

## REPORT ON OIL ENGINE MACHINERY.

No. 112116

Received at London Office

7 SEP 1944

1 SEP 1944

Date of writing Report

2<sup>nd</sup> Sept

1944 When handed in at Local Office

7 SEP 1944

Port of

IPSWICH

No. in Survey held at  
Reg. Book.

ROWHEDGE

Date, First Survey

23 FEBRUARY 1944

Last Survey

29 AUGUST 1944

Number of Visits

12

Single  
on the ~~Triple~~  
~~Quadruple~~

Screw vessel

"EMPIRE BARKIS"Tons  
Gross 340.32  
Net 138.75

Built at ROWHEDGE

By whom built ROWHEDGE IRONWORKS LTD

Yard No. 639

When built 1944

Engines made at GLASGOW

By whom made BRITISH AUXILIARIES LTD.

Engine No. 506

When made 1944

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

395

Owners. MINISTRY OF WAR TRANSPORT

Port belonging to

LONDON

Nom. Horse Power as per Rule

67/68

Is Refrigerating Machinery fitted for cargo purposes

NO

Is Electric Light fitted

YES

Trade for which vessel is intended

COASTAL TANKER

IL ENGINES, &amp;c.—Type of Engines

2 or 4 stroke cycle

Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

Span 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.

Crank Webs

Mid. length breadth  
Mid. length thickness

shrunk

Thickness parallel to axis  
Thickness around eyehole

Flywheel Shaft, diameter

as per Rule  
as fitted

Intermediate Shafts, diameter

as per Rule  
as fittedAPPROVED  
6 3/4"

Thrust Shaft, diameter at collars

as per Rule  
as fitted

Tube Shaft, diameter

as per Rule  
as fitted

Screw Shaft, diameter

as per Rule  
as fittedAPPROVED  
6 3/4"

Is the

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

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

If two liners are fitted, is the shaft tapered or protected between the liners

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

shaft YES If so, state type

bedstead Type No. 6

Length of Bearing in Stern Bush next to and supporting propeller

24"

Propeller, dia.

60"

Pitch

39"

No. of blades

3-8-48

Material

Bronze

whether Moveable

no

Total Developed Surface

8.85

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

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

Cooling Water Pumps, No. 1 on main engine + G.S.P.

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 85 mm X 60 mm

How driven

Main Engine

General Service pump 22.8 tons/hr

aux diesel

Is 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 G.S.P. 22.8 tons/hr. 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

2 @ 2 1/2" conn to both main + aux pumps; 1 @ 2 1/2" conn to M.E. pump in Pump Room to hand pump only

In Holds, &amp;c.

1 @ 2" in forward cofferdam conn. to hand pump only

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

one @ 2 1/2" conn to a 23 tons/hr rotary pump aux driven

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

YES

Are the Bilge Suctions in the Machinery Spaces

YES

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

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

at D.W.L.

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

What pipes pass through the bunkers

YES

How are they protected

YES

What 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

YES

Is the Shaft Tunnel watertight

None

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

Main Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

one

No. of stages

2

Diameters 4 5/8" X 3 7/8"

Stroke 2.75"

Driven by aux diesel

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

aux diesel hand started.

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule  
as fitted

Both 2 5/8" pins + 2 5/8" journals

No.

Two

Position Engine Room Port + starboard sides

Have the Auxiliary Engines been constructed under special survey

YES

Is a report sent herewith

YES

008973-008981-0234

**AIR RECEIVERS:** — Have they been made under survey.

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.

Injection Air Receivers, No.

Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Standing Air Receivers, No.

Total cubic capacity

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

**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)

Receivers

Separate Fuel Tanks.

Donkey Boiler

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements.

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

FOR THE ROWHEDGE IRONWORKS CO LTD

The foregoing is a correct description of the machinery

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

Crank shaft

Flywheel shaft

Thrust shaft

Pistons

Flots

Connecting rods

Screw shaft

Propeller

Stern tube

Engine shafts

Engines holding down bolts

Completion of sea connections

Completion of pumping arrangements

Engines tried under working condition

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

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

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

MANCHESTER REPORTS NOS. 11860/1) has been efficiently fitted on board this vessel, under Special Survey and in accordance with the approved plans & Rule requirements, examined under full working conditions & found satisfactory, and is eligible, in my opinion, to have notation of + LMC 8, 44.

Torsograph reading, taken on test vessel, Empire Boxer.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned

When applied for,

When received,

Engineer Surveyor to Lloyd's Register of Shipping.

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