

REPORT ON BOILERS.

No. 39815.

Received at London Office

Date of writing Report *29.4.1929* When handed in at Local Office *29 Apr 1929* Port of *HULL.*
 No. in Survey held at *Hull.* Date, First Survey *5 Nov/28* Last Survey *22 April 1929.*
 Reg. Book. *62008* on the *Steam Trawler "PERIHELION"* (Number of Visits *21*) Gross *313.98* Tons Net *145.86.*
 Master *By whom built* *Selby* Yard No. *1043* When built *1929*
 Engines made at *Hull* By whom made *Ains & Smith Ltd* Engine No. *576* When made *1929*
 Boilers made at *Hull* By whom made *do* Boiler No. *576* When made *1929*
 Nominal Horse Power *91.* Owners *Leitham S. Fishing Co Ltd* Port belonging to *Grimsby.*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Apperby Ltd & Steel Co Ltd.* (Letter for Record *S.*)
 Total Heating Surface of Boilers *1546 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 *3.4.29* No. of Certificate *3702* Can each boiler be worked separately *✓*
 Area of Firegrate in each Boiler *45 sq ft* No. and Description of safety valves to each boiler *2 Spring loaded.*
 Area of each set of valves per boiler *per Rule 9.0 sq ft* 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'-9"* Shell plates: Material *Steel* Tensile strength *29/33 Tons*
 Thickness *1 1/4"* Are the shell plates welded or flanged *✓* Description of riveting: circ. seams *end OR*
 long. seams *TR. S.S.* Diameter of rivet holes in *circ. seams 1 1/32"* Pitch of rivets *8 1/2"*
 Percentage of strength of circ. end seams *plate 66.9%* Percentage of strength of circ. intermediate seam *plate 42.2%*
 Percentage of strength of longitudinal joint *plate 84.9%* Working pressure of shell by Rules *201 lbs.*
 Thickness of butt straps *outer 1 1/2"* No. and Description of Furnaces in each Boiler *Three plain*
 Material *Steel* Tensile strength *28/30 Tons* Smallest outside diameter *41 7/8"*
 Length of plain part *top 80"* Thickness of plates *bottom 13/16"* Description of longitudinal joint *beaded*
 Dimensions of stiffening rings on furnace or c.c. bottom *3 1/2" x 3 1/2" x 3/16"* Working pressure of furnace by Rules *208 lbs.*
 End plates in steam space: Material *Steel* Tensile strength *28/30 Tons* Thickness *13/16"* Pitch of stays *21" x 16"*
 How are stays secured *Double nuts & washers.* Working pressure by Rules *200 lbs.*
 Tube plates: Material *Steel* Tensile strength *28/30 Tons* Thickness *7/8"*
 Mean pitch of stay tubes in nests *10'-1"* Pitch across wide water spaces *14"* Working pressure *front 208 lbs. back 220*
 Girders to combustion chamber tops: Material *Steel* Tensile strength *29/33 Tons* Depth and thickness of girder
 at centre *9 1/4" x 1 3/4"* Length as per Rule *36"* Distance apart *9"* No. and pitch of stays
 in each *3 @ 8"* Working pressure by Rules *204 lbs.* Combustion chamber plates: Material *Steel*
 Tensile strength *28/30 Tons* Thickness: Sides *4/16"* Back *1 1/16"* Top *1 1/16"* Bottom *1 1/16"*
 Pitch of stays to ditto: Sides *10" x 8"* Back *9 7/8" x 8 1/2"* Top *9" x 8"* Are stays fitted with nuts or riveted over *nuts*
 Working pressure by Rules *205 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 *7/8"*
 Pitch of stays at wide water space *14" x 9"* Are stays fitted with nuts or riveted over *nuts*
 Working Pressure *200 lbs.* Main stays: Material *Steel* Tensile strength *28/32 Tons*
 Diameter *At body of stay, 3 1/4"* No. of threads per inch *6* Area supported by each stay *336 sq in*
 Working pressure by Rules *240 lbs* Screw stays: Material *Steel* Tensile strength *28/30 Tons*
 Diameter *At turned off part, 1 7/8" x 1 3/4"* No. of threads per inch *9* Area supported by each stay *81.75 sq in*

Penhigon

Working pressure by Rules 222 Lbs. Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, or Over threads 2" x 17/8"
No. of threads per inch 9 Area supported by each stay 101.75 sq" Working pressure by Rules 200 Lbs.
Tubes: Material Iron External diameter { Plain 3 1/2" Thickness { 3/16" x 5/16" No. of threads per inch 9
Pitch of tubes 5 1/8" x 5" Working pressure by Rules 215 Lbs. Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 56 7/8" dia No. of rivets and diameter of rivet holes
Outer row rivet pitch at ends _____ Depth of flange if manhole flanged _____ Steam Dome: Material Steel
Tensile strength 40/30 Tons. Thickness of shell 3/4" Description of longitudinal joint S.R. Lap.
Diameter of rivet holes 1" Pitch of rivets 2 1/4" Percentage of strength of joint { Plate 54.0
Internal diameter 36" Working pressure by Rules _____ Thickness of crown 5/16" Rivets 43.6
stays 2 @ 2 1/2" Inner radius of crown _____ Working pressure by Rules _____
How connected to shell Riveted Size of doubling plate under dome 56 7/8" Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1 1/4" @ 10 1/4"

Type of Superheater _____ 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 23 inclusive for boilers been complied with _____

For AMOS & SMITH LTD.

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - }

See attached report on Machy.

MANAGER
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.)

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, examined under working conditions, & its safety valves adjusted as above.

Survey Fee _____

Travelling Expenses (if any) £ _____

When applied for, _____

When received, _____

192

192

John H. Mackay,
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____

FRI. 3 MAY 1929

Assigned _____

See report attached



© 2021

Lloyd's Register
Foundation