

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

23 AUG 1930

21 AUG 1929

Port of

LIVERPOOL

Date of writing Report

19

When handed in at Local Office

No. in Survey held at
Reg. Book.

Date, First Survey

4th Dec 1929

Last Survey

31st July

1930

on the

S. S. 'Claughton'

(Number of Visits)

91

Gross

484

Tons

Net

When built

1930

Engines made at

Birkenhead

By whom made

Cammell Laird & Co Ltd

Engine No.

when made

1930

Boilers made at

Birkenhead

By whom made

Cammell Laird & Co Ltd

Boiler No.

when made

1930

Registered Horse Power

Owners

Municipal Corporation of Birkenhead

Port belonging to

Liverpool

Nom. Horse Power as per Rule

194

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Ferry Service

ENGINES, &c.—Description of Engines

Twin screw, vertical triple expansion

Revs. per minute 130

Dia. of Cylinders

15 1/2", 24", 28 1/2", 28 1/2"

Length of Stroke

18"

No. of Cylinders

Two sets of 4

No. of Cranks

4 each engine

Crank shaft, dia. of journals

as per Rule

6 3/4"

Crank pin dia.

7"

Crank webs

Mid. length breadth

4 1/4"

shrink

Thickness parallel to axis

Thickness around eye-hole

Intermediate Shafts, diameter

as per Rule

6 1/2"

as fitted

Thrust shaft, diameter at collars

as per Rule

7 1/2"

as fitted

2 1/2"

Tube Shafts, diameter

as per Rule

1"

as fitted

Screw Shaft, diameter

as per Rule

7 1/2"

as fitted

Is the shaft fitted with a continuous liner

No

Bronze Liners, thickness in way of bushes

as per Rule

1/8"

as fitted

Thickness between bushes

as per Rule

1/8"

as fitted

Is the after end of the liner made watertight in the

propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

If so, state type

Propeller, dia.

7'-6"

Pitch

12'-0"

No. of Blades

3

Material

Cast iron

whether Moveable

No

Total Developed Surface

27 sq. feet

Feed Pumps worked from the Main Engines, No.

None

Diameter

4"

Stroke

5"

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No.

Two

Diameter

4"

Feed Pumps

No. and size

Two - 6" x 8 1/2" x 13" stroke

How driven

Steam

Pumps connected to the

Main Bilge Line

No. and size

One 6" x 5 1/2" x 15" stroke

Ballast Pumps, No. and size

None

Lubricating Oil Pumps, including Spare Pump, No. and size

None

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps, In Engine and Boiler Room

4 - 2 1/2" dia

In Holds, &c.

Hold 1-2" dia Fore peak 1-2" dia Aft peak 1-2" dia

Main Water Circulating Pump Direct Bilge Suctions, No. and size

1-6" dia

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

1-3" dia

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

Yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Are all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both

Are the Overboard Discharges above or below the deep water line

Above

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

Yes

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

What Pipes pass through the bunkers

None

How are they protected

Yes

Have they been tested as per Rule

Yes

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

Yes

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

MAIN BOILERS, &c.—(Letter for record

S)

Total Heating Surface of Boilers

3600 sq. ft.

Is Forced Draft fitted

No

No. and Description of Boilers

2 Cylindrical direct tube

Working Pressure

180 lb sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

Duplicate

Main Boilers

Duplicate

Auxiliary Boilers

Donkey Boilers

Are approved plans forwarded herewith for Shafting

Yes

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

Yes

SPARE GEAR. State the articles supplied:—

2 propellers, 1 screw shaft, 2 stern bushes, set of

Coupling bolts, 2 top & 2 bottom end bolts, 2 main bearing bolts, 2 pairs of connect-

rod brasses, 50 Condenser tubes & 100 ferrules, and other items in accordance with

Spare gear list attached to report on S. S. 'Thurston'.

The foregoing is a correct description,
CAMMELL LAIRD AND COMPANY LIMITED.J. W. Laird
SECRETARY

Manufacturer.



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Lloyd's Register
Foundation

010924-010932-0192

18450

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

Dec. 4. 10. 13. 16. 23. 30. Jan. 8. 16. 17. 20. 22. 23. 27. 28. Feb. 5. 11. 12. 13. 19. 20. 21. 24. 25. 26. 27. Mar. 4. 6. 7. 10. 11. 12. 13. 14. 17. 19. 20. 21. 24. 25. 26. 28. 31. Apr. 1. 3. 4. 7. 14. 16. 17. 22. 25. 28. May. 1. 2. 6. 7. 9. 12. 13. 15. 16. 20. 21. 23. 24. 27. 28. 29. June. 2. 3. 6. 10. 12. 13. 16. 19. 23. 25. 27. 30. July. 2. 7. 8. 11. 14. 15. 22. 23. 28. 31

91.

Dates of Examination of principal parts—Cylinders 17/30 4/31 7/31 20/31 24/31 Slides 27/30 14/41 Covers 28/30 28/31

Pistons 17/30 27/31 Piston Rods 17/30 27/31 Connecting rods 17/30 27/31

Crank shaft 21/30 13/31 Thrust shaft 20/31 3/41 Intermediate shafts 24/30 14/41

Tube shaft Screw shaft 7/31 24/31 14/41 Propeller 20/31 28/31

Stern tube 28/4. 9/5. 23/5 Engine and boiler seatings 23/6/30 Engines holding down bolts 15/7/30

Completion of fitting sea connections 28/6/30 Boilers fixed 14/7 Engines tried under steam 31. 7. 30

Completion of pumping arrangements 15/7/30 Thickness of adjusting washers Port 7 5/16 A 1/32 Stet. F 9 1/32 A 1 1/64

Main boiler safety valves adjusted 28/7/30 Crank shaft material Steel Identification Mark 65408 Thrust shaft material Steel Identification Mark 3452 AF

Intermediate shafts, material Steel Identification Marks 3452 AF Tube shaft, material Steel Identification Mark 3452 AF

Screw shaft, material Steel Identification Mark 3452 AF Steam Pipes, material Copper Test pressure 360 lb Date of Test 7/7 27/7

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 the Rules for the use of oil as fuel been complied with ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with

Is this machinery duplicate of a previous case No If so, state name of vessel S. Thursterton, S. Hinderton

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

The Machinery of this Vessel has been constructed under special Survey, and in accordance with the Rules and the approved plans, and the materials and workmanship are good. The Machinery has been examined under full working conditions during trial and found satisfactory, and is eligible in our opinion for classification in Register book with record of + LMC 7.30.

It is submitted that this vessel is eligible for THE EXCISE + LMC 7.30 O.G.

ARK 27/8/30

The amount of Entry Fee ... £ 3 0-0 When applied for, 21 AUG 1930

Special ... £ 48 10-0

Donkey Boiler Fee ... £ 1 1-0 When received, 2. 9. 30

Travelling Expenses (if any) £ : : 22 AUG 1930

Committee's Minute LIVERPOOL

Assigned + L.M.C. 7.30 O.G. Elec. Light.

J. Milton & H. B. Murray

Engineer Surveyor to Lloyd's Register of Shipping.



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