

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report

19

When handed in at Local Office

9. 9.

19

Port of GLASGOW

No. in Survey held at

Glasgow

Date, First Survey

1939

Dec. 22

Last Survey

24 Sept.

1940

Reg. Book

on the

S/S

"EMPIRE LIGHT"

(Number of Visits

39)

Gross

6827.85

Tons

Net

Built at

Glasgow

By whom built

Barclay Curle & Co. Ltd.

Yard No. 677

When built 1940

Engines made at

do.

By whom made

do.

Engine No. 677

when made 1940

Boilers made at

do.

By whom made

do.

Boiler No. 677

when made 1940

Registered Horse Power

Owners

Ministry of Shipping

Port belonging to

Glasgow

Nom. Horse Power as per Rule

630

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Triple expansion with Bauer Wash and turbine Revs. per minute 90

Dia. of Cylinders 22 1/2"-37 1/2"-63"

Length of Stroke 45"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals

as per Rule App.

as fitted 13 7/8"

Crank pin dia. 14 1/4"

Crank webs

Mid. length breadth 21 1/2"

Thickness parallel to axis 8 3/4"

Intermediate Shafts, diameter

as per Rule App.

as fitted 14"

Thrust shaft, diameter at collars

as per Rule App.

as fitted 362 mm

Tube Shafts, diameter

as per Rule App.

as fitted

Screw Shaft, diameter

as per Rule App.

as fitted 15 1/8"

Is the

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule App.

as fitted 3/4"

Thickness between bushes

as per Rule App.

as fitted 7/8"

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

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

shaft

No

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

Propeller, dia. 18'-0"

Pitch 14'-4"

No. of Blades 4

Material CS Bush

whether Moveable

Yes

Total Developed Surface 110 sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

Feed

Pumps

No. and size 2 @ 9 1/2" x 7" x 21"

Pumps connected to the

No. and size 1 @ 10" x 11" x 10"

1 @ 8" x 6" x 8"

How driven

Steam

Main Bilge Line

How driven

Steam

Ballast Pumps, No. and size 1 @ 10" x 11" x 10"

Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 8" x 9" x 18"

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 1/2" 2 @ 2 1/2" 2-3" HOSE SUCTIONS 1 @ 2 1/2" TUNNEL WELL

In Holds, &c. No. 1, 2, 4 & 5 Holds 3" P & S: No. 3 Hold 2 1/2" P & S

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 11"

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

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

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, &c.—(Letter for record S) Total Heating Surface of Boilers 8344 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers 4 Single-ended

Working Pressure 250 lb.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

PLANS.

Are approved plans forwarded herewith for Shafting

10/5/39

Main Boilers

20/9/39

Auxiliary Boilers

-

Donkey Boilers

(If not state date of approval)

Superheaters

-

General Pumping Arrangements

21/9/39

Oil fuel Burning Piping Arrangements

SPARE GEAR.

State the articles supplied:— See attached list.



The foregoing is a correct description,

FOR BARCLAY, CURLE & CO., LTD

Alexander Macneil

Chief Draughtsman

Manufacturer.



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Foundation

221128-0122

NOTE.—The words which do not apply should be deleted.

Dates
of Survey
while
building

During progress of
work in shops - - -

During erection on
board vessel - - -

Total No. of visits

1939 Dec. 22, 1940 Jan. 12, Feb. 1, 6, 29, Mar. 12, 15, 18, 20, Apr. 4,
8, 12, 17, 19, 23 May 1, 6, 7, 10, 14, 21, 23, 28, June 5, 11, 14, 17, 19, 21
28, July 16, 17, 23, 26, 30, Aug. 1, 14, 30 Sept. 2

39

Dates of Examination of principal parts—Cylinders 23-5-40 Slides 23-5-40 Covers 7-5-40
Pistons 7-5-40 Piston Rods 11-6-40 Connecting rods 5-6-40
Crank shaft 12-4-40 Thrust shaft 17-7-40 Intermediate shafts 14-6-40
Tube shaft - Screw shaft 19-6-40 Propeller 19-6-40
Stern tube 11-6-40 Engine and boiler seatings 28-6-40 Engines holding down bolts 14-8-40
Completion of fitting sea connections 28-6-40
Completion of pumping arrangements 30-8-40 Boilers fixed 1-8-40 Engines tried under steam 2-9-40
Main boiler safety valves adjusted 30-8-40 Thickness of adjusting washers P.F. 3/8" P.S. S.F. 13/32" P 3/8"
Crank shaft material S.M. Steel Identification Mark 4662-7 Thrust shaft material S.M. Steel Identification Mark 716 CSP
Intermediate shafts, material S.M. Steel Identification Marks 4587-9 JFC Tube shaft, material - Identification Mark -
Screw shaft, material S.M. Steel Identification Mark 4592 JFC Steam Pipes, material Steel Test pressure 750 lb. Date of Test Aug. 1940
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 -
Is this machinery duplicate of a previous case Yes If so, state name of vessel "ITRIA" GLE R^{ts} H: 62382

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 satisfactorily installed in the vessel,
tested under working conditions at full load and found to
be efficient and, in my opinion, is eligible to be classed in the
Register Book with record + LMC 9,40 and notation CL.
The requirements of the Ministry of Shipping specification have
been met satisfactorily.

Rob
9/9/40

The amount of Entry Fee ... £ 6 : - : When applied for,
Special SPECIFICATION ... £ 106 : 10 : 10 SEP 1940
Donkey Boiler Fee ... £ 26 : 12/6 : When received,
Travelling Expenses (if any) £ : : 5.11. 1940

Committee's Minute GLASGOW 10 SEP 1940 LM

Assigned - 1 LMC 9.40

Engineer *M. Brown* to Lloyd's Register of Shipping.



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