

REPORT ON BOILERS.

No. 40712

3 APR 1930

Received at London Office

Date of writing Report *21st April 1930* When handed in at Local Office *7 April 1930* Port of **HULL**

No. in Reg. Book *11010* Survey held at *Hull* Date, First Survey *29 Aug/29* Last Survey *27 March 1930*

on the *Steam Trawler "FYLDEA"* (Number of Visits *23*) Gross Tons *555.33* Net Tons *40.49*

Master *Selby* Built at *Selby* By whom built *Cochrane & Sons Ltd* Yard No. *1072* When built *1930*

Engines made at *Hull* By whom made *Amos & Smith Ltd* Engine No. *599* When made *1930*

Boilers made at *Hull* By whom made *do* Boiler No. *599* When made *1930*

Nominal Horse Power *97* Owners *J. Mann & Sons Ltd* Port belonging to *Flintwood*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Apperby Iron & Steel Co Ltd* (Letter for Record *(S.)*)

Total Heating Surface of Boilers *1425 sq. ft.* Is forced draught fitted *ho* Coal or Oil fired *Coal*

No. and Description of Boilers *One single ended return tube* Working Pressure *200 lbs.*

Tested by hydraulic pressure to *350 lbs.* Date of test *12.2.30* No. of Certificate *3761* Can each boiler be worked separately

Area of Firegrate in each Boiler *51 sq. ft.* No. and Description of safety valves to each boiler *2 Spring loaded.*

Area of each set of valves per boiler *per Rule 9.8 sq. ft.* as fitted *9.8 sq. ft.* Pressure to which they are adjusted *200 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 *7"* 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'-6"* Length *10'-8"* Shell plates: Material *Steel* Tensile strength *29/33 Tons.*

Thickness *1 3/32"* Are the shell plates welded or flanged Description of riveting: circ. seams *end 3.81"* inter. *—*

long. seams *T.R. D.B.S.* Diameter of rivet holes in *circ. seams 1 9/32"* long. seams *1 9/32"* Pitch of rivets *3.81"*

Percentage of strength of circ. end seams *plate 68.0* rivets *42.0* Percentage of strength of circ. intermediate seam *plate 88.1* rivets *86.3*

Percentage of strength of longitudinal joint *plate 88.1* rivets *86.3* combined Working pressure of shell by Rules *201 lbs.*

Thickness of butt straps *outer 1 1/8"* inner *1 1/8"* No. and Description of Furnaces in each Boiler *One plain*

Material *Steel* Tensile strength *28/30 Tons.* Smallest outside diameter *42 3/8"*

Length of plain part *top 79"* bottom *74"* Thickness of plates *crowns 13/16"* 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 *204 lbs.*

End plates in steam space: Material *Steel* Tensile strength *28/30 Tons* Thickness *1 3/16"* Pitch of stays *20" x 18"*

How are stays secured *bombes nuts & washers* Working pressure by Rules *218 lbs.*

Tube plates: Material *Steel* Tensile strength *28/30 Tons.* Thickness *front 1 5/16"* back *7/8"*

Mean pitch of stay tubes in nests *16-4"* Pitch across wide water spaces *14"* Working pressure *front 209 lbs.* back *261*

Girders to combustion chamber tops: Material *Steel* Tensile strength *29/30 Tons.* Depth and thickness of girder at centre *9 1/2" x 13 1/4"* Length as per Rule *36 3/32"* Distance apart *9"* No. and pitch of stays in each *3 @ 8 3/4"* Working pressure by Rules *226 lbs.* Combustion chamber plates: Material *Steel.*

Tensile strength *28/30 Tons* Thickness: Sides *3/4"* Back *23/32"* Top *23/32"* Bottom *3/4"*

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

Working pressure by Rules *212 lbs.* Front plate at bottom: Material *Steel* Tensile strength *28/30 Tons.*

Thickness *1 5/16"* Lower back plate: Material *Steel* Tensile strength *28/30 Tons.* Thickness *29/32"*

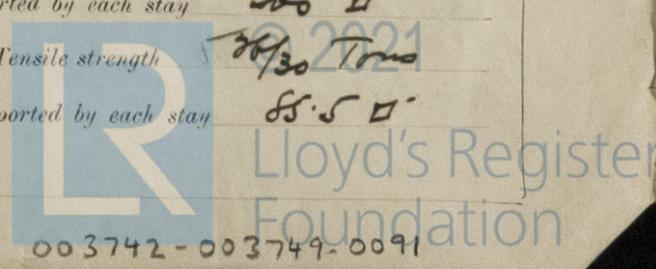
Pitch of stays at wide water space *14" x 9"* Are stays fitted with nuts or riveted over *Nuts*

Working Pressure *209 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 *360 sq. in.*

Working pressure by Rules *222 lbs.* Screw stays: Material *Steel* Tensile strength *28/30 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 *85.5 sq. in.*



PIYON

Working pressure by Rules 212 Lbs. Are the stays drilled at the outer ends ho Margin stays: Diameter 2" x 17/8"
 No. of threads per inch 9 Area supported by each stay 103.5 Working pressure by Rules 205 Lbs.
 Tubes: Material Low External diameter 3 1/2" Thickness 5/16" x 3/8" No. of threads per inch 9
 Pitch of tubes 4 3/4" x 5 1/4" Working pressure by Rules 215 Lbs. Manhole compensation: Size of opening in shell plate 16" x 12"
 Section of compensating ring 3 1/2" x 2 7/8" x 1 3/4" No. of rivets and diameter of rivet holes 32 @ 1 3/4"
 Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 1" Steam Dome: Material Low
 Tensile strength 55,000 Thickness of shell 1/2" Description of longitudinal joint Butt
 Diameter of rivet holes 1 1/4" Pitch of rivets 2" Percentage of strength of joint 100%
 Internal diameter 28" Working pressure by Rules 215 Lbs. Thickness of crown 1/2" No. and diameter of stays 12 @ 1 1/2"
 How connected to shell By stays Size of doubling plate under dome 16" x 12" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 1/4" @ 2"

Type of Superheater

Manufacturers of AMOS & SMITH LTD.
 Number of elements 1 Material of tubes Low Internal diameter and thickness of tubes 2 1/2" x 1/8"
 Material of headers Low Tensile strength 55,000 Thickness 1/2" Can the superheater be shut off and the boiler be worked separately No
 Is a safety valve fitted to every part of the superheater which can be shut off from the boiler No
 Area of each safety valve 1 1/2" Are the safety valves fitted with easing gear No Working pressure as per Rules 215 Lbs.
 Pressure to which the safety valves are adjusted 215 Lbs. Hydraulic test pressure: tubes 260 Lbs. castings 260 Lbs. and after assembly in place 260 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 Yes

The foregoing is a correct description, For AMOS & SMITH LTD. Manufacturer.

Dates of Survey See attached report Are the approved plans of boiler and superheater forwarded herewith Yes
 while building on board (If not state date of approval.)
 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, and the materials & workmanship are sound & good. It has been satisfactorily fitted on board, tried under steam, & its safety valves adjusted as above.

The stud rivets were sent with the report on the sister vessel 'Singapore'

Chapman engine report sent
 Survey Fee £ 100 When applied for 192
 Travelling Expenses (if any) £ 0 When received 192

John Mackenzie
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute See attached
 Assigned See attached

APR 8 1930

