

REPORT ON OIL ENGINE MACHINERY.

No. 5042

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of writing Report

When handed in at Local Office 17-10-1922 Port of Manchester

in Survey held at Manchester

Date, First Survey 8 July 1922 Last Survey 7 Sept. 1922

Book.

on the *Paraffin engine for J. S. White & Co. S/S 1591/3* Tons { Gross Net

BRITISH SPARK Number of Visits 6

ster Built at *Patricroft, Manchester*

By whom built *J. S. White & Co.* Yard No. *1591* When built *1922*

ines made at *Patricroft, Manchester*

By whom made *L. Garman Sons.* Engine No. *1* When made *1922-9*

key Boilers made at

By whom made *L. Garman Sons.* Boiler No. *1591* When made

ake Horse Power *48*

Owners *British Tankers Ltd.* Port belonging to

m. Horse Power as per Rule *13.7*

Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

ENGINES, &c. Type of Engines *Vertical (size 4 FHM)* 2 or 4 stroke cycle *4* Single or double acting *Single*

imum pressure in cylinders *250 lbs sq* No. of cylinders *4* No. of cranks *4* Diameter of cylinders *6 1/2"*

ength of stroke *7 1/2"* Revolutions per minute *600* Means of ignition *high tension magnets* Kind of fuel used *Paraffin.*

here a bearing between each crank *yes* Span of bearings (Page 92, Section 2, par. 7 of Rules) *12"*

ance between centres of main bearings *12"* Is a flywheel fitted *yes* Diameter of crank shaft journals as per Rule *2.6"* as fitted *2.75"*

iameter of crank pins *2 3/4"* Breadth of crank webs as per Rule *3.5"* as fitted *4"* Thickness of ditto as per Rule *1.5"* as fitted *1.75"*

iameter of flywheel shaft as per Rule *2.6"* as fitted *2.75"* Diameter of tunnel shaft as per Rule *2 1/4"* as fitted *2 1/6"*

iameter of screw shaft as per Rule *2.08"* as fitted *2 1/4"* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No liner.*

he after end of the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned

he 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 If without liners, is the shaft arranged to run in oil *No.*

oe of outer gland fitted to stern tube *none* Length of stern bush *9 1/2"* Diameter of propeller *2'-6"*

ch of propeller *1'-6"* No. of blades *3* state whether moveable *No* Total surface *2'-15"* square feet

hoid of reversing *Clutch* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Thickness of cylinder liners *9/16"*

he cylinders fitted with safety valves *no* Means of lubrication *forced* Are the exhaust pipes and silencers water cooled or lagged with

-conducting material *Water* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *Exhaust*

ll above water line with *Water* No. of cooling water pumps *one* Is the sea suction provided with an efficient strainer which can be cleared

thin the vessel *yes* No. of bilge pumps fitted to the main engines *one, rotary* Diameter of ditto *700 gallons per hour at 100 rpm*

in one be overhauled while the other is at work *yes* No. of auxiliary pumps connected to the main bilge lines *—* How driven *—*

of pumps *Cofferdam* No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room *one 2"*

in *Cargo oil* No. of pumps *one* How driven *by chain from Main* Size of pumps *Engine 6x6" Duplex*

he bilge pump fitted with a direct suction from the *Cofferdam* bilges *yes* State size *2"* Is a separate auxiliary pump suction fitted in

ine Room and size *no* Are all the bilge suction pipes fitted with roses *yes* Are the roses in Engine Room always accessible *yes*

the sluices on Engine Room bulkheads always accessible *not fitted* Are all connections with the sea direct on the skin of the ship *yes*

they valves or cocks *Valves* Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates *yes*

the discharge pipes 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*

all pipes, cocks, valves and pumps in connection with the machinery accessible at all times *yes* Are the bilge suction pipes, cocks and valves arranged so as to prevent any

unication between the sea and the bilges *yes* Is the screw shaft tunnel watertight *yes* Is it fitted with a watertight door

ked from *no* If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

of main air compressors *none* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*

of auxiliary air compressors *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*

of small auxiliary air compressors *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*

of scavenging air pumps *—* Diameter *—* Stroke *—* Driven by *—*

iameter of auxiliary Diesel Engine crank shafts as per Rule *—* as fitted *—* Are the air compressors and their coolers made so as to be easy of access.

R RECEIVERS:—No. of high pressure air receivers *none* Internal diameter *—* Cubic capacity of each *—*

aterial *—* Seamless, lap welded or riveted longitudinal joint *—* Range of tensile strength *—*

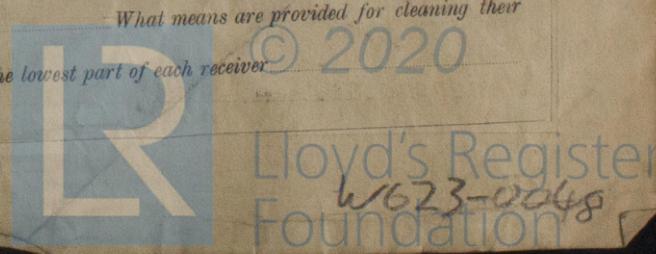
ickness *—* working pressure by Rules *—* No. of starting air receivers *—* Internal diameter *—*

Total cubic capacity *—* Material *—* Seamless, lap welded or riveted longitudinal joint *—*

Range of tensile strength *—* thickness *—* Working pressure by rules *—* Is each receiver, which can be isolated.

fitted with a safety valve as per Rule *—* Can the internal surfaces of the receivers be examined *—* What means are provided for cleaning their

inner surfaces *—* Is there a drain arrangement fitted at the lowest part of each receiver *—*



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	12 th July 1922	Maximum 250 lbs. □	500 lbs. □	LLOYD'S TEST.	
" " COVERS					
" " JACKETS	12 th July 1922	5 lbs. □	50 lbs. □	"	
" PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
" 2nd "					
" 3rd "					
AIR RECEIVERS—STARTING					
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER	12 th July 1922	10 lbs. □	50 lbs. □	LLOYD'S TEST.	
" WATER JACKET	" " "	5 "	" "	"	
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *Yes*
(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

One pair of main crank shaft bearing brasses (end bearings only), one pair of bolts for connecting rod bottom end, one pair bottom end brasses, 12 piston rings, one each inlet, exhaust + air valve, one each valve springs, 2 Sparking plugs.
Note the above spares are intended for use of J. S. White & Co. oil barges 1591 2/3.

The foregoing is a correct description,

FOR.

L. Gardner & Sons Limited, E. Bargarwanath. Manufacturer.

Dates of Survey while building { During progress of work in shops - 8/7/22, 12/7/22, 14/7/22, 21/7/22, 18/8/22, 7/9/22 = 6 visits
During erection on board vessel - - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 12/7/22 Covers 12/7/22 Pistons 12/7/22 Rods ✓ Connecting rods 21/7/22
Crank shaft 14/7/22 Thrust shaft 14/7/22 Tunnel shafts Screw shaft Propeller Stern tube Engine seatings
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions
Completion of fitting sea connections Stern tube Screw shaft and propeller
Material of crank shaft *Mild Steel* Identification Mark on Do. *AS* Material of thrust shaft *Mild Steel* Identification Mark on Do. *AS*
Material of tunnel shafts Identification Marks on Do. Material of screw shafts Identification Marks on Do.

Is the flash point of the oil to be used over 150° F. *Yes*

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.)

This oil engine has been built under special survey and the materials tested in accordance with the rules of this Society. The materials and workmanship, so far as can be seen, are sound and good, and the engine is eligible in our opinion to be classed as L.M.C. oil engine.
This engine has been fitted to start on petrol instead of hot bulb.

Identification mark on baseplate

LLOYD'S
No. 1
18/8/22
24993 *AS*

The amount of Entry Fee ... £ 12 0
Special ... £ :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for *20.10.22*
When received *5.12.1922*

A. Campbell & *Alfred Lane*
Engineer Surveyors to Lloyd's Register of Shipping

Committee's Minute

FRI. JAN. 12 1923

Assigned

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



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