

REPORT ON BOILERS.

No. 39418.

Received at London Office 22 NOV 1928

of writing Report 21.11.28 1928 When handed in at Local Office 21 NOV 1928

Port of **HULL**

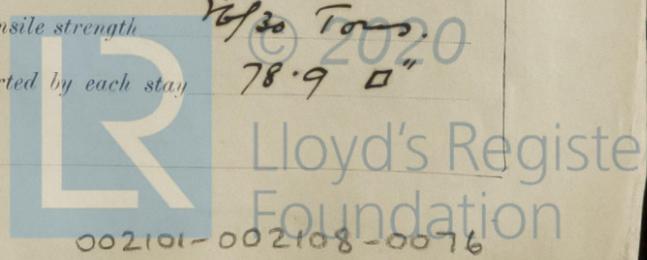
Survey held at **Hull** Date, First Survey **7 June** Last Survey **15 Nov 1928**

Job on the **Steam Trawler "LORD GREY"** (Number of Visits **21**)

Built at **Selly** By whom built **Cochrane Sons Ltd** Yard No. **1028** When built **1928**
 Plates made at **Hull** By whom made **Amos & Smith Ltd** Engine No. **568** When made **1928**
 Boilers made at **Hull** By whom made **Amos & Smith Ltd** Boiler No. **568** When made **1928**
 Owners **Pickering & Huddames** Port belonging to **Hull**
S. Trading Co Ltd.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Apperby Iron Co. Ltd.** (Letter for Record **(5)**)
 Total Heating Surface of Boilers **1169.8 Sq. ft.** Is forced draught fitted **ho** Coal or Oil fired **Coal**
 and Description of Boilers **One single ended return tube 15B** Working Pressure **200 lbs.**
 Tested by hydraulic pressure to **350 lbs.** Date of test **12.10.28** No. of Certificate **3640** Can each boiler be worked separately
 Area of Firegrate in each Boiler **49.2 sq ft** No. and Description of safety valves to each boiler **Two spring loaded**
 Area of each set of valves per boiler (per Rule **9.80** as fitted **9.80**) Pressure to which they are adjusted **200 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 **4'** Is oil fuel carried in the double bottom under boilers
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated
 Largest internal dia. of boilers **14'-0"** Length **10'-8"** Shell plates: Material **Steel** Tensile strength **29/33 Tons.**
 Thickness **19/32** Are the shell plates welded or flanged Description of riveting: circ. seams **end** **SR.** **inter.**
 Rivet seams **T.R. 5BS.** Diameter of rivet holes in (circ. seams **19/32** long. seams **19/32**) Pitch of rivets **3 3/4** **8 7/8**
 Percentage of strength of circ. end seams (plate **65.8** rivets **51.2**) Percentage of strength of circ. intermediate seam (plate **85.03** rivets **90.8**)
 Percentage of strength of longitudinal joint (plate **85.03** rivets **90.8** combined **88.8**) 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 1/2 ft.**
 Material **Steel** Tensile strength **26/30 Tons** Smallest outside diameter **41"**
 Length of plain part (top **76"** bottom **69"**) Thickness of plates (crown **13/16** bottom **13/16**) Description of longitudinal joint **welded**
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules **219 lbs.**
 Plates in steam space: Material **Steel** Tensile strength **26/30 Tons.** Thickness **13/16** Pitch of stays **18"**
 How are stays secured **DN. + Washers** Working pressure by Rules **220 lbs.**
 Front plates: Material **Steel** Tensile strength **26/30 Tons.** Thickness **5/16** **7/8**
 Pitch of stay tubes in nests **10.97** Pitch across wide water spaces **13 3/4** Working pressure (front **211 lbs.** back **230**)
 Girders to combustion chamber tops: Material **Steel** Tensile strength **28/32 Tons** Depth and thickness of girder
 Centre **10 1/2** } x **13 1/4** 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 1/2** **2 1/2** Top **3/4** **2 1/2** Bottom **3/4**
 Pitch 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 **5/16** Lower back plate: Material **Steel** Tensile strength **26/30 Tons** Thickness **19/32**
 Pitch 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, or Over threads **3 1/4**) No. of threads per inch **6** Area supported by each stay **324 sq "**
 Working pressure by Rules **240 lbs** Screw stays: Material **Steel.** Tensile strength **26/30 Tons.**
 Diameter (At turned off part, or Over threads **1 7/8 + 1 3/4**) No. of threads per inch **9** Area supported by each stay **78.9 sq "**



8148

Working pressure by Rules 250 lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 7/8 or ^{Over threads} 1 7/8

No. of threads per inch 9 Area supported by each stay 97.5 sq in Working pressure by Rules 218 lbs

Tubes: Material Iron External diameter ^{Plain} 3 1/2 Thickness ^{Stay} 5/16 + 3/8 No. of threads per inch 9

Pitch of tubes 4 1/2 Working pressure by Rules 218 lbs Manhole compensation: Size of opening in shell plate 8 1/2 Section of compensating ring 3 1/2 x 3 1/2 No. of rivets and diameter of rivet holes 12 @ 1 1/2

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

Tensile strength 200 Thickness of shell 1/2 Description of longitudinal joint ✓

Diameter of rivet holes 1/2 Pitch of rivets 1 1/2 Percentage of strength of joint ^{Plate} 100 ^{Rivets} 100

Internal diameter 20 1/2 Working pressure by Rules 218 lbs Thickness of crown 1/2 No. and diameter of stays 12 @ 1 1/2

How connected to shell Inner radius of crown Working pressure by Rules 218 lbs Size of doubling plate under dome ✓ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 1/2 @ 1 1/2

Type of Superheater

Manufacturers of ^{Tubes} Amos & Smith Ltd. ^{Steel castings} Amos & Smith Ltd.

Number of elements 1 Material of tubes Iron Internal diameter and thickness of tubes 3 1/2 x 5/16 + 3/8

Material of headers Iron Tensile strength 200 Thickness 1/2 Can the superheater be shut off and the boiler be worked separately no

Area of each safety valve 1 1/2 Are the safety valves fitted with easing gear no Working pressure as per Rules 218 lbs Hydraulic test pressure: tubes 250 lbs castings 250 lbs and after assembly in place 250 lbs Are drain cocks or valves fitted to free the superheater from water where necessary no

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with For AMOS & SMITH LTD.

The foregoing is a correct description,
[Signature] Manufacturer.

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

^{while building} ^{During erection on board vessel - - -} on backy. Total No. of visits 1

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

Change on engine report

Survey Fee	£	:	:	When applied for,	192
Travelling Expenses (if any)	£	:	:	When received,	192

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 27 NOV 1928

Assigned All Minute on Hull Rpt 39418 attached