

REPORT ON BOILERS.

No. 4719.

Port of Grimsey Received at London Office _____

No. in Survey held at Grimsey Date, first Survey 6 November 06 Last Survey 27 March 1907

eg. Book. _____ (Number of Visits 35)

Master Steward the Boiler for Steam Tug "Spurn" (W.A. Warren's No. 54 vessel) Tons } Gross
Net

Built at New Holland By whom built W.A. Warren When built 1907

Engines made at Glasgow By whom made Muir & Houston when made 1889

Boiler made at Grimsey By whom made Central Co. op. Eng. Works when made 1907

Registered Horse Power _____ Owners Turner & Precious Port belonging to Shell

Boiler No. 1

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Stewarts & Lloyds

Letter for record S. Total Heating Surface of Boilers 1057 sq. ft. Is forced draft fitted No. No. and Description of Boilers One cyl. multitubular Working Pressure 160 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 18/2/07

No. of Certificate 51. Can each boiler be worked separately ✓ Area of fire grate in each boiler 30 sq. ft. No. and Description of Safety valves to each boiler 2 Spring loaded Area of each valve 3.98 sq. in. Pressure to which they are adjusted 160 lbs.

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 12" Inside diam. of boilers 11'-0" Length 9'-6" inside

Material of shell plates Steel Thickness 5/16" Range of tensile strength 27/32 tons Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams Lap on long. seams Butt on Diameter of rivet holes in long. seams 1" Pitch of rivets 7"

Lap of plates or width of butt straps 15" Per centages of strength of longitudinal joint rivets 89% Working pressure of shell by rules 177 lbs.

Size of manhole in shell 16" x 12" Size of compensating ring 2'-8" x 2'-4" x 1/8" No. and Description of Furnaces in each boiler 2 plain.

Material Steel Outside diameter 3'-3" Length of plain part top 5'-11" Thickness of plates crown 23/32" bottom 23/32"

Description of longitudinal joint weld. No. of strengthening rings ✓ Working pressure of furnace by the rules 185 lbs. Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4" Pitch of stays to ditto: Sides 8 1/2" x 8 1/4" Back 8 1/4" x 8 1/4"

Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads Nuts. Working pressure by rules 187 lbs. Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 76.5 sq. in. Working pressure by rules 186 lbs. End plates in steam space: Material Steel Thickness 5/16"

Pitch of stays 16" x 16" How are stays secured On Nuts. Working pressure by rule 187 lbs. Material of stays Steel Diameter at smallest part 2.53"

Area supported by each stay 256 sq. in. Working pressure by rules 197 lbs. Material of Front plates at bottom Steel Thickness 7/8" Material of Lower back plate Steel Thickness 5/16" Greatest pitch of stays 13" Working pressure of plate by rules 190 lbs. Diameter of tubes 3 1/4" ext.

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 7/8" Back 2/32" Mean pitch of stays 9" Pitch across wide water spaces 14 1/4" Working pressures by rules 159 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1 1/4" Length as per rule 2'-4 3/4" Distance apart 8" Number and pitch of Stays in each 2-8 1/2"

Working pressure by rules 170 lbs. Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked separately _____

Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

VERTICAL DONKEY BOILER— No. _____ Description _____ Manufacturers of steel _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint Rivets _____ Working pressure of shell by rules _____ Thickness of shell crown plates _____ Plates _____

Radius of do. _____ No. of Stays to do. _____ Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____

Thickness of furnace plates _____ Description of joint _____ Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

The foregoing is a correct description, _____

Manufacturer. W.A. Warren

For the GREAT CENTRAL CO-OPERATIVE ENGINEERING & SHIP REPAIRING COMPANY, LTD.

W.A. Warren

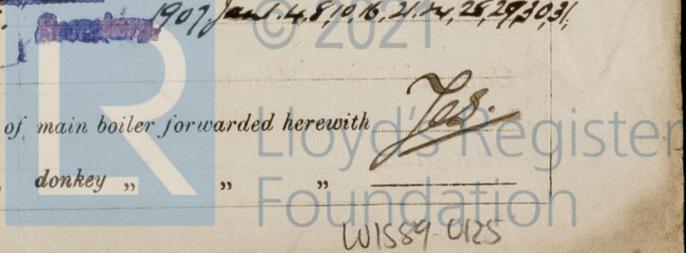
Dates of Survey while building: During progress of work in shops - 1906 Nov. 6, 23, 26, 27, Dec. 4, 6, 7, 10, 11, 12, 13, 14, 20, 29. 1907 Jan. 4, 8, 10, 16, 21, 24, 25, 29, 30, 31.

During erection on board vessel - Jan. 5, 8, 14, 18, 27, Mar. 1, 4, 6, 16, 27.

Total No. of visits 35.

Is the approved plan of main boiler forwarded herewith Yes.

" " " donkey " " _____



W1589-0125

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special Survey. The materials & workmanship are good. The boiler has been tested by hydraulic pressure to 320lbs per square inch, showed no signs of weakness, and was tight & satisfactory at that pressure.

this office.

Certificate (if required) to be sent to

The amount of Entry Fee... £	:	:	When applied for,
See <i>See Machinery Report</i> ... £	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

R. Ritchie

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUES. APR 16 1907

Assigned

see minute on attached rpt.



© 2021

Lloyd's Register Foundation