

REPORT ON MACHINERY.

No. 28360

FRI. MAR 10 1915

Received at London Office

Date of writing Report 8th Mar. 1915 When handed in at Local Office

8-3-15 Port of Hull

No. in Survey held at Hull

Date, First Survey 21-8-14 Last Survey 4-3-1915

Reg. Book

Solely on the steel "PRINCESS MARIE-JOSE" (1073)

Number of Visits 39

Gross 274

Net 109

When built 1915

Master

Built at Beverley

By whom built

Cook, Nelson, Lemmell

Engines made at Hull

By whom made

C. N. Holmes & Co. Ltd

when made

1915

Boilers made at Hull

By whom made

C. N. Holmes & Co. Ltd

when made

1915

Registered Horse Power

Owner

Primitiv, Ltd. Hawking Co

Port belonging to

Hull

Nom. Horse Power as per Section 28

79

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple-expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 12 1/4, 22, 36

Length of Stroke 24

Revs. per minute

Dia. of Screw shaft

as per rule 7 1/2

Material of screw shaft

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

If two

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

Length of stern bush 3'-0"

Dia. of Tunnel shaft as per rule 6.67

Dia. of Crank shaft journals as per rule 7.06

Dia. of Crank pin 7 1/4

Size of Crank web 4 1/2 x 4 1/2

Dia. of thrust shaft under collars 7 1/4

Dia. of screw 9'-3" Pitch of Screw 10'-8"

No. of Blades 4

State whether moveable no

Total surface 30 sq. ft.

No. of Feed pumps 1

Diameter of ditto 2 1/2

Stroke 14 1/4

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/2

Stroke 14 1/4

Can one be overhauled while the other is at work

No. of Donkey Engines One

Sizes of Pumps 6 x 3 1/2 x 6

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

In Engine Room 2-2

In Holds, &c. 4-2

After slushwell, Forward

No. of Bilge Injections 1

sizes 3 1/2

connected to condenser, or to circulating pump

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

What pipes are carried through the bunkers

Hold Suctions

How are they protected

Wood Casings

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

Dates of examination of completion of fitting of Sea Connections

17.11.14

of Stern Tube 17.11.14

Screw shaft and Propeller 17.11.14

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel

Mussis, Stewart & Lloyd

Total Heating Surface of Boilers

1310

Is Forced Draft fitted

no

No. and Description of Boilers

One single-ended

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

30.11.14

Can each boiler be worked separately

yes

Area of fire grate in each boiler

46.87

No. and Description of Safety Valves to

each boiler

2 Spring loaded

Area of each valve

4.9

Pressure to which they are adjusted

203 lbs.

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

13'-6"

Length 10'-8"

Material of shell plates

S

Thickness 1/32

Range of tensile strength

28 tons

Are the shell plates welded or flanged

yes

Descrip. of riveting: cir. seams

10R

long. seams

J.R.A.B.

Diameter of rivet holes in long. seams

1 1/32

Pitch of rivets

8 1/6

Lap of plates or width of butt straps

17 1/2"

Per centages of strength of longitudinal joint

rivets 89

plate 84.8

Working pressure of shell by rules

202

Size of manhole in shell

16 x 12

Size of compensating ring

7' x 1 1/32

No. and Description of Furnaces in each boiler

3 plain

Material S

Outside diameter 39"

Length of plain part

top 76"

bottom 32"

Thickness of plates

crown 25"

Description of longitudinal joint

welded

No. of strengthening rings

yes

Working pressure of furnace by the rules

203

Combustion chamber plates: Material S

Thickness: Sides 3/4

Back 23/32

Top 3/4

Bottom 3/4

Pitch of stays to ditto: Sides 8 1/4 x 9

Back 8 1/4 x 10

Top 8 1/4 x 11

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

210

Material of stays

S

Diameter at smallest part

2.07

Area supported by each stay

84

Working pressure by rules

221

End plates in steam space

yes

Material S

Thickness 1 1/6

Pitch of stays

20 x 20

How are stays secured

J.M.W.

Working pressure by rules

204

Material of stays

S

Diameter at smallest part

8.76

Area supported by each stay

400 lbs.

Working pressure by rules

225

Material of Front plates at bottom

S

Thickness 1"

Material of Lower back plate

S

Thickness 29/32

Greatest pitch of stays

13 1/2 x 10

Working pressure of plate by rules

202

Diameter of tubes

3 1/2

Pitch of tubes

5 x 5

Material of tube plates

S

Thickness: Front 1"

Back 29/32

Mean pitch of stays

10"

Pitch across wide water spaces

13 3/4

Working pressures by rules

203

Girders to Chamber tops: Material S

Depth and thickness of girder at centre

11 3/4 x 1 3/4

Length as per rule

3 1/2

Distance apart

11"

Number and pitch of stays in each

30 8 1/4"

Working pressure by rules

209

Superheater or Steam chest, how connected to boiler

Can the superheater be shut off and the boiler worked separately

yes

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

Are they fitted with easing gear

yes

IS A DONKEY BOILER FITTED?

NO.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two each top and bottom end connecting rod bolts nuts, two main bearing bolts and nuts, one set of coupling bolts nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc., 2 donkey pump valves, for suction chest.

The foregoing is a correct description,

P. pro CHARLES D. HOLMES & Co. LTD.

Richard Holmes DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914 - Aug 21. 25 Sep 18. 28 Oct 1. 6. 8. 16. 20. 28. 30 Nov 3. 9. 11. 14. 16. 17. 18. 23. 25. 27. 30
During erection on board vessel - - - Dec 7. 10. 14. 18. 22 1915 - Jan 6. 14. 27 Feb 9. 12. 15. 23. 24. 26. Mar 2. 3. 4
Total No. of visits 39.

Is the approved plan of main boiler forwarded herewith yes ✓

Dates of Examination of principal parts—Cylinders 18.12.14 Slides 22.12.14 Covers 22.12.14 Pistons 18-12-14 Rods 18-12-14
Connecting rods 18.12.14 Crank shaft 16.11.14 Thrust shaft 7.12.14 Tunnel shafts ✓ Screw shaft 16.11.14 Propeller 16.11.14
Stern tube 16.11.14 Steam pipes tested 24.2.15 Engine and boiler seatings 17.11.14 Engines holding down bolts 23.2.14
Completion of pumping arrangements 3.3.15 Boilers fixed 23.2.14 Engines tried under steam 26.2.15
Main boiler safety valves adjusted 26.2.15 Thickness of adjusting washers FV $\frac{5}{16}$ " AV $\frac{9}{32}$ "
Material of Crank shaft ✓ Identification Mark on Do. 1390 Material of Thrust shaft S. Identification Mark on Do. 1267
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts I Identification Marks on Do. ✓
Material of Steam Pipes Copper solid drawn ✓ Test pressure 400 lbs hyd. pressure.
Is an installation fitted for burning oil fuel ✓ 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 NO. If so, state name of vessel. ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The Boiler tested by hydraulic pressure and with the engines secured on board and tested under steam. They are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of +mc 3.15 in the Register book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3.15.

The amount of Entry Fee ... £ 1 : :
Special ... £ 11 : 17 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 2 : :
When applied for, 18/3 1915
When received, 30 Mar 1915 14/3

J. S. MacKillop
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE MAR 23 1915

Assigned + LMC 3.15



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Foundation