

REPORT ON OIL ENGINE MACHINERY.

No 19316

Date of writing Report 10-1-1952 When handed in at Local Office 10-1-1952 Port of West Hartlepool.
No. in Survey held at West Hartlepool. Date, First Survey 17th June, 1950, Last Survey 23rd December, 1951
Reg. Book. Number of Visits 112.

Single
on the Turn
Triple
Screw vessel

"BRITISH MAPLE"

Tons: Gross
Net

Built at Sunderland. By whom built Sir James Laing & Sons Ltd. Yard No. 792 When built 1951.
Engines made at West Hartlepool By whom made Richardsons, Westgate Rd. Engine No. 3208 When made 1951.
Donkey Boilers made at Wallsend By whom made N.E. Marine E. Co (1938) Ltd. Boiler No. 3190 When made 1951.
Brake Horse Power 3100. Owners British Tanker Coy. Ltd. Port belonging to London.
Nom. Horse Power as per Rule MN. 688. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
Trade for which vessel is intended Carrying Petroleum in bulk.

L ENGINES, &c. Type of Engines NEM. Boxford Opp. piston Airless. 2 or 4 stroke cycle. 2 Single or double acting Single
Maximum pressure in cylinders 640 lbs. Diameter of cylinders 600 in. Length of stroke 2320 in. No. of cylinders 4 No. of cranks 4 Three thro.
Mean Indicated Pressure 85 lbs. Between each 3 thro.
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1748 (24 cyl.)
Revolutions per minute 105 Flywheel dia. 1690 in. Fd Weight 3.26 tons Means of ignition Compression Kind of fuel used Heavy oil or Diesel oil.
Rank Shaft, { Solid forged as per Rule 431 in Crank pin dia. 450 in Crank Webs Mid. length breadth 650 in Thickness parallel to axis 255 in
{ Semi built as fitted 450 in Mid. length thickness 255 in Thickness around eye hole 201 in
Flywheel Shaft, diameter as per Rule 12.83 in Thrust Shaft, diameter at collars as per Rule 34.2 in
as fitted 17.8 in as fitted 450 in
Main Shaft, diameter as per Rule 14.18 in Is the screw shaft fitted with a continuous liner Yes
as fitted 17.3 in as fitted 17.52 in
Bronze Liners, thickness in way of bushes as per Rule 3 in Thickness between bushes as per Rule 3 in Is the after end of the liner made watertight in the
as fitted 4 in as fitted 4 in
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 One length.

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
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

aft NO. If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 6 1/4"
Propeller, dia. 16' 3" Pitch 11' 9" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 93 sq. feet

Method of reversing Engines Hand lever & Comp. air. Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes. Means of lubrication forced
Thickness of cylinder liners 25 in Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Lagged 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. 1-10' x 10' x 10' 150 T.P.H. Is the sea suction provided with an efficient strainer which can be cleared within the vessel (FW. Cooling)

Large Pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size 1. Ballast 10' x 12' x 10' 200 T.P.H.; 1 Bilge 7' x 8' x 8' 100 T.P.H.; 1 San 7' x 8' x 8' 100 T.P.H.
How driven Steam Steam Steam

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 size 1-10' x 12' x 10' 200 T.P.H. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1-110 in x 510 in.
e two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces 1-3 1/2" PF; 1-3 1/2" SF; 1-3 1/2" aft. In Pump Room 2 @ 4"
Holds, &c. Tanker. aft 2 @ 4"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-6" Stand; 1-6" aft.
e all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Tanker. Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.
e all Sea Connections fitted direct on the skin of the ship Yes. Are they fitted with Valves or Cocks Yes

e 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 below.

e 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

at pipes pass through the bunkers How are they protected
at pipes pass through the deep tanks Have they been tested as per Rule

e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

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 Tanker Is the Shaft Tunnel watertight none. Is it fitted with a watertight door worked from

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. 2 Ind 2 Cyl. No. of stages 3 Diameters Stroke Driven by Steam
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by 125 Cft. per min.

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
What provision is made for first Charging the Air Receivers Steam driven compressors.

Refrigerating Air Pumps, No. Two. Diameter 1510 in Stroke 510 in Driven by Main Engine.

Auxiliary Engines crank shafts, diameter as per Rule approved. No. Position 1. Pt. & 1 SHS lower platform in Eng Room.
Is a report sent herewith Yes. (Glasgow 77288.)

Are the Auxiliary Engines been constructed under special survey Yes.

AIR RECEIVERS: - Have they been made under survey *yes.* State No. of Report or Certificate *C.37006. N/C Tyn*
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes + relief valves on compressor discharge.*
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. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
Seamless, lap welded or riveted longitudinal joint Material *✓* Range of tensile strength *✓* Working pressure by Rules *✓*
Starting Air Receivers, No. *2.* Total cubic capacity *2x140 = 280* Internal diameter *4-1 1/2"* thickness *1 3/32"*
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *Shell 28-32 T.T. Sudo 26-30 T.T.* Working pressure by Rules *603 lb* Actual *600*
IS A DONKEY BOILER FITTED? *yes 2. SE.* If so, is a report now forwarded? *yes.*
Is the donkey boiler intended to be used for domestic purposes only *No*
PLANS. Are approved plans forwarded herewith for Shafting *yes* Receivers *yes* Separate Fuel Tanks *yes*
Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space *yes*
Oil Fuel Burning Arrangements *yes* 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
RICHARDSON, WESTGARTH & CO. LIMITED
11, ...
Manufacturer.

DIRECTOR
Dates of Survey while building
During progress of work in shops - 1950. Nov. 3-8. Dec. 5-6. 13-18. 1951. Feb. 6-12. April 11-12. 13-16. 26. May 1-4. 9-11. 12. June 17-20. 21-22.
During erection on board vessel - 26-27. July 5-9. 10-11. 19-20. 23-24. 25. Aug. 7-8. 9-13. 20-24. 29-30. 31. Sept. 12-14. 19-20. Nov. 19-20.
Total No. of visits *112*
NWC VISITS: 1950. June 14-15. 25. Nov. 15-21. Dec. 13-20. 21. 1951. Jan. 8-10. 12-16. 17-22. 24-25. 30. Feb. 1-4. 15-18. 20-22. 23. Mar. 9-11. 21. Apr. 12. May 9. June 8. July 17. Aug. 13-23. 31. Sept. 12-14. 19-20. 21. 25-27. 29-30. Nov. 13-15. 16-17. 19-23. 26-29. 30. Nov. 4-13.
Dates of Examination of principal parts - Cylinders 15-1-51 Covers *✓* Pistons 6-6-51 Rods 6-6-51 Connecting rods 15-6-51
Crank shaft 13-6-51 Flywheel shaft 13-6-51 Thrust shaft 13-6-51 Intermediate shafts 12-10-51 Tube shaft *✓*
Screw shaft *W 9-5-51 S 6-12-50* Propeller 28-4-50 Stern tube 15-6-51 Engine sealings 13-11-51 Engines holding down bolts 13-11-51
Completion of fitting sea connections 15-6-51 Completion of pumping arrangements 14-12-51 Engines tried under working conditions *Shop 30-4-51 Sea 17-12-51 SEA 22-12-51*
Crank shaft, Material *Steel* Identification Mark *22682. 13-6-51* Flywheel shaft, Material *Steel* Identification Mark *20947-55 TA*
Thrust shaft, Material *Steel* Identification Mark *22682. 13-6-51* Intermediate shafts, Material *Steel* Identification Marks *10944-56 W. 8867. TAO. 9-5-51*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *3. 10947. TAO. 9-5-51*
Identification Marks on Air Receivers. *LLOYD'S TEST 800 lbs; WP 600 lbs; T.A.O. 21-3-51.*

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.*
Description of fire extinguishing apparatus fitted *perforated piping for steam under engines & boilers.*
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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been built & installed in the vessel in accordance with the approved plans, Secretary's letters & the rules of the Society. The material & workmanship are good. The machinery has been tried under normal working conditions both alongside the quay and at sea with satisfactory results. The two donkey boilers have been securely fitted on board the vessel, fitted to burn oil fuel (flash point above 150°F), and the safety valves adjusted under steam at the working pressure. The rules for pumping & piping have been complied with. The machinery of this vessel is, in our opinion, eligible to have notation + LMC (oil engine) 12-51, TSCL, 2DB 150 lbs; Main engine not to be run continuously over 115 revs per min. A notice placed at controls to this effect.*
NOTE! *This engine No 3208 installed under Contract No 3190.*

The amount of Entry Fee ... £ 212 : 12 :
Welded construction ... £ 14 : 10 :
Special ...
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 10-1-1952.
When received, 19...

John Lundgren for Self & T.A. Orde.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI. 8 FEB 1952*
Assignment *+ LMC 12.51 Oil Eng. C.L. 2DB 150lb (with torsional endorsement)*

