

REPORT ON OIL ENGINE MACHINERY.

No. 10665

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Date of writing Report AUG 20TH 1955 When handed in at Local Office SEP 12 1955 Port of MONTREAL
 No. in Survey held at KINGSTON, ONT. Date, First Survey MARCH 2ND Last Survey JUNE 4TH 1955
 Reg. Book. Number of Visits 20

Single on the AMHERST ISLANDER Screw vessel. 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 Service 700 } alt letter 27/10/55
 Flywheel dia. - Weight - Moment of inertia of flywheel (lbs. in² or Kg. cm²) - 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 - Crank pin dia. - Crank webs - Mid. length breadth - Thickness parallel to axis -
 as fitted - as fitted - Mid. length thickness - Thickness around eyehole -
 Flywheel Shaft, diameter - as per Rule - Intermediate Shafts, diameter - as per Rule - Thrust Shaft, diameter at collars - as per Rule -
 as fitted - as fitted - as fitted - as fitted -
 Tube Shaft, diameter - as per Rule - Screw Shaft, diameter - as per Rule - Is the NO shaft fitted with a continuous liner { NO
 as fitted - 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 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. in² or Kg. cm²) - 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 TNS/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
 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 TUNNEL Is 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 RETIO No 16420

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/IN²

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 24TH JUNE 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,

[Signature]
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 15TH 1955 Tube shaft -
Screw shaft APRIL 23RD 55 Propeller APRIL 23RD 55 Stern tube APR 25TH 55 Engine seatings APR 25TH 55 Engine holding down bolts MAY 19TH 55
Completion of fitting sea connections APRIL 25TH 55 Completion of pumping arrangements JUNE 3RD 55 Engines tried under working conditions JUNE 4TH 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 L.M.M. 3-3-55
Identification marks on air receivers H3052 AND H3059 NOT LLOYDS TEST 700 LB W.P. 350 LB 7-1-55 T.D. Silge

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 CO₂; 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 ... \$ 372.⁰⁰
Special ... £
Donkey Boiler Fee... £
Travelling Expenses (if any) \$ 225.⁰⁰
When applied for OCT 26 1955
When received 19
Committee's Minute TUESDAY 20 DEC 1955
Assigned +LMC 6. 55

