

REPORT ON OIL ENGINE MACHINERY.

No. 6300
23 JUL 1928

Received at London Office

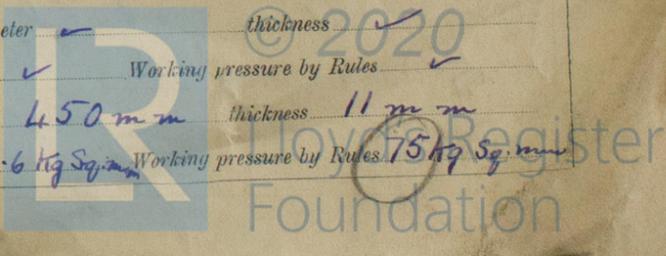
Date of writing Report 20/6/28 When handed in at Local Office 21/6/28 Port of Hongkong
No. in Survey held at Hongkong Date, First Survey Feb. 16th Last Survey June 18th 1928
Reg. Book. Number of Visits 21

on the Single Screw vessel "P. ABOITIZ" Tons { Gross 324.21
 { Net 187.27
 { Triple
 { Quadruple
 Built at Hongkong By whom built Hongkong + Whampoa Dock Yard No. 644 When built 1928
 Engines made at Cologne-Deutz, Germany By whom made Motorenfabrik Deutz - A.G. Engine No. 302604/09 When made 1928
 Donkey Boilers made at None By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 330 Owners La Naviera Filipina Inc. Port belonging to Cebu, P.I.
 Nom. Horse Power as per Rule 95 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
 Trade for which vessel is intended Interisland trade in the Philippines

OIL ENGINES, &c. Type of Engines Heavy oil engine, S.V.M. 3.150. 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 4.0 kg/cm² Diameter of cylinders 280 mm. Length of stroke 500 mm. No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm Is there a bearing between each crank yes
 Revolutions per minute 300 Flywheel dia. 1100 mm. Weight 2639 kg. Means of ignition Fuel Spray Kind of fuel used Solar Oil
 Crank Shaft, dia. of journals as per Rule ✓ as fitted 170 mm. Crank pin dia. 170 mm. Crank Webs Mid. length breadth 260 mm. Thickness parallel to axis shrunk
 Mid. length thickness 88 mm. Thickness around eye-hole ✓
 Flywheel Shaft, diameter as per Rule ✓ as fitted 3 1/2" Intermediate Shafts, diameter as per Rule 4.6" as fitted 5 1/4" Thrust Shaft, diameter at collars as per Rule ✓ as fitted 16.5 mm.
 Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 5" as fitted 6" Is the tube shaft fitted with a continuous liner yes
 screw
 Bronze Liners, thickness in way of bushes as per Rule 4.5" as fitted 9/16" Thickness between bushes as per rule 3/8" as fitted 3/8" 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 ✓
 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 the tube shaft ✓
 Length of Bearing in Stern Bush next to and supporting propeller 2'-2"
 Propeller, dia. 5'-10" Pitch 4'-0" No. of blades 3 Material Bronze whether Moveable fixed Total Developed Surface 10 sq. feet
 Method of reversing Engines By cam shaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forced
 tight feed Thickness of cylinder liners 23 mm. Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Led up funnel
 Cooling Water Pumps, No. Two 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. one Diameter 130 mm. Stroke 68 mm. Can one be overhauled while the other is at work yes
 Pumps connected to the Main Bilge Line { No. and Size 1-130 mm x 68 mm | one 6" Turbo G.S. Pump
 { How driven Main Engine | 7 BHP Auxiliary engine
 G.S. 1-Tooth wheel pump + one spare
 Ballast Pumps, No. and size 1-6" Turbo pump Lubricating Oil Pumps, including Spare Pump, No. and size 1-Hand rotary pump, 1" bore
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 1-2 1-2" in tunnel well
 In Holds, &c. 3-2 1/4" in Fore hold, 1-2" in aft hold
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions 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 yes Are they fitted with Valves or Cocks Valves
 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 ✓
 What pipes pass through the bunkers None How are they protected ✓
 What 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 yes Is it fitted with a watertight door yes worked from Upper deck
 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 Two Diameters 130, 150 mm. Stroke 130 mm. Driven by Main Engine
 Auxiliary Air Compressors, No. one No. of stages Two Diameters see Dusseldorf Report Driven by 7 BHP oil engine
 Small Auxiliary Air Compressors, No. - No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
 Scavenging Air Pumps, No. - Diameter ✓ Stroke ✓ Driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule Sea Dusseldorf report on auxiliary machinery. as fitted yes
AIR RECEIVERS:—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 yes What means are provided for cleaning their inner surfaces Removable covers
 Is there a drain arrangement fitted at the lowest part of each receiver yes
 High Pressure Air Receivers, No. None Cubic capacity of each ✓ Internal diameter ✓ Thickness ✓
 Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓
 Starting Air Receivers, No. Three Total cubic capacity 500 litres each Internal diameter 450 mm. Thickness 11 mm.
 Seamless, lap welded or riveted longitudinal joint Lap welded Material Mild Steel Range of tensile strength 38.6 kg Sq. mm. Working pressure by Rules 75 kg Sq. mm.

W1215-0329



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Inter + propeller shafts
(If not, state date of approval) Kobe 9/1/28

Receivers

Separate Tanks 15/11/27 Kobe

Donkey Boilers

General Pumping Arrangements 13/2/28 Kobe

Oil-Fuel Burning Arrangements 13/2/28 Kobe

SPARE GEAR

As given in the Rules.

The foregoing is a correct description.

R. N. Dyer

Manufacturer.

1928 Chief Manager
Dates of Survey while building { During progress of work in shops -- 18/1, 27/1, 23/2, 27/2, 29/2, 21/3. Dusseldorf. 16/2, 20/2, 24/2, 27/2, 13/3, 29/3, 17/4, 24/4, 27/4, 3/5, 7/5, 11/6, 15/5, 23/5, 29/5, 5/6, 11/6, 13/6, 14/6, 15/6 + 18/6. Hongkong
During erection on board vessel --
Total No. of visits Dusseldorf Six, Hongkong 21.

Dates of Examination of principal parts—Cylinders 18/1/28 Covers 18/1/28 Pistons 27/1/28 Rods 24/1/28 Connecting rods 27/1/28.

Crank shaft 20/12/27 Flywheel shaft Thrust shaft 17/12/27 Intermediate shafts 17/4/28 Tube shaft

Screw shaft 17/4/28 Propeller 17/4/28 Stern tube 13/3/28 Engine seatings 17/4/28 Engines holding down bolts 7/5/28

Completion of fitting sea connections 17/4/28 Completion of pumping arrangements 11/6/28 Engines tried under working conditions 14/6/28

Crank shaft, Material S.M. Steel Identification Mark MK 1025 Flywheel shaft, Material Identification Mark

Thrust shaft, Material S.M. Steel Identification Mark MK 1021 Intermediate shafts, Material S.M. Steel Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material S.M. Steel Identification Mark

LLOYD'S
N° 644
17-4-28
T.S.M

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

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

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. These engines have been built under Special Survey at Dusseldorf (See Dusseldorf report N° 7), + have now been installed in this vessel in accordance with the rules + instructions.

Forging report for intermediate + propeller shafts attached.

Trials were run over a measured course + machinery worked satisfactorily, speed of vessel 10.5 knots at 300 revs. lowest revs. for manoeuvring purposes 125, Astern revs. full speed 300.

These engines are, in my opinion, of good quality and the workmanship is good + it is recommended that the vessel be classed with Lloyd's Machinery Certificate + the record of L.M.C. 6-28 be made in the Register Book.

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ 156 : When applied for, 18/6 1928
Installation
Special
Electric Light ... £ 79
Donkey Boiler Fee ... £ 50
Travelling Expenses (if any) ... £ 28 : When received, 1.10.28
27 JUL 1928

Committee's Minute

Assigned

L. A. C. 6-28
Oil Engines

J. Morrison
Engineer Surveyor to Lloyd's Register of Shipping.
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