

REPORT ON OIL ENGINE MACHINERY.

No. 5042

Received at London Office

18 OCT. 1922

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 Single Twin Triple Screw vessels

Paraffin engine for J. S. White & Co. 159 1/2 Tons

Number of Visits 6

Gross
Net

ster

Built at

By whom built J. S. White & Co.

Yard No. 1591 When built 1922

Engines made at

Patricroft, Manchester

By whom made

L. Garman Sons

Engine No. 1

When made 1922-9

Boiler No. 1591

When made

Key Boilers made at

By whom made

Owners British Tankers Ltd

Port belonging to

ake Horse Power 48

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"

length of stroke

7 1/2"

Revolutions per minute

600

Means of ignition High tension Magnets Kind of fuel used Paraffin.

there 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"

meter 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"

meter of flywheel shaft

as per Rule 2.6"

as fitted 2.75"

Diameter of tunnel shaft

as per Rule 2.6"

as fitted 2.75"

Diameter of thrust shaft

as per Rule 2 1/4"

as fitted 2 1/6"

meter 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

two liners are fitted, is the shaft lapped or protected between the liners

If without liners, is the shaft arranged to run in oil

No.

e 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

hod 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"

e the cylinders fitted with safety valves

no.

Means of lubrication

Forced

Are the exhaust pipes and silencers water cooled or lagged with

conducting material

Water

Cork

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

Exhaust

R above water line with Savin neck pipe

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 psi

n one be overhauled while the other is at work

Yes

No. of auxiliary pumps connected to the main bilge lines

How driven

—

of pumps

No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room

One 2"

in the vessel

Two - 2"

No. of pumps

one

How driven

by chain from Main

Size of pumps

6x6" Duplex

e bilge pump fitted with a direct suction from the bilges

No

Coffee dam

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

munication between the sea and the bilges

Yes

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

ked from

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

meter of auxiliary Diesel Engine crank shafts

as per Rule

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

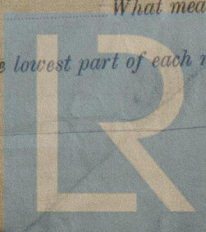
Is each receiver, which can be isolated.

fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

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

inner surfaces



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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 260 lbs. sq. in.	500 lbs. sq. in.	LLOYD'S TEST.	
" " COVERS	12 th July 1922	5 lbs. sq. in.	50 lbs. sq. in.	"	
" " JACKETS					
" " 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. sq. in.	50 lbs. sq. in.	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.
The above spares are intended for engine of J. S. White & Co. oil barges 159 1/2/3.

The foregoing is a correct description,

FOR.

L. Gardner & Sons Limited, Ebbw Vale. 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 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 *with steel* Identification Mark on Do. *with steel* Identification Mark on Do.
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

The amount of Entry Fee ... £ 12 0
Special ... £ :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for 19/10/22
When received 5.12.22 London.

A. Campbell & Alfred Lane
Engineers 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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