

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

3 JUN 1942

Date of writing Report 25<sup>th</sup> May 1942. When handed in at Local Office 28<sup>th</sup> May 1942. Port of Dundee.No. in Survey held at Dundee Date, First Survey 16<sup>th</sup> Feb 5 Last Survey 21<sup>st</sup> May 1942.  
Reg. Book.

36463 on the s/s "EMPIRE PRINCE"

(Number of Vents 20)

Tons Gross 4030

Net 4927

Built at Dundee By whom built Caledon S.B. &amp; E. Co. Ltd. Yard No. 394 When built 1942

Engines made at Wallsend By whom made H.E. Mac Eng Co (1938) Ltd Engine No. 3017 When made 1942

Boilers made at Dundee By whom made Caledon S.B. &amp; E. Co. Ltd Boiler No. 593 When made 1942

Registered Horse Power Owners The Ministry of War Transport Port belonging to Dundee

Nom. Horse Power as per Rule 570 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended Ocean-going

## ENGINES, &amp;c.—Description of Engines

Revs. per minute

Dia. of Cylinders Length of Stroke No. of Cylinders No. of Cranks

Crank shaft, dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis  
as fitted Mid. length thickness Thickness around eye-holeIntermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule  
as fitted as fittedTube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule  
as fitted as fittedBronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the  
as fitted as fitted

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 protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

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 2 1/2", 9 1/2"-7"-21" Pumps connected to the { No. and size 9.5 Pumps 9 1/2"-7"-21" Ballast Pumps 10 1/2"-13"-24"  
How driven Steam-driven Main Bilge Line How driven Steam-driven

Ballast Pumps, No. and size one - 10 1/2"-13"-24" 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 In E.R. aft. 1-3" Port, 1-3" Star In Boiler Room 1-3" Port 1-3" Star

In Pump Room Dry tank 1-2 1/2" Port, 1-2 1/2" Star In Holds, &amp;c. No. 1:- 1-3" Port, 1-3" Star. No. 2:- 1-3" Port, 1-3" Star,

No. 3:- 1-3" Port, 1-3" Star. No. 4:- 1-3" Port, 1-3" Star. No. 5:- 1-3" Port, 1-3" Star

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-9" Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size 1-5" Star aft 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's side Yes except low injection 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 Below

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 Suctions to fore holds How are they protected In the limbers

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 No door worked from access from deck

## MAIN BOILERS, &amp;c.—(Letter for record (S))

Total Heating Surface of Boilers 4248 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers 3—Single Ended Multi Working Pressure 220 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

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

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

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

(If not state date of approval)

Superheaters General Pumping Arrangements With hull report 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 Aux. Feed Check Valve + seat. 1 Boiler Safety Valve Spring; one set

of valves for water end of each steam-driven pump. 1 Coke basket for feed water filter + one

complete set of cloth covered cartridges. Assorted bolts nuts &amp; studs.

The foregoing is a correct description,

Manufacturer.

003013 - 003017 - 0204

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Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits 20

1942 Feb 16. 19. 23. 25 Mar 5. 9. 13. 19. 23. 26. 31. Apr 3. 8. 16. 23. 30 May 11. 14. 18. 21

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 26-3-42 Propeller in place 26-3-42  
Stern tube in place 23-3-42 Engine and boiler seatings 19-3-42 Engines holding down bolts 23-4-42  
Completion of fitting sea connections 31-3-42 In dock 11-5-42  
Completion of pumping arrangements 14-5-42 Boilers fixed 23-4-42 Engines tried under steam at Sea 18-5-42  
Main boiler safety valves adjusted 11-5-42 Thickness of adjusting washers Port Bly. - PV 3/16 S.V. 13/32 Centre PV 27/64 S.V. 27/64 Star PV 13/32 S.V. 11/16  
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 Steel Test pressure 660 lbs. Date of Test at Dun 23/4/42  
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 9/3 "Empire Rhodes"

General Remarks (State quality of workmanship, opinions as to class, &c.)  
This Machinery - Inc. Rpt N° 100314 on the Main Engines & Dun Rpt N° 9311 on the Boilers - has been efficiently fitted on board, the materials & workmanship being sound & good. The Main & Auxiliary Machinery, when tried out under full power & working conditions, was found satisfactory in all respects.

The requirements of the Ministry of War Transport specification, & the provisions of M.O.S. Circular No 191, so far as they apply, have been satisfactorily carried out.

In my opinion, the Machinery of this vessel is eligible to be classed in the Register Book with the notation of + L.M.C. 5-42, & the records of T.S.C.L. + 3 S.B.F.D.

The amount of Entry Fee ... £ : : When applied for,  
Special 1/5th L.M.C. £ 25 : 2' 6 28/57 1942  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 19

Committee's Minute GLASGOW 2 JUN 1942

Assigned 1- L.M.C. 5.42

John Houston  
Engineer Surveyor to Lloyd's Register of Shipping.



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