

Copy Manchester rept. No. 5042.

Rpt. 4b

# REPORT ON OIL ENGINE MACHINERY.

Sw. No. 11429

Date of writing Report

19

When handed in at Local Office

19

Port of

Manchester

MON. JAN. 8 1923

No. in Survey held at  
Reg. Book.

Manchester

Date, First Survey 8<sup>th</sup> July

Last Survey

14/12/22 see over

Number of Visits

19

Single  
Twin  
Triple

Screw vessels

"BRITISH SPARK"

Tons  
Gross  
Net

Master

Built at Cowes

By whom built

J.S. White & Co. Ltd

Yard No. 1592

When built 1922

Engines made

Patricroft, Manchester

whom made

L. Gardiner & Sons

Engine No. 1

When made 1922

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 48

Owners

British Petroleum Co. Ltd

Port belonging to Manchester

Nom. Horse Power as per Rule 13.7.14

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted yes

OIL ENGINES, &c.—Type of Engines

Vertical (size 45 H.M.)

2 or 4 stroke cycle 4. Single or double acting single

Maximum pressure in cylinders 250 lbs

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"

as fitted 2.75"

Diameter of crank pins 2 3/4"

Breadth of crank webs

as per Rule 3.5"

as fitted 4.0"

Thickness of ditto

as per Rule 1.5"

as fitted 1.75"

Diameter of flywheel shaft

as per Rule 2.6"

as fitted 2.75"

Diameter of tunnel shaft

as per Rule

as fitted

Diameter of thrust shaft

as per Rule 2 1/16"

as fitted 2 1/16"

Diameter 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

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

yes

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

yes

If two liners are 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 1/2"

Pitch of propeller 1 1/2"

No. of blades 3

state whether moveable

no

Total surface 2.15 square feet

Method of reversing Dutch

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

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

Exhaust

bone 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

yes

within the vessel

No. of bilge pumps fitted to the main engines

one rotary

Diameter of ditto

400 galls. per hr. 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

Sizes of pumps

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

One - 2"

and in holds, etc.

CARGO OIL

Cofferdam

No. of pumps

one

How driven

chain from main

engine

6x6" Duplex

Is the 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 they 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

no

Is it fitted with a watertight door

yes

worked from

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

yes

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

AIR RECEIVERS:—No of high pressure air receivers

None

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

inner surfaces

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

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W623-0042



IS A DONKEY BOILER FITTED?

none

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....		Maximum 250 lbs. □	500 lbs.	LLOYDS TEST.	
" " COVERS .....		57 lbs. □	30.7 lbs.	"	A
" " JACKETS.....					
" PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
" 2nd " .....					
" 3rd " .....					
AIR RECEIVERS—STARTING .....					
" INJECTION .....					
AIR PIPES .....					
FUEL PIPES .....					
FUEL PUMPS .....					
SILENCER .....		10 lbs. □	50 lbs. □	LLOYDS TEST	
" WATER JACKET .....		5 lbs. "	50 lbs. "	"	A
SEPARATE FUEL TANKS .....					

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

yes.

Receivers

Separate Tanks

SPARE GEAR

The pair 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 and air valves, one each valve springs, 2 sparking plugs.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops--  
During erection on board vessel--  
Total No. of visits

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods  
Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube 7.12.22 Engine seatings 22.11.  
Engines holding down bolts Completion of pumping arrangements 14.12.22 Engines tried under working conditions 14.12.22  
Completion of fitting sea connections 22.11.22 Stern tube 22.11.22 Screw shaft and propeller 22.11.22  
Material of crank shaft Identification Mark on Do. Material of thrust shaft Identification Mark on Do.  
Material of tunnel shafts none Identification Marks on Do. ✓ Material of screw shafts steel T.G.M. Identification Marks on Do. 7.12.22  
Is the flash point of the oil to be used over 150° F. ✓

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 oil engines were 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 + LMC 12.22 oil engine. This engine has been fitted to start on petrol instead of hot bulb.

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

FRI. JAN. 12 1923

Assigned

+ L.M.C. 12.22

Paraffin Motor

CERTIFICATE WRITTEN



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