

# REPORT ON OIL ENGINE MACHINERY.

No 110,020

Received at London Office

11 NOV 1941

Date of writing Report 6-11-1941 When handed in at Local Office 11 NOV 1941

Port of Ipswich

No. in Survey held at Reg. Book.

Ipswich

Date, First Survey

Last Survey

19

Number of Visits

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

Motor Tanker "EMPIRE LAD"

Tons Gross 298.18  
Net

Built at Rowhedge

By whom built Rowhedge Ironworks Ltd.

Yard No. 601 When built 1941.

Engines made at Govan

By whom made British Auxiliary Ltd.

Engine No. 396 When made 1941.

Donkey Boilers made at

By whom made

Boiler No. When made

Indicated Horse Power

460

Owners Ministry of War Transport

Port belonging to Rowhedge

Net Horse Power as per Rule

84

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Coasting

ENGINES, &c.—Type of Engines

2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders  
as Indicated Pressure

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft, { Solid forged  
Semi built  
All built

dia. of journals  
as per Rule  
as fitted

Crank pin dia.  
as per Rule  
as fitted

Crank Webs  
Mid. length breadth  
Mid. length thickness

Thrust Shaft, diameter at collars  
as per Rule  
as fitted

Flywheel Shaft, diameter  
as per Rule  
as fitted

Intermediate Shafts, diameter  
as per Rule  
as fitted

7" app.  
7 1/16" app.

Is the tube  
screw

shaft fitted with a continuous liner

No

Tube Shaft, diameter  
as per Rule  
as fitted

Screw Shaft, diameter  
as per Rule  
as fitted

7 1/16"

Is the tube  
screw

shaft fitted with a continuous liner

No

Bronze Liners, thickness in way of bushes  
as per Rule  
as fitted

Thickness between bushes  
as per Rule  
as fitted

Is the after end of the liner made watertight in the

propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

Is an approved Oil Gland or other appliance fitted at the after end of the tube

If so, state type

Vickers

Length of Bearing in Stern Bush next to and supporting propeller 26"

Propeller, dia.

63"

Pitch

42"

No. of blades

3

Material

Brass

whether Moveable

No

Total Developed Surface

9.6

sq. feet

Method of reversing Engines

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

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

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

Cooling Water Pumps, No. See M. 13-1-42

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

Yes

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

One 110" by 60"

One 5" x 5"

One Centrifugal 23 ton per hour

How driven

Main Engine

Aux. Engine

Aux. Engine

the cooling water led to the bilges

No

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size

One

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

3 - 2 1/2"

In details see M.V. Ben Ham

In Pump Room 2" Hand Pump

in Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

One - 2 1/2"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes

Pipes & Pump Room

Are the Bilge Suctions in the Machinery Spaces

and from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Are all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Valves

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

Yes

Are the Overboard Discharges 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 the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

That pipes pass through the bunkers

Yes

How are they protected

Yes

That pipes pass through the deep tanks

Yes

Have they been tested as per Rule

Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

compartment to another

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

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

Main Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

One

No. of stages

2

Diameters

1 7/8" & 4 1/2"

Stroke

2 3/4"

Driven by Port Dynamometer Engine

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule  
as fitted

No.

Position

Start. Aux. engine & driving bilge pumps.  
Port. Ind. aux. engine & driving cargo pumps & hydraulic pump.  
Port. Ind. aux. engine & driving cargo pumps & hydraulic pump.

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Yes

Lloyd's Register  
012542-012548-0014



AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

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

12-3-41.

Receivers

Separate Fuel Tanks

24-12-40

Donkey Boilers

General Pumping Arrangements

16-12-40

Pumping Arrangements in Machinery Space

16-12-40.

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

As per Glasgow Report 64063.

The foregoing is a correct description,  
FOR THE ROWHEDGE IRONWORKS CO LTD

Manufacturer.

MANAGING DIRECTOR.

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

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

Stern tube

Engine sealings

Engines holding down bolts

Completion of fitting sea connections

20-6-41

Completion of pumping arrangements

9-10-41

Engines tried under working conditions

23-9-41

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material

Identification Marks

Tube shaft, Material

Identification Mark

Screw shaft, Material

Identification Mark

Identification Marks on Air Receivers

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Description of fire extinguishing apparatus fitted

Two portable fire extinguishers, hose connection in E.R.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case

If so, state name of vessel

M. V. BEN HANN

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

The machinery of this vessel, see Glasgow Report No 64063, Manchester Reports Nos 10522, 10523, 10569, has been installed in accordance with the approved plans & Rule requirements. The materials & workmanship are sound & of good description. The machinery has been examined under working conditions & is eligible in my opinion for classed & to have notation + L.R.C. 19-41. Oil Engine. O.G.

The amount of Entry Fee .. £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

When received,

Committee's Minute

Assigned

FRL 9 JAN 1942

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation