

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAR 1 1940

of writing Report 29-2-1940 When handed in at Local Office 29-2-1940 Port of Leith

in Survey held at Leith Date, First Survey 4-12-39 Last Survey 24-2-1940

Book. 909 on the S.S. "EMPIRE WARRIOR" ex "BIANCA"

built at Hamburg By whom built Hamburg Elbe Schiffbau Yard No. Tons { Gross 1306 Net 721

Engines made at Oberhausen By whom made Gute Hoffnungs-Hütte Engine No. When built 1921

Boilers made at Hamburg By whom made Deutsche Werft Boiler No. When made 1921

Registered Horse Power Owners Ministry of Shipping Port belonging to London

Horse Power as per Rule 125 166 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Use for which Vessel is intended

GINES, & Co. Description of Engines Triple Expansion Revs. per minute

No. of Cylinders 18, 28, 47 Length of Stroke 31 1/2 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 9 3/8 as fitted 9 3/8 Crank pin dia. 9 1/8 Crank webs Mid. length breadth shrunk Thickness parallel to axis

Intermediate Shafts, diameter as per Rule 9 as fitted 9 Thrust shaft, diameter at collars as per Rule 9 1/8 as fitted 9 1/8

Propeller Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 10 1/8 as fitted 10 1/8 Is the { tubular } shaft fitted with a continuous liner { Yes

Brass Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the

eller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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. Pitch No. of Blades 4 Material cast iron whether Moveable Solid Total Developed Surface 4-4 3/4 sq. feet

and Pumps worked from the Main Engines, No. 2 Diameter 22 1/2 Stroke 15 3/4 Can one be overhauled while the other is at work Yes

ge Pumps worked from the Main Engines, No. 2 Diameter 22 1/2 Stroke 15 3/4 Can one be overhauled while the other is at work Yes

ed { No. and size one 5.906 x 3.937 x 5.906 Pumps connected to the { No. and size Main Engines, Ballast & General Service Pumps

aps { How driven Steam Main Bilge Line { How driven Steam

last Pumps, No. and size one 7.48 x 8.465 x 9.843 Lubricating Oil Pumps, including Spare Pump, No. and size

two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary

e Pumps;—In Engine and Boiler Room 1 Port, 1 Starboard aft end of engine room 1 Direct suction on Starboard side

Pump Room Forward Hold 1 Port, 1 Starboard Aft Hold 1 Port, 1 Starboard

n Water Circulating Pump Direct Bilge Suctions, No. and size one at 4" dia Independent Power Pump Direct Suctions to the Engine Room Bilges,

and size one at 3" dia Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

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

all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both

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

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

t Pipes pass through the bunkers How are they protected

t pipes pass through the deep tanks Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

e 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

partment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top of engine room

IN BOILERS, & Co.—(Letter for record S) Total Heating Surface of Boilers 2949 #

ich Boilers are fitted with Forced Draft None Which Boilers are fitted with Superheaters Both main

and Description of Boilers Two cylindrical 2 S.B. Working Pressure 180 lbs/sq. in. 185 lb.

A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

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

the donkey boiler be used for domestic purposes only

ANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers No Donkey Boilers No

(If not state date of approval)

heaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

the spare gear required by the Rules been supplied Yes

the principal additional spare gear supplied One screw shaft & one propeller

The foregoing is a correct description.

Manufacturer.



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Lloyd's Register
Foundation

W34-0013

During progress of work in shops - -

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts—Cylinders
Slides
Covers

Pistons
Piston Rods
Connecting rods

Crank shaft
Thrust shaft
Intermediate shafts

Tube shaft
Screw shaft
Propeller

Stern tube
Engine and boiler seatings
Engines holding down bolts

Completion of fitting sea connections
Boilers fixed
Engines tried under steam

Completion of pumping arrangements
Main boiler safety valves adjusted 23-2-40
Thickness of adjusting washers

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
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
If so, state name of vessel

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

The above information is forwarded for the consideration of the Committee.

See Report 9.

The amount of Entry Fee ... £
Special ... £
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for,
When received,

Committee's Minute

Assigned

TUE. 12 MAR 1940

See Lth. J.E. 20041

J. H. Campbell

Engineer Surveyor to Lloyd's Register of Shipping