

REPORT ON OIL ENGINE MACHINERY.

No.

4 JAN 1950

Received at London Office.

Date of writing Report 25.10.49 19. When handed in at Local Office 19. Port of Northwich
No. in Survey held at Northwich Date, First Survey 26th Nov/48 Last Survey 6 Oct 19.49
Reg. Book. Number of Visits 24
Single on the Main Triple Screw vessel M.V. "MARBURY" Tons Gross 231
Built at Northwich By whom built I. Pimblott & Sons Yard No. 688 When built 1949
Engines made at Openshaw By whom made Crossley Bros Engine No. 138624 When made 1948
Donkey Boilers made at None By whom made Boiler No. When made
Brake Horse Power 265 Owners I. C. I. Ltd Port belonging to
M.N. Power as per Rule 84 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c. — Type of Engines Heavy oil 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured

from inner edge to inner edge Is there a bearing between each crank Revolutions per minute

Flywheel dia. Weight Moment of inertia of flywheel (16lbs. in² or Kg. cm.²) Means of ignition Kind of fuel used

Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis
dia. of journals as per Rule as fitted Crank pin dia. Mid. length thickness shrunk Thickness around eyehole

Propeller 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

Propeller Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube shaft fitted with a continuous liner No

Propeller 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 Yes If so, state type Vickers "Vesta Nox" Length of bearing in Stern Bush next to and supporting propeller 21"

Propeller, dia. 62 1/2" Pitch 45" No. of blades 3 Material Bronze whether moveable No Total developed surface 1519 sq. feet (see over page)

Moment of inertia of propeller (16lbs. in² or Kg. cm.²) Kind of damper, if fitted

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of

lubrication Thickness of cylinder liners Are the cylinders fitted with safety valves 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 Tunnel Cooling Water Pumps, No. One also M.E. bilge pump + G.S. pump Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Large Pumps worked from the Main Engines, No. One Diameter 4 1/4" Stroke 3" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and size One 4 1/4 x 3 (2500 gpm). One 25 ton/hr G.S. (Hamworthy) How driven M. Engine Aux engine

Is 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 One 25 ton/hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size

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 One 2 1/2" One 2" In pump room

holds, &c. 2 - 2 1/2"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size One 2 1/2"

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 Kingston Are they fitted with valves or cocks Both Are 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 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

Do all pipes pass through the bunkers None How are they protected

Do all pipes pass through the deep tanks None 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 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 Is it fitted with a watertight door worked from

For 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 Two diameters stroke driven by Main Eng

Auxiliary Air Compressors, No. One No. of stages diameters stroke driven by Aux Eng

Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

Is that provision is made for first charging the air receivers Hand Starting Aux Engine

Scavenging Air Pumps, No. One diameter stroke driven by Main Eng

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

Have the auxiliary engines been constructed under special survey Yes Crossley Engine Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey. *yes*

State No. of report or certificate

Mottighan
C. 7962 - 796pt.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *See Manchester Rpt.*

Is a drain fitted at the lowest part of each receiver. *yes*

Can the internal surfaces of the receivers be examined and cleaned. *✓*

Internal diameter thickness.

Injection Air Receivers, No. *None* Cubic capacity of each.

Seamless, welded or riveted longitudinal joint.

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No. *Two*

Total cubic capacity

Material

Internal diameter

thickness

Range of tensile strength

Working pressure

by Rules

Actual

Seamless, welded or riveted longitudinal joint. *✓*

IS A DONKEY BOILER FITTED *No*

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. *Manchester*

(If not, state date of approval)

Receivers. *Manchester*

Separate fuel tanks.

Donkey boilers. *✓*

General pumping arrangements. *5.6.48*

Pumping arrangements in machinery space. *5.6.48*

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. *yes*

State the principal additional spare gear supplied.

FOR ISAAC PIMBLOTT & SONS LTD.

Managing Director.

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

26/11/48 - 6/10/49

24

Dates of examination of principal parts—Cylinders. *✓*

Covers. *✓*

Pistons. *✓*

Rods. *✓*

Connecting rods. *✓*

Crank shaft. *✓*

Flywheel shaft. *✓*

Thrust shaft. *✓*

Intermediate shafts. *2.9.48*

Tube shaft. *✓*

Screw shaft. *2.9.48*

Propeller. *21.9.48*

Stern tube. *21.9.48*

Engine seatings. *25.8.48*

Engine holding down bolts. *15.2.48*

Completion of fitting sea connections. *21.9.48*

Completion of pumping arrangements. *11.3.49*

Engines tried under working conditions. *6.10.48*

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. *EW 770 & 771*

Propeller: *Long P. 60714 24.5.48 S. 878*

NOTE: Propeller size later amended to Dia 63 3/4". Pitch 42 1/2". Sw. 10.2 1/4

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. *Portable extinguisher fitted.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. *No*

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. *No*

If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this vessel has been constructed under special survey in accordance with the Society's Rules, approved plans & Secretary's letters. The material & workmanship are good. The machinery fitted on board the vessel is a satisfactory manner, basic trials & new trials held, a new propeller fitted, machinery seen under working conditions during full power trial on River Weaver & Manchester Ship Canal. Eligible in opinion to be classed in the Register book with a notation of + LMC. 10.49. TS (06). Oil Engines.

The amount of Entry Fee ... £ :

Balance Special 1/3 ... £ 11 : 4

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ 10 : 4/9

(Committee's Minute)

Assigned

When applied for

When received

- 3 JAN 1950

22 DEC 1949

C. W. Reed

Engineer Surveyor to Lloyd's Register of Shipping

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