

# REPORT ON OIL ENGINE MACHINERY.

No. 131213

19 JUL 1950

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of Liverpool  
 To. in Survey held at Birkenhead Date, First Survey 1st Sept /48 Last Survey 16th June 1950  
 Reg. Book. Single on the Twin Screw vessel. BRITISH TRUST Tons Gross 8640 Net 4933  
 Built at Birkenhead By whom built Cannell, Laird & Co. Ltd Yard No. 1200 When built 1950  
 Engines made at Greenock By whom made John G. Kincaid & Co. Ltd Engine No. K226 When made 1950  
 Monkey Boilers made at Birkenhead By whom made Cannell, Laird & Co. Ltd Boiler No. 1200 When made 1950  
 Brake Horse Power 3200 Owners British Tanker Co. Ltd Port belonging to London  
 N. Power as per Rule 625 Is Refrigerating Machinery fitted for cargo purposes to Is Electric Light fitted yes  
 Trade for which vessel is intended open sea service

**MAIN ENGINES, &c.**—Type of Engines Diesel (under piston super.) (See Greenock Rpt. to 24081) 2 or 4 stroke cycle 4 Single or double acting Single  
 Maximum pressure in cylinders 650 lb Diameter of cylinders 740 1/2 Length of stroke 1500 1/2 No. of cylinders 6 No. of cranks 6  
 Mean Indicated Pressure 115 lb Ahead Firing Order in Cylinders 153624 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 988 1/2  
 Is there a bearing between each crank yes Revolutions per minute 115  
 Flywheel dia. 2489 1/2 Weight 24994 lb Moment of inertia of flywheel (16 lbs. in<sup>2</sup> or Kg.cm.<sup>2</sup>) 23.53 Means of ignition Compression Kind of fuel used Diesel  
 Crank pin dia. 505 1/2 Crank webs Mid. length breadth 980 1/2 Thickness parallel to axis 310 1/2  
 Mid. length thickness 310 1/2 Thickness around eye hole 292.5 1/2  
 Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted 4.54 1/2  
 Main Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the screw shaft fitted with a continuous liner yes  
 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 yes  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes  
 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 yes  
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of tube shaft to  
 If so, state type yes Length of bearing in Stern Bush next to and supporting propeller 5' 8"  
 Propeller, dia. 16' 0" Pitch 11.15 No. of blades 4 Material hang B9 whether moveable to Total developed surface 88 sq. feet  
 Moment of inertia of propeller (16 lbs. in<sup>2</sup> or Kg.cm.<sup>2</sup>) 106.1 x 10<sup>6</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 when disengaged yes Means of lubrication forced  
 Thickness of cylinder liners 41-42 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled yes  
 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 yes  
 Cooling Water Pumps, No. 1 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. none Diameter 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes  
 Pumps connected to the Main Bilge Line No. and size 2 200 T/hr. How driven steam  
 Is the cooling water led to the bilges to If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements yes  
 Main Pumps, No. and size 1 200 T/hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 ME. 100 T/hr.  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary pumps, No. and size:—In machinery spaces 3-3 1/2 to bilge main 1-6 direct to bilge pump pump room 2-4"  
 Holds, &c. yes  
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2-6"  
 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 to Are they fitted with valves or cocks yes Are they fixed efficiently 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 yes  
 Do all pipes pass through the bunkers none How are they protected yes  
 Do all pipes pass through the deep tanks none Have they been tested as per Rule yes  
 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 yes Is it fitted with a watertight door yes worked from yes  
 If the vessel is a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes  
 Main Air Compressors, No. none No. of stages 2 diameters 7 3/4 3 3/4 stroke 5 1/2 driven by Steam Eng.  
 Auxiliary Air Compressors, No. 2 No. of stages 2 diameters 7 3/4 3 3/4 stroke 5 1/2 driven by Steam Eng.  
 All Auxiliary Air Compressors, No. 2 No. of stages 2 diameters 7 3/4 3 3/4 stroke 5 1/2 driven by Steam Eng.  
 Is provision made for first charging the air receivers yes driven by Steam driven aux compressors  
 Ventilating Air Pumps, No. none diameter 180 1/2 stroke 2 driven by Steam  
 Auxiliary Engines crank shafts, diameter as per Rule as fitted No. 2 Position Station Platform level, 1P. 1S. (Y & R)  
 Have the auxiliary engines been constructed under special survey yes Is a report sent herewith to. See Rpt. 175034



AIR RECEIVERS:—Have they been made under survey yes ✓ State No. of report or certificate 6696  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule. yes ✓  
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, welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure —  
Starting Air Receivers, No. Two ✓ Total cubic capacity 900 cu. ft. Internal diameter 70 thickness 15/16 ✓  
Seamless, welded or riveted longitudinal joint — Material Steel Range of tensile strength 26/30 T/10 Working pressure 350 ✓

IS A DONKEY BOILER FITTED yes Two 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 ✓  
(If not, state date of approval)  
Donkey boilers yes General pumping arrangements yes Pumping arrangements in machinery space yes ✓  
Oil fuel burning arrangements yes ✓  
Have Torsional Vibration characteristics been approved yes ✓ 115 r.p.m. Date of approval 17.2.48

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied yes ✓

State the principal additional spare gear supplied Screw shaft:

77901  
Plogin  
B.H.  
1-12-48  
G.P.  
24-2-50  
1200.

The foregoing is a correct description, DAMMELL LAIRD AND COMPANY Manufacturer.

ENGINEERING MANAGER  
Dates of Survey while building  
During progress of work in shops - 1/9/48  
During erection on board vessel - 16/6/50  
Total No. of visits 259

Dates of examination of principal parts—Cylinders See General Rpt. to 24081. Covers — Pistons — Rods — Connecting rods —  
Crank shaft 24-2-50 Flywheel shaft — Thrust shaft — Intermediate shafts 3-3-50 Tube shaft —  
Screw shaft 24-2-50 Propeller 3-4-50 Stern tube 3-4-50 Engine scatings 3-4-50 Engine holding down bolts 23-5-50  
Completion of fitting sea connections 3-4-50 Completion of pumping arrangements 21-6-50 Engines tried under working conditions 21/22-6-50  
Crank shaft, material — Identification mark — Flywheel shaft, material — Identification mark —  
Thrust shaft, material — Identification mark — Intermediate shafts, material O.H.M.S. Identification marks 68575  
Tube shaft, material — Identification mark — Screw shaft, material O.H.M.S. Identification mark 68573  
Identification marks on air receivers 64 Y1 and 6510. Plogin Test 550 lb. W.P. 350 lb. 3-3-50 G.P. and 20-3-50 C.W.

Welded receivers, state Makers' Name —  
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 Steam Sootblowing and Plowene  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Tanker If so, have the requirements of the Rules been complied with yes ✓  
If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with yes ✓  
Is this machinery duplicate of a previous case yes If so, state name of vessel British Triumph

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey in accordance with Approved Plans, the Society's Rules and the Secretary's letters. The materials and workmanship are good. It has been properly installed and tried under working conditions with satisfactory results. It is, in my opinion, eligible for classification with the record of LMC 6,50.

The amount of Entry Fee ... £ 66 : 13 : — When applied for 12 JUL 1950  
1/3 Special (Paid in ... 3 1/2 £) 66 : 13 : —  
Donkey Boiler Fee... £ 58 : 15 : — When received 19  
Air Receiver 16 : — : —  
Travelling Expenses (if any) £ 5 : 13 : 17

Committee's Minute LIVERPOOL 18 JUL 1950  
Assigned + LMC 6.50. C.L.  
OIL ENGINES.

Engineer Surveyor to Lloyd's Register of Shipping  
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