

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

TUE 22 APR. 1924

Date of writing Report

19

When handed in at Local Office

16-4-24

Port of

Middlesbrough

No. in Survey held at
Reg. Book.

South Bank

Date, First Survey

10th April 1923

Last Survey

12th April 1924

(Number of Visits 42)

on the machinery of the steel screw steamer

ALACRITY

Tons

Gross

Net

Built at

South Bank

By whom built

Smith's Dock Company Ltd.

Yard No.

781

When built

1924

Engines made at

South Bank

By whom made

Smith's Dock Company

Engine No.

237

when made

1924

Boilers made at

Sunderland

By whom made

N.E. Marine Eng. Co. Ltd.

Boiler No.

2523

when made

1924

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Rule

263

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple expansion

Dia. of Cylinders

21-35-57 1/2

Length of Stroke

42

Revs. per minute

No. of Cylinders

3

No. of Cranks

3

Dia. of Crank shaft journals

as per rule 11.4

as fitted 11.5

Dia. of Crank pin

11.5

Crank webs

Mid. length breadth 7 1/4

Mid. length thickness 18 1/2

If shrunk

Thickness parallel to axis 7 1/4

Thickness around eye-hole 5

Diameter of Thrust shaft under collars

as per rule 11.4

as fitted 11.5

Diameter of Tunnel shaft

as per rule 10.86

as fitted 11

Diameter of Screw shaft

as per rule 12.7

as fitted 13.25

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 watertight in the propeller boss

Yes

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

In one length

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

Yes

Is an approved appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated

No

Length of Stern Bush

4-11 1/2

Diameter of Propeller

16-0

Pitch of Propeller

15-2

No. of Blades

four

State whether Moveable

No

Total Surface

75 sq

square feet.

No. of Feed Pumps fitted to the Main Engines

2

Diameter of ditto

3 1/4

Stroke

22

Can one be overhauled while the other is at work

Yes

No. of Bilge Pumps fitted to the Main Engines

2

Diameter of ditto

3 1/4

Stroke

22

Can one be overhauled while the other is at work

Yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps

1 @ 6" x 4" x 6"

1 @ 10" x 11" x 10"

No. and size of Pumps connected to the Main Bilge Line

One 10" x 11" x 10"

No. and size of Ballast Pumps

One 10" x 11" x 10"

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

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

Yes

No. and size of suctions connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room

2 @ 3" @ 3"

and in Holds, &c. 2 @ 3" in No 1 & 2 holds

4 @ 2 1/2" in No 3 hold. Tunnel well 1 @ 2 1/4"

No. and size of Main Water Circulating Pump Bilge Suctions

One 6"

No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges

One 3 1/2"

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

No (old Rule)

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

suctions to forward holds

How are they protected

wood ceiling

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

Yes

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from Top platform

MAIN BOILERS, &c.—(Letter for record S)

Total Heating Surface of Boilers

4462 sq

Is Forced Draft fitted

No

No. and Description of Boilers

Two single ended marine

Working Pressure

180

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

Yes

see Sunderland Rpt No 28717

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

PLANS.

Are approved plans forwarded herewith for Shafting

Yes

Main Boilers

Yes

Auxiliary Boilers

Yes

Donkey Boilers

Yes

General Pumping Arrangements

Yes

Oil Fuel Burning Piping Arrangements

Yes

SPARE GEAR.

State the articles supplied:—

One cast iron propeller, two each of connecting rod top and bottom end and main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, one set of main and donkey chuck valves, one safety valve spring, crank shaft gauge. A quantity of assorted bolts & nuts & iron of various sizes

The foregoing is a correct description

For Smith's Dock

Manufacturer.



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Lloyd's Register
Foundation

002690-002700-0167

During progress of work in shops - - 1923/ Apr. 10. 11. 19. 24. 25. May 4. 8. 11. 17. 23. 28 June 1 Oct 11. 31 (1924) Jun 23. 28 Feb 2. 15
19. 29. Mar 3. 7. 7. 10 11 12 13 14 17 19 21 25 27 28 31 Apr. 1 2 4 8 10 11 12
Dates of Survey while building During erection on board vessel - - -
Total No. of visits 42

Dates of Examination of principal parts - Cylinders 17-5-23 Slides 17-5-23
Covers 17-5-23 Pistons 17-5-23 Rods 17-5-23
Connecting rods 17-5-23 Crank shaft Luth 22-3-23 Thrust shaft Luth 23-3-23
Tunnel shafts Luth 22-3-23 Screw shaft Luth 22-3-23 Propeller 19-2-24
Stern tube 19-2-24 Engine and boiler seatings 29-2-24 Engines holding down bolts 28-3-24
Completion of pumping arrangements 8-4-24 Boilers fixed 17-3-24 Engines tried under steam 8-4-24
Completion of fitting sea connections 29-2-24 Stern tube 10-3-24 Screw shaft and propeller 11-3-24
Main boiler safety valves adjusted 8-4-24 Thickness of adjusting washers Port boiler PV 1/4 S.V. 3/8 Starboard boiler PV 7/16 S.V. 1/32
Material of Crank shaft Ingot steel Identification Mark on Do. 514
Material of Thrust shaft Ingot steel Identification Mark on Do. 542
Material of Tunnel shafts Ingot steel Identification Marks on Do. 543
Material of Screw shafts Ingot steel Identification Marks on Do. 541
Material of Steam Pipes Solid drawn copper Test pressure 400 lbs ✓ Date of Test 1-4-24 ✓
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 carrying and burning oil fuel been complied with ✓
Is this machinery duplicate of a previous case Yes ✓ If so, state name of vessel S.S. "Crackshot" ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey. The materials and workmanship are sound & good. The engines, boilers and auxiliaries were examined under steam and all found satisfactory.
The machinery is now in a good and safe working condition and renders the vessel eligible in our opinion to have the notation + LMC 4.24 in the Register Book

Note:- This vessel is fitted with Electric Light & "Winders"

It is submitted that this vessel is eligible for THE RECORD. + LMC 4.24. CL

W.D. 23/4/24

W.D. Morrison & A.D. Morrison
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 4 : 0 0 ✓ When applied for,
Special ... £ 37 : 1 0 ✓ 17.4.1924
Donkey Boiler Fee ... £ : : ✓ When received,
Travelling Expenses (if any) £ : : ✓ 22.4.1924
Committee's Minute WFD. 23 APR 1924
Assigned + LMC 4.24
C.L.