

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

12 FEB 1943

Date of writing Report Aug. 31st 1942 When handed in at Local Office 19 Port of Toronto
 No. in Survey held at Toronto, Canada Date, First Survey June 14th Last Survey July 29th 1942
 Reg. Book. on the 10,000 ton Cargo Vessel S.S. "FORT FRANKLIN" (Number of Visits 40)
 Built at Vancouver, B.C. By whom built West Coast Shipbuilders Ltd. Yard No. 110 When built 1942
 Engines made at Toronto By whom made John Inglis Co. Ltd. Engine No. 89 When made 1942
 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 504 ⁵⁰⁵ Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
 Trade for which Vessel is intended -

ENGINES, &c.—Description of Engines Triple Expansion, Superheat to 575°F. Revs. per minute 76
 Dia of Cylinders 24 1/2" x 37" x 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.98" as fitted 14.25" Crank pin dia. 14.250" Crank webs Mid. length breadth 24 1/2" Thickness parallel to axis 9"H.P.M.P.
 Intermediate Shafts, diameter as per Rule - as fitted - Mid. length thickness 9"H.P.M.P. Thickness around eye-hole 9 1/4"L.P.
 Thrust shaft, diameter at collars as per Rule 13.98" as fitted 14.25" Thickness around eye-hole 7 1/8" Jour.
 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 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 4.470" Stroke 26" Can one be overhauled while the other is at work yes
 Feed Pumps {No. and size Two 10"x7"x24" 4000 Imp. Gallons } Pumps connected to the Main Bilge Line { No. and size - }
 {How driven Independent } { 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 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 S) Total Heating Surface of Boilers 7140 Sq. Ft. (3 boilers)
 Which Boilers are fitted with Forced Draft Yes Which Boilers are fitted with Superheaters All three boilers
 No. and Description of Boilers Three Scotch Marine Working Pressure 220 lbs. 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 Lloyds Main Boilers John Heck Auxiliary Boilers - Donkey Boilers -
 (If not state date of approval) Approval 15.11.40 per C.M.
 Superheaters - General Pumping Arrangements - 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 1 set. Piston Rings & Springs for H.P.-M.P.-L.P. Pistons and H.P. Piston Valve, top & bottom. 1 set. Pads for Ahead Face of Thrust Bearing. 2. Bottom End Bolts & Nuts. 4. Top End Bolts & Nuts. 2. Main Bearing Bolts & Nuts. 6. Coupling Bolts & Nuts. 1 Bottom End Bearing (2 Halves). 2 Pairs. Top End Bearings. 1. Set Bottom End Bearing Liners. 1 Set. Metallic Packings for H.P.-M.P.-L.P. Piston Rods & 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 & Seat for S.O.N.R. Valve) & Lift Valve on Suct. & Disch. Chests 3 Carrying Bars for Crossheads. 1 Lifting L.b. for Main Bearings. 1 Wearing Gauge for Crankshaft. (1 Set of Spanners & Wrenches as per specification).

The foregoing is a correct description

The John Inglis Company Limited
 Date Sept. 1. 42 By J. McKelvey

Manufacturer.



Lloyd's Register Foundation

1500-517M

Dates of Survey while building { During progress of work in shops - - } June 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 26, 27, 29, 30
 { During erection on board vessel - - - } July 1, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
 Total No. of visits 40 in shops

Dates of Examination of principal parts — Cylinders	H.P. 3.7.42	M.P. 1.7.42	Slides	H.P. 24.7.42	M.P. 18.7.42	Covers	H.P. 3.7.42	M.P. 1.7.42
Pistons	14.7.42	L.P. 6.7.42	Piston Rods	14.7.42	Connecting rods	14.7.42	L.P. 6.7.42	
Crank shaft	20.6.42		Thrust shaft	24.7.42	Intermediate shafts	-		
Tube shaft	-		Screw shaft	-	Propeller	-		
Stern tube	-		Engine and boiler seatings	-	Engines holding down bolts	-		
Completion of fitting sea connections	-		Boilers fixed	-	Engines tried under steam	-		
Completion of pumping arrangements	-		Thickens of adjusting washers	-				
Main boiler safety valves adjusted	-		LLOYDS 6002 J.B.7.1.42	6011 J.B.6.2.42			LLOYDS 7868 J.K.H.10.	
Crank shaft material	O.H.Steel	Identification Mark	J.B.20.6.42	Thrust shaft material	O.H.Steel	Identification Mark	J.B.24.7.42	
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	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. 6008, 6011, 4454, 2561, 1952, 2574, 7725, 7819, 7980, 6411, attached hereto.
 Thrust Shaft LLOYDS No. 7868 was examined in finished condition and found in good order.

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

The amount of First Entry Fee ... £	\$: 30.00	When applied for, 1. 12. 19 42 VCR. When received, Rk. ✓ 19
Special Survey ... £	267.00	
Donkey Boiler Fee ... £	:	
Travelling Expenses (if any) £	: 10.00	

F. Barker
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 23 FEB 1943
 Assigned See Rec. J.B. 5845