

REPORT ON MACHINERY.

No. 46855

Received at London Office 27 JUL 1927

Date of writing Report

19

When handed in at Local Office

13. 7. 1927 Port of Glasgow

Survey held at Glasgow

Date, First Survey 20. 8. 26. Last Survey 11-7-1927

Book.

on the new steel S/S "BENVENUE".

(Number of Visits 10.8)

Gross 5920

Net

er

Built at Glasgow

By whom built Charles Bonnell & Co. Ltd. S/S No. 407

When built 1927

es made at

Glasgow

By whom made David Rowan & Co. Ltd. (No. 848)

when made 1927

rs made at

Glasgow

By whom made David Rowan & Co. Ltd. (No. 848)

when made 1927

stered Horse Power

Owners Ben Line Steamers Limited (W. Thomson mngs)

Port belonging to Leith

Horse Power as per Section 28

675

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

INES, &c.—Description of Engines

Quadruple expansion

No. of Cylinders 4

No. of Cranks 4

of Cylinder 24 1/2"-35 1/2"-51 1/2"-73 1/2"

Length of Stroke 51"

Revs. per minute 65

Dia. of Screw shaft

as per rule 15.27"

Material of steel

e 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

be propeller boss

yes

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

-

If the liner does not fit tightly at the part

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

yes

If two

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

-

Length of stern bush 5'-4"

of Tunnel shaft

as per rule 13.77"

as fitted 14"

Dia. of Crank shaft journals

as per rule 14.45"

as fitted 14 3/4"

Dia. of Crank pin 14 3/4"

Size of Crank web 22 1/2" x 9 3/4"

Dia. of thrust shaft under

rs 15"

Dia. of screw 18'-0"

Pitch of Screw 18'-6"

No. of Blades 4

State whether moveable

yes

Total surface 1060 ft

of Feed pumps 2

Diameter of ditto 4 1/2"

Stroke 27"

Can one be overhauled while the other is at work

yes

of Bilge pumps 2

Diameter of ditto 4 1/2"

Stroke 27"

Can one be overhauled while the other is at work

yes

of Donkey Engines 5

SIZES OF PUMPS

10 1/2" x 8" x 22" - 10" x 8" x 22" - 10" x 8" x 22" - 10" x 8" x 22" - 10" x 8" x 22"

General

7 1/2" x 8" - Sanitary

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

Engine Room 2 @ 3 1/2"

In Holds, &c. No. 1 hold - 2 @ 3 1/2". No. 2 hold - 2 @ 3 1/2".

Deep Tank - 2 @ 3 1/2"

No. 4 hold - 2 @ 3" and 1 @ 3 1/2".

of Bilge Injections 1

size 9"

Connected to condenser, or to circulating pump

B.P.

Is a separate Donkey Suction fitted in Engine room & size 2 @ 3 1/2"

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

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

yes

Are they Valves or Cocks

both

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

both

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

at pipes are carried through the bunkers

forward hold suction

How are they protected

under timber boards

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

yes

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

yes

the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from upper deck

LERS, &c.—(Letter for record

5)

Manufacturers of Steel

Butehoffnungshütte alt-Walserke-Oberhausen Germany

Heating Surface of Boilers

87300 ft

Is Forced Draft fitted

yes

No. and Description of Boilers

Three single ended

Working Pressure 220

Tested by hydraulic pressure to

380

Date of test

26-4-27

No. of Certificate

17392

each boiler be worked separately

yes

Area of fire grate in each boiler

71.50 ft

No. and Description of Safety Valves to

Are they fitted with easing gear

yes

boiler 2

High lift

Area of each valve

5.940"

Pressure to which they are adjusted

225

Are they fitted with easing gear

yes

allest distance between boilers or uptakes and bunkers or woodwork

7'-6"

Mean dia. of boilers

16'-0"

Length

12'-6"

Material of shell plates

steel

ckness 1 3/4"

Range of tensile strength

30-34 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

seams WBS. TR

Diameter of rivet holes in long. seams

1 9/16"

Pitch of rivets

10 1/2"

Lap of plates or width of butt straps

23 1/4"

centages of strength of longitudinal joint

rivets 87.8

plate 85.1

Working pressure of shell by rules

220

Size of manhole in shell

19 1/2" x 15 1/2"

of compensating ring 2'-1" x 2'-9" x 1 3/4"

No. and Description of Furnaces in each boiler

4 Deighton

Material

steel

Outside diameter

40 1/2"

length of plain part

top 3'-10" x 12" manhole

bottom 3'-10" x 12" manhole

Thickness of plates

crown 3/4"

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

221

Combustion chamber plates: Material

steel

Thickness: Sides

3/4"

Back

1 1/6"

Top

3/4"

Bottom

2 1/2"

ch of stays to ditto: Sides

9" x 9"

Back

8 1/2" x 8 1/2"

Top

9" x 9"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

224

End plates in steam space:

Material of stays

steel

Area at smallest part

1730"

Area supported by each stay

68.060"

Working pressure by rules

224

Material of stays

steel

Material

steel

Thickness

1 1/2"

Pitch of stays

21 1/2" x 21 1/2"

How are stays secured

D.N.

Working pressure by rules

222

Material of Front plates at bottom

steel

Area at smallest part

8290"

Area supported by each stay

420

Working pressure by rules

222

Material of Front plates at bottom

steel

Thickness

15 1/16"

Material of Lower back plate

steel

Thickness

13 1/16"

Greatest pitch of stays

13 1/4" x 8 1/4"

Working pressure of plate by rules

223

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/16" x 4 3/8"

Material of tube plates

steel

Thickness: Front

15 1/16"

Back

7 1/8"

Mean pitch of stays

9.92"

ch across wide water spaces

14"

Working pressures by rules

222

Girders to Chamber tops: Material

steel

Depth and

ckness of girder at centre

2 @ 10 1/8" x 7 1/8"

Length as per rule

37 1/2"

Distance apart

9"

Number and pitch of stays in each

3 @ 9"

Working pressure by rules

222

Steam dome: description of joint to shell

none

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

ch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

after fitting in boiler

Tested by Hydraulic Pressure to

440 lbs

PERHEATER. Type

Smoke tube

Date of Approval of Plan

See Nmr Rpt. (Gen. N° 6849)

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

yes

Date of Test

20-5-27

Is Easing Gear fitted

yes

Diameter of Safety Valve

1 1/2"

Pressure to which each is adjusted

227

Is Easing Gear fitted

yes

AUXILIARY
IS ~~AN~~ BOILER FITTED?

yes

If so, is a report now forwarded?

yes

SPARE GEAR. State the articles supplied:— as per Rules, and in addition - 2 bottom end bearings, one H.P. piston ring, one impeller and shaft for circulating pump and four propeller blades.

The foregoing is a correct description,

For David Rowan & Co. Ltd
A. H. H. Grierson

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1926 Aug 20 25 27 Sep 1 3 8 23 30 Oct 1 4 5 6 13 14 22 29 Nov 1 2 3 10 16 22 24 26 30 Dec 2 3 6 13 15 16
During erection on board vessel - - 21 22 23 27 28 30 (1927) Jan 11 12 13 17 18 19 20 21 26 27 31 Feb 1 3 7 8 9 11 14 16 18 22 25 Mar 3 8 10 16 18 23 24 25 28 Apr 1 4 6 8 11 13 14 19 26 28 May 2 5 9 10 11 13 16 19 20 23 25 Jun 3 9 14 16 17 21 23 24 27 28 29
Total No. of visits July 1 4 6 11 (108)

Is the approved plan of main boiler forwarded herewith

yes

auxiliary
donkey

yes

Dates of Examination of principal parts—Cylinders 2-11-26 Slides 28-12-26 Covers 6-12-26 Pistons 2-12-26 Rods 9-2-27
Connecting rods 20-1-27 Crank shaft 27-1-27 Thrust shaft 12-1-27 Tunnel shafts 25-5-27 Screw shaft 24-1-27 Propeller 17-1-27
Stern tube 19-5-27 Steam pipes tested 11-1-27 to 1-7-27 Engine and boiler seatings 17-6-27 Engines holding down bolts 4-7-27
Completion of pumping arrangements 4-7-27 Boilers fixed 4-7-27 Engines tried under steam 11-7-27
Completion of fitting sea connections 14-6-27 Stern tube 20-5-27 Screw shaft and propeller 14-6-27
Main boiler safety valves adjusted 6-7-27 Thickness of adjusting washers all 3/8"
Material of Crank shaft J. steel Identification Mark on Do. LLOYD'S NO 848 27-1-27 L.C.D.
Material of Tunnel shafts J. steel Identification Marks on Do. LLOYD'S NO 848 25-5-27 L.C.D.
Material of Steam Pipes Lapwelded with iron ✓ Test pressure 660 lb per sq in
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

except that an auxiliary boiler is now fitted instead of a donkey boiler "Benarty"

Is this machinery duplicate of a previous case yes ✓ If so, state name of vessel

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

The materials and workmanship are good.
The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good. It is eligible in my opinion for classification and the Record + LMC 7, 27

It is submitted that
this vessel is eligible for
THE RECORD + LMC 7. 27 FD. CL.
3SB & 1AUXSB.

The amount of Entry Fee ... £ 6 : -
Special ... £ 108 : 15
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :

When applied for,

14 JUL 1927

When received,

19. 7. 27

S. C. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 26 JUL 1927

Assigned

+ LMC 7. 27

CERTIFICATE WRITTEN
27/7/27



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Foundation