

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAY 29 1940

Date of writing Report \_\_\_\_\_ When handed in at Local Office 28.5.40 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey Apr. 26<sup>th</sup> Last Survey 17<sup>th</sup> May 1940

Reg. Book. 899 on the S.S. Empire Penguin ex Tennesseean (Number of Visits \_\_\_\_\_)

Tons { Gross 6379 Net 4017 } 6389 3991

Will at Seattle Wash. By whom built Skinner & Eddy Corp. Yard No.  When built 1919

Engines made at Hamilton O. By whom made Hooven Owens Kentzschler Engine No.  When made 1919

Boilers made at  By whom made  Boiler No.  When made 1919

Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Net Horse Power as per Rule 479 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended \_\_\_\_\_

**GINES, &c.**—Description of Engines Triple expansion

No. of Cylinders 2 1/4 - 1 1/2 - 7 2 Length of Stroke 48" No. of Cranks 3 Revs. per minute \_\_\_\_\_

Crank shaft, dia. of journals as per Rule 13.9" as fitted 14" Crank pin dia. 14 3/8" Crank webs Mid. length breadth 27 1/2" Thickness parallel to axis 9 1/2"

Intermediate Shafts, diameter as per Rule \_\_\_\_\_ as fitted 13.24" Mid. length thickness 9 1/2" shrunk Thickness around eye-hole 5 3/4"

Thrust shaft, diameter at collars as per Rule \_\_\_\_\_ as fitted 14"

Main Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Spare Screw Shaft, diameter as per Rule \_\_\_\_\_ as fitted 15 1/2" Is the main shaft fitted with a continuous liner

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

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 \_\_\_\_\_

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

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

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

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

Waste 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 \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary

Oil Pumps;—In Engine and Boiler Room 4 off 3 1/2" Bla room 4 off 3 1/2" Tunnel well 1 off 3 1/2"

Pump Room  In Holds, &c. No 1.2.3.4 & 5. Holds 10 off 3 1/2"

**IN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size** 1 off **Independent Power Pump Direct Suctions to the Engine Room Bilges,** and size None  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 \_\_\_\_\_

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

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

Are all Pipes, Cocks, Valves, and Pump 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 the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

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

Forced Draft fitted No No. and Description of Boilers 3.S.B. Working Pressure 210 lbs

**A REPORT ON MAIN BOILERS NOW FORWARDED?** Yes (Approved See Memo 21/6/40)

**A DONKEY BOILER FITTED?** No If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

ANS. Are approved plans forwarded herewith for Shafting  Main Boilers Yes Auxiliary Boilers  Donkey Boilers

Overheaters  General Pumping Arrangements  Oil fuel Burning Piping Arrangements

**SPARE GEAR.**

Is the spare gear required by the Rules been supplied Yes

Is the principal additional spare gear supplied

The foregoing is a correct description,

Manufacturer.



Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits

See accompanying Machinery Report

Dates of Examination of principal parts—Cylinders \_\_\_\_\_ Slides \_\_\_\_\_ Covers \_\_\_\_\_  
 Pistons \_\_\_\_\_ 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 \_\_\_\_\_ 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 \_\_\_\_\_ 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 \_\_\_\_\_ If so, state name of vessel \_\_\_\_\_

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

The above is forwarded for the information of the Committee

Please see New Report No. 10058

26  
 25/5/40

Glasgow

Certificate to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minutes

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £ 13	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	10/6/40

G. E. Murdoch  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minutes **GLASGOW 28 MAY 1940**

Assigned **SEE ACCOMPANYING MACHINERY REPORT**



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