

REPORT ON OIL ENGINE MACHINERY.

No. 5043

Received at London Office

18 OCT. 1922

1. Date of writing Report

19. When handed in at Local Office

17-10-1922 Port of

Manchester

2. Date in Survey held at

Manchester

Date, First Survey

8 July 1922

Last Survey

11 Oct. 1922

3. Book.

on the { Single
Twin
Triple

Paraffin oil engine for J. S. White & Co. (1592)

Number of Visits

7

Gross
Net

4. Master

Built at

Cowes.

By whom built

J. S. White & Co.

Yard No. 1592

When built

Engines made at

Patricroft, Manchester

By whom made

L. Garman & Son

Engine No. 2

When made 1922-10

Monkey Boilers made at

By whom made

Boiler No. 1592

When made

Indicated Horse Power 48

Owners British Tankers Ltd.

Port belonging to

Indicated Horse Power as per Rule 137 14

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.

Type of Engines

Vertical (size 4 F.H.M.)

2 or 4 stroke cycle

4

Single or double acting

Single

Maximum pressure in cylinders

250 lbs 4"

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 oil

Is there a bearing between each crank

yes

Span of bearings (Page 92, Section 2, par. 7 of Rules)

12

Distance between centres of main bearings

12"

Is a flywheel fitted

yes

Diameter of crank shaft journals

as per Rule

2.6"

Diameter of crank pins

2 3/4"

Breadth of crank webs

as per Rule

3.5"

Thickness of ditto

as per Rule

1.5"

Diameter of flywheel shaft

as per Rule

2.6"

Diameter of tunnel shaft

as per Rule

2.75"

Diameter of thrust shaft

as per Rule

2 1/6"

Diameter of screw shaft

as per Rule

2.06"

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

no liner

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 joints burned

Is 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

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

yes

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

no

Type of outer gland fitted to stern tube

none

Length of stern bush

9 1/2"

Diameter of propeller

2.6"

Pitch of propeller

1.6"

No. of blades

3

state whether moveable

no

Total surface

2.15

square feet

Method 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"

Are 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

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

Exhaust

Is there a water line, with Swan neck pipe

No. of cooling water pumps

one

Is the sea suction provided with an efficient strainer which can be cleared

in the vessel

yes

No. of bilge pumps fitted to the main engines

one rotary

Capacity

Diameter of ditto

700 gallons per hour at 100 rev. p.m.

Can one be overhauled while the other is at work

yes

No. of auxiliary pumps connected to the main bilge lines

none

How driven

yes

No. of pumps

two

No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps

In engine room

one - 2"

In hold, etc.

two - 2"

No. of pumps

one

How driven

Chain from main

Sizes of pumps

6x6" Naplex.

Is there a bilge pump fitted with a direct suction from the engine room bilges

yes

State size

2"

Is a separate auxiliary pump suction fitted in

Engine Room and size

no

Are all the bilge suction pipes fitted with roses

yes

Are the roses in Engine Room always accessible

yes

Are the sluices on Engine Room bulkheads always accessible

not fitted

Are all connections with the sea direct on the skin of the ship

yes

Are the valves or cocks

Valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates

yes

Are 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

Are 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

communication between the sea and the bilges

yes

Is the screw shaft tunnel watertight

yes

Is it fitted with a watertight door

Is it

yes

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

No. of main air compressors

none

No. of stages

Diameters

Stroke

Driven by

No. of auxiliary air compressors

"

No. of stages

Diameters

Stroke

Driven by

No. of small auxiliary air compressors

No. of stages

Diameters

Stroke

Driven by

No. of scavenging air pumps

Diameter

Stroke

Driven by

Diameter 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

Internal diameter

Cubic capacity of each

Material

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

Thickness

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

Internal surfaces

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



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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 25 lbs □	50 lbs □	LLOYDS 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 □	LLOYDS TEST	
WATER JACKET	"	5 ..	50 ..	"	
SEPARATE FUEL TANKS					

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

Yes. 

Receivers

Separate Tanks

SPARE GEAR

One pair crank shaft bearing ~~brasses~~ (lub bearings only), one pair of bolts for connecting rod bottom end, one pair bottom end brasses, 12 piston rings, one each inlet, exhaust and air valves, one each valve springs, 2 Sparking plugs.

The above spares are intended for each or any of J. S. White & Co. oil barges 1591/2/3

For J. SAMUEL WHITE & COMPANY, Ltd

The foregoing is a correct description.

FOR




L. Gardner & Sons Limited,

Edgware

Manufacturer.

Managing Director.

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, 11/10/22 = 7 visits.
During erection on board vessel— 24/10/22, 7/12/22, 15/12/22, 15/12/22, 16/12/22. = 5 visits.
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 none. Screw shaft 7.12.22 Propeller 7.12.22 Stern tube 7.12.22 Engine seatings 7.12.22
Engines holding down bolts 14.12.22. Completion of pumping arrangements 15.12.22. Engines tried under working conditions 15.12.22.
Completion of fitting sea connections 14.12.22. Stern tube 14.12.22. Screw shaft and propeller 14.12.22.
Material of crank shaft mild steel Identification Mark on Do.  Material of thrust shaft mild steel Identification Mark on Do. 
Material of tunnel shafts none. Identification Marks on Do.  Material of screw shafts mild steel Identification Marks on Do. J.G.M. 7.12.22.

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

Is this machinery duplicate of a previous case Yes. If so, state name of vessel

"British Spark"


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 my 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 headplate

These engines have been well fitted on board & tried under full working conditions of sound satisfactory.

LLOYDS
No. 2
18/8/22
25321 

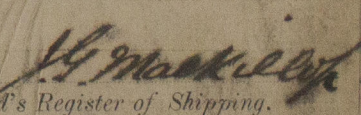
The amount of Entry Fee ... £ 12 0 0
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 3 0 0
Entry Fee 2 0 0
Committee's Minute FRI. JAN. 12 1923

When applied for.

19-10-1922

When received.

19-10-1922

A. Campbell 
Engineer Surveyor to Lloyd's Register of Shipping.

Assigned

+ L.M.C. 12.22

Paraffin Motor

CERTIFICATE WRITTEN



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