

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

of writing Report

19

When handed in at Local Office

21. 12.

1942.

Port of

GLASGOW

in Survey held at

GLASGOW + GREENOCK

Date, First Survey

26<sup>th</sup> July 1942

Last Survey

16<sup>th</sup> DECEMBER 1942

J. Book

(Number of Visits)

56

Tons

Gross 7043.49

Net 4908.57

on the

S/S

"EMPIRE PENNANT"

built at

PORT GLASGOW

By whom built

LITHGOWS' LD.

Yard No.

972

When built

1942

engines made at

GLASGOW

By whom made

DAVID ROWAN &amp; CO. LD.

Engine No.

1117

When made

1942

boilers made at

CLYDEBANK

By whom made

JOHN BROWN &amp; CO. LD.

Boiler No.

A 60

When made

1942

Registered Horse Power

Owners MINISTRY OF WAR TRANSPORT

Port belonging to

GREENOCK

Horse Power as per Rule

558

Is Refrigerating Machinery fitted for cargo purposes

YES

Is Electric Light fitted

YES

ade for which vessel is intended

INES, &amp;c.—Description of Engines

TRIPLE EXPANSION

Revs. per minute

No. of Cylinders

24 1/2" - 39" - 70"

Length of Stroke

48"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 14"

Crank pin dia.

14 3/4"

Crank webs

Mid. length breadth 27 1/2"

Thickness parallel to axis

9"

Intermediate Shafts, diameter

as fitted 14 1/4"

as per Rule 13.33"

Mid. length thickness

9"

Thickness around eye-hole

6 3/8"

as fitted

13 5/8"

Thrust shaft, diameter at collars

as per Rule 14"

as fitted 14 1/4"

Screw Shafts, diameter

as per Rule

Screw Shaft, diameter

as per Rule 14.85"

Is the

shaft fitted with a continuous liner

YES

as fitted

3/4"

as fitted 15 1/4"

as per Rule 9/16"

Bronze Liners, thickness in way of bushes

as per Rule 3/4"

Thickness between bushes

as fitted 13/16"

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

YES

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

YES

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

at

No

If so, state type

propeller, dia.

18 1/2"

Pitch

16 1/2"

No. of Blades

4

Material

C.I.

whether Moveable

No

Total Developed Surface

110 sq. feet

Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Main Engines, No.

2

Diameter

4"

Stroke

27"

Can one be overhauled while the other is at work

YES

No. and size

2 @ 10 1/2" x 8" x 22"

Pumps connected to the

Main Bilge Line

No. and size

BALLAST PUMP 200 TONS/HR. GEN. SERVICE PUMP

How driven

STEAM

How driven

STEAM

30 TONS/HR.

Ballast Pumps, No. and size

1 @ 9" x 12" x 12"

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 @ 3"

In Pump Room

In Holds, &amp;c. YES 1, 3 1/4" HOLOS 2 @ 3" MISR HOLO 2 @ 2 1/2"

CROSSBUNKER HOLO 2 @ 2 1/2" TUNNEL WELL 1 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size

1 @ 10"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

1 @ 5"

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

BOTH

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

How are they protected

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, &amp;c.—(Letter for record S) Total Heating Surface of Boilers

8336 sq. ft.

Which Boilers are fitted with Forced Draft

ALL

Which Boilers are fitted with Superheaters

NONE

No. and Description of Boilers

3 SINGLE-ENDED 2 SB &amp; 1 CB

Working Pressure

220 LBS/SQ. IN.

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

YES

Main Boilers

YES

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

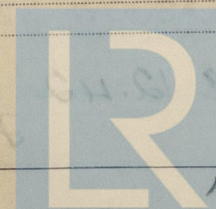
LIST ATTACHED

The foregoing is a correct description.

For David Rowan, T.B. &amp; Co.,

Arch. W. Guernon

Manufacturer.



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Lloyd's Register  
Foundation

003971-003979-0054



Dates of Survey while building  
 During progress of work in shops - - { 1942 Feb 26 Mar 3. 16. 31 Apr 22. 25 May 7. 11. 19. 28 Jun 1. 9. 11. 15. 18. 19. 25 July 3. 6. 7. 13. 14. 15. 16. 17. 2  
 Aug 3. 4. 5. 10. 21. 24. 31 Sep 4. 15. 21. 24. 29. 30 Oct 27. 30 Nov 19. 23. 24  
 During erection on board vessel - - -  
 Total No. of visits 56  
 VISITS BY GRK. SURVEYOR: - 8942) SEPT. 29. NOV. 26. 30. DEC. 3. 4. 6. 7. 8. 11. 13. 14. 16.

Dates of Examination of principal parts - Cylinders 6-7-42 Slides 7-7-42 Covers 6-7-42  
 Pistons 19-6-42 Piston Rods 19-6-42 Connecting rods 17-7-42  
 Crank shaft 28-7-42 Thrust shaft 28-7-42 Intermediate shafts 10-8-42  
 Tube shaft - Screw shaft 24-9-42 Propeller 24-9-42  
 Stern tube 9-6-42 Engine and boiler seatings 29/9/42 Engines holding down bolts 12/12/42  
 Completion of fitting sea connections 29/9/42  
 Completion of pumping arrangements 5/12/42 Boilers fixed 2/12/42 Engines tried under steam 16/12/42  
 Main boiler safety valves adjusted 5/12/42 Thickness of adjusting washers P 5 1/16" C 5 1/4" S 3 1/8"  
 Crank shaft material SM. Steel Identification Mark 11522 AJB Thrust shaft material SM. Steel Identification Mark 11522  
 Intermediate shafts, material SM. Steel Identification Marks 11522 AJB Tube shaft, material - Identification Mark -  
 Screw shaft, material SM. Steel Identification Mark 11522 TPG Steam Pipes, material O.H. Steel Test pressure 660 lb. Date of Test 11/12/42  
 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 - 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 Lancer" Yb. P.H. 142 66336

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been efficiently installed in the vessel, is under working conditions and found satisfactory and, in our opinion, is eligible to be classed in the Register Book with record + LMC 12, 42 and notation CL.  
 The specification requirements have been carried out satisfactorily.

The following steam pipes are made of Bessemer steel and the flanges have been stamped accordingly:-  
 5-4" OD 6 W G Nos 117, 117A, 118, 118A, 119  
 6-3 1/2" OD 6 W G Nos 119A, 119B + 119C

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 ... £ 6 : - :  
 BALANCE Special + SPEC. ... £ 88 : 6/6 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 22 DEC 1942  
 When received, 19

Committee's Minute GLASGOW 22 DEC 1942

Assigned - 1 Dec 12.42

M. Brown + M. Caldwell  
 Engineer Surveyor to Lloyd's Register of Shipping.



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