

REPORT ON OIL ENGINE MACHINERY.

No. 74812

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Date of writing Report 3/12/49 19 When handed in at Local Office 5/12/49 19 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 24-1-49 Last Survey 24-11-1949
Reg. Book. on the Single Screw vessel M.V. "British Captain" Number of Visits 81
Built at Glasgow By whom built Harland & Wolff Ltd Yard No. 13949 When built 1949
Engines made at Glasgow By whom made Harland & Wolff Ltd Engine No. 13949 When made 1949
Donkey Boilers made at Beith By whom made Harland & Wolff Ltd Boiler No. 13949 When made 1949
Brake Horse Power 3200 Owners British Tanker Co Ltd Port belonging to London
I.N. Power as per Rule 696 NHP 489 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which vessel is intended Ocean Going

MAIN ENGINES, &c.—Type of Engines Heavy Oil Airless Injection 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 650 lbs/sq in Diameter of cylinders 29 1/2 in Length of stroke 59 1/2 in No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 128 lbs/sq in 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 94 1/2 in Is there a bearing between each crank Yes Revolutions per minute 115
Flywheel dia 248 1/2 in Weight 2590 lbs Moment of inertia of flywheel (lbs. in² or Kg. cm²) 2350 Kgm² Means of ignition Comp Kind of fuel used Diesel
Crankshaft, dia. of journals as per Rule APP dia. of journals as fitted 5 1/2 in Crank pin dia. 5 1/2 in Crank webs Mid. length breadth 8 1/2 in Thickness parallel to axis 3 1/2 in
All built as fitted 1 1/2 in No. 223 1/2 in Thickness around eye hole 22 1/2 in
Flywheel Shaft, diameter as per Rule APP as fitted 14 in Intermediate Shafts, diameter as per Rule APP as fitted 14 in Thrust Shaft, diameter at collars as fitted 4 1/2 in
Propeller Shaft, diameter as per Rule APP as fitted 16 in Is the shaft fitted with a continuous liner Yes
Liners, thickness in way of bushes as per Rule APP as fitted 2 1/2 in Thickness between bushes as per Rule APP as fitted 2 1/2 in 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
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-
compressible 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 No If so, state type Length of bearing in Stern Bush next to and supporting propeller 60 in
Propeller, dia. 15'-6" Pitch 12'-0" No. of blades 4 Material Hard Bronze whether moveable No Total developed surface 45 sq. feet
Moment of inertia of propeller (lbs. in² or Kg. cm²) 100 20 Kgm² 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
operation Forced Thickness of cylinder liners 302 1/2 in Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
and 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
to the engine Yes Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line No. and size 2 Bilge Pumps 8" x 8 1/2" x 8" 100 T/Hr 1 Bilge Pump 9" x 10" x 10" 140 T/Hr
How driven Steam Steam
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
Suction Pumps, No. and size 1 @ 9" x 10" x 10" 140 T/Hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 M.E. 100 T/Hr @ 460 R.P.M.
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 1 @ 3 1/2" x 3 1/2" x 3 1/2" 1 A.P. x 3 1/2" : 1 S.C. 22-32 (from pump) x 2 In pump room
Holds, &c. 1 @ 4" x 2" 60 T/Hr
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 @ 2" x 2" x 2"
Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction pipes 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
Sea Connections fitted direct on the skin of the Ship Yes Are they fitted with valves or cocks Both Are they fixed
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
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 the pipes pass through the bunkers NONE How are they protected
Do the pipes pass through the deep tanks NONE Have they been tested as per Rule Yes
Are the pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes
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
or from one compartment to another Yes Is the shaft tunnel watertight NONE Is it fitted with a watertight door NONE worked from
The vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes
Air Compressors, No. NONE No. of stages diameters stroke driven by
Auxiliary Air Compressors, No. Two No. of stages diameters 2 80-245 stroke 130 driven by Steam
Auxiliary Air Compressors, No. NONE No. of stages diameters stroke driven by
Provision is made for first charging the air receivers Two Steam driven compressors as above
Filling Air Pumps, No. NONE (under pump supercharge) diameter stroke driven by
Auxiliary Engines crank shafts, diameter as per Rule APP as fitted 1 1/2 in Position 1 Diesel 475 H.P. : 1 Steam 475 H.P. : 1 Diesel 475 H.P.
Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

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AIR RECEIVERS:—Have they been made under survey... State No. of report or certificate... 20.3.48 x 163 x 140
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...
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...
Donkey boilers... General pumping arrangements... Pumping arrangements in machinery space...

Oil fuel burning arrangements...
Have Torsional Vibration characteristics been approved...
SPARE GEAR.

Has the spare gear required by the Rules been supplied...
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...
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 mark...
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 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...
General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery which has been constructed under Special Survey in accordance with the Rules...
Approved Plans Secretary's Office, has been efficiently secured in position in this vessel...
tried under full power conditions satisfactorily...
The materials and workmanship are good...
Eligible in my opinion to be Classed in the Register Book with record...
notation T.S.C.L. and D.B. working pressure 150 lbf/sq. in. "Oil Engines".
Remaining forging reports common to 13949 & 1398/9 to follow, will be forwarded on completion of date...

The amount of Entry Fee...
Special...
Donkey Boiler Fee...
Travelling Expenses (if any)...
When applied for...
When received...
Committee's Minute...
Assigned...
208 - 150 lb. Oil Eng.

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