

Rpt. 4.

# REPORT ON MACHINERY

No. 39505

REC'D - JAN 1920

Date of writing Report

31. 12. 19

When handed in at Local Office

2. 1. 20

Port of

Received at London Office

Glasgow.

No. in Survey held at  
Reg. Book.

TROON & Ayr.

Date, First Survey

13th May 1919

Last Survey

30. 12. 1919

(Number of Visits) 40

on the

S.S. "JESSIE SUMMERFIELD"

Master G. Summerfield

Built at

Ayr.

By whom built

Aitha S.B. Co (Nº 372)

Tons

Gross 423

Net 161

When built

1919

Engines made at

TROON

By whom made

Aitha S.B. Co (Nº 104)

when made

1919

Boilers made at

GLASGOW

By whom made

Dunsmuir & Jackson (Nº 123)

when made

1919

Registered Horse Power

Owners

Summerfield S.B. Co.

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

88.9 89.

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Compound Surf. Condg.

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

18" 36"

Length of Stroke

27"

Revs. per minute

106

Dia. of Screw shaft

as per rule 8.09

Material of

Steel / Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Yes

Is the after end of the liner made water tight

in the propeller boss

Yes

If the liner is in more than one length are the joints burned

Yes

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Yes

Yes

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush

2'-9 1/2"

Dia. of Tunnel shaft

as per rule 4.44

Dia. of Crank shaft journals

as per rule 4.84

Dia. of Crank pin

8 1/2"

Size of Crank webs

15 1/2 x 5 1/2"

Dia. of thrust shaft under

collars

8 1/2"

Dia. of screw

9'-5"

Pitch of Screw

12'-6"

No. of Blades

4

State whether moveable

Yes

Total surface

31 1/2'

No. of Feed pumps

2

Diameter of ditto

2 1/2"

Stroke

14"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3"

Stroke

14"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

5' x 3 1/2' x 6"

General Service

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

1-2" & 1-2 1/2"

Special

In Holds, &c.

3-2"

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

1/2" - 2 1/2"

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

None

Are all connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Yes

Are the Discharge Pipes above or below the deep water line

above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

Are pipes carried through the bunkers

Bilge & peak tank suction

How are they protected

wood casing

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

worked from

MANUFACTURERS, &c.—(Letter for record

S.)

Manufacturers of Steel

Steel Coy of Scotland - Stewart & Lord

Heating Surface of Boilers

824 sq ft

Is Forced Draft fitted

No.

No. and Description of Boilers

One S.E. Marine

Working Pressure

130 lbs.

Tested by hydraulic pressure to

260 lbs.

Date of test

26. 8. 19

No. of Certificate

14864

Can boiler be worked separately

Yes

Area of fire grate in each boiler

53 1/2 sq ft

No. and Description of Safety Valves

Area of each valve

4.06 sq ft

Pressure to which they are adjusted

135 lbs

Are they fitted with easing gear

Yes

Distance between boilers

uptakes and bunkers

8'-3"

Mean dia. of boilers

13'-9"

Length

10'-6"

Material of shell plates

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Working pressure of shell by rules

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

Compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder

at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

UPPER HEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

SEPARATE

REPORT

SEE

Lloyd's Register Foundation



IS A DONKEY BOILER FITTED?

No ✓

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end bolts and nuts, 2 bottom end bolts and nuts, 2 main beam bolts, 1 set coupling bolts, 1 set feed & helix pump valves, 1 set air pump valves, 1 set circulating pump valves, 4 propeller blades, 6 boiler tubes, 1/2 set of firebars, 2 back bearings, quantity, assorted bolts and nuts, iron of various sizes

The foregoing is a correct description,

FOR AILSA SHIPBUILDING CO., LIMITED.

J. McNaughton

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 19.19 May 13. June 2. 4. 9. 23. July 1. 8. 10. 16. Aug 5. 14. 19. 25. 29. Sept 4. 8. 12. 24. Oct 2. 7. 10. 16. 21. 23. 28. 31. Nov 4. 6. 10. 13. 19. 24. Dec 12. 14. 19. 23. 26. 29. 30. During erection on board vessel - - - 16. 21. 23. 28. 31. Nov 4. 6. 10. 13. 19. 24. Dec 12. 14. 19. 23. 26. 29. 30. Total No. of visits 40

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts—Cylinders 19. 8. 19 Slides 2. 10. 19 Covers 16. 7. 19 Pistons 16. 10. 19 Rods 16. 10. 19 Connecting rods 14. 8. 19 Crank shaft 2. 10. 19 Thrust shaft 2. 10. 19 Tunnel shafts 2. 10. 19 Screw shaft 2. 10. 19 Propeller 28. 10. 19 Stern tube 28. 10. 19 Steam pipes tested 19. 12. 19 Engine and boiler seatings 12. 12. 19. Engines holding down bolts 19. 12. 19 Completion of pumping arrangements 19. 12. 19. Boilers fixed 23. 12. 19. Engines tried under steam 29. 12. 19. Completion of fitting sea connections 2. 10. 19 Stern tube 2. 10. 19 Screw shaft and propeller 2. 10. 19 Main boiler safety valves adjusted 29. 12. 19. Thickness of adjusting washers 5/16" S. 1/32" P. Material of Crank shaft Steel Identification Mark on Do. No 107. LLOYD'S 2. 10. 19 P.T.B. Material of Thrust shaft Steel Identification Mark on Do. No 108. LLOYD'S 2. 10. 19 P.T.B. Material of Tunnel shafts Steel Identification Marks on Do. No 109. LLOYD'S 2. 10. 19 P.T.B. Material of Screw shafts Steel Identification Marks on Do. No 110. LLOYD'S 2. 10. 19 P.T.B. Material of Steam Pipes Copper Test pressure 260 lbs. ✓

Is an installation fitted for burning oil fuel

No ✓

Is the flash point of the oil to be used over 150°F.

✓

Have the requirements of Section 49 of the Rules been complied with

✓

Is this machinery duplicate of a previous case

✓ If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The materials and workmanship

are good. This machinery has been built under special survey in accordance with the Rules and approved plans, securely fitted aboard and tried with satisfactory results under steam.

By an oversight on the part of the builders, a web forming a diaphragm between the suction and discharge sides of the circulating pump at the bottom was omitted. The fact was only discovered on the day of the dock trial. As a temporary measure the passage concerned was blocked with cement. The machinery was afterwards tested for about 6 hours at sea with satisfactory results and on the conclusion of trials the pump was opened out and found satisfactory. It has been arranged to fit new type of door to the circulating pump which will make the omitted diaphragm unnecessary. Plans showing the existing & proposed arrangements attached.. In my opinion this ~~new~~ machinery is suitable for class

with record + L.M.C. 12, 19 subject to the alteration of the circulating

The amount of Entry Fee ... £ 1-0-0. When applied for, 5/11 1920. Special ... £ 7-5-0. Donkey Boiler Fee ... £ :. When received, 31/1/1920. Travelling Expenses (if any) £ 5-5-0.

A. R. Allen.

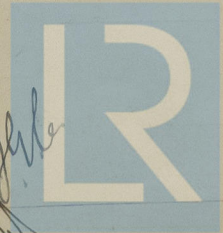
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 6 - JAN 1920

Assigned + L.M.C. 12, 19 subject to

MACHINERY CERT. WRITTEN 7/1/20.

Note Limit.



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Glasgow.

"JESSIE SUMMERFIELD"

being carried out within three months.

An arrangement has been made between the builders and owners for this to be done.

M. R. Allen

A.B. A sketch attached. Omitted rib is marked A  
Space filled with cement is marked B.

0222 2/2



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