

pt. 4b.

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20 OCT 1944

Date of writing Report 7. 10. 1944

o. in Survey held at

eg. Book.

REPORT ON OIL ENGINE MACHINERY.

No. 68905.
20 OCT 1944

Received at London Office.

When handed in at Local Office 14 10 1944 Port of Glasgow.

12 APR 1945

Date, First Survey 15. 8. 44.

Last Survey 19. 9. 1944.

Number of Visits 7.

Single Motor
on the Triple Screw vessel

"STORK"

Tons Gross
Net

uilt at Glasgow. By whom built Messrs Henry Robb. Ltd. Yard No. 334. When built 1944.
Engines made at By whom made Messrs British Polar Engine Ltd. Engine No. 510. When made 1944.
Monkey Boilers made at By whom made Boiler No. When made
Horse Power 560 Owners Port belonging to
om. Horse Power as per Rule 101 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
rade for which vessel is intended

L ENGINES, &c. —Type of Engines M.4.6.1 Heavy Oil 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 853 lbs/sq. in. offered 13.12.43 Diameter of cylinders 250 mm Length of stroke 420 mm No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 97.4 lbs/sq. in. span of bearings, adjacent to the crank, measured from inner edge to inner edge 366 mm Is there a bearing between each crank
Revolutions per minute 375 Flywheel dia. 900 mm Weight 828 lbs. 1178 lbs. Means of ignition Compression Kind of fuel used Diesel.

Crank shaft, (Solid forged) dia. of journals as per Rule 159 mm as fitted 170 mm Crank pin dia. 170 mm Crank webs Mid. length breadth 215 mm 226.3 mm Kind of fuel used Diesel.
Flywheel Shaft, diameter as per Rule 159 mm as fitted 170 mm Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted 205 mm as per Rule 124 mm
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

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. 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 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. Pitch No. of blades Material whether moveable Total developed surface sq. feet
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Means of
lubrication Forced Thickness of cylinder liners 19.5 mm Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled
lagged with non-conducting material 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. 2. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.
Bilge Pumps worked from the Main Engines, No. 2. Diameter 110 mm Stroke 60 mm Can one be overhauled while the other is at work.

Pumps connected to the Main Bilge Line No. and size How driven
Is 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.
Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 off. 2375 Gall./hour.
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
In 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.
That pipes pass through the bunkers. How are they protected.
That 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
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 2. diameters 140 mm 55 mm stroke 240 mm driven by Main Engine
Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
That provision is made for first charging the air receivers.

Scavenging Air Pumps, No. One diameter 720 mm stroke 240 mm driven by Main Engine
Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position
Have the auxiliary engines been constructed under special survey. Is a report sent herewith.

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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, lap welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure...
Starting Air Receivers, No... Total cubic capacity... Internal diameter... thickness...
Seamless, lap 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 buring arrangements...

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,
for BRITISH POLAR ENGINES LIMITED.

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 marks...
Tube shaft, material... Identification mark... Screw shaft, material... Identification mark...
Identification marks on air receivers...
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... If so, state name of vessel...

General Remarks (State quality of workmanship, opinions as to class, &c.)...
Special survey in accordance with the Rules and approved plans...
The materials used and workmanship are good. On completion the engine was tested on the bench at full load with satisfactory results...
The engine is to the order of Messrs Henry Robb, Ltd. and is intended for their Duesch No 334, building at Lister when it has now been dispatched...

The amount of Entry Fee...
When applied for...
When received...
Donkey Boiler Fee...
Travelling Expenses (if any) £...
Committee's Minute...
Assigned...
17 OCT 1944...
27 APR 1945...
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