

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

- 9 JUN 1927

NEWCASTLE-ON-TYNE.

Date of writing Report 1 - 6 - 1927 When handed in at Local Office 3 - 6 - 1927 Port of

No. in Survey held at Reg. Book.

Date, First Survey 9 July 1926 Last Survey 27 May 1927

233 Sup. on the S.S. BRITISH INDUSTRY

(Number of Visits 53)

Tons { Gross 4500  
Net 2370

Built at Hebburn By whom built Palmers S. & J. Co Ltd

Yard No. 963

When built 1927

Engines made at Jarrow

By whom made Palmers S. & J. Co Ltd

Engine No. 963

when made 1927

Boilers made at "

By whom made "

Boiler No. 963

when made 1927

Registered Horse Power

Owners British Tanker Co Ltd

Port belonging to

Nom. Horse Power as per Rule 407

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES

Trade for which Vessel is intended

**ENGINES, &c.**—Description of Engines. **TRIPLE EXPANSION** **INVERTED MARINE TYPE** **Revs. per minute 71**  
 Dia. of Cylinders 23" - 39" - 66" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 12.73" as fitted 13" Crank pin dia. 13" Crank webs Mid. length breadth 2" 2" Mid. length thickness 8 1/4" shrunk Thickness parallel to axis 8 1/4" Thickness around eye-hole 6 3/16"  
 Intermediate Shafts, diameter as per Rule 12.12" as fitted 12.5" Thrust shaft, diameter at collars as per Rule 12.73" as fitted 13"  
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 13.557" as fitted 14.125" Is the screw shaft fitted with a continuous liner YES  
 Bronze Liners, thickness in way of bushes as per Rule 7/13" as fitted 7/5" Thickness between bushes as per Rule 535" as fitted 11/16" 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 No  
 Length of Bearing in Stern Bush next to and supporting propeller 4' 9"  
**Propeller**, dia. 17' 3" Pitch 16' 6" No. of Blades 4 Material BRONZE whether Movable YES Total Developed Surface 90 sq. feet  
**Feed Pumps** worked from the Main Engines, No. 2 Diameter 4 1/4" Stroke 22 1/2" Can one be overhauled while the other is at work YES  
**Bilge Pumps** worked from the Main Engines, No. 2 Diameter 4 1/4" Stroke 22 1/2" Can one be overhauled while the other is at work YES  
**Feed Pumps** { No. and size 1 PAIR 9 1/2" x 7" x 21" How driven STEAM **Pumps connected to the Main Bilge Line** { No. and size 2 MAIN ENG PUMPS, BALLAST PUMP 9" x 11" x 10" How driven STEAM  
**Ballast Pumps**, No. and size 1 @ 9" x 11" x 10" **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  
 Bilge Pumps;—In Engine and Boiler Room 3 @ 2 3/4"  
 In Holds, &c. 1 Steam duplex 9" x 11" x 10"

**Main Water Circulating Pump Direct Bilge Suctions**, No. and size 1 @ 4" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4 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 are carried through the bunkers NONE How are they protected  
 What pipes pass through the deep tanks 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 NONE Is it fitted with a watertight door worked from

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 5772 sq. ft. 25B.  
 Is Forced Draft fitted YES No. and Description of Boilers Two CYLINDRICAL MULTITUBULAR Working Pressure 200 LBS.  
**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 YES Donkey Boilers YES  
 (If not state date of approval)  
 Superheaters YES General Pumping Arrangements YES Oil fuel Burning Piping Arrangements YES

**SPARE GEAR.** State the articles supplied:— One propeller shaft, one pair bottom end bearings, one eccentric sheave and strap, one slide valve spindle, 6 thrust block pads, one air pump rod and nut, 24 condenser tubes, 9 propeller blade studs and nuts, 2 C.I. propeller blades, 2 top and 2 bottom end bolts and nuts, 4 main bearing bolts and nuts, one set of coupling bolts and nuts, 2 feed pump valves, one set of bilge pump valves and seats, one of rings and springs for each piston, and H.P. piston valve, 6 plain boiler tubes, one stay boiler tube, 2 cuts of iron plates, 1 cut of assorted iron bar, 100 bolts and nuts, 2 main feed check valve lids, 1 auxiliary feed check valve lid, 1 safety valve spring for main and donkey boilers, 1 circulating pump impeller and shaft, and various spares for oil fuel units.

The foregoing is a correct description,  
 Palmers Shipbuilding & Iron Co., Ltd.  
 N. Brown  
 Manager, Engine Works.

Manufacturer.



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Lloyd's Register Foundation

W1630-0186



No. of Rows  
in 'tween  
" Holds

1926  
During progress of work in shops - -  
Dates of Survey while building  
During erection on board vessel - - -  
Total No. of visits

1927

July 9. 13. 21. Sept. 1. 22. 24. 27. Oct. 26. Nov. 10. 11. 23. Dec. 2. 9. 14. 15. 16. 29. Jan. 5. 11. 12. 18.  
Feb. 1. 8. 17. 22. Mar. 1. 2. 3. 9. 10. 13. 14. 16. 18. 22. 23. 29. 30. Apr. 1. 13. 14. 18. 20. 22. 25. 27.  
May 10. 13. 16. 17. 20. 27.

53.

Dates of Examination of principal parts - Cylinders 9/12/26, 23/11/27, 1/8/27 Slides 24/12/26, 18/1/27, 1/4/27 Covers 14/12/26, 18/1/27  
Pistons 14/12/26, 18/1/27 Piston Rods 23/3/27, 14/3/27 Connecting rods 18/1/27, 10/3/27, 1/4/27  
Crank shaft 10/11/24 Thrust shaft 1/2/27, 14/4/27 Intermediate shafts 3/3/27, 20/4/27  
Tube shaft ✓ Screw shaft 9/12/26, 14/12/26, 29/3/27, 30/3/27 Propeller 5/1/27, 18/1/27, 16/3/27  
Stern tube 24/9/27 Engine and boiler seatings 24/4/27 Engines holding down bolts 16/5/27  
Completion of pumping arrangements 20/5/27 Boilers fixed 16/5/27 Engines tried under steam 27/5/27  
Main boiler safety valves adjusted 20/5/27 Thickness of adjusting washers M.B. (Port) RV  $\frac{3}{8}$ " S.V.  $\frac{13}{32}$ " Starb. P.V.  $\frac{13}{32}$ " S.V.  $\frac{13}{32}$ " D.B. F.V.  $\frac{3}{8}$ " A.V.  
Crank shaft material Steel Identification Mark MB. 6970. 6971. 6972/3 Thrust shaft material Steel Identification Mark 1341 TL 2726  
Intermediate shafts, material Steel Identification Marks 1340 TL 27/26 Tube shaft, material ✓ Identification Mark ✓  
Screw shaft, material Steel Identification Mark 1728, 29/2/26 Steam Pipes, material Steel ✓ Test pressure 600 LBS Date of Test 16/5/27  
Is an installation fitted for burning oil fuel YES ✓ Is the flash point of the oil to be used over 150°F. YES ✓  
Have the requirements of the Rules for carrying and burning oil fuel been complied with YES ✓  
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 machinery of this vessel has been built under Special Survey, the workmanship and materials are good.  
In my opinion the machinery of this vessel is eligible to have the following records of survey - + L.M.C.  
5. 27, T.S. C.L. Fitted for oil fuel 5. 27, F.P. above 150°F.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 5. 27. FD. CL.  
Fitted for oil fuel 5. 27. F.P. above 150°F.

J.W.D.  
10/6/27.

Thomas Napier  
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : 0 :  
Special ... £ 83 : 1 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 8/6/19.27  
When received, 21. 6. 27

Committee's Minute FRI. 10 JUN 1927

Assigned + Lmb. 5. 27 32, CL.  
Fitted for oil fuel 5. 27 32, CL. above 150°F

CERTIFICATE WRITTEN  
in dupl.

IN DUPLICATE  
Certificate to be sent to NEWCASTLE-ON-TYNE

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