

Report F.E. Report No. 131213
No. 24081
REPORT ON OIL ENGINE MACHINERY. 6 APR 1950

Received at London Office

Writing Report 23RD MARCH 1950 When handed in at Local Office 29TH MARCH 1950 Port of GREENOCK
Survey held at GREENOCK Date, First Survey 18TH MAY 1949 Last Survey 6TH MARCH 1950
Number of Visits 25
Single on the Twin Triple Quadruple Screw vessel S.S. BRITISH TRUST Tons Gross 8640 Net 4933
Built at BIRKENHEAD By whom built CAMMELL LAIRD & CO L^D Yard No. 1200 When built 1950
Engines made at GREENOCK By whom made JOHN G. KINCAID & CO L^D Engine No. 4226 When made 1950
Boilers made at By whom made Boiler No. When made
Horse Power 3200 Owners BRITISH TANKER CO L^D Port belonging to
N. Power as per Rule 625 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
ade for which vessel is intended OPEN SEA SERVICE

ENGINES, &c. —Type of Engines DIESEL (under piston type) 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 650 lb Diameter of cylinders 740 Length of stroke 1500 No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 115 lb Ahead Firing Order in Cylinders 1 5 3 6 2 4 Span of bearings, adjacent to the crank, measured
from inner edge to inner edge 988 Is there a bearing between each crank yes Revolutions per minute 115
Flywheel dia. 2489 Weight 2499 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) 23.53 x 10⁶ Means of ignition Compression Kind of fuel used Diesel
Crank pin dia. 505 Crank webs Mid. length breadth 950 Thickness parallel to axis 310
Crank webs Mid. length thickness 310 Thickness around eye hole 292.5
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted
Screw Shaft, diameter as per Rule as fitted Is the {tube screw} shaft fitted with a continuous liner { }
Liner 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
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 tube shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia. 16 Pitch 17 No. of blades 4 Material steel whether moveable no Total developed surface 150 sq. feet
Moment of inertia of propeller (lbs. in² or Kg. cm²) 106.1 x 10⁶ Kind of damper, if fitted
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched yes Means of
lubrication Forced Thickness of cylinder liners 53 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
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. 1FW Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge 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 16 How driven main engine driven
the cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements

Oil Pumps, No. and size 6 in 2 100 lpm/hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size main engine driven
Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary
bilge pumps, No. and size:—In machinery spaces In pump room
holds, &c.
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 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
Are all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed
efficiently high on the ship's side to be seen without lifting the platform 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
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. 1 No. of stages 1 diameters 10 stroke 10 driven by main engine
Auxiliary Air Compressors, No. 1 No. of stages 1 diameters 10 stroke 10 driven by main engine
Small Auxiliary Air Compressors, No. 1 No. of stages 1 diameters 10 stroke 10 driven by main engine
What provision is made for first charging the air receivers
Savenging Air Pumps, No. 1 diameter 10 stroke 10 driven by main engine
Auxiliary Engines crank shafts, diameter 10 as per Rule as fitted Position as fitted
Have the auxiliary engines been constructed under special survey Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....
Can the internal surfaces of the receivers be examined and cleaned..... Is a drain fitted at the lowest part of each receiver.....
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...... Total cubic capacity..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
IS A DONKEY BOILER FITTED..... 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..... Receivers..... Separate fuel tanks.....
Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved..... Date of approval.....

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....
State the principal additional spare gear supplied.....

SERVICE BHP 3200 @ 115 rpm
MAX. ON TRIAL BHP 3320 @ 119 rpm

The foregoing is a correct description,
For JOHN G. KILGALP & CO., Ltd.,
Chief Draughtsman.

Manufacturer.

Dates of Survey while building
During progress of work in shops - - (1949) MAY 18 JUNE 9 16 22 JUL 27 SEPT 21 NOV 9 14 21 23 24 DEC 5 9 13 16 27 29 (1950) JAN 17 24 30 FEB 1 3 17 MAR 6
During erection on board vessel - - 25 26
Total No. of visits.....
Dates of examination of principal parts—Cylinders..... Covers..... Pistons..... Rods..... Connecting rods.....
Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... Tube shaft.....
Screw shaft..... Propeller..... Stern tube..... Engine seatings..... Engine holding down bolts.....
Completion of fitting sea connections..... Completion of pumping arrangements..... Engines tried under working conditions.....
Crank shaft, material..... Identification mark..... Flywheel shaft, material..... Identification mark.....
Thrust shaft, material..... Identification mark..... Intermediate shafts, material..... Identification marks.....
Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....
Identification marks on air receivers.....

Welded receivers, state Makers' Name.....
Is the flash point of the oil to be used over 150°F.....
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.....
Description of fire extinguishing apparatus fitted.....
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 engine has been constructed under Special survey in accordance with the Rules and approved plans. The materials & workmanship are sound & good. It has been tested on the test bed under full load with satisfactory results. The engine has been despatched to Birkenhead to be installed in the vessel & will be eligible to be classed in the Society Register book with date on completion of the installation.

The amount of Entry Fee ... £ 133 : 7
Special ... £
1/3 Credit ... 66 : 13
Donkey Boiler Fee... £ :
Travelling Expenses (if any) £ :
15 APR 1950

When applied for 28th MARCH 1950.

When received 30th MARCH 1950.

Checks of Humphreys
Engineer Surveyor to Lloyd's Register of Shipping

(Committee's Minute)

Assigned

Deferred for completion

See Minute on Liverpool
H. R. P.

18 JUL 1950

Lloyd's Register
Foundation