

REPORT ON MACHINERY

No. 72986
THU. APR. 15 1920

Received at London Office

Date of writing Report 12th April 1920 When handed in at Local Office 12th April 1920 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Farron & Hordson Date, First Survey 14 April 1919 Last Survey 1 April 1920
Reg. Book. 11930 on the S S Camilla Gilbert (Number of Visits 54)Master Built at Hordson By whom built Northumberland S B Cohen Tons { Gross 5627
Net 3548
When built 1920

Engines made at Farron By whom made Palmus S B Cohen when made 1920

Boilers made at do By whom made do when made 1920

Registered Horse Power Owners Gilbert Dampski's A/S Port belonging to Bergen

Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks 3

Dia. of Cylinders 27 44 & 73 Length of Stroke 48 Revs. per minute 77 Dia. of Screw shaft as per rule 14 7/8 Material of screw shaft Steel

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

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 If two

liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5-0 1/2

Dia. of Tunnel shaft as per rule 13 3/4 Dia. of Crank shaft journals as per rule 1 1/4 Dia. of Crank pin 1 1/2 Size of Crank webs 5 x 9 Dia. of thrust shaft under

collars 1 1/4 Dia. of screw 17-6 Pitch of Screw 16-6 No. of Blades 4 State whether moveable No Total surface 98.2 sq ft

No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines Three Sizes of Pumps 10 1/2 x 14 x 24 9 1/2 x 7 x 15 No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room Four 3 1/2 diameter In Holds, &c. No 3 1/2 diameter in Nos 1, 2, 3

and 4 holds and one 2 1/2 in tunnel well

No. of Bilge Injections 1 sizes 1/3 Connected to condenser, or to circulating pump No Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 Yes

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 All 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

That pipes are carried through the bunkers Bilge pipes to forward holds How are they protected Wood boxing

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 Yes worked from Engine room top platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Spencer & Son No. 3515

Total Heating Surface of Boilers 7665 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Single Ended

Working Pressure 180 lb per sq in Tested by hydraulic pressure to 360 lb per sq in Date of test 8/10/19 20/10/19 No. of Certificate 2305 2311

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 sq ft No. and Description of Safety Valves to

each boiler 1 on direct spring Area of each valve 9.62 sq in Pressure to which they are adjusted 185 lb per sq in Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 30 in Mean dia. of boilers 15.6 Length 11.6 Material of shell plates Steel

Thickness 1 1/4 Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 2 R Lap

Long. seams 5 rivets Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 9 1/8 Lap of plates or width of butt straps 19 1/2

Percentages of strength of longitudinal joint rivets 55.3 Working pressure of shell by rules 182 lb Size of manhole in shell 16 x 12

Size of compensating ring flanged spigot No. and Description of Furnaces in each boiler 3 Brighton Material Steel Outside diameter 50 7/8

Length of plain part Top Thickness of plates crown 19/32 Description of longitudinal joint Welded No. of strengthening rings

Working pressure of furnace by the rules 188 Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 1/16 Top 23/32 Bottom 23/32

Pitch of stays to ditto: Sides 11 3/32 x 5 3/8 Back 10 1/4 x 5 3/8 Top 10 5/8 x 9 1/4 If stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 180

Material of stays Steel Area at smallest part 2.75 sq in Area supported by each stay 104 sq in Working pressure by rules 219 End plates in steam space:

Material Steel Thickness 1 1/32 Pitch of stays 20 1/2 x 21 1/2 How are stays secured Double nuts Working pressure by rules 192 Material of stays Steel

Area at smallest part 8.48 sq in Area supported by each stay 446 sq in Working pressure by rules 199 Material of Front plates at bottom Steel

Thickness 3/32 Material of Lower back plate Steel Thickness 2 7/32 Greatest pitch of stays 13 5/8 x 5 3/8 Working pressure of plate by rules 187

Diameter of tubes 2 3/4 Pitch of tubes 4 x 3 7/8 Material of tube plate Steel Thickness: Front 31/32 Back 3/4 Mean pitch of stays 9 7/8

Pitch across wide water spaces 13 7/8 Working pressures by rules 181 lb Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 10 x 1 3/4 Length as per rule 35 7/8 Distance apart 10 5/8 Number and pitch of stays in each Three, 9 1/4

Working pressure by rules 187 lb 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

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type None 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

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 top and 2 bottom end connecting rod bolts and nuts, 2 main bearing bolts & nuts, one set of coupling bolts and nuts, one feed pump suction and one discharge valve, one bilge pump suction and one discharge valve, 3 main and 3 donkey check valves, 24 assorted bolts & nuts, 6 cylinder cover studs and nuts, 6 steam chest cover studs and nuts, 12 junk ring studs and nuts, 5 bars round iron, $\frac{3}{8}$ " $\frac{1}{2}$ " $\frac{5}{8}$ " $\frac{3}{4}$ " and 1", one propeller ~~shaft~~ etc.

For

The foregoing is a correct description,

Palmer Shipbuilding & Iron Co., Ltd.

The aforementioned propeller is being forwarded to Cherbourg to be fitted. I understand the working propeller has been broken at Cherbourg.

Manufacturer.

General Manager, Engine Works.

Dates of Survey while building

During progress of work in shops --
During erection on board vessel --
Total No. of visits

1919
Apr. 14. 16. May 14. 28. Jun. 2. 18. Jul. 3. 10. 25. Aug. 1. 11. 15. 18. 22. Sep. 1. 5. 12. 17. 19. 29. Oct. 6. 7. 8. 15. 16. 20.
1920
30. Nov. 6. 12. 17. Dec. 11. 12. 15. 16. 18. 22. Jan. 6. 8. 9. 20. 27. 28. 29. Feb. 3. 13. 21. Mar. 10. 11. 12. 20. 26. 29. Apr. 1.

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " " " " " " "

None

Dates of Examination of principal parts—Cylinders 14/5. 28/5. 12/6

Connecting rods 16/11. 8/12. Crank shaft 14/4. 2/6. 19 Thrust shaft 2/6. 19 Tunnel shafts 2/6. 19 Screw shafts 17/9. 19 Propeller 6/5. 12/9. 19

Stern tube 20/10. 19 Steam pipes tested 20/12. 19 Engine and boiler seatings 6/1. 20 Engines holding down bolts 13/2. 20

Completion of pumping arrangements 1/4. 20 Boilers fixed 12/2. 20 Engines tried under steam 12/2. 20. 26/3. 20

Completion of fitting sea connections 22/12. 19 Stern tube 22/12. 19 Screw shaft and propeller 22/12. 19

Main boiler safety valves adjusted 26/2. 20 Thickness of adjusting washers B 7/16. 7/32. C B 1/2. 5/8. A B 1/2. 7/16

Material of Crank shaft Steel Identification Mark on Do. 14/20. 6M Material of Thrust shaft Steel Identification Mark on Do. 14/20. 6M

Material of Tunnel shafts do Identification Marks on Do. do Material of Screw shafts do Identification Marks on Do. do

Material of Steam Pipes Steel & Copper Test pressure 540 + 360 lb per sq. in.

Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150°F. yes

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

Is this machinery duplicate of a previous case. If so, state name of vessel Standard Class B.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been constructed under special survey, the materials and workmanship are of good quality, it has been securely fitted on board and satisfactorily tried under full steam, burning coal and later burning oil. The boilers are now fitted for burning coal on the outward voyage.

The machinery of this vessel is now in my opinion eligible for record: L.M.C. 4.20 (mixed) in the registered book

9 Castings & forgings reports, invoices for furnaces and steel test specimens now forwarded.

It is submitted that this vessel is eligible for

THE RECORD

+ L.M.C. 4.20 F.D. 16/4/20

FITTED FOR OIL FUEL 4.20 F.P. ABOVE 150°F.

The amount of Entry Fee ... £ 3:00

Special ... £ 45:17

Donkey Boiler Fee ... £

Chargeable Expenditure ... £

Travelling Expenses (if any) £ 15:00

When applied for, 14 APR 1920

When received, 23/4/20

George Murdoch, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI APR 23 1920

Assigned + L.M.C. 4.20 F.D.

Issued for Oil Fuel 4.20 F.P. Above 150°F

CERTIFICATE WRITTEN



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