

# REPORT ON OIL ENGINE MACHINERY.

No. 10665

NOV 1955

Received at London Office

31 OCT 1955

Date of writing Report AUG 20<sup>th</sup> 1955 When handed in at Local Office SEP 12 1955 Port of MONTREAL

No. in Survey held at KINGSTON, ONT. Date, First Survey MARCH 2<sup>nd</sup> Last Survey JUNE 4<sup>th</sup> 1955  
Reg. Book. Number of Visits 20

on the Single Screw vessel "AMHERST ISLANDER" Tons Gross 183.75  
Net 114.21

Built at KINGSTON By whom built KINGSTON SHIPYARDS LTD. Yard No. 48 When built 1955

Engines made at REDDISH By whom made CROSSLEY BROS. LTD. Engine No. 146554 When made 1955

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

Brake Horse Power { Maximum 300 Owners DEPARTMENT OF HIGHWAYS, TORONTO Port belonging to KINGSTON  
Service 250

M.N. as per Rule 60 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended FOR SERVICE BETWEEN AMHERST ISLAND AND MILHAVEN, ONTARIO

OIL ENGINES, &c. — Type of Engines 2 or 4 stroke cycle Single or double acting -

Maximum pressure in cylinders - Diameter of cylinders - Length of stroke - No. of cylinders - No. of cranks -

Mean Indicated Pressure - Span of Main Engine (i.e., distance between inner edges of bearings in way of a crank) -

Is there a bearing between each crank NO Revolutions per minute { Maximum 750 } alt letter 27/10/55  
Service 700

Flywheel dia. - Weight - Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) - Means of ignition - Kind of fuel used -

Crank Shaft, { Solid forged SEE MANCHESTER REPORT No 16548 FOR MAIN ENGINE  
Semi built -  
All built - } dia. of journals as per Rule - as fitted - Crank pin dia. - Crank webs - Mid. length breadth - Thickness parallel to axis -  
Mid. length thickness - shrunk - Thickness around eyehole -

Flywheel Shaft, diameter as per Rule - as fitted - Intermediate Shafts, diameter as per Rule 3.583" as fitted 4" Thrust Shaft, diameter at collars as per Rule - as fitted -

Tube Shaft, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 4.327" as fitted 4.5" Is the tube shaft fitted with a continuous liner NO

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 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 fitted at the after end of stern tube NO If so, state type - Length of bearing in Stern Bush next to and supporting propeller 18"

Propeller, dia 4'-9" Pitch 3'-4" No. of blades FOUR Material CAST STEEL whether moveable NO Total developed surface - sq. feet 7/12/55

Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) - Kind of damper, if fitted NONE

Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine YES Means of lubrication FORCED Thickness of cylinder liners - Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material BOTH If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine - Cooling Water Pumps, No. and how driven TWO - MAIN ENGINE Working F.W. NONE

S.W. ONE Spare F.W. NONE S.W. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

Bilge Pumps worked from the Main Engines, No. and capacity ONE, CLUTCH DRIVEN 23 TONS/HR Can one be overhauled while the other is at work -

Pumps connected to the Main Bilge Line No. and capacity of each TWO EACH 23 TONS/HOUR How driven ONE MAIN ENGINE CLUTCH DRIVEN, ONE AUXILIARY ENGINE CLUTCH DRIVEN

Is the cooling water led to the bilges NO If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements -

Ballast Pumps, No. and capacity NONE Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE - 1230 GALLS/HOUR  
ONE - 1910 GALLS/HOUR

Are two independent means arranged for circulating water through the Oil Cooler YES Branch Bilge Suctions SEVEN AT 2"

No. and size:—In machinery spaces ONE AT 2" In pump room NO PUMP ROOM

In holds, &c. FOREPEAK ONE AT 2"; BUOYANCY COMPART: THREE AT 2"; ACCOMMOD: ONE AT 2"; SHAFT GLAND COMPART: ONE AT 2"

Direct Bilge Suctions to the engine room bilges, No. and size ONE AT 2 1/2" AND ONE EMERGENCY AT 1 1/2"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction in the machinery spaces 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 VALVES Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates YES Are the overboard discharges above or below the deep water line ABOVE

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 NONE

What pipes pass through the bunkers NONE How are they protected -

What pipes pass through the deep tanks NONE 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 NO TUNNELS it fitted with a watertight door - worked from -

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -

Main Air Compressors, No. ONE No. of stages ONE diameters 3 1/2" stroke 2 1/4" driven by M.E

Auxiliary Air Compressors, No. ONE No. of stages TWO diameters 3 3/4" & 1 1/2" stroke 3 1/4" driven by CLUTCH AUX'Y ENG.

Small Auxiliary Air Compressors, No. NONE No. of stages - diameters - stroke - driven by -

What provision is made for first charging the air receivers HAND STARTING AUXILIARY ENGINE

Scavenging Air Pumps or Blowers, No. ONE D.A. TANDEM How driven MAIN ENGINE

Auxiliary Engines Have they been made under survey YES Engine No. 145544

Makers name CROSSLEY BROS. LTD. Position of each in engine room PORT SIDE

Report No. MANCHESTER REP 10 No 16420

© 2021

Lloyd's Register Foundation

010545-010553-0198

**AIR RECEIVERS:**—Have they been made under survey YES State No. of report or certificate

State full details of safety devices EACH RECEIVER FITTED WITH RELIEF VALVE AND FUSIBLE PLUG

Can the internal surfaces of the receivers be examined and cleaned YES Is a drain fitted at the lowest part of each receiver YES

Injection Air Receivers, No. NONE Cubic capacity of each - Internal diameter - thickness -

Seamless, welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -

Starting Air Receivers, No. TWO Total cubic capacity 10 CU. FT. Internal diameter 1'-6" thickness 5/16"

Seamless, welded or riveted longitudinal joint WELDED Material M.S. Range of tensile strength - Working pressure 350 LBS./IN<sup>2</sup>

**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 YES Receivers - Separate fuel tanks YES

(If not, state date of approval)

Donkey boilers - General pumping arrangements YES Pumping arrangements in machinery space -

Oil fuel burning arrangements -

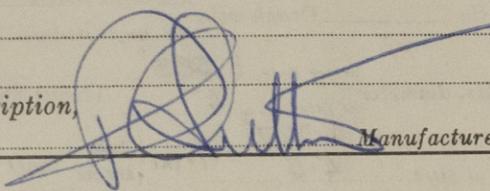
Have Torsional Vibration characteristics been approved YES Date and particulars of approval LONDON LETTER 24<sup>TH</sup> JUNE 55

819/55

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied YES State if for "short voyages" only YES

State the principal additional spare gear supplied -

The foregoing is a correct description,  Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - MARCH 2, 8, 15, 17, 25, APRIL 13, 15, 22, 23, 25, MAY 19, 24, 25, JUNE 3, 4, 5, 6, 7, 11, 13, 14

Total No. of visits 20.

Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -

Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts APR 15<sup>TH</sup> 1955 Tube shaft -

Screw shaft APRIL 23<sup>RD</sup> 55 Propeller APRIL 23<sup>RD</sup> 55 Stern tube APR 25<sup>TH</sup> 55 Engine seatings APR 25<sup>TH</sup> 55 Engine holding down bolts MAY 19<sup>TH</sup> 55

Completion of fitting sea connections APRIL 25<sup>TH</sup> 55 Completion of pumping arrangements JUNE 3<sup>RD</sup> 55 Engines tried under working conditions JUNE 4<sup>TH</sup> 55

Crank shaft, material - Identification mark - Flywheel shaft, material, - Identification mark LLOYDS HFX A

Thrust shaft, material - Identification mark - Intermediate shafts, material O.H. STEEL Identification marks L.M.M. 3-3-

Tube shaft, material - Identification mark - Screw shaft, material O.H. STEEL Identification mark LLOYDS HFX A-78

Identification marks on air receivers H3052 AND H3059 NOT. LLOYDS TEST 700 LB W.P. 350 LB 7-1-55 T.D. SILVER

Welded receivers, state Makers' Name RUSTON & HORNSBY LTD. NOTTINGHAM

Is the flash point of the oil to be used over 150°F YES

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES

Full description of fire extinguishing apparatus fitted in machinery spaces TWO 15lb CO<sub>2</sub>; ONE 5lb FOAM, ONE HYDRANT & 25'-2" HOSE

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 -

What is the special notation desired FERRY SERVICE

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with NOT REQUIRED.

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, Speed restrictions, &c.)

THE MACHINERY DESCRIBED HEREIN HAS BEEN EFFICIENTLY INSTALLED UNDER THE SUPERVISION OF THE SURVEYORS TO THIS SOCIETY, TESTED UNDER WORKING CONDITIONS AND FOUND SATISFACTORY, AND IS, IN MY OPINION, ELIGIBLE TO BE CLASSED IN THE REGISTER BOOK WITH RECORD OF + L.M.C. 6-55

The amount of Entry Fee ... \$ 372<sup>00</sup> : When applied for OCT 26 1955

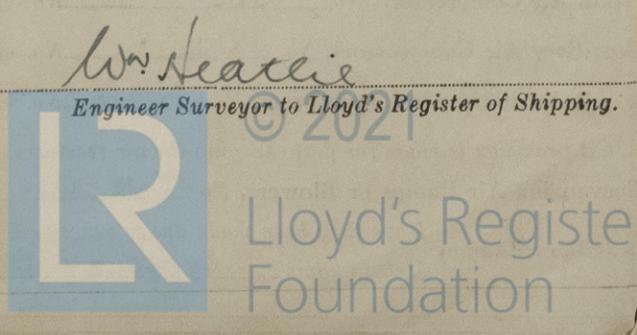
Special ... £ : When received 19

Donkey Boiler Fee... £ :

Travelling Expenses (if any) \$ 225<sup>00</sup> :

Committee's Minute TUESDAY 20 DEC 1955

Assigned +LMC 6. 55



Certificate (if required) to be sent to  
The Surveyors are requested not to write on or below the space for Committee's Minute  
31/1/55  
S.P.