

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 22 JUN 1943

Date of writing Report **19-6-1943** When handed in at Local Office **21-6-1943** Port of **Leith**  
 No. in Survey held at **Burntisland** Date, First Survey **9-3-43** Last Survey **15-6-1943**  
 Reg. Book. **86422** on the **S.S. "EMPIRE GLORY."** (Number of Visits **12**) Tons { Gross **7290** Net **4996**  
 Built at **Burntisland** By whom built **Burntisland, J. B. Co. Ltd.** Yard No. **266** When built **1943**  
 Engines made at **Glasgow** By whom made **J. Rowan & Co. Ltd.** Engine No. **1116** When made **1943**  
 Boilers made at **Glasgow** By whom made **J. Rowan & Co. Ltd.** Boiler No. **1109** When made **1943**  
 Registered Horse Power \_\_\_\_\_ Owners **Ministry of War Transport** Port belonging to **Burntisland**  
 Nom. Horse Power as per Rule **510** Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **Yes.**  
 Trade for which Vessel is intended \_\_\_\_\_

## ENGINES, &c.—Description of Engines

Description of Engines		Revs. per minute	
Dia. of Cylinders	Length of Stroke	No. of Cylinders	No. of Cranks
Crank shaft, dia. of journals <i>as per Rule</i>	Crank pin dia.	Mid. length breadth	Thickness parallel to axis
<i>as fitted</i>		Crank webs	shrunk
		Mid. length thickness	Thickness around eye-hole
Intermediate Shafts, diameter <i>as per Rule</i>		Thrust shaft, diameter at collars <i>as per Rule</i>	
<i>as fitted</i>		<i>as fitted</i>	
Tube Shafts, diameter <i>as per Rule</i>	Screw Shaft, diameter <i>as per Rule</i>	Is the { tube } shaft fitted with a continuous liner { screw }	
<i>as fitted</i>	<i>as fitted</i>		
Bronze Liners, thickness in way of bushes <i>as per Rule</i>	Thickness between bushes <i>as per Rule</i>	Is the after end of the liner made watertight in the propeller boss	
<i>as fitted</i>	<i>as fitted</i>		
If the liner is in more than one length 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 screw 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 <b>one 10" x 12" x 12"</b>	Lubricating Oil Pumps, including Spare Pump, No. and size <b>2 on Main Engine. 1 Ballast 10" x 12" x 12". 1 Gen. Service 8" x 5" x 8".</b>		
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 <b>2 ports &amp; 2 Stars = 3" dia. 1 Direct Star = 5" bore.</b>			
In Pump Room _____ In Holds, &c. <b>N° 1 Hold 1 P. 1 S. = 3" dia. N° 2 Hold 1 P. 1 S. = 4" dia. N° 3 Hold 1 P. 1 S. = 2 1/2" dia. N° 4 Hold 1 P. 1 S. = 3 1/2" dia. &amp; 1 P. 1 S. = 3" dia. N° 5 Hold Well 1 P. 1 S. = 3" dia. &amp; 1 S. = 2 1/2" dia. 1 Tunnel Well Suction = 2 1/2" dia.</b>			
Main Water Circulating Pump Direct Bilge Suctions, No. and size <b>one at 10" dia.</b> Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size <b>one at 5" dia.</b>			
Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes <b>Yes.</b>			
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 <b>Yes.</b>			
Are all Sea Connections fitted direct on the skin of the ship <b>Yes, except main injection on tank top, Port side.</b> Are they fitted with Valves or Cocks <b>Both</b>			
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates <b>Yes</b> Are the Outboard Discharges above or below the deep water line <b>BELOW EXCEPT BILGE DISCHARGE.</b>			
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel <b>Yes, except main &amp; ballast on Port tank side.</b> APPROVED ADMIRALTY 28-4-42			
What Pipes pass through the bunkers <b>Bilge Suctions</b> How are they protected <b>Wood ceiling</b>			
What pipes pass through the deep tanks <b>Bilge Suctions</b> Have they been tested as per Rule <b>Yes.</b>			
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times <b>Yes.</b>			
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 <b>Yes.</b> Is the Shaft Tunnel watertight <b>Yes.</b> Is it fitted with a watertight door <b>No.</b> worked from _____			

## 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? **See Glasgow Pt. N° 67081**  
 IS A DONKEY BOILER FITTED? **See Glasgow Pt. N° 67081** 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 \_\_\_\_\_ Main Boilers \_\_\_\_\_ Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_  
 Superheaters \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_

## SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes.**  
 State the principal additional spare gear supplied **1 Propeller.**

The foregoing is a correct description.

Manufacturer.



NOTE.—The words which do not apply should be deleted.

During progress of work in shops - -

Dates of Survey while building

During erection on board vessel - - 9/3/43, 18/3/43, 26/3/43, 2/4/43, 30/4/43, 5/5/43, 11/5/43, 25/5/43, 31/5/43, 4/6/43, 8/6/43 & 15/6/43.

Total No. of visits 12.

Dates of Examination of principal parts—Cylinders Slides Covers

Pistons Piston Rods Connecting rods

Crank shaft Thrust shaft Intermediate shafts

Tube shaft Screw shaft *in place 26-3-43* Propeller *in place 26-3-43*

Stern tube *in place 18-3-43* Engine and boiler seatings *2-4-43* Engines holding down bolts *25-5-43*

Completion of fitting sea connections *2-4-43*

Completion of pumping arrangements *31-5-43* Boilers fixed *11-5-43* Engines tried under steam *31-5-43*

Main boiler safety valves adjusted *31-5-43* Thickness of adjusting washers *PORT BLK 9" S=1/22 SUP=1/22 P=1/16 S=3/8 SUP=1/16 STAR BLK S=3/8 SUP=1/16 CENTRE BLK P=5/16 S=5/16 SUP=5/16*

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 *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 *Yes.* If so, state name of vessel *"EMPIRE ROSALIND" L.L. No. 20882.*

General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery - Glasgow L.L. No. 67081 has been efficiently fitted on board, the materials and workmanship being sound and good. On completion, the safety valves were adjusted to 220 lbs/sq. and the Main and Auxiliary machinery were tried under working conditions at a dock trial and found satisfactory. This machinery in my opinion, is in a safe working condition and eligible to be classed in the Register Book with the notation of L.M.C. 6-43, T.S.C.L., F.I., S.P.T. The specification requirements have been carried out together with Ministry of Shipping Notice No. M191 where they apply.*

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

The amount of Entry Fee ...	£	:	:	When applied for,
<i>1/2 L.M.C. &amp; SPEC</i>	<i>25</i>	<i>-</i>	<i>2-0</i>	<i>21-6-1943</i>
Special ...	£	:	:	When received,
Donkey Boiler Fee ...	£	:	:	
Travelling Expenses (if any) £	<i>1</i>	<i>:</i>	<i>11</i>	<i>6</i>

TUES. 29 JUN 1943

Committee's Minute

Assigned

*+ LMC 6.43*  
*FD: CL*

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



Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent.

NOTE.—The words which do not apply should be deleted.

MCC. (MADE IN ENGLAND.)