

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 23 JUN 1948

Date of writing Report 28 MAY 1948 When handed in at Local Office 28 MAY 1948 Port of London
 No. in Survey held at Bedford Date, First Survey 16 JANUARY Last Survey 4 MAY 1948
 Reg. Book on the Tanker M.V. "British Ranger" (Number of Visits SEVEN)
 Built at Glasgow By whom built Harland & Wolff. Yard No. 1362. When built 1948
 Engines made at W. Hallen Sons & Co. Ltd. Bedford. By whom made 2. 75 Kw. Elec light gen. Sets. Engine No. 66312. When made 1948
 Boilers made at By whom made Boiler No. When made
 Registered Horse Power Owners Port belonging to
 Nom. Horse Power as per Rule 3.6 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines 75 Kw. Elec light gen Sets. Revs. per minute 500.
 Dia. of Cylinders 10" H.P. + 15" L.P. Length of Stroke 6 1/2" No. of Cylinders 2. No. of Cranks 2.
 Crank shaft, dia. of journals 3 3/8" at Fly end 3 3/4" in middle 4 1/2" at End Bearings. Crank pin dia. 3 1/2" Mid. length breadth 5 1/2" Thickness parallel to axis shrunk
 Crank webs Mid. length thickness 2 3/8" Thickness around eye-hole
 Intermediate Shafts, diameter as per Rule as fitted Thrust shaft, diameter at collars as per Rule as fitted
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner
 Bronze 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 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
 at If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Feed Pumps No. and size How driven Pumps connected to the Main Bilge Line No. and size How driven
 Ballast Pumps, No. and size 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 In Holds, &c.
 In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes
 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
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
 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
 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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers
 Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters
 No. and Description of Boilers Working Pressure
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS A DONKEY BOILER FITTED? 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 Main Boilers 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

State the principal additional spare gear supplied

1 Set spares as follows.
 1 H.P. Piston Rod. 2 Sets Carbon Brushes
 1 L.P. " 1 Line Brush Holders.
 1 H.P. Piston & Ring.
 1 L.P. " "
 1 H.P. Ring.
 1 L.P. " "
 2 Pairs x Head Brass Bolts & nuts.
 2 " Conn Rod " "
 1 Set Gov. Springs
 2 main Bg. Bolts & nuts.
 6 Coupling bolts & nuts & pins.

The foregoing is a correct description.

H. Pledge for W. Hallen Sons & Co. Ltd. Bedford. Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

1948: JAN 14. 16-23 MAR 2 APR 16-27 MAY 4

7 (In shops)

Dates of Examination of principal parts—Cylinders

16-1-48

Slides

16-1-48

Covers

16-1-48

Pistons

16-1-48

Piston Rods

2-3-48

Connecting rods

23-1-48

Crank shaft

16-1-48

Thrust shaft

✓

Intermediate shafts

✓

Tube shaft

✓

Screw shaft

✓

Propeller

✓

Stern tube

✓

Engine and boiler seatings

✓

Engines holding down bolts

✓

Completion of fitting sea connections

✓

Completion of pumping arrangements

✓

Boilers fixed

✓

Engines tried under steam

✓

Main boiler safety valves adjusted

✓

Thickness of adjusting washers

✓

Crank shaft material

Best Steel

Both 976L LLOYDS 16-1-48

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 steam generating sets have been constructed under special survey in accordance with the requirements of the Rules and approved plans; the steel was made at works approved by the Committee, the workmanship is good, and on completion the generator sets were tested upon the bench under full and overload conditions with satisfactory results.*

The sets have been dispatched to Glasgow for fitting on board the vessel

The above generator sets have now been installed in the above named vessel, & tried under working conditions satisfactorily.

McGill, Engineer
Glasgow 5/6/48

The amount of Entry Fee

2 sets £ 8 : 0 :

When applied for,

Special £ : :

When received,

Donkey Boiler Fee £ : :

19

Travelling Expenses (if any) £ 2 : 18 : 11

W. Coomber
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... SEE ACCOMPANYING MACHINERY REPORT

Assigned ... 22 JUN 1948

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