

REPORT ON OIL ENGINE MACHINERY.

No. 7151.

Received at London Office

Writing Report. 15 - 10 - 1930 When handed in at Local Office 18 - 10 - 1930 Port of

MANCHESTER

Date, First Survey 20 - 5 - 30 Last Survey 14 - 10 - 1930 Number of Visits 11

Survey held at

Book.

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "HO-KWANG"

Tons { Gross Net

ilt at Shanghai
gines made at Keighley, Yorks.
nkey Boilers made at
ake Horse Power 600 Total

By whom built The New Engineering & Ship Works Ltd.
By whom made Messrs H. Widdop & Co. Ltd.
By whom made
Owners The Asiatic Petroleum Co.

Yard No. 687 When built
Engine No. 2958 When made 1930
Boiler No. When made
Port belonging to

m. Horse Power as per Rule 171 (274) Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
ade for which vessel is intended Oil carrying vessel

ENGINES, &c. Type of Engines Vertical, Solid Injection, Reversing, Air Starting, 2 or 4 stroke cycle 2. Single or double acting Single

imum pressure in cylinders 600 lbs/sq. Diameter of cylinders 11 1/2" Length of stroke 13 1/2" No. of cylinders 6 each engine No. of cranks 6

in of bearings, adjacent to the Crank, measured from inner edge to inner edge 16.84 Is there a bearing between each crank Yes.

olutions per minute 330 Flywheel dia. 40" Weight 20 1/2 cwt. Means of ignition Heat of compression and of fuel used Heavy Oil Solid

nk Shaft, dia. of journals as per Rule 6 3/4" Approved Crank pin dia. 6 3/4" Crank Webs Mid. length breadth 9" Mid. length thickness 3 3/4" Thickness parallel to axis Thickness around eyehole

Wheel 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 4 3/4" Approved

be 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

ize 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

eller 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

wo 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

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 hand shaft & Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

SIGHT FEED TO REMAINDER. Thickness of cylinder liners SOLID WITH CYL. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and steam water cooled or lagged with

conducting material WATER COOLED the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

ding Water Pumps, No. One on each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

ge Pumps worked from the Main Engines, No. One on each engine Diameter 3 1/2" Stroke 3" Can one be overhauled while the other is at work

mps connected to the Main Bilge Line No. and Size How driven Lubricating Oil Pumps, including Spare Pump, No. and size ONE TWIN PLUNGER PUMP 1 3/4" x 3" Stroke ONE SIGHT FEED LUBRICATOR PUMP.

last Pumps, No. and size two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

aps, No. and size:—In Machinery Spaces Holds, &c. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Are they fitted with Valves or Cocks

all Sea Connections fitted direct on the skin of the ship Are the Overboard Discharges above or below the deep water line

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Blow Off Cocks fitted with a spigot and brass covering plate

they each fitted with a Discharge Valve always accessible on the plating of the vessel How are they protected

at pipes pass through the bunks Have they been tested as per Rule

at pipes pass through the deep tanks

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

he 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

partment to another. Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

u wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

in Air Compressors, No. One on each engine No. of stages 2 Diameters 2 3/4" & 6" Stroke 3" Driven by crankshaft extension

iliary Air Compressors, No. No. of stages Diameters Stroke Driven by

all Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

ivenging Air Pumps, No. crankcase compression Diameter Stroke Driven by

iliary Engines crank shafts, diameter as per Rule as fitted

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. Safety valve fitted on compressor. Plug in end.

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. Not fitted 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. 237030, 237031, 237032, 237033 Total cubic capacity 43.5 CUB. FT. Internal diameter 12 1/2" thickness 4 3/4" sides 1" centre of base

Seamless, lap welded or riveted longitudinal joint Material Mild Steel Range of tensile strength 28 - 32 Tons Working pressure by Rules 460 lbs/sq.

CHESTERFIELD TYPE.

010229-010235-0204

IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for Shafting ☒ (If not, state date of approval)

If so, is a report now forwarded?

Receivers ☒

Separate Tanks ☒

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR Two cylinder heads complete (LLOYDS TEST 7-10-30 (CF))

Two pistons complete with rings and pins. Two gudgeon pin bushes. Two pairs crankpin bushes with bolts and nuts. Two sets screw gears for camshaft. Six spray nozzles. Two complete fuel pumps. One set of flexible coupling leathers. Four main bearing studs & nuts. One set studs & nuts for cylinder cover. Six sets crankcase air valves. Two crankcase air valve guards. Two air starting valves & boxes. One lubricator ratchet pawl and spring. Six bango oilers. Two sets rubber valves for circulating pump. Two sets rubber valves for bilge pump. Two complete fuel injectors. One set crankcase sealing rings. One set bottom half main bearings (one engine). Twelve sets cylinder head joints. Six sets fuel pump delivery valves. Two sets pump plunger leathers. Two compressor delivery valves. Two compressor piston rings. Two compressor valve springs. Two compressor gudgeon pin oiler springs. Six lubricator oil pump springs.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - 20/5/30, 23/6/30, 27/6/30, 5/7/30, 21/7/30, 24/7/30, 7/8/30, 9/9/30, 25/9/30, 7/10/30, 14/10/30. During erection on board vessel - Total No. of visits

Dates of Examination of principal parts—Cylinders 7-8-30 Covers 21-7-30, 7-8-30, 25-9-30, 7-10-30 Pistons 7-8-30, 25-9-30 Rods 23-6-30, 27-6-30 Connecting rods 27-6-30 Crank shaft 22-5-30, 8-7-30, 27-6-30, 24-7-30 Flywheel shaft Thrust shaft 27-6-30, 9-9-30 Intermediate shafts Tube shaft 25-9-30 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions in shop 14-10-30 Crank shaft, Material Mild Steel Identification Mark 11-539 + 1813 CF Flywheel shaft, Material Identification Mark Thrust shaft, Material Mild Steel Identification Mark 11-459 + 460 CF Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

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

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 above main engines of Widdop's Type 2H6 have been built under special survey, and the materials tested in accordance with the Rules of this Society. The materials so far as can be seen are sound and the workmanship is good. The engines proved satisfactory under shop test on full load and manoeuvred well. These engines are in my opinion eligible for the notation of LMC with date when fitted on board the vessel in accordance with the Rule requirements.

The amount of Entry Fee ... £ 3 : 0 : When applied for, Special ... £ 34 : 4 : 18-10-1930 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ 1 : 16 : 3-11-1930

Committee's Minute FRI. 26 JUN 1931

Assigned

See F.B. Rpt.

J. F. Campbell Engineer Surveyor to Lloyd's Register of Shipping.



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