

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 23 JAN 1942

Date of writing Report 21/1/1942 When handed in at Local Office 21/1/1942 Port of WEST HARTLEPOOL.

No. in Survey held at WEST HARTLEPOOL. Date, First Survey 7th July, 1941, Last Survey 15th January 1942
Reg. Book. (Number of Visits 55)

on the S.S. EMPIRE PILGRIM

Tons { Gross 2861.06
Net 1711.36

Built at West Hartlepool By whom built Wm. Gray & Co. Ltd. Yard No. 1126 When built 1942.

Engines made at West Hartlepool By whom made Central Marine Eng Works Engine No. 1126 When made 1942.

Boilers made at West Hartlepool By whom made Central Marine Eng Works Boiler No. 1126 When made 1942.

Registered Horse Power Owners Ministry of War Transport. Port belonging to West Hartlepool.

Nom. Horse Power as per Rule 269. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

Trade for which Vessel is intended Ocean going.

ENGINES, &c.—Description of Engines Inverted triple expansion. Revs. per minute 80

Dia. of Cylinders 20" 31" 55" Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 11.0" as fitted 11 1/4" Crank pin dia. 1 1/4" Crank webs Mid. length breadth 16" Mid. length thickness 6 3/8" Thickness parallel to axis 6 3/8" Thickness around eye-hole 4 3/8"

Intermediate Shafts, diameter as per Rule 10.47" as fitted 10 3/4" Thrust shaft, diameter at collars as per Rule 11.0" as fitted 11 1/4"

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 11.78" as fitted 12 1/4" Is the shaft fitted with a continuous liner? Yes

Bronze Liners, thickness in way of bushes as per Rule 6.57" as fitted 11/16" Thickness between bushes as per Rule 4.92" as fitted 17/32" 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? No 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' 3 3/4"

Propeller, dia. 15' 9" Pitch 14' 9" No. of Blades 4 Material Cast Iron whether Moveable No Total Developed Surface 75 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 26" Can one be overhauled while the other is at work? Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work? Yes

Feed Pumps { No. and size 2 @ 3" x 26" 1 @ 8" x 6" x 15" SINGLE Pumps connected to the { No. and size 2 @ 4 1/2" x 26" 1 @ 10" x 11" x 10" How driven MAIN ENGINE INDEPENDENT STEAM Main Bilge Line How driven MAIN ENGINE INDEPENDENT STEAM.

Ballast Pumps, No. and size 1 @ 10" 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? Yes Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 4 @ 3" 1 @ 4" In Holds, &c. No. 1. 2 @ 3" No. 2. 2 @ 3" BOILER RM. 2 @ 3"

In Pump Room ENGR RM 2 @ 3" No. 3. 4 @ 2 1/2" TUNNEL WELL 1 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4"

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 on reservoir? On reservoir 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? MAIN+Aux BELOW REST 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? Bilge pipes How are they protected? Wood ceiling

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 worked from -

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3854 sq

Which Boilers are fitted with Forced Draft? Both Which Boilers are fitted with Superheaters? None

No. and Description of Boilers 2 Single ended Multitubular Working Pressure 200 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

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 2-10-40 Main Boilers 11-11-40 Auxiliary Boilers - Donkey Boilers -

(If not state date of approval) 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

The foregoing is a correct description,
FOR THE CENTRAL MARINE ENGINE WORKS,
(21, Quay & Co. Stk)

J. H. [Signature]
GENERAL MANAGER.

Manufacturer.



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Lloyd's Register
Foundation

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1941. July 7. Aug. 27. Sept. 16. 23. Oct. 1. 10. 15. 16. 17. 18. 20. 21. 22. 23. 24. 25. 27. 28. 29. 30. Nov. 3. 8. 10. 13. 14. 18. 19. 20. 21. 24. 25. 26. 28. 29. Dec. 3. 4. 9. 15. 16. 18. 24.

1941. Nov. 21. 27. Dec. 9. 12. 29. 1942. Jan. 5. 6. 7. 8. 11. 12. 14. 15.

Total No. of visits 55

Dates of Examination of principal parts—Cylinders 16-10-41 - 18-10-41 Slides 27-10-41 Covers 27-10-41
 Pistons 27-10-41. Piston Rods 27-10-41. Connecting rods 27-10-41 - 8-11-41.
 Crank shaft 24-10-41 - 13-11-41 Thrust shaft 22-10-41 - 13-11-41. Intermediate shafts 20-11-41 - 26-11-41
 Tube shaft - Screw shaft 11-11-41 - 26-11-41. Propeller 26-11-41.
 Stern tube 14-11-41 Engine and boiler seatings 14-11-41. Engines holding down bolts 16-12-41.
 Completion of fitting sea connections 14-11-41
 Completion of pumping arrangements 6-1-42. Boilers fixed 6-1-42 Engines tried under steam 7-1-42.
 Main boiler safety valves adjusted 6-1-42. Thickness of adjusting washers 2 1/4" 1 1/2" 2 1/2" 1 1/2"
 Crank shaft material *Singot Steel* Identification Mark 6250 AEG Thrust shaft material *Singot Steel* Identification Mark 6254 AEG
 Intermediate shafts, material *Singot Steel* Identification Marks 6256, 78, 96 AEG Tube shaft, material Identification Mark
 Screw shaft, material *Singot Steel* Identification Mark 6255 AEG Steam Pipes, material *SP Steel* Test pressure 600 lbs Date of Test 24-12-41
 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 *S.S. EMPIRE CAREY RPTH^o 18223*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines and boilers of this vessel have been constructed under special survey and in accordance with the approved plans and specification. The materials and workmanship have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery of this vessel be classed in the Register Books ^{of} LMC, 1.42, 2SB, FD, CL.*

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

The amount of Entry Fee ...	£ 4 : 0 :	When applied for,
Special ...	£ 65 : 7 :	19
SUPERVISION. Donkey-Boiler Fee ...	£ 16 : 7 :	When received,
Travelling Expenses (if any) £	: :	19

Arthur W. Oxford
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 30 JAN 1942**

Assigned *+ LMC 1.42*
FD CL

