

## REPORT ON OIL ENGINE MACHINERY.

No 34542

Received at London Office

30 SEP 1946

Date of writing Report

19

When handed in at Local Office

24 SEP 1946

Port of

Sunderland

No. in Survey held at  
Reg. Book.

Sunderland

Date, First Survey 19 July 45 Last Survey 23 Jan 1946

Number of Visits 88

Single  
on the Twin  
Triple  
Screw vessel

"BRITISH MARSHAL"

Tons Gross 8582  
Net 4918

Built at Sunderland

By whom built Wm. Kayford &amp; Sons Ltd.

Yard No. 434 When built 1946

Engines made at Sunderland

By whom made Wm. Kayford &amp; Sons Ltd.

Engine No. 434 When made 1946

Donkey Boilers made at Stockton

By whom made Stockton Chem. Engs. &amp; Riley Bros.

Boiler No. 6931/2 When made 1946

Brake Horse Power 3100

Owners British Tanker Co. Ltd.

Port belonging to London.

Nom. Horse Power as per Rule 684

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

Trade for which vessel is intended

Tanker.

OIL ENGINES, &amp;c. Type of Engines Opposed piston Airless Injection 2 or 4 stroke cycle 2 Single or double acting Single.

Maximum pressure in cylinders 640 lb/sq. in.

Diameter of cylinders 600 mm

Length of stroke 980 mm

No. of cylinders 4

No. of cranks 4 (3 throws)

Mean Indicated Pressure 85 lb/sq. in.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 886 mm

F. 1.33 tons

Lower 1340 mm

Between each 3 throws.

Revolutions per minute 105

Flywheel dia. 2450 mm

Weight 1.33 tons

Means of ignition Compression

Kind of fuel used -

Crank Shaft,

Solid forged

dia. of journals 431 mm

Crank pin dia. 450 mm

Mid. length breadth 650 mm

Thickness parallel to axis 255 mm

Flywheel Shaft, diameter

as per Rule 431 mm

as fitted 450 mm

Intermediate Shafts, diameter

as per Rule 450 mm

as fitted 450 mm

Tube Shaft, diameter

as per Rule -

as fitted -

Screw Shaft, diameter

as per Rule 450 mm

as fitted 450 mm

Bronze Liners, thickness in way of bushes

as per Rule 22 mm

as fitted 22 mm

Thickness between bushes

as per Rule 14 mm

as fitted 14 mm

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 junctions made by fusion through the whole thickness of the liner

one length.

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 lapped or protected between the liners

No

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

-

Length of Bearing in Stern Bush next to and supporting propeller

5'-8"

Propeller, dia. 16'-3"

Pitch 11'-9"

No. of blades 4

Material Bronze

whether Moveable No.

Total Developed Surface 93 sq. feet

Method of reversing Engines

Hand lever

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

Yes.

Means of lubrication

-

Thickness of cylinder liners

25 mm

Are the cylinders fitted with safety valves

Yes.

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

-

Cooling Water Pumps, No. one

Steam driven

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

(Fr. Cooling)

Bilge Pumps worked from the Main Engines, No. none

Diameter -

Pumps connected to the Main Bilge Line

No. and Size 2 @ 4" x 8" x 8" (duplex)

How driven Steam

Can one be overhauled while the other is at work

-

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 1 @ 10" x 12" x 10"

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one Engine driven 110 mm x 510 mm

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 @ 3 1/2" in E.R.

1-6" hull suction

In Pump Room 4" p.s. 1"

Ballast Pumps.

In Holds, &amp;c.

(Tanker)

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 8" (Ballast)

1-6" (G.S.)

1-4" main Eng.

Cooling water pump.

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

-

Are the Bilge Suctions in the Machinery Spaces

Yes.

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

Both

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

Below

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes.

What pipes pass through the bunkers

none

How are they protected

-

What pipes pass through the deep tanks

none

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

(Tanker)

Is the Shaft Tunnel watertight

none

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. Two

No. of stages Three

Diameters 12 3/4-3, 12 3/4-10 1/2, 3"

Stroke 7"

Driven by Steam Engine

Auxiliary Air Compressors, No. -

No. of stages -

Diameters -

Stroke -

Driven by -

Small Auxiliary Air Compressors, No. -

No. of stages -

Diameters -

Stroke -

Driven by -

What provision is made for first Charging the Air Receivers

(Steam driven Compressors.)

Scavenging Air Pumps, No. Two.

Diameter 15 10 mm

Stroke 5 10 mm

Driven by Steam Engine

Auxiliary Engines crank shafts, diameter

as per Rule -

as fitted -

No. -

Position -

Have the Auxiliary Engines been constructed under special survey

-

Is a report sent herewith

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