

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 11 MAY 1942

Date of writing Report 4-4-1942 When handed in at Local Office 7 MAY 1942 Port of HULL
 No. in Survey held at Thorne Date, First Survey 19. 1. 42. Last Survey 31. 3. 1942
 Reg. Book _____ (Number of Visits 6)
 on the Star Jug **EMPIRE SPRUCE** Tons {Gross 129
 Net 112
 Built at Thorne By whom built R. Dumston & Co Yard No. 364 When built 1942
 Engines made at Parsloey By whom made Moffe & Baxter & Co Engine No. 1333 When made do.
 Boilers made at Glasgow By whom made John Thompson (Marine Eng) Boiler No. 5166 When made do.
 Registered Horse Power _____ Owners The Ministry of War Transport Port belonging to _____
 Nom. Horse Power as per Rule 85 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended Young Services

GINES, &c.—Description of Engines Triple Expansion Revs. per minute 140
 No. of Cylinders 10" - 20" - 30" Length of Stroke 22" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 6.44 Crank pin dia. 6 1/2" Crank webs Mid. length breadth _____ Thickness parallel to axis 4 1/8"
 as fitted 6 1/2" Mid. length thickness _____ shrunk Thickness around eye-hole 2 1/8"
 Intermediate Shafts, diameter as per Rule _____ Thrust shaft, diameter at collars as per Rule 6.44
 as fitted 6 1/4" as fitted 6 1/2"
 Main Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule 7.12" Is the {tube} shaft fitted with a continuous liner { _____ }
 as fitted _____ as fitted 7 1/8" as fitted _____
 Bronze Liners, thickness in way of bushes as per Rule _____ Thickness between bushes as per Rule _____ Is the after end of the liner made watertight in the
 as fitted _____ as fitted _____
 Propeller boss _____ 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 _____
 at Yes If so, state type Hubark Length of Bearing in Stern Bush next to and supporting propeller 29"
 Propeller, dia. 81.3" Pitch 10'-0" No. of Blades 4 Material C-1 whether Moveable Solid Total Developed Surface 24 sq. feet

Red Pumps worked from the Main Engines, No. One Diameter 2 1/2" Stroke 12" Can one be overhauled while the other is at work _____
 Green Pumps worked from the Main Engines, No. One Diameter 2 1/2" Stroke 12" Can one be overhauled while the other is at work _____
 Red Pumps { No. and size 6 x 4 1/2 x 10" Pumps connected to the { No. and size 5 x 3 1/2 x 6"
 How driven Steam Main Bilge Line How driven Steam
 Lubricating Oil Pumps, including Spare Pump, No. and size One
 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 One in each of 2" dia Also direct suction see below.
 Pump Room Bunkers tunnel One of 2" dia In Holds, &c. Fore & Aft Compartments one each of 2" dia
Each fitted with check valve controlled from upper deck.

In Water Circulating Pump Direct Bilge Suctions, No. and size One - 3 1/2" dia Independent Power Pump Direct Suctions to the Engine Room Bilges,
 and size Exp. Bilge One each of 2 1/2" dia 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 Yes
 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 W.L.
 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
 How are they protected _____
 How are they protected _____
 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 _____ worked from _____

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1356 sq. ft.
 Are any Boilers fitted with Forced Draft Yes Which Boilers are fitted with Superheaters None
 and Description of Boilers One S.B. Working Pressure 200 lbs/sq. in.
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 A DONKEY BOILER FITTED? No If so, is a report now forwarded? _____
 Is the donkey boiler be used for domestic purposes only _____
 Are approved plans forwarded herewith for Shafting 29-11-39 Main Boilers 6-11-39 Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval)
 Superheaters _____ General Pumping Arrangements 17-3-41 Oil fuel Burning Piping Arrangements _____

SPARE GEAR.
 Is the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied See list attached to G's Rpt.

Are the stokehold mud boxes are under removable floor plates. This is the only practicable position.
 The foregoing is a correct description.
 Manufacturer _____

During progress of work in shops - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits

1942. Jan. 7. 11. 13. Mar. 17. 27. 31.
 6

Dates of Examination of principal parts—Cylinders *Gp Rpt* Slides *Gp Rpt* Covers *Gp Rpt*
 Pistons *Gp Rpt* Piston Rods *Gp Rpt* Connecting rods *Gp Rpt*
 Crank shaft *Gp Rpt* Thrust shaft *Gp Rpt* Intermediate shafts *Gp Rpt*
 Tube shaft ✓ Screw shaft *Gp Rpt* 4. 13-1-42 Propeller 13-1-42
 Stern tube 11-1-42 Engine and boiler seatings 11-1-42 Engines holding down bolts 17-3-42
 Completion of fitting sea connections 13-1-42
 Completion of pumping arrangements 31-3-42 Boilers fixed 17-3-42 Engines tried under steam 31-3-42
 Main boiler safety valves adjusted 31-3-42 Thickness of adjusting washers P 1/32" S 1/4"
 Crank shaft material *Steel* Identification Mark *10347-41* Thrust shaft material *Steel* Identification Mark *419-41*
 Intermediate shafts, material *Steel* Identification Marks *T.T. 12-11-41* Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material *Steel* Identification Mark *T.T. 12-11-41* Steam Pipes, material *Steel* Test pressure 600 lbs/sq. Date of Test 27-3-42
 Is an installation fitted for burning oil fuel *Yes* 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 *Yes* 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 *Yes*
 Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *S.S. EMPIRE MAPLE*

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

The Machinery of the vessel has been constructed & fitted on board under Special Survey in accordance with the approved plans, the Society's Rules & the Specification. The workmanship & materials are good & when tried under working conditions it was found satisfactory in every respect.

It is eligible, in our opinion, to have the records of *L.M.C. 3.42. O.G.* & the notations of *T. 3 Cy. 12' 20" J. 32' - 22" 85 NHP. 200 lbs. 2 cf. G.S. 37. H.S. 1356 F.D.*

Certificate to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£ 5 : 0	When applied for,
Balance of Special	£ 4 : 5	15 APR 1942
& Specification	£ 3 : 3/9	When received,
Donkey Boiler Fee	£	
Travelling Expenses (if any)	£	19

D. J. H. Jones and *J. H. Jones*
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute *FRI. 15 MAY 1942*
 Assigned *T. D. O'G.*

