"

How are stays secured DR Working pressure by Rules 225

Tube plates: Material { front steel back _____ Tensile strength { 26.30 tons Thickness { 1 9/16" 1 3/16"

Mean pitch of stay tubes in nests 10.2" Pitch across wide water spaces 14" Working pressure { front 222 back 228

Girders to combustion chamber tops: Material steel Tensile strength 26.30 tons Depth and thickness of girder at centre 2 @ 7" x 7/8" Length as per Rule 2'-4 1/32" Distance apart 8 3/8" No. and pitch of stays in each 2 @ 8 1/8" Working pressure by Rules 225 Combustion chamber plates: Material steel

Tensile strength 26.30 tons Thickness: Sides 3/4" Back 2 1/2" Top 3/4" Bottom 3/4"

Pitch of stays to ditto: Sides 8 7/8" x 8 3/8" Back 8" x 8 1/2" Top 8 7/8" x 8 3/8" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 220 Front plate at bottom: Material steel Tensile strength 26.30 tons

Thickness 1 5/16" Lower back plate: Material steel Tensile strength 26.30 tons Thickness 2 1/2"

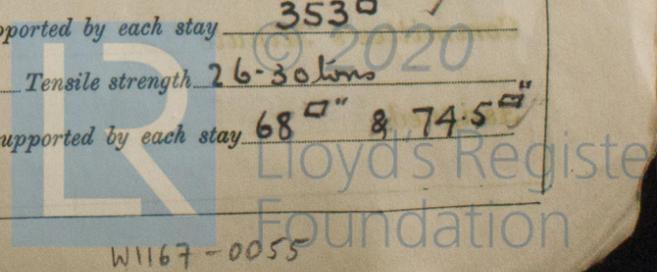
Pitch of stays at wide water space 13 1/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 224 Main stays: Material steel Tensile strength 28.32 tons

Diameter { At body of stay, 3" No. of threads per inch 6 Area supported by each stay 3530"

Working pressure by Rules 222 Screw stays: Material steel Tensile strength 26.30 tons

Diameter { At turned off part, 1 5/8" & 1 3/4" No. of threads per inch 9 Area supported by each stay 68" & 74.5"



4050

Working pressure by Rules 224 & 243 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 3/4" _{or Over threads}

No. of threads per inch 9 Area supported by each stay 83" Working pressure by Rules 220

Tubes: Material Iron External diameter ^{Plain} 3 1/4" _{Stay} 3 1/4" Thickness ^{8 W.S.} 1/4" 9/16" 3/8" No. of threads per inch 9

Pitch of tubes 4 3/8" x 4 1/16" Working pressure by Rules 230 Manhole compensation: Size of opening in shell plate 19 1/2" x 15 1/2" Section of compensating ring 8 3/4" x 1 1/4" No. of rivets and diameter of rivet holes 32 @ 1 1/4"

Outer row rivet pitch at ends 8 1/4" Depth of flange if manhole flanged 3" Steam Dome: Material none

Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____

Diameter of rivet holes 1 1/4" 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 none Manufacturers of ^{Tubes} _____ _{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 _____, 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,
For David Roway & Co. Ltd. Manufacturer.
Arch. W. Grierson

Dates of Survey ^{During progress of work in shops - -} _____ Are the approved plans of boiler and superheater forwarded herewith yes _(If not state date of approval.)

^{During erection on board vessel - - -} _____

SEE ACCOMPANYING MACHINERY REPORT.

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.)

The materials and workmanship are good

The boiler has been constructed under special survey

It is being sent to Burntisland to be fitted in the vessel.

16/5/36

This boiler has been efficiently fitted on board examined under a team of safety valves adjusted to 220 lbs

CRK

Survey Fee ... £ _____ When applied for, _____ 10

Travelling Expenses (if any) £ _____ When received, _____ 10

S. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 MAY 1936

Assigned SEE ACCOMPANYING MACHINERY REPORT.

FRI. 8 JUL 1936

See L.R. 92030

Lloyd's Register Foundation