

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report 1st AUG. 1942. When handed in at Local Office 1st AUG. 1942 Port of GREENOCKNo. in Survey held at GREENOCK Date, First Survey 18th JUNE. 1941. Last Survey 6th AUGUST 1942
Reg. Book. on the TWIN S/S EMPIRE MIGHT (Number of Visits 81.)Built at GREENOCK By whom built GREENOCK DOCKYARD CO. LTD. Yard No. 450 Tons { Gross 9205.67
Engines made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD. Engine No. 734 Net 4921.63
Boilers made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD. Boiler No. 734 When built 1942
Registered Horse Power Owners MINISTRY OF WAR TRANSPORT Port belonging to GREENOCK
Nom. Horse Power as per Rule 1562 1372 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
Trade for which Vessel is intended OCEAN GOING

ENGINES, &c.—Description of Engines Triple expansion in conjunction with Bauer Wack Turbines
Dia. of Cylinders 26-42-68" Length of Stroke 48" No. of Cylinders 6 Revs. per minute 92
Crank shaft, dia. of journals as per Rule 14.4" Crank pin dia. 15" Mid. length breadth 1' 11 7/8" No. of Cranks 6
as fitted 15" Crank webs Mid. length thickness 9 1/8" Thickness parallel to axis 9 1/8"
Intermediate Shafts, diameter as per Rule 13.71" Thrust shaft, diameter at collars as per Rule 14.4"
as fitted 14.375" as fitted 13 1/2" = 15"
Tube Shafts, diameter as per Rule 15.13" Is the tube screw shaft fitted with a continuous liner? Yes
as fitted 16.375" as fitted 16.375"
Bronze Liners, thickness in way of bushes as per Rule .762" Thickness between bushes as per Rule .572"
as fitted .875" as fitted .718" 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 Yes
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 Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No If so, state type Yes
Propeller, dia. 17'-0" Pitch 18'-6" No. of Blades 4 Material C.I. Bush, whether Moveable Yes Length of Bearing in Stern Bush next to and supporting propeller 5'-2 1/2"
Feed Pumps worked from the Main Engines, No. NONE Diameter Yes Stroke Yes Can one be overhauled while the other is at work Yes
Bilge Pumps worked from the Main Engines, No. NONE Diameter Yes Stroke Yes Can one be overhauled while the other is at work Yes
Feed Pumps { No. and size 10 10 1/2 x 12 1/2 Pumps connected to the { No. and size 4 10 10 1/2 x 12 1/2
How driven STEAM Main Bilge Line How driven STEAM
Ballast Pumps, No. and size 10 10 1/2 x 12 1/2 Lubricating Oil Pumps, including Spare Pump, No. and size 10 10 1/2 x 12 1/2
Are two independent means arranged for circulating water through the Oil Cooler No Suctions, connected to both Main Bilge Pumps and Auxiliary
Bilge Pumps;—In Engine and Boiler Room 4 @ 3 1/2" 1 @ 3" 2 @ 2 1/2" 1 @ 2" Coff. Tunnel well 10 1/2" Side 6 @ 2 1/2"
In Pump Room In Holds, &c. N1-2 @ 3" N2-2 @ 3 1/2" N3-2 @ 2 1/2" N4-2 @ 3" N5-1 @ 3"
Coff. 4 @ 2" X bunker 2 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 @ 13" Independent Power Pump Direct Suctions to the Engine Room Bilges,
No. and size 1 @ 5 1/2" 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 Main 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 None How are they protected Yes
What pipes pass through the deep tanks None Have they been tested as per Rule Yes
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 Access from Updeck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 17780 sq. ft.
Which Boilers are fitted with Forced Draft All boilers Which Boilers are fitted with Superheaters All boilers
No. and Description of Boilers 5 S.E. multitubular Working Pressure 220 lbs./sq. in.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
Can the donkey boiler be used for domestic purposes only Yes

PLANS. Are approved plans forwarded herewith for Shafting 27-1-41 Main Boilers 27-1-41 Auxiliary Boilers Yes Donkey Boilers Yes
(If not state date of approval)
Superheaters See Note cert. attached General Pumping Arrangements 24-12-41 Oil fuel Burning Piping Arrangements 8-4-41
N.C. 13/45 15-1-42

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
State the principal additional spare gear supplied

The foregoing is a correct description.
For JOHN G. KINCAID & CO. LIMITED.

Director.

Manufacturer.



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Lloyd's Register
Foundation

005403-005411-0206

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

Dates of Examination of principal parts—Cylinders 7-11-41 - 26-11-41 Slides 7-11-41 - 26-11-41 Covers 7-11-41 - 26-11-41
Pistons 7-11-41 - 26-11-41 Piston Rods 10-3-42 Connecting rods 10-3-42
Crank shaft 10-3-42 Thrust shaft 5496 of 65121 (on Turbine) Intermediate shafts 23-2-42
Tube shaft ✓ Screw shaft 677/4/42 Propeller 677/4/42
Stern tube 26-11-41 Engine and boiler seatings 27-4-42 Engines holding down bolts 19th-29th May '42
Completion of fitting sea connections 8-2-42
Completion of pumping arrangements 28-7-42 Boilers fixed 13-5-42 Engines tried under steam AFT
Main boiler safety valves adjusted 23-6-42 Thickness of adjusting washers 19/16 9/32 11/32 9/32 5/16 5/16 5/16 3/8 9/32 10726 DB 240
Crank shaft material S Identification Mark 10849 CHH Thrust shaft material S Identification Mark 20-1-42 TPC
Intermediate shafts, material S Identification Marks S 10849 CHH Tube shaft material ✓ Identification Mark ✓
Screw shaft, material S Identification Mark 10849 CHH Steam Pipes, material SDS Test pressure 660 lb Date of Test 2-3-42
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes
Have the requirements of the Rules for the use of oil as fuel been complied with Yes
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No 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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)
These engines and boiler have been built under Special survey in accordance with approved plans. The materials & workmanship are sound & good. They have been efficiently installed in the vessel & tried out under full working conditions on a short sea trial with satisfactory results. The boiler & superheater safety valves have been adjusted under steam.
The plans & specification have been supervised, a copy of certificate issued is enclosed herewith.
This machinery is eligible in my opinion to be classed in the Society's Register Book with Record
+ LMC 8-42 T.S.C.L. & the notation 55B Suppl. 220 lbs/° F.D.

The amount of Entry Fee ... £ 6 : :
Special ... £ 128.13/- :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 37.18 :
Committee's Minute GLASGOW 11 AUG 1942
Assigned - 1st Aug 8.42
20.

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.
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