

REPORT ON BOILERS.

No. 8923.

Hull Rpt No. 28625

Received at London Office THU. APR. 29. 1915

Date of writing Report

191

When handed in at Local Office

Apl. 28 1915 Port of Middlesbrough

No. in Survey held at

Middlesbrough

Date, First Survey

June 30 1914

Last Survey

November 13 1914

Reg. Book

52 In the Boiler No. M 2237

(Number of Visits)

15

Gross
Tons
Net

Master

Built at

Selby

By whom built

Cochrane & Sons

When built

Engines made at

Coatbridge

By whom made

H.V.I. Lidgerwood & Co.

When made

Boilers made at

Middlesbrough

By whom made

Richardsons, Westgarth & Co. Ltd.

When made

1914

Registered Horse Power

Owners

Gt. Northern S.S. Fishing Co. Ltd. Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Messrs. Krupp & J. Spencer & Sons Ltd.

(Letter for record

(S)

Total Heating Surface of Boilers 810 sq ft

Is forced draft fitted

No. and Description of

Boilers One S.E. Cyb. mult.

Working Pressure 200 lbs

Tested by hydraulic pressure to 400 lbs

Date of test 13.11.14

No. of Certificate 5418

Can each boiler be worked separately

✓

Area of fire grate in each boiler 25 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 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

abt. 9"

Int.

Mean dia. of boilers 11.0"

Length 9.6"

Material of shell plates Steel

Thickness 1"

Range of tensile strength 29-33

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

DR Lap

long. seams

DR 5 Rivets

Diameter of rivet holes in long. seams 1 1/8"

Pitch of rivets 7 1/2"

Lap of plates or width of butt straps 16 1/2"

Per centages of strength of longitudinal joint

rivets 98.2

Working pressure of shell by

rules 205 lbs

Size of manhole in shell 16 x 12"

Size of compensating ring

McNeil's

No. and Description of Furnaces in each

boiler Two plain

Material Steel

Outside diameter 3'-3"

Length of plain part

top 5'-2 1/2"

bottom 4'-9"

Thickness of plates

crown 47"

bottom 64"

Description of longitudinal joint

Welded

No. of strengthening rings

✓

Working pressure of furnace by the rules 202

Combustion chamber

plates: Material Steel

Thickness: Sides 5/8"

Back 5/8"

Top 5/8"

Bottom 13/16"

Pitch of stays to ditto: Sides 9 x 7 1/4"

Back 8 1/2 x 7 3/4"

Area

Top 9 x 7 1/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules 204

Material of stays Steel

Diameter at

smallest part 2.07"

Area supported by each stay 66"

Working pressure by rules 282

End plates in steam space: Material Steel

Thickness 1"

Area

Pitch of stays 15 x 14 1/2"

How are stays secured

knw

Working pressure by rules 218

Material of stays Steel

Diameter at smallest part 5.03"

Area supported by each stay 217.5"

Working pressure by rules 240

Material of Front plates at bottom Steel

Thickness 1"

Material of

Lower back plate Steel

Thickness 1"

Greatest pitch of stays 13 3/4 x 7 3/4"

Working pressure of plate by rules 276

Diameter of tubes 3 1/4"

Pitch of tubes 4 3/4 x 4 1/2"

Material of tube plates Steel

Thickness: Front 1"

Back 7/8"

Mean pitch of stays 9 1/4"

Pitch across wide

water spaces 13 3/4"

Working pressures by rules 204 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 7 3/4 x 1 3/4"

Length as per rule 2'-7 1/2"

Distance apart 7 1/4"

Number and pitch of Stays in each 2 @ 9"

Working pressure by rules 223 lbs

Superheater or Steam chest: how connected to boiler

None

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

✓

For and on Are they fitted with easing gear

✓

SURVEY

REQUEST

NO. 973

ATTACHED

The foregoing is a correct description,

M. J. J. J.

Manufacturer.

Dates

During progress of

1914 Jun. 30. Jul. 7. 14. 21. 31. Aug. 25. 28. Sep. 22. Oct. 3. 12.

of Survey

work in shops - - -

while

During erection on

22. 30 Nov. 10. 13.

building

board vessel - - -

Total No. of visits

15

With Report
8922

GENERAL REMARKS

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

This boiler has been

constructed under Special Survey, is of good material and workmanship, and has been tested by hydraulic pressure with satisfactory results. It has now been sent to Hull to be fitted in the vessel.

Survey Fee

...

£ 2

13.4

When applied for

To be credited from Glasgow

Travelling Expenses (if any) £

:

:

When received

Lon

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

TUE. JUL. 6-1915

Committee's Minute

Assigned

005961-005413-6232