

Generator

No. 123700

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 17/12/55 When handed in at Local Office Peterborough Port of London Received at London Office 22 OCT 1952

No. in Survey held at Reg. Book. 17/12/55 Date, First Survey 4.9.57. Last Survey 27.11.1957.

on the M.V. "LUCERNA" (Number of Visits 2)

Built at Southbank Ldb By whom built Smiths Dock Co Ltd Yard No. 1215 Tons 11780 E Gross 11780 F Net

Engines made at Peterborough By whom made Peter Brotherhood Ltd Engine No. 11780 E When built 1957.

Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_

Registered Horse Power 100. Owners \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_

Nom. Horse Power as per Rule 25 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Port belonging to \_\_\_\_\_

Trade for which Vessel is intended \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

**ENGINES, &c.**—Description of Engines Vertical 2 cylinder steam reciprocating

Dia. of Cylinders 8" & 12" Length of Stroke 7 1/2" No. of Cylinders 2 Revs. per minute 500

Crank shaft, dia. of journals as per Rule \_\_\_\_\_ as fitted 3 1/2" Crank pin dia. 3 1/2" Crank webs Mid. length breadth 7 1/2" dia No. of Cranks 2 Thickness parallel to axis \_\_\_\_\_ Thickness around eye-hole \_\_\_\_\_

Intermediate Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thrust shaft, diameter at collars as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_

Tube Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Screw Shaft, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_

Bronze Liners, thickness in way of bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness between bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_

propeller boss \_\_\_\_\_ Is the after end of the liner made watertight in the \_\_\_\_\_

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 tub \_\_\_\_\_

shaft \_\_\_\_\_ If so, state type \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller \_\_\_\_\_

Propeller, dia. \_\_\_\_\_ Pitch \_\_\_\_\_ No. of Blades \_\_\_\_\_ Material \_\_\_\_\_ whether Moveable \_\_\_\_\_ Total Developed Surface \_\_\_\_\_ sq. feet

Feed Pumps worked from the Main Engines, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_

Bilge Pumps worked from the Main Engines, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_

Feed Pumps { No. and size \_\_\_\_\_ How driven \_\_\_\_\_ Pumps connected to the Main Bilge Line { No. and size \_\_\_\_\_ How driven \_\_\_\_\_

Ballast Pumps, No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_

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

Bilge Pumps;—In Engine and Boiler Room \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary \_\_\_\_\_

In Pump Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_

**MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size**

No. and size \_\_\_\_\_ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes \_\_\_\_\_

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 \_\_\_\_\_

Are all Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks \_\_\_\_\_

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the Overboard Discharges above or below the deep water line \_\_\_\_\_

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_

What Pipes pass through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

What pipes pass through the deep tanks \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_

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

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 it fitted with a watertight door \_\_\_\_\_

Is the Shaft Tunnel watertight \_\_\_\_\_

**MAIN BOILERS, &c.**—(Letter for record \_\_\_\_\_) Total Heating Surface of Boilers \_\_\_\_\_

Which Boilers are fitted with Forced Draft \_\_\_\_\_ Which Boilers are fitted with Superheaters \_\_\_\_\_

No. and Description of Boilers \_\_\_\_\_ Working Pressure \_\_\_\_\_

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

**IS A DONKEY BOILER FITTED?**

Is the donkey boiler to be used for domestic purposes only \_\_\_\_\_ If so, is a report now forwarded? \_\_\_\_\_

**PLANS.** Are approved plans forwarded herewith for Shafting 24.4.50 Main Boilers \_\_\_\_\_ Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_

(If not state date of approval) \_\_\_\_\_

General Pumping Arrangements \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_

**SPARE GEAR.**

Is the spare gear required by the Rules been supplied \_\_\_\_\_

Is the principal additional spare gear supplied \_\_\_\_\_

Yes.

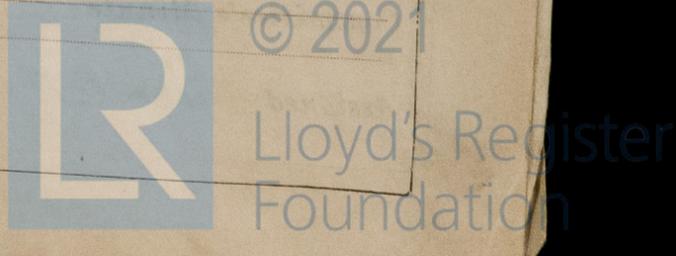
Spares list attached.

The foregoing is a correct description.

Peter Brotherhood Ltd.

J. J. Bellamy Director

Manufacturer.



012827-012835-0302

1951. SEA. 4. No. 27.

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits 2 (In Shops)

Dates of Examination of principal parts—Cylinders 4. 9. 57. Slides 4. 9. 57 Covers 4. 9. 57.

Pistons 4. 9. 57. Piston Rods Connecting rods

Crank shaft Thrust shaft Intermediate shafts

Tube shaft Screw shaft Propeller

Stern tube Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Crank shaft material Forged Steel Identification Mark T.S.B. 956. 25. 10. 48 Thrust shaft material Identification Mark

Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test

Is an installation fitted for burning oil fuel 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 If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case *Yes*. If so, state name of vessel *London Rpt. 123393.*

General Remarks (State quality of workmanship, opinions as to class, &c. *This pair of enclosed lubricated*

*2 Cylinder steam reciprocating generating sets have been built under supervision from plans approved by the Society & in accordance with the Requirements of the Rules. Steel used in their manufacture has been made at works approved by the Committee & under the supervision of their surveyors. The workmanship is good & the sets are considered suitable for inclusion in the L.M.C. of a classed vessel. The makers of the electric generators - Messrs. Sunderland Forge & Eng Co Ltd have submitted certified copies of test results, which are considered suitable.*

Eng No.	Generator No
11780 E	41572
11780 F.	41573.

*These generating sets have been recently fitted on board tried under normal working conditions and found satisfactory.*

*A. E. Widgung*

The amount of Entry Fee ...	£ 8 : -	When applied for,
Special ...	£ :	17/12/19 51
Donkey Boiler Fee ...	£ :	When received,
Travelling Expenses (if any) £	1 : 5	19

*A. E. Widgung*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 30 DEC 1951

Assigned *See F. E. mchy. rpt malle. 19748*



The Surveyors are requested not to write on or below the space for Committee's Minute.