

## REPORT ON BOILERS.

No. 39729

28 MAR 1929

Received at London Office

Date of writing Report

27 MAR 1929

When handed in at Local Office

27 MAR 1929

Port of

HULL.

No. in Survey held at Reg. Book.

Hull.

Date, First Survey

31 Dec/28

Last Survey

16 Mar 1929

(Number of Visits 15)

Gross 374.05

Net 156.33

on the Steam Trawler "MONIMIA"

Master

Built at

Barnley

By whom built

Cook, Hutton &amp; Gunning

Card No.

575

When built

1929

Engines made at

Hull

By whom made

Amos &amp; Smith &amp; Co

Engine No.

544

When made

1929

Boilers made at

Hull

By whom made

do

Boiler No.

544

When made

1929

Nominal Horse Power

96

Owners

Hemmickson &amp; Co Ltd.

Port belonging to

Hull

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley &amp; Son &amp; Co Ltd.

(Letter for Record)

Total Heating Surface of Boilers

1665 Sq. ft. ✓

Is forced draught fitted

No ✓

Coal or Oil fired

Coal ✓

No. and Description of Boilers

One single ended return tube 1. Sp.

Working Pressure

210 lbs ✓

Tested by hydraulic pressure to

365

Date of test

22.2.29

No. of Certificate

3694

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 9.6 sq ft  
as fitted 9.8 sq ft

Pressure to which they are adjusted

210 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 1/16" ✓

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

{ end  
inter.

long. seams

T.R. 5/8".

Diameter of rivet holes in

{ circ. seams 1 1/32" ✓  
long. seams

Pitch of rivets

{ 4 1/2" ✓  
9 1/4" ✓

Percentage of strength of circ. end seams

{ plate 66.8  
rivets 42.2

Percentage of strength of circ. intermediate seam

{ plate 85.4  
rivets 86.8

Percentage of strength of longitudinal joint

{ plate 85.4  
rivets 86.8  
combined

Working pressure of shell by Rules

216 lbs.

Thickness of butt straps

{ outer 1" ✓  
inner 1 1/8" ✓

No. and Description of Furnaces in each Boiler

Three plain

Material

Steel.

Tensile strength

26/30 Tons

Smallest outside diameter

41.625"

Length of plain part

{ top 80" ✓  
bottom 73" ✓

Thickness of plates

{ crown 13/16" ✓  
bottom

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

✓

Working pressure of furnace by Rules

210 lbs.

End plates in steam space: Material

Steel

Tensile strength

26/30 Tons.

Thickness

1 1/16" ✓

Pitch of stays

20" x 14" ✓

How are stays secured

Double nuts &amp; washers ✓

Working pressure by Rules

238 lbs.

Tube plates: Material

{ front Steel  
back

Tensile strength

26/30 Tons.

Thickness

{ 15/16" ✓  
7/8" ✓

Mean pitch of stay tubes in nests

10.2

Pitch across wide water spaces

14" ✓

Working pressure

{ front 212 lbs.  
back 270 -

Girders to combustion chamber tops: Material

Steel.

Tensile strength

29/33 Tons.

Depth and thickness of girder

at centre

9 1/2" x 13 1/4" ✓

Length as per Rule

35" ✓

Distance apart

9" ✓

No. and pitch of stays

in each

3 @ 7 1/2" ✓

Working pressure by Rules

212 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons.

Thickness: Sides

1 1/2" ✓

Back

1 1/2" ✓

Top

1 1/2" ✓

Bottom

23/32" ✓

Pitch of stays to ditto: Sides

9 1/2" x 8" ✓

Back

9" x 8 1/2" ✓

Top

9" x 7 1/2" ✓

Are stays fitted with nuts or riveted over

nuts.

Working pressure by Rules

216 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30 Tons

Thickness

1 1/16" ✓

Lower back plate: Material

Steel. ✓

Tensile strength

26/30 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

218 lbs.

Main stays: Material

Steel.

Tensile strength

26/32 Tons.

Diameter

{ At body of stay,  
or  
Over threads

3 1/4" ✓

No. of threads per inch

6 ✓

Area supported by each stay

340 sq in.

Working pressure by Rules

236 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

76.5 sq in.

002289-002297-0022



Working pressure by Rules *234 lbs.* Are the stays drilled at the outer ends *20* Margin stays: Diameter { At turned off part or Over threads *7"*  
No. of threads per inch *9* Area supported by each stay *111 sq.* Working pressure by Rules *222 lbs.*  
Tubes: Material *low* External diameter { Plain *3 1/2"* Thickness *3/8" of 5/16"* No. of threads per inch *9*  
Pitch of tubes *4 3/4"* Working pressure by Rules *215 lbs.* Manhole compensation: Size of opening in shell plate *16" x 12"* Section of compensating ring *24" x 27" x 1 5/16"* No. of rivets and diameter of rivet holes *32 1 5/16"*  
Outer row rivet pitch at ends *9 1/4"* 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 Rivets  
Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays  
How connected to shell Inner radius of crown Working pressure by Rules  
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 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,  
*W. C. Brown.* Manufacturer.

Dates of Survey { During progress of work in shops - - - See attached report on Machy Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
while building { During erection on board vessel - - - 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, tried under steam and its safety valves adjusted as above.*

Charges on Engine report  
Survey Fee *£100* When applied for, *✓* 192  
Travelling Expenses (if any) *£100* When received, *✓* 192  
*John A. Mackay*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 12 APR 1929*  
Assigned *See Minute on Hull Rpt 39729 attached*