

Rpt. 4.

REPORT ON MACHINERY.

No. 15705

Date of writing Report 20th Dec '19 When handed in at Local Office 23/12/19

Received at London Office

MON 29 DEC 1919

No. in Survey held at West Hartlepool

Date, First Survey 5th Feb/19 Last Survey 22nd Dec 1919

WEST HARTLEPOOL

Reg. Book.

32287 on the S.S. "Gondia"

(No 918)

(Number of Tonnage 147)

Gross 5286.

Master J.L. Moth

Built at West Hartlepool By whom built Wm Gray & Co. Ltd.

Tonnage Net 3232

Engines made at West Hartlepool

By whom made Central Marine Engine Works Ltd.

When built 1919

Boilers made at ditto

By whom made ditto

when made 1919

Registered Horse Power

Owners British India Steam Navigation Co. Ltd.

Port belonging to London

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 3

No. of Cranks 3

Dia. of Cylinders 27"-44"-73"

Length of Strokes 48

Revs. per minute 75

Dia. of Screw shaft as per rule 14.7

Material of screw shaft Ing. Stl

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

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

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

Dia. of Tunnel shaft as per rule 13.33

as fitted 13.5

Dia. of Crank shaft journals as per rule 14

as fitted 14.5

Dia. of Crank pin 14.5

Size of Crank webs 9x22.5

Dia. of thrust shaft under

collars 14.5

Dia. of screw 17.6

Pitch of Screw 15.6

No. of Blades 4

State whether moveable yes

Total surface 102.5

Also two independent

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 3

Sizes of Pumps

Feed 9.5x7x18

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

In Engine Room 4 of 3.5

Ballast 10.5x14x24

In Holds, &c. Two of 3.5 in each hold

One of 3.5 in tunnel

No. of Bilge Injections 1

size 13

Connected to condenser, or to circulating pump C.P.A.

a separate Donkey Suction fitted in Engine room & size 3.5

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 both

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 none

How are they protected

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 29-9-19 of Stern Tube 6-11-19

Screw shaft and Propeller 10-11-19

Is the Screw Shaft Tunnel watertight see ship repair

Is it fitted with a watertight door yes

worked from upper grating

OILERS, &c.—(Letter for record S)

Manufacturers of Steel J. Spencer & Sons Ltd.

Total Heating Surface of Boilers 7468

Is Forced Draft fitted yes

No. and Description of Boilers 3 single ended

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 31-7-19

No. of Certificate 3542

Can each boiler be worked separately yes

Area of fire grate in each boiler 63.3

No. and Description of Safety Valves to each boiler 2 direct spring

Area of each valve 9.62

Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 3'-0"

Mean dia. of boilers 15'-6"

Length 11'-6"

Material of shell plates Steel

Thickness 1 1/4"

Range of tensile strength 28/32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams D.R. Lap

Diameter of rivet holes in long. seams 1 5/16"

Pitch of rivets 9 1/8"

Lap of plates or width of butt straps 19 1/2"

Working pressure of shell by rules 182 lbs

Size of manhole in shell end 12x16

Use of compensating ring flanged

No. and Description of Furnaces in each boiler 3 Deighton's

Material Steel

Outside diameter 50 3/16"

Length of plain part top

Thickness of plates crown 19

bottom 32

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 188 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 23/32"

Back 1/16"

Top 23/32"

Bottom 23/32"

Pitch of stays to ditto: Sides 10 5/8x9 1/4"

Back 10 1/4x8 3/4"

Top 10 5/8x9 1/4"

How are stays secured D.N. & W.

Working pressure by rules 219 lbs

End plates in steam space

Material of stays Steel

Diameter at smallest part 2.395

Area supported by each stay 9 1/4x10 5/8"

Working pressure by rules 219 lbs

Material of stays Steel

Thickness 1 3/32"

Pitch of stays 20 1/2x21 1/4"

How are stays secured D.N. & W.

Working pressure by rules 190 lbs

Material of stays Steel

Diameter at smallest part 8 1/8"

Area supported by each stay 21 1/8x21 3/4"

Working pressure by rules 192 lbs

Material of Front plates at bottom Steel

Thickness 3/8"

Greatest pitch of stays 13 5/8x8 3/4"

Working pressure of plate by rules 194 lbs

Material of tube plates Steel

Thickness: Front 31/32"

Back 3/4"

Mean pitch of stays 8x11 5/8"

Pitch of tubes 4x3 5/8"

Working pressure by rules 180

Girders to Chamber tops: Material Steel

Depth and

Pitch of stays 10x1 3/4"

Length as per rule 35 1/2"

Distance apart 10 5/8"

Number and pitch of stays in each Three 9 1/4"

Superheater or Steam chest; how connected to boiler none

Can the superheater be shut off and the boiler worked

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

Fitted 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

Lloyd's Register

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W702-0109

IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 2 Bolts & nuts for connec. rod top ends & bottom ends and for main bearings 6 Coupling bolts & nuts. 1 set valves for feed, bilge & air pumps. 1/3rd crank shaft. Screw shaft. Propeller 1 set H.P. piston rings. 1 pair top end brasses 1 pair bottom end bearings 1 pair main bearings 1 eccentric strap 12 Condenser tubes 12 boiler tubes. Assorted bolts, studs, nuts and iron. Various spare parts for circulating and fan engines.

The foregoing is a correct description,
FOR THE CENTRAL MARINE ENGINE WORKS,
(21, King & Co. (1915) Ltd.)

Mobile

Manufacturer.

MANAGING DIRECTOR, C.M.E.W.

Dates of Survey while building { During progress of work in shops - 1919. Feb 5. 10. 11. 14. 20. March 14. 18. 27. April 3. 4. 7. 8. 11. 14. 16. 23. 25. 28. May 1. 7. 12. 13. During erection on board vessel - 14. 15. 16. 19. 21. 23. 26. 28. 29. June 2. 3. 4. 5. 6. 11. 12. 16. 17. 20. 23. 25. 26. 27. 30. July 2. 4. 7. 9. 10. 11. 14. 15. 16. 17. 18. 22. 23. 24. 25. 28. 29. 30. 31. Aug 1. 11. 13. 14. 15. 18. 19. 20. 21. 22. 27. 28. 29. Sep 1. 3. 8. 9. 19. 21. 23. 25. 29. 30. Oct 1. 3. 6. 9. 19. Total No. of visits 13. 18. 22. 31. Nov 1. 7. 10. 13. 14. 19. 19. 20. 25. 28. Dec 4. Is the approved plan of main boiler forwarded herewith Previously sent with duplicate
5. 9. 12. 16. 18. 22. = 114. visits " " " donkey " " " " " duplicate

Dates of Examination of principal parts - Cylinders 2. 7. 19. Slides 28. 7. 19. Covers 25. 6. 19. Pistons 25. 6. 19. Rods 18. 8. 19.

Connecting rods 17. 4. 19. Crank shaft 22. 8. 19. Thrust shaft 22. 8. 19. Tunnel shafts 27. 6. 19. Screw shaft 4. 7. 19. Propeller 13. 10. 19.

Stern tube 15. 10. 19. Steam pipes tested 19. 11. 19. Engine and boiler seatings 31. 10. 19. Engines holding down bolts 24. 11. 19.

Completion of pumping arrangements 12. 12. 19. Boilers fixed 14. 11. 19. Engines tried under steam 12. 12. 19.

Main boiler safety valves adjusted 12. 12. 19. Thickness of adjusting washers P. 3/8" 3/8" bare C. 23/64" 19/32" S. 23/64" 3/8"

Material of Crank shaft Ingot Stl Identification Mark on Do. 6074 Material of Thrust shaft Ingot Stl Identification Mark on Do. 6074

Material of Tunnel shaft Ingot Stl Identification Marks on Do. 6074 Material of Screw shaft Ingot Stl Identification Marks on Do. 6074

Material of Steam Pipes Lap welded steel Test pressure 600 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 yes If so, state name of vessel "Golconda"

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

An evaporator fitted, the body of which was tested by hydraulic pressure to 50 lbs and the coils to 400 lbs per square inch.

This vessels machinery has been built and installed under Special Survey and is in accordance with the provisions of the Rules. The materials and workmanship are good.

The engines, boilers and auxiliaries were tried at moorings under full steam and the safety valves adjusted.

This vessels machinery is eligible in my opinion to have the notation **⊕ LMC 12. 19.**

It is submitted that
this vessel is eligible for
⊕ LMC 12. 19. F.D.

Jur

30/12/19

PR

The amount of Entry Fee ... £

When applied for.

Special

...

24/12/19

Donkey Boiler Fee

...

30/12/19

Travelling Expenses (if any) £

...

Committee's Minute

SAT 2 JAN 1920

Assigned

+ LMC 12. 19.

J.D.

R.D. Philston

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



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