

REPORT ON OIL ENGINE MACHINERY.

No. 86683.

Received at London Office

Date of writing Report

19

When handed in at Local Office

4 APR 1924

Port of

WED. APR. 19 1924

No. in Survey held at
Reg. Book.

BIRKENHEAD.

Date, First Survey

3rd Oct/23.

Last Survey

8th April 1924

Number of Visits

202.

Single
on the ~~Twin~~ ^{Triples} Screw vessels

"LA. MAREA" (DIESEL ELECTRIC MOTOR SHIP)

Tons { Gross
Net

Master

Built at

BIRKENHEAD.

By whom built

CAMMELL LAIRD & CO LD

Yard No.

895

When built

1924

Engines made at

BIRKENHEAD

By whom made

CAMMELL LAIRD & CO LD

Engine No.

895

When made

1924.

Donkey Boilers made at

BIRKENHEAD.

By whom made

CAMMELL LAIRD & CO LD

Boiler No.

895

When made

1924.

Brake Horse Power

3300

Owners

UNIFRUITCO S.S. CO LD (CLARK & SERVICE, MGRS)

Port belonging to

GLASGOW.

Nom. Horse Power as per Rule

AAA TOTAL

Is Refrigerating Machinery fitted for cargo purposes

Yes.

Is Electric Light fitted

Yes.

OIL ENGINES, &c.

Type of Engines

CAMMELL LAIRD FULLAGAR ENCLOSED.

2 or 4 stroke cycle

2

Single or double acting

SINGLE.

Maximum pressure in cylinders

550

No. of cylinders

16

No. of cranks

4

Diameter of cylinders

14"

Length of stroke

32" 16" x 2

Revolutions per minute

250

Means of ignition

Compression Temperature

Kind of fuel used

Heavy oil

Is there a bearing between each crank

No.

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

3' 5 3/4"

Distance between centres of main bearings

4' 5 3/4"

Is a flywheel fitted

Yes.

Diameter of crank shaft journals

as per Rule

as approved

Diameter of crank pins

9 1/2"

Breadth of crank webs

as per Rule

as approved

Thickness of ditto

as per Rule

as approved

Diameter of flywheel shaft

as per Rule

as approved

Diameter of tunnel shaft

as per Rule

as approved

Diameter of thrust shaft

as per Rule

as approved

Diameter of screw shaft

as fitted

13 7/8"

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

Yes.

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

Yes.

Type of outer gland fitted to stern tube

Length of stern bush

4' 7 1/2"

Diameter of propeller

16 feet

Pitch of propeller

15' 9"

No. of blades

3

state whether moveable

Yes.

Total surface

72

square feet

Method of reversing

Electric

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Yes.

Thickness of cylinder liners

1 1/2"

Are the cylinders fitted with safety valves

Yes.

Means of lubrication

Forced

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

Yes.

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

Exhaust led up funnel

No. of cooling water pumps

2

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

within the vessel

Yes.

No. of bilge pumps fitted to the main engines

2

Diameter of ditto

5"

Stroke

5"

Can one be overhauled while the other is at work

Yes.

No. of auxiliary pumps connected to the main bilge lines

4

How driven

2 Steam

Sizes of pumps

1 electric 3" x 6" duplex

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

and in holds, etc.

1 electric 3" x 6" duplex

No. of ballast pumps

1

How driven

Electric centrifugal

Sizes of pumps

4 1/2" Suck 4" discharge

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

Yes.

Slate size

3"

Is a separate auxiliary pump suction fitted in

Engine Room and size

Yes. 7' 6" line.

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

Yes.

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

Yes.

Are they valves or cocks

Both.

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

None necessary

Separate compartment

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

No. of main air compressors

4. 1 on each engine

No. of stages

3

Diameters

14", 12 1/2", 2 7/8"

Stroke

13 1/2"

Driven by

Main engine

No. of auxiliary air compressors

None

No. of stages

—

Diameters

—

Stroke

—

Driven by

—

No. of small auxiliary air compressors

One

No. of stages

2

Diameters

5", 1 1/16"

Stroke

4"

Driven by

Electric motor

No. of scavenging air pumps

16. 4 on each engine

Diameter

3 1/4" x 1 1/2"

Stroke

16"

Driven by

Main engine

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

Yes.

AIR RECEIVERS:—

No. of high pressure air receivers

4

Internal diameter

9 3/4"

Cubic capacity of each

3.25 cu ft

material

open head M.S.

Seamless, lap welded or riveted longitudinal joint

Seamless

Range of tensile strength

28-32 ton per sq in

thickness

7/16" + 1/2"

working pressure by Rules

1210 lbs

No. of starting air receivers

4

Internal diameter

17 5/8"

Total cubic capacity

73 cu ft

Material

open head M.S.

Seamless, lap welded or riveted longitudinal joint

Seamless

Range of tensile strength

28-32 ton per sq in

thickness

7/16"

Working pressure by rules

1100 lbs.

Is each receiver, which can be isolated,

fitted with a safety valve as per Rule

Yes.

Can the internal surfaces of the receivers be examined

Yes.

What means are provided for cleaning their

inner surfaces

Starters " 3 3/4" hole at each end

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

Yes.

IS A DONKEY BOILER FITTED?

yes.

If so, is a report now forwarded?

yes.

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	19.12.23.	3.4.24.	-	-	-
COVERS	19.12.23.	21.2.24	12 LBS	50 LBS.	J.D. J.W.L.
JACKETS	7-9.23	9.10.23.	12 LBS	50 LBS.	J.D. J.W.L.
PISTON WATER PASSAGES	3.4.23.	22.11.23.	50 LBS.	100 LBS.	J.P. J.W.L.
MAIN COMPRESSORS—1st STAGE	3.4.23.	21.2.24	250 LBS.	500 LBS.	J.D. J.W.L.
2nd	10.4.23.	17.1.24	1200 LBS.	2400 LBS.	J.D. J.W.L.
3rd	11.10.23.	18.10.23.	1200 LBS.	2400 LBS.	J.D. J.W.L.
AIR RECEIVERS—STARTING	19.10.23.	31.10.23.	1200 LBS.	2400 LBS.	J.D. J.W.L.
INJECTION	4.5.23.	10.3.24	1200 LBS.	2400 LBS.	J.D. J.W.L.
AIR PIPES	2.7.23.	5.3.24	1200 LBS.	2400 LBS.	J.D. J.W.L.
FUEL PIPES	2.7.23.	20.2.24	1200 LBS.	2400 LBS.	J.D. J.W.L.
FUEL PUMPS					
SILENCER					
WATER JACKET					
SEPARATE FUEL TANKS	11.12.23.		15 LBS.	J.W.L.	

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

Receivers

Separate Tanks

SPARE GEAR

See attached lists to "La Playa" first entry report.
"La Playa"

The foregoing is a correct description.

CAMMELL LAIRD AND COMPANY LIMITED.

J. H. R. Laird

Manufacturer.

LOCAL SECRETARY.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits 202.

Dates of Examination of principal parts—Cylinders
Crank shaft
Thrust shaft
Tunnel shafts
Screw shaft
Propeller
Stern tube
Engines tried under working conditions
Completion of fitting sea connections
Material of crank shaft
Material of tunnel shafts
Is the flash point of the oil to be used over 150° F.
Is this machinery duplicate of a previous case

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this vessel has been constructed under special survey and in accordance with the approved plans and Secretary's letters (E) 21.8.22 23.8.22 14.12.23. 8.6.23 and 21.8.23. The materials and workmanship are of good quality and on completion the machinery was tried under full working condition at sea and found satisfactory in every respect. After the trials the cylinders and jackets were opened out, retorted, examined and found satisfactory.

The Machinery is eligible in my opinion to be recorded in the Register Book with notation + L.M.C 4.24.

The amount of Entry Fee ... £ 5 : 0 : 0
Special Installation of Electric Mach. (Pump) ... £ 91 : 12 : 0
Donkey Boiler Fee ... £ 16 : 6 : 0
Travelling Expenses (if any) £ : : :
When applied for, 5/14/24
When received, 12/14/24

Committee's Minute
Assigned
+ L.M.C 4.24.
Oil Engines
Boiler fitted for Oil fuel 44.24 F.P. above 150° F.
Electric light. C.L.

CERTIFICATE WRITING

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