

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 29 DEC 1945

Date of writing Report 19 When handed in at Local Office 28 DEC 1945 19 Port of Hull

No. in Survey held at Sully, Hull Date, First Survey 21. 3. 45 Last Survey 14. 12. 1945
Reg. Book (Number of Visits 18)

on the "EMPIRE VERA" A/MS 1152 Tons Gross 297 Net NIL

Built at Sully By whom built. Buchrane & Sons Ltd. Yard No. 1302 When built 1945

Engines made at Providence, Rhode Is., USA. By whom made, Franklin Machine & Foundry Engine No. 1020 When made 1943
installed by Amos Smith No. 764. 1945

Boilers made at Glasgow By whom made Barclay Curle & Co Ltd. Boiler No. 42/3 When made 1943

Registered Horse Power Owners Ministry of War Transport Port belonging to HULL
managed by United Towing Co of Hull.

Nom. Horse Power as per Rule 109 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended Towing Services.

GINES, &c.—Description of Engines Triple Expansion Recip. Steam—USA cert no. B1031 Revs. per minute 130

No. of Cylinders 12" 20" 31" Length of Stroke 24" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7 3/4" Crank pin dia. 7 3/4" Mid. length breadth 15 1/16" Thickness parallel to axis 5" as fitted 7 3/4" Crank webs 5 1/2" shrunk Thickness around eye-hole 3 1/2" as per Rule 6 5/8" as fitted 8 1/2"

Intermediate Shafts, diameter as per Rule 8" as fitted 8" Thrust shaft, diameter at collars as per Rule 8" as fitted 8"

Tube Shafts, diameter as per Rule 8" as fitted 8" Is the { tube screw } shaft fitted with a continuous liner No

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes Is the after end of the liner made watertight in the 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 lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

Propeller, dia. 9' 0" Pitch 9' 6" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 31.5 sq. feet

Feed Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps No. and size One 7" x 3" x 12" How driven Ind. Steam Pumps connected to the Main Bilge Line No. and size One 7 1/2" x 5" x 6" One 12" x 9" x 12" Ejector. How driven Ind. Steam Ind. Steam

Ballast Pumps, No. and size One 7 1/2" x 5" x 6" Lubricating Oil Pumps, including Spare Pump, No. and size 2-4" x 2 1/2" x 4" (One hand pump to fill 91 ME bearings)

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 ER. 3-2 1/2" x 1-3" BR. 2-2 1/2" x 1-2"

In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-4" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

No. and size 1-3" 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 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 Part of ER Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1786 sq. ft.

Which Boilers are fitted with Forced Draft SOLE BOILER Which Boilers are fitted with Superheaters NONE

No. and Description of Boilers 1SB 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

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 25.7.44 Main Boilers 14.9.42 Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters General Pumping Arrangements 19.7.45 Oil fuel Burning Piping Arrangements 11.5.45

SPARE GEAR.

Has the spare gear required by the Rules been supplied As per Specification

State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.



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Lloyd's Register
Foundation

005118-005131-0096

During progress of work in shops - - - Main engines built in Providence, Rhode Island USA by Franklin Machine & Foundry Co. & supplied to installers by Admiralty.

Dates of Survey while building

During erection on board vessel - - - 1945 MAR 21 APR 16 AUG 9 SEP 3, 7. OCT 18, 26, 31. NOV 6, 19, 21, 23, 26

DEC 3, 4, 8, 11, 14.

Total No. of visits 18.

Dates of Examination of principal parts—Cylinders Slides Covers

Pistons American Rods Connecting rods

Crank shaft See Thrust shaft Bureau of Shipping Intermediate shafts See

Tube shaft Screw shaft 16.4.45 Propeller 16.4.45

Stern tube 16.4.45 Engine and boiler seatings 7.9.45 Engines holding down bolts 6.11.45

Completion of fitting sea connections 16.4.45

Completion of pumping arrangements 8.12.45 Boilers fixed 6.11.45 Engines tried under steam 3/12/45 11/12/45

Main boiler safety valves adjusted 8.12.45 Thickness of adjusting washers P 3/8" S 1/32"

Crank shaft material See American Identification Mark Bureau Thrust shaft material Cert No. Identification Mark B-1031

Intermediate shafts, material F.I. STEEL Identification Marks JS, 2.2.45 Tube shaft, material NONE Identification Mark

Screw shaft, material D. Identification Mark JS 18.1.45 Steam Pipes, material STEEL Test pressure 660 lb Date of Test 26.11.45

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 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 N

Is this machinery duplicate of a previous case Yes If so, state name of vessel Empire Martha

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

The main engines and boiler for this vessel supplied by Admiralty from reserve stock and installed by Amos & Smith, Hull in accordance with the specification, the Secretary's letters & the Rules. The workmanship and materials appear to be good.

The machinery and materials appear to be good.

The machinery has been tried under working conditions & found satisfactory on completion of the trials.

Obliged in my opinion to have record of LMC(R) 12, 45 O.G.

T. 3cy, 12°, 20° 33' - 24". M.V. 109. I.S.B. 220 lb.

3cf H.S. 1786 of F.O. fitted for oil fuel 12, 45 F.P. above 150°F

N.H.P. 109 @ 5/- £24-5-0

F.E. 3-0-0

Ore 5th for fitting out 15-9-0

25% Spec. 1-4-3

F.E. 3-0-0

The amount of Entry Fee ... £ 3 : 0 : When applied for,

Special F.I.T. OUT ... £ 5 : 9 : 19

25% SPEC. 1 : 7/3 : When received,

Donkey Boiler Fee ... £ 1 : 7/3 : 19

Travelling Expenses (if any) £ : : 19

Committee's Minute FRI. 11 JAN 1946

Assigned LMC(R) 12, 45

FITTED FOR OIL FUEL 12, 45 FLASH POINT ABOVE 180° F. F.D. O.G.

W.S. Shields

Engineer Surveyor to Lloyd's Register of Shipping.



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RECEIVED

16 DEC 1945

Date of writing

IN D.C.

No. in Series

Reg. Book.

on

Master

Engines made

Boilers made

Nominal Horsepower

MULTIT

Manufacture

Total Heating

No. and Des

Tested by

Area of Fire

Area of each

In case of do

Smallest dist

Smallest dist

Largest EX

Thickness

long. seams

Percentage of

Percentage of

Thickness of

Material

Length of pl

Dimensions of

End plates i

How are sta

Tube plates

Mean pitch o

Girders to c

at centre 2

in each 2

Tensile stren

Pitch of stays

Working pres

Thickness

Pitch of stay

Working Pre

Diameter { At

Over

Working pres

Diameter { At

Over