

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 21 NOV 1929

Date of writing Report 19 When handed in at Local Office 20 NOV 1929 Port of *Lundland*

No. in Survey held at *Lundland* Date, First Survey 9 May 29 Last Survey 11 Nov 1929  
Reg. Book. on the *S.S. "TORCHBEARER"* (Number of Visits 36)

Built at *Lundland* By whom built *J. Brown & Sons Ltd.* Yard No. 182 Tons { Gross 1267  
Net 684

Engines made at *Do* By whom made *George Black Ltd.* Engine No. 1174 When built 1919  
Boilers made at *Do* By whom made *Do* Boiler No. 1174 when made 1919

Registered Horse Power Owners *Gas Light & Coke Co* Port belonging to *Lund.*

Nom. Horse Power as per Rule 156 Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

Trade for which Vessel is intended *coal*

ENGINES, &c.—Description of Engines *Triple Expansion* Revs. per minute 72

Dia. of Cylinders 18"-30"-49" Length of Stroke 33" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 9.345" Crank pin dia. 9 3/8" Crank webs Mid. length breadth 14 3/8" Thickness parallel to axis 6 1/8"  
as fitted 9 3/8" Mid. length thickness 8" shrunk Thickness around eye-hole 4 1/8"

Intermediate Shafts, diameter as per Rule 8.9" Thrust shaft, diameter at collars as per Rule 9.345"  
as fitted *none* as fitted 9 3/8"

Tube Shafts, diameter as per Rule *✓* Screw Shaft, diameter as per Rule 9.983"  
as fitted *✓* as fitted 10 5/8" Is the { tube } shaft fitted with a continuous liner { *yes* }

Bronze Liners, thickness in way of bushes as per Rule 1 1/2" Thickness between bushes as per Rule 5/8" 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 junctions made by fusion through the whole thickness of the liner *✓*

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

Propeller, dia. 18'-0" Pitch 13'-9" No. of Blades 4 Material *C.I.* whether Moveable *No* Total Developed Surface 53 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 18" Can one be overhauled while the other is at work *yes*

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 18" Can one be overhauled while the other is at work *yes*

Feed Pumps { No. and size 1 @ 5 1/4" x 3 1/2" x 5" Pumps connected to the { No. and size 1 @ 9" x 11" x 10" }  
How driven *Steam* Main Bilge Line How driven *Steam*

Ballast Pumps, No. and size 1 @ 9" x 11" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size *None*

Are two independent means arranged for circulating water through the Oil Cooler *✓* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 1 @ 2 1/2" 1 @ 3" 1 @ 3 1/2" Bilge Direct.

In Holds, &c. 2 @ 2 1/2" No. 1, 2 @ 2 1/2" No. 2

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 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 *yes*

Are all Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with 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 Overboard Discharges 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 pass through the bunkers *None (limbs)* How are they protected *✓*

What pipes pass through the deep tanks *For suction* 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 *yes* Is the Shaft Tunnel watertight *yes* Is it fitted with a watertight door *✓* worked from *✓*

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers 2490 sq. ft.

Is Forced Draft fitted *No* No. and Description of Boilers *One B.L. Smith S.E.* Working Pressure 180 lbs. sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*

IS A DONKEY BOILER FITTED? *yes* If so, is a report now forwarded? *yes*

PLANS. Are approved plans forwarded herewith for Shafting *yes* Main Boilers *yes* Auxiliary Boilers *✓* Donkey Boilers *yes*

(If not state date of approval)

Superheaters *none* General Pumping Arrangements *yes* Oil fuel Burning Piping Arrangements *✓*

SPARE GEAR. State the articles supplied:—Two connecting rods top end 2 connecting rods bottom end both 8 mts. 2 main bearings both 1 set coupling bolts 1 set feed & bilge pump valves A quantity of assorted bolts & nuts & iron of various sizes 1 set P.I. Propeller 1 set air pump valves 1 set ballast pump valves 1 set feed donkey pump valves 3 condenser tubes 5 boiler tubes 1 safety valve spring 1 Ring for 40 piston 1 ring for 100 piston.

The foregoing is a correct description,  
FOR GEORGE CLARK LIMITED.

*W433-0128*

Manufacturer.



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Lloyd's Register  
Foundation

W433-0128



Dates of Survey while building  
 During progress of work in shops - - 1929. May 9, 27. June 11, 27. July 15, 24, 25, 26, 31. Aug. 7, 9, 20, 26, 28, 30. Sep. 5, 10, 12, 19, 23, 26.  
 During erection on board vessel - - - Oct. 1, 11, 15, 22, 28, 29, 30, 31. Nov. 1, 4, 5, 6, 8, 11.  
 Total No. of visits 36

Dates of Examination of principal parts—Cylinders 26/8/29 Slides 11/6/29 Covers 4/6/29  
 Pistons 27/5/29 Piston Rods 25/7/29 Connecting rods 31/7/29  
 Crank shaft 28/8/29 Thrust shaft 28/8/29 Intermediate shafts -  
 Tube shaft - Screw shaft 7/8/29 Propeller 30/8/29  
 Stern tube 5/9/29 Engine and boiler seatings 28/10/29 Engines holding down bolts 1/11/29  
 Completion of fitting sea connections 15/10/29  
 Completion of pumping arrangements 11/11/29 Boilers fixed 31/10/29 Engines tried under steam 4/11/29  
 Main boiler safety valves adjusted 4/11/29 Thickness of adjusting washers  $P\frac{1}{2}$   $S\frac{1}{2}$   
 Crank shaft material I. STEEL Identification Mark 3300 Thrust shaft material I. STEEL Identification Mark 5575  
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -  
 Screw shaft, material I. STEEL Identification Mark 5574 Steam Pipes, material L.W. STEEL Test pressure 540  $LBS\frac{1}{2}$  Date of Test 30/10/29  
 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. "LADY OLGA"

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been built under special survey & the materials & workmanship are good. On completion the machinery was tried under a full head of steam with satisfactory results. The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the notation ~~EL~~ LMC-11-29 & T.S.C. & marked in the Builder's Register Book.

It is submitted that  
 this vessel is eligible for  
 THE RECORD. + LMC 11-29. CL.

2019  
 24/11/29

The amount of Entry Fee ... £ 3-0-0  
 Special ... £ 39-0-0  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 19 NOV. 1929  
 When received, 24.12.29

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 26 NOV 1929

Assigned + LMC 11-29