

Rpt. 4.

No. 63736

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAY - 1 1941

Date of writing Report 10 When handed in at Local Office 28: 4: 10 Port of GLASGOW
 No. in Survey held at GLASGOW Date, First Survey 20th June 1940 Last Survey 22nd Apr. 1941
 Reg. Book. on the S/S "EMPIRE ZEPHYR" (Number of Visits 56) Tons { Gross 6327
 Net 4592
 Built at GLASGOW By whom built CHAS. CONNELL & CO. LD. Yard No. 432 When built 1941
 Engines made at -Do- By whom made DAVID ROWAN & CO. LD. Engine No. 1066 When made 1941
 Boilers made at -Do- By whom made -Do- Boiler No. 1066 When made 1941
 Registered Horse Power ✓ Owners MINISTRY OF SHIPPING Port belonging to
 Nom. Horse Power as per Rule 439 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 Revs. per minute
 Dia. of Cylinders 23 1/2"-37 1/2"-68" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.634" Crank pin dia. 13 3/4" Crank webs Mid. length breadth 26 3/4" Thickness parallel to axis 8 3/4"
 as fitted 13 3/4" Mid. length thickness 8 3/4" Thickness around eye-hole 8 1/2"
 Intermediate Shafts, diameter as per Rule 12.985" Thrust shaft, diameter at collars as per Rule 13.634"
 as fitted 13" as fitted 13 3/4"
 Tube Shafts, diameter as per Rule 14.465" Screw Shaft, diameter as per Rule 14 3/4" Is the { tube } shaft fitted with a continuous liner { Yes }
 as fitted 14 3/4" as fitted 14 3/4" Is the { screw }
 Bronze Liners, thickness in way of bushes as per Rule 7/16" Thickness between bushes as per Rule 5/16" Is the after end of the liner made watertight in the
 as fitted 3/4" as fitted 11/16" 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 Yes
 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 4' 11"
 Propeller, dia. 17' 9" Pitch 17' 3" No. of Blades 4 Material C. S. whether Moveable No Total Developed Surface 107 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. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Feed { No. and size 20 9 1/2" x 7" x 21" Pumps connected to the { No. and size 10 8" x 5" x 8" & Ballast Pump
 Pumps { How driven Steam Main Bilge Line { How driven Steam
 Ballast Pumps, No. and size 10 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 20 3" in E.R. 20 3" in B.R.
 In Pump Room — In Holds, &c. Nos 1, 4 & 5 Hold 20 3" Nos 2 & 3 Holds
20 4" Tunnel well 10 2 1/2" Holds well 10 2 1/2"
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 10 8" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 10 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 5920 sq. ft.
 Is Forced Draft fitted Yes No. and Description of Boilers 2 S.E. Working Pressure 220 lb.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —
 Is the donkey boiler intended to be used for domestic purposes only —
 PLANS. Are approved plans forwarded herewith for Shafting 13-3-40 Main Boilers 8-11-39 Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval)
 Superheaters — General Pumping Arrangements Yes 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 & Co. Ltd.
 Arch. H. Grierson

Manufacturer.

PILL
"
"
"
"
Cen
St
Pl
STRIN
Upp
St
TL
TL
TL
If
Sec
St
FLAT P
"
BOTTOM
of St
BILGE I
Stral
SIDE F
Stral
UPPER
stral
UPPER
stral
STRAKE
stral
STRAKE
stral
Peer S
BRIDGE
FOREC'
Total
MIDS
COLL
AFTH
STE

During progress of work in shops - - 1940 June: 20 July: 18-29-30 Aug: 16-21 Sep: 2-9-11-16-18-25-26 Oct: 18-28-30 Nov: 1-4-13-15-21
During erection on board vessel - - 25-29 Dec: 3-5-9-24-27 (1941) Jan: 7-13-15-20-21-23-27-28-31 Feb: 3-4-14-19-21-25-26 Mar: 3-4-6-10-14-19-24 Apr: 4-9-12-22
Total No. of visits 56

Dates of Examination of principal parts—Cylinders 4-11-40 Slides 15-1-41 Covers 4-11-40
Pistons 7-1-41 Piston Rods 7-1-41 Connecting rods 30-10-40
Crank shaft 3-12-40 Thrust shaft 26-2-41 Intermediate shafts 13-11-40
Tube shaft - Screw shaft 3-2-41 Propeller 3-2-41
Stern tube 21-1-41 Engine and boiler seatings 12-2-41 Engines holding down bolts 4-4-41
Completion of fitting sea connections 25-2-41
Completion of pumping arrangements 12-4-41 Boilers fixed 4-4-41 Engines tried under steam 22-4-41
Main boiler safety valves adjusted 9-4-41 Thickness of adjusting washers P 3/8" P.S. 5 1/2" P.S.
Crank shaft material S.M. Steel Identification Mark 9514 JC Thrust shaft material S.M. Steel Identification Mark 9514 ASB
Intermediate shafts, material S.M. Steel Identification Marks 9514 ASB Tube shaft, material - Identification Mark -
Screw shaft, material S.M. Steel Identification Mark 9514 ASB Steam Pipes, material Steel + W.I. Test pressure 660 lb. Date of Test Mar. 4/41
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 SNOW" G.L.S. R. 63432

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, in my opinion, is eligible to be classed in the Register Book with read + LMC 4, 41 and notation CL. The requirements of the Ministry of Shipping specification have been carried out satisfactorily.

Rob
29/4/41

The amount of Entry Fee ... £ 5 : - : When applied for,
Special ... £ 90 : 17 : 29 APR 1941
Donkey Boiler Fee ... £ 22 : 14 : 3 When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute GLASGOW 29 APR 1941

Assigned -/- LMC 4.41
P.E.

Engine Surveyor to Lloyd's Register of Shipping.



© 2020
Lloyd's Register
Foundation