

5a.

REPORT ON BOILERS.

No. 40736

Received at London Office 27 SEP 1929

Writing Report No. 9 1929 When handed in at Local Office 26 Sept 1929 Port of HULL

Survey held at Hull Date, First Survey 26 July Last Survey 24 Sept 1929

on the Steam Trawler "GALVANI" (Number of Visits 17) Gross Tons 353.12 Net Tons 136.11

Built at Beverley By whom built Cook, Welton & Gemmill No. 526 When built 1929

Engines made at Hull By whom made Charles Holmes & Co Ltd Engine No. 1377 When made 1929

Boilers made at - do - By whom made - do - Boiler No. 1377 When made 1929

Indicated Horse Power 96 Owners J. T. Ross & Co Port belonging to Hull

WATER TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Withowitzer & Bengban. Withowitzer (Letter for Record (S) ✓)

Heating Surface of Boilers 1698 sqft Is forced draught fitted No Coal or Oil fired coal ✓

Description of Boilers one single ended ✓ Working Pressure 200lbs ✓

Tested by hydraulic pressure to 350 lb Date of test 30.8.29 No. of Certificate 2731 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 492 sqft No. and Description of safety valves to each boiler 2 spring loaded ✓

Weight of each set of valves per boiler per Rule 9.80 as fitted 9.80 Pressure to which they are adjusted 200lbs Are they fitted with easing gear yes ✓

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Least distance between boilers or uptakes and bunkers or woodwork 7" Is oil fuel carried in the double bottom under boilers ✓

Least distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓

Least internal dia. of boilers 14'-0" Length 10'-8" Shell plates: Material Steel Tensile strength 28/32 Tons

Thickness 1 9/32 Are the shell plates welded or flanged ✓ Description of riveting: circ. seams end D.R. inter. 3 3/4"

Seams T.R. D.B.S. Diameter of rivet holes in circ. seams 1 9/32 Pitch of rivets 8 9/16"

Percentage of strength of circ. end seams plate 65.8 rivets 51.2 Percentage of strength of circ. intermediate seam plate ✓ rivets ✓

Percentage of strength of longitudinal joint plate 85.0 rivets 90.8 combined 88.83 Working pressure of shell by Rules 201 lbs

Thickness of butt straps outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler Three plain 3 ft dia

Material Steel Tensile strength 26/30 Tons Smallest outside diameter 41"

Width of plain part top 46" bottom 69" Thickness of plates crown 1 3/16 bottom 1 1/16 Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 219 lbs

Stays in steam space: Material Steel Tensile strength 26/30 Tons Thickness 1 3/16" Pitch of stays 18"

Are stays secured D.R. & washers Working pressure by Rules 220 lbs

End plates: Material front Steel back " Tensile strength 26/30 Tons Thickness 1 5/16" 7/8"

Minimum pitch of stay tubes in nests 10.97" Pitch across wide water spaces 13 3/4" Working pressure front 211 lbs back 230 lbs

Stays to combustion chamber tops: Material Steel Tensile strength 28/32 Tons Depth and thickness of girder

Centre 10 1/2" x 1 3/4" Length as per Rule 36 3/16" Distance apart 9" No. and pitch of stays

Each 3 @ 8 3/4" Working pressure by Rules 210 lbs Combustion chamber plates: Material Steel

Tensile strength 26/30 Tons Thickness: Sides 3/4" Back 2 3/32 Top 3/4" Bottom 3/4"

Height of stays to ditto: Sides 9" x 8 3/4" Back 9" x 8 1/2" Top 9" x 8 3/4" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 230 lbs 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 29/32

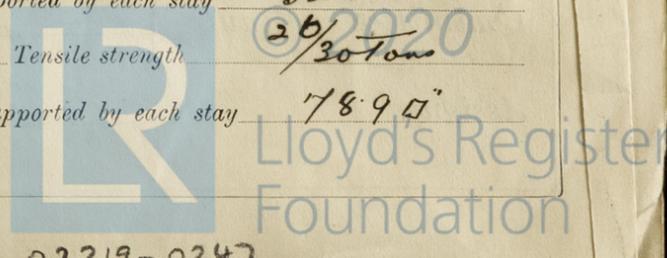
Height of stays at wide water space 14" x 8 3/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 228 lbs Main stays: Material Steel Tensile strength 28/32 Tons

Diameter At body of stay, 3/4" No. of threads per inch 8 Area supported by each stay 324 sq

Working pressure by Rules 248 lbs Screw stays: Material Steel Tensile strength 26/30 Tons

Diameter At turned off part, 1 7/8" - 1 3/4" No. of threads per inch 10 Area supported by each stay 789 sq



Working pressure by Rules 230 lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 7/8"
 No. of threads per inch 10 Area supported by each stay 97.75 sq" Working pressure by Rules 218 lbs.
 Tubes: Material Iron External diameter ^{Plain} 3 1/2" Thickness ^{Stay} 5/16" No. of threads per inch 9
 Pitch of tubes 4 7/8" Working pressure by Rules 215 lbs Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 34" x 7" x 1/2" No. of rivets and diameter of rivet holes 22 @ 1/4"
 Outer row rivet pitch at ends 8 9/16" 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 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} _____
 Number of elements _____ Material of tubes _____ ^{Steel castings} _____
 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 23 inclusive for boilers been complied with _____

The foregoing is a correct description,
J. Cooper Manufacturer.

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler of this vessel has been built under special survey & in accordance with the approved plan & the materials & workmanship are sound & good. It has been satisfactorily fitted on board, tried under steam, & its safety valves adjusted as above.

Chapman engine report
 Survey Fee £ _____ : _____ : _____ When applied for, ✓ 192
 Travelling Expenses (if any) £ _____ : _____ : _____ When received, ✓ 192

J. H. Shackley
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 1 OCT 1925
 Assigned See S. 6. rpt. attached