

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 29<sup>th</sup> Dec 1947 when handed in at Local Office 19 Port of Copenhagen  
 No. in Survey held at Copenhagen Date, First Survey 14<sup>th</sup> Nov 1947 Last Survey 20<sup>th</sup> Dec 1947  
 Reg. Book. 21768 on the Single Se. CLARA (Number of Visits 6) Gross 1398  
 Tons Net 798  
 Built at Pisa By whom built Finvalds werke Yard No. 669 When built 1925  
 Engines made at Pisa By whom made Finvalds werke Engine No. 775 When made 1925  
 Boilers made at Pisa By whom made Finvalds werke Boiler No. 408-9 When made 1925  
 Registered Horse Power 650 Owners 2 Schyren (Sohn Waisaco ahrs) Port belonging to Copenhagen  
 Nom. Horse Power as per Rule 159 = MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended Open Sea Service - general cargo

**ENGINES, &c.** - Description of Engines Vertical 3 cyl expansion Revs. per minute 90  
 Dia. of Cylinders 420-680-1100 Length of Stroke 750 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 217 Crank pin dia. 229 Crank webs Mid. length breadth 368 Thickness parallel to axis 145  
 as fitted 229 Mid. length thickness 145 Thickness around eye-hole 107.5  
 Intermediate Shafts, diameter as per Rule 206.5 Thrust shaft, diameter at collars as per Rule 217  
 as fitted 206 as fitted 230  
 Tube Shafts, diameter as per Rule 232.6 Is the tube shaft fitted with a continuous liner yes  
 as fitted 242 as fitted 11 as fitted 10.5 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 fitting  
 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 yes  
 shaft - If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 1030  
 Propeller, dia. 3750 Pitch 3280 No. of Blades 4 Material Brass whether Movable no Total Developed Surface - sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 70 Stroke 350 Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 70 Stroke 350 Can one be overhauled while the other is at work yes  
 Feed Pumps No. and size 1 off duplex 110 x 150 x 150 Pumps connected to the Main Bilge Line No. and size 2 single 100 1 ballast p. - 1 donkey fuel p.  
 How driven by steam  
 Ballast Pumps, No. and size 1 off duplex 190 x 230 x 300 Lubricating Oil Pumps, including Spare Pump, No. and size -  
 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 2 off 60 from tunnel (1 off 60 from donkey pump)  
 In Pump Room 2 off 60 from each hold

**Main Water Circulating Pump Direct Bilge Suctions, No. and size** 1 off 4" **Independent Power Pump Direct Suctions to the Engine Room Bilges,**  
 No. and size 1 off 4" (Same as circulation pump suction) Are 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 valves  
 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 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 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 yes worked from top of eng room

**MAIN BOILERS, &c.** - (Letter for record -) Total Heating Surface of Boilers 202 m<sup>2</sup> Sph. 80 m<sup>2</sup> Comm. 8 m<sup>2</sup>  
 Which Boilers are fitted with Forced Draft none Which Boilers are fitted with Superheaters both  
 No. and Description of Boilers 2 off single vertical multi-tube Working Pressure 13 kg/cm<sup>2</sup>  
**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** yes  
**IS A DONKEY BOILER FITTED?** no If so, is a report now forwarded? -  
 Can the donkey boiler be used for domestic purposes only -  
**PLANS:** Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers - Donkey Boilers -  
 Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements -

### SPARE GEAR.

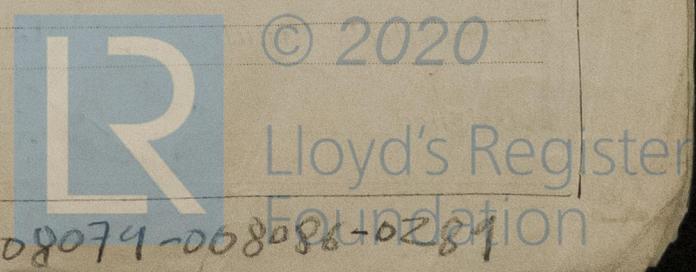
Has the spare gear required by the Rules been supplied. as per Rules  
 State the principal additional spare gear supplied -

H.S. per boiler = 1087  
 - - - - - Sph = 430.5  
 - - - - - Comm = 43  
 Total for 2 Boilers per Reg. Rk = 3078

1087  
 1087  
 430.5  
 430.5  
 43  
 3078

The foregoing is a correct description.

Manufacturer.



During progress of work in shops - -  
 Dates of Survey while building *14/11 - 17/11 - 20/11 - 27/11 - 2/12 - 20/12 - 1947*  
 During erection on board vessel - - -  
 Total No. of visits *6.*

Dates of Examination of principal parts—Cylinders *14/11* Slides *14/11 - 17/11 - 20/11* Covers *14/11 - 17/11 - 20/11*  
 Pistons *14/11 - 17/11 - 20/11* Piston Rods *14/11 - 17/11 - 20/11* Connecting rods *14/11 - 17/11 - 20/11*  
 Crank shaft *14/11* Thrust shaft *14/11 - 20/11* Intermediate shafts *14/11*  
 Tube shaft *14/11* Screw shaft *14/11 - 2/12* Propeller *14/11 - 2/12*  
 Stern tube *14/11* Engine and boiler seatings *14/11* Engines holding down bolts *14/11*

Completion of fitting sea connections *14/11* Boilers fixed ✓ Engines tried under steam *20/12*  
 Completion of pumping arrangements *14/11* Thickness of adjusting washers ✓  
 Main boiler safety valves adjusted *20/12*

Crank shaft material - Identification Mark - Thrust shaft material - Identification Mark  
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark  
 Screw shaft, material - Identification Mark - Steam Pipes, material *Steel* Test pressure *370 lbs* Date of Test *27/11-47*

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 ✓  
 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 *no* If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *The above machinery has been specially surveyed and found in a good efficient working condition*

*The samplings have been checked.*

*The additional space required in the Secretary's letter E dated 10/6-47 has not been fitted.*

*The owner have requested that this inclusion may be dispensed with*

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

The amount of Entry Fee ... £	:	:	When applied for,
Special ... .. £	:	:	..... 19.....
Donkey Boiler Fee ... .. £	:	:	When received,
Travelling Expenses (if any) £	:	:	..... 19.....

*J. Langhorne Jones*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 23 APR 1948*  
 Assigned *See minute on form 9*

