

REPORT ON BOILERS.

No. 42944

WFD. 15 AUG. 1923

Received at London Office

Date of writing Report

192

When handed in at Local Office

12/8/22

1923

Port of Glasgow

No. in Survey held at
Reg. Book.

Date, First Survey

8/12/22

Last Survey

8/8/23

1923

(Number of Visits 46)

Tons

Gross 5419

Net 3380

on the S.S. "Kummalah"

Master

Built at

Glasgow

By whom built

G. Connell

Yard No.

397

When built 1923

Engines made at

Glasgow

By whom made

Dunsmuir & Jackson

Engine No.

546

When made 1923

Boilers made at

do

By whom made

do

Boiler No.

546

When made 1923

Nominal Horse Power

475

Owners

Asiatic S. N. Co.

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Stirling & Co. of Scotland*(Letter for Record *S.*)

Total Heating Surface of Boilers

1169 sq. ft. Is forced draught fitted *no*Coal or Oil fired *Coal*

No. and Description of Boilers

*One single ended multitubular*Working Pressure *110*

Tested by hydraulic pressure to

215

Date of test

13.4.23

No. of Certificate

16231

Can each boiler be worked separately *✓*

Area of Firegrate in each Boiler

41 sq. ft.

No. and Description of safety valves to each boiler

Fair - spring loaded

Area of each set of valves per boiler

{ per Rule

11.69 sq. ft.

{ as fitted

14.12 sq. ft.

Pressure to which they are adjusted

110 lb. Are they fitted with easing gear *yes*In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *no*

Smallest distance between boilers or uptakes and bunkers or woodwork

*2 in. fidley*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

12'-0"

Length

10'-6"

Shell plates: Material

S.

Tensile strength

28-32 lb.

Thickness

*3/4"*Are the shell plates welded or flanged *no*

Description of riveting: circ. seams

{ end *J.R.*{ inter *none*

long. seams

T.R. Lap.

Diameter of rivet holes in

{ circ. seams *1 1/8"*{ long. seams *1 1/8"*

Pitch of rivets

{ *3.58*{ *4 7/32"*

Percentage of strength of circ. end seams

{ plate *68.5*{ rivets *60.7*

Percentage of strength of circ. intermediate seam

{ plate *✓*{ rivets *✓*

Percentage of strength of longitudinal joint

{ plate *73.3*{ rivets *77.4*

{ combined

Working pressure of shell by Rules *111*

Thickness of butt straps

{ outer *none*{ inner *none*

No. and Description of Furnaces in each Boiler

Two plain

Material

S.

Tensile strength

26-30

Smallest outside diameter

3'-10 1/4"

Length of plain part

{ top *6'-5 1/2"*{ bottom *6'-10 1/2"*

Thickness of plates

{ crown *1 1/16"*{ bottom *1 1/16"*

Description of longitudinal joint

weld

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

*T bar 6" x 3" x 1/2"*Working pressure of furnace by Rules *135*

End plates in steam space: Material

S.

Tensile strength

26-30

Thickness

*7/8"*Pitch of stays *18" x 17 3/8"*How are stays secured *J.N.*Working pressure by Rules *111*

Tube plates: Material

{ front *S.*{ back *S.*

Tensile strength

{ *26-30*{ *" - "*

Thickness

{ *25/32"*{ *25/32"*

Mean pitch of stay tubes in nests

12 3/4"

Pitch across wide water spaces

14" x 14 3/4"

Working pressure

{ front *111*{ back *111*

Girders to combustion chamber tops: Material

Iron

Tensile strength

24

Depth and thickness of girder

at centre

7" x 1 1/2"

Length as per Rule

31 1/16"

Distance apart

9 1/4"

No. and pitch of stays

in each

*2 @ 10"*Working pressure by Rules *119*Combustion chamber plates: Material *S.*

Tensile strength

26-30

Thickness: Sides

1 1/16"

Back

19/32"

Top

1 1/16"

Bottom

1 1/16"

Pitch of stays to ditto: Sides

10" x 10"

Back

10" x 9 1/2"

Top

*10" x 9 1/4"*Are stays fitted with nuts or riveted over *nuts*Working pressure by Rules *146*Front plate at bottom: Material *S.*

Tensile strength

26-30

Thickness

*25/32"*Lower back plate: Material *S.*

Tensile strength

26-30

Thickness

1 1/16"

Pitch of stays at wide water space

*14 3/4" x 10"*Are stays fitted with nuts or riveted over *nuts*Working Pressure *119*Main stays: Material *S.*

Tensile strength

28-32

Diameter

{ At body of stay, *2 1/4"*

{ Over threads

No. of threads per inch

6

Area supported by each stay

312.78 sq. in. Working pressure by Rules *110*Screw stays: Material *S.*

Tensile strength

26-30

Diameter

{ At turned off part, *1 5/8"*

{ Over threads

No. of threads per inch

9

Area supported by each stay

100 sq. in. Lloyd's Register
Foundation
W203-0081

REPORT ON BOILERS

Working pressure by Rules 121 Are the stays drilled at the outer ends 40 Margin stays: Diameter { At turned off part, or Over threads 1 3/4" ✓
No. of threads per inch 9 ✓ Area supported by each stay 127.6"² Working pressure by Rules 142
Tubes: Material J ✓ External diameter { Plain 3" ✓ Thickness { 8. L. S. G. 3/8", 5/16" No. of threads per inch 9 ✓
Pitch of tubes 4 1/4" ✓ Working pressure by Rules 164 Manhole compensation: Size of opening in
shell plate 16" x 12" ✓ Section of compensating ring 32 1/4" x 30 1/2" x 1 3/16" No. of rivets and diameter of rivet holes 32 - 1 1/8" ✓
Outer row rivet pitch at ends 5 1/4" ✓ Depth of flange if manhole flanged 3" ✓ 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 Inner radius of crown Working pressure by Rules
How connected to shell 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

DUNSMUIR & JACKSON, Limited.
The foregoing is a correct description,
James Jackson Director, Manufacturer.

Dates of Survey { During progress of work in shops - - - See accompanying
while building { During erection on board vessel - - - Machinery Report.
Are the approved plans of boiler and superheater forwarded herewith 40
(If not state date of approval) See sister vessel
Total No. of visits NURJEHAN, Gls Rpt 42781

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the Society's Rules and approved plan, the materials and workmanship are good. The boiler has been satisfactorily fitted on board the S.S. "Kumohval" see Gls Report N° 42944.

Survey Fee ... £ 4 : 4 : 0 When applied for, 11.8.1923
Travelling Expenses (if any) £ : : When received, 16/8/1923

James Jackson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 AUG 1923

Assigned See accompanying machinery report.