

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

13 JUN 1943

Date of writing Report 26 Jan. 1943 When handed in at Local Office 27 Jan. 1943 Port of TORONTO, CANADA

No. in Survey held at Toronto, Canada Date, First Survey Nov. 17, 1942 Last Survey Jan. 7 1943

Reg. Book. on the 10,000 ton Cargo Vessel SS "FORT WRIGLEY" (Number of Visits 26) Tons 7128.00 Gross 4250.28 Net

Built at Victoria, B. C. By whom built Victoria Machinery Depot Co. Ltd. Yard No. 26 When built 1942-3

Engines made at Toronto, Ontario By whom made John Inglis Co. Ltd. Engine No. 141-M60 When made 1942-3

Boilers made at - By whom made - Boiler No. - When made -

Registered Horse Power - Owners Wartime Merchant Shipping Ltd. Port belonging to -

Nom. Horse Power as per Rule 504 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted Yes

Trade for which Vessel is intended -

ENGINES, &c.—Description of Engines Triple Expansion Superheat 575°F. Revs. per minute 76

Dia of Cylinders 24.5" x 37" x 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3 9" HP.MP

Crank shaft, dia. of journals as per Rule 13.98 Crank pin dia. 14.25 Mid. length breadth 24.5 Thickness parallel to axis 9.5" LP.

as fitted 14.25 Crank webs shrunk Mid. length thickness - Thickness around eye-hole 7 1/8 Pin

Intermediate Shafts, diameter as per Rule - Thrust shaft, diameter at collars as per Rule 13.98 as fitted 14.25 7 5/8" Jour.

Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule - Is the tube shaft fitted with a continuous liner -

as fitted - as fitted - 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 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 shaft -

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. ft.

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 4.5" Stroke 26" Can one be overhauled while the other is at work Yes

Feed (No. and size Two 10"x7"x24" 4000 Imp. Gallons. Pumps connected to the Main Bilge Line { No. and size - How driven -

Pumps (How driven Independent Lubricating Oil Pumps, including Spare Pump, No. and size -

Ballast Pumps, No. and size - Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary

Are two independent means arranged for circulating water through the Bilge Pumps;—In Engine and Boiler Room -

In Pump Room - In Holds, &c. -

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 7140 Sq. Ft. (3 Boilers)

Which Boilers are fitted with Forced Draft All three boilers Which Boilers are fitted with Superheaters All three boilers

No. and Description of Boilers Three Scotch Marine Working Pressure 220 lbs. per Sq. In.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? No.

IS A DONKEY BOILER FITTED? No. 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 N.E.M.No.694 Main Boilers John S. Auxiliary Boilers - Donkey Boilers -

(If not state date of approval) APPROVAL 15.11.40 Heck per C.M. Oil fuel Burning Piping Arrangements -

Superheaters - General Pumping Arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied 1 set Piston rings and Springs for HP. MP. and LP pistons and HP piston-valve, top and bottom, 1 set of pads for ahead face of Thrust Bearing, 2 bottom end bolts and nuts, 4 top end bolts and nuts, 2 Main Bearing Bolts and Nuts, 6 Coupling Bolts and Nuts, 1 Bottom end Bearing (2 Halves) 2 Pairs Top end Bearings, 1 set Bottom end Bearing Liners, 1 set Metallic Packing for HP. MP. LP, Piston Rods and Valve Spindles. 1 set (6) Air Pump Head Valve Discs. (Top & Bottom) 4 Pressure Glasses, 4 Springs, 4 Guide Rings, 8 Gaskets, 1 Pump Unit complete for Lubricator. 1 Glycerine Gun, 1 Valve and Seat for S.D.N.R. Valve & Lift Valve on Suc. & Disch. Chests, 3 Carrying bars for Crossheads, 1 lifting bar for Main Bearings, 1 Wear down Gauge for Crankshaft, 1 set Spanners & Wrenches as per Specification.

The foregoing is a correct description
 John Inglis Company Limited
 Date Jan. 30/43 By J. McKeuzie Manufacturer.



Nov. 17, 19, 24, 26, 30. Dec. 1, 2, 3, 4, 5, 7, 9, 11, 12, 15, 16, 17, 19, 21, 24, 28, 29
 Jan. 2, 4, 5, 7,
 Total No. of visits 26

Dates of Examination of principal parts — Cylinders HP 24.11.42 MP 26.11.42 LP 17.11.42 Slides HP 30.11.42 MP LP Covers HP 24.11.42 MP 26.11.42 LP 17.11.42
 Pistons HP 28.12.42 MP LP Piston Rods 28.12.42 Connecting rods 19.12.42
 Crank shaft 26.11.42 4.1.43 Thrust shaft 4.1.43 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 O. H. Steel Identification Mark LLOYDS 3624B. H.G.L.P.15.5.42 Thrust shaft material O. H. Steel Identification Mark LLOYDS 1157 E.E.R.30.11.42 J.B.F.4.1.43
 Intermediate shafts, material Identification Marks LLOYDS 3712A. I.J.T.26.5.42 Tube shaft, material Identification Mark J.B.F.4.1.2.42
 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 - Yes If so, state name of vessel N.E.M. Type.

General Remarks (State quality of workmanship, opinions as to class, &c. The Main Engine was built under the Special Survey of the Society's Surveyors to the requirements of the Rules and in accordance with the approved plans.

The workmanship was good and the materials were made at an approved works and tested as required by the Rules to the satisfaction of the Society's Surveyors.

In my opinion this main engine is eligible to be classed in the Society when satisfactorily installed and tried under steam to the satisfaction of the Society's Surveyors.

Forging Reports Nos. 1157, 8099, 8917, 9524, 8834, 3488, 8772, 8868, 3712, 5829, 4364, are attached hereto.

Thrust Shaft LLOYDS 1157 E.E.R.30.11.42 J.B.F.4.1.43 was examined in finished condition and found satisfactory.

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

First			
The amount of/Entry Fee	£ \$ 30.00	:	When applied for,
Special Survey	£ 267.00	:	5.4 19 43 VCR.
Donkey Boiler Fee	£ :	:	When received,
Travelling Expenses (if any)	£ 10.00	:	✓ 19

Jas B. Jenkins
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned see minutes Vcr 5900.