

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 30 JAN 1942

Date of writing Report 27 JAN 1942 When handed in at Local Office 30 JAN 1942 to Port of **HULL**

No. in Survey held at Reg. Book. on the s.s. **EMPIRE BOY.** Date, First Survey 30.9.40 East Survey 11.12.1941 (Number of Visits 39)

Built at **GOOLE.** By whom built **the Goole Shipbuilding & Repairing Co.** Yard No. 361. When built 1941-12

Engines made at **HULL.** By whom made **Messrs. Ames & Co. Ltd.** Engine No. 692. When made **do**

Boilers made at **HULL.** By whom made **Messrs. Ames & Co. Ltd.** Boiler No. 692. When made **do**

Registered Horse Power 153.6 Owners **The Ministry of War Transport.** Port belonging to **Goole.**

Nom. Horse Power as per Rule 153.6 Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Carrying petroleum in bulk.**

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

Dia. of Cylinders **15-25-42.** Length of Stroke **27.** No. of Cylinders **3.** No. of Cranks **3.**

Crank shaft, dia. of journals as per Rule **8.05.** as fitted **8 1/2.** Crank pin dia. **8 1/2.** Crank webs Mid. length breadth **15 1/2.** Thickness parallel to axis **5 1/2.** Mid. length thickness **5 1/2.** Thickness around eye-hole **3 3/8.**

Intermediate Shafts, diameter as per Rule **None.** as fitted **7.665.** Thrust shaft, diameter at collars as per Rule **8.05.** as fitted **8 1/4.**

Tube Shafts, diameter as per Rule **None.** as fitted **None.** Screw Shaft, diameter as per Rule **8.6.** as fitted **8 3/4.** Is the shaft fitted with a continuous liner **Yes.**

Bronze Liners, thickness in way of bushes as per Rule **0.558.** as fitted **5/8" - 2/32".** 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 **ONE LENGTH.**

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 **—**

Propeller, dia. **11'-4"** Pitch **11'-2"** No. of Blades **4.** Material **C.I.** whether Moveable **Solid** Total Developed Surface **39.5** sq. feet

Feed Pumps worked from the Main Engines, No. **Two** Diameter **2 1/2"** Stroke **15"** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **Two** Diameter **2 1/2"** Stroke **15"** Can one be overhauled while the other is at work **Yes**

Feed Pumps { No. and size **One Feed 7 1/2" x 5" x 6"** Pumps connected to the Main Bilge Line { No. and size **2 M.E. Pumps 2 1/2" dia. 15" stroke One 6" x 8" x 8"**
How driven **Duplex Steam Pump.** How driven **Main Engine.** Duplex Steam Pump.

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 **—** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **2 @ 2 1/2" hose C. Rm. Bilge. One @ 2 1/2" hose Blr. Rm. Bilge.**

In Pump Room **—** In Holds, &c. **—**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One @ 5" hose** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One @ 3" hose Ballast Pump** 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 **—** 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 **None** 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 **None** Is it fitted with a watertight door **—** worked from **—**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **2400 sq. ft.**

Which Boilers are fitted with Forced Draft **Single ended M. Blr.** Which Boilers are fitted with Superheaters **None**

No. and Description of Boilers **One S.C.** Working Pressure **200. lbs 19"**

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

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 **23.8.40** Main Boilers **30.7.40** Auxiliary Boilers **—** Donkey Boilers **—**

(If not state date of approval)

Superheaters **—** General Pumping Arrangements **25.11.40-12.12.40** Oil fuel Burning Piping Arrangements **6.8.41**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes** — Short royags. —

State the principal additional spare gear supplied **But for as per specification.**

The foregoing is a correct description.
for AMOS & SMITH LTD.

A. R. Newbery
DIRECTOR

Manufacturer.



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Foundation

EMPIRE BOY.

Dates of Survey while building

During progress of work in shops -- 1940 Sep. 30. 1941 Apr. 9. May 28. June 7. 11. 30. July 9. 11. 23. Aug. 5. 12. 13. 15. 19. 22. 28. Sep. 1. 2. 5. 6. 12. 19. 29. Oct. 1. 3. 6. 8. 10. 11. 13. 28. Nov. 11. 13. 19. 28. Dec. 3. 5. 8. 11

During erection on board vessel --

Total No. of visits 1039.

Dates of Examination of principal parts -- Cylinders 19/4/41 12/8/41 15/8/41 Slides 1/6. Covers 10/8/41 12/8/41 15/8/41.

Pistons 11/6/41 - 24/8/41. Piston Rods 11/7/41. Connecting rods 22/8/41.

Crank shaft 2/9/41. Thrust shaft 31/6/41. Intermediate shafts NONE.

Tube shaft ✓. Screw shaft 7/6/41. Propeller 13. 8. 41.

Stern tube 9-7-41. Engine and boiler seatings 13-8-41. Engines holding down bolts 8. 10. 41.

Completion of fitting sea connections 13-8-41.

Completion of pumping arrangements 3. 12. 41. Boilers fixed 8. 10. 41. Engines tried under steam 3. 12. 41.

Main boiler safety valves adjusted 3. 12. 41. Thickness of adjusting washers P 11/32 S 13/32.

Crank shaft material M.S. Identification Mark 8397. Thrust shaft material Steel Identification Mark 8397. 16-8-41.

Intermediate shafts, material ✓. Identification Marks 8355-1 Con 1. Tube shaft, material ✓. Identification Mark ✓.

Screw shaft, material M.S. Identification Mark 9-2-41. Steam Pipes, material Steel. Test pressure 600. Date of Test 13/10/41.

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 the use of oil as fuel been complied with Yes.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Oil tanker. 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 No.

Is this machinery duplicate of a previous case No. If so, state name of vessel (14 of Class).

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

The Machinery of this vessel has been constructed & fitted on-board under Special Survey in accordance with the approved plans, the Society's Rules & the Specification. The workmanship & materials are good & when tried under steam it was found satisfactory in every respect.

It is eligible, in our opinion, when the vessel is classed, to have the records of L.M.C. 12.41. C.L. & the notations T. 3 cy 15", 25", 42" - 27" 200 lbs I.S.B. 3 cf. 65 - H.S. 2400. F.D. and fitted for oil fuel 12.41 F.P above 150°F.

The amount of Entry Fee	£	38	10	6	When applied for, 27 JAN 1942
+25% Superann. Fee	£	9	12	6	
Donkey Boiler Fee	£	48	2	6	When received,
Travelling Expenses (if any)	£			19	

John J. Johnson
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 27 FEB 1942
 Assigned See Vol. 76. 51479

