

REPORT ON OIL ENGINE MACHINERY.

No 34705

Received at London Office 14 JUN 1947

Date of writing Report

19

When handed in at Local Office

13 June 1947

Port of

Sunderland

No. in Survey held at Reg. Book.

Date, First Survey

21 Oct 1946

Last Survey

3 June 1947

Number of Visits

49

Single on the Twin Triple Screw vessel

"BRITISH ISLES"

Tons Gross 8738 Net 4984

Built at Haverton Hill

By whom built

Furness S.B. Co. Ltd.

Yard No 394

When built 1944

Engines made at Sunderland

By whom made

Wm. Dafford & Sons Ltd.

Engine No. 259

When made 1944

Donkey Boilers made at Wallsend

By whom made

N.E. Marine Eng. Co. (1937) Ltd.

Boiler No. 2769

When made 1947

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, &c.

Type of Engines

Opposed piston airless injection or 4 stroke cycle 2

Single or double acting

Single

Maximum pressure in cylinders

640 lbs/sq. in.

Mean Indicated Pressure

85 lbs/sq. in.

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

Revolutions per minute

Crank Shaft, Solid forged dia. of journals as per Rule as fitted

Flywheel Shaft, diameter as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted

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

propeller boss

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

shaft If so, state type

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

Hand lever

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

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

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.

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

Bilge Pumps worked from the Main Engines, No.

none

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

How driven

Is the cooling water led to the bilges

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

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

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

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

In Pump Room

In Holds, &c.

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

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

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

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

Are they fitted with Valves or Cocks

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

Are the Overboard Discharges above or below the deep water line

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

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

Do the pipes pass through the bunkers

How are they protected

Do the pipes pass through the deep tanks

Have they been tested as per Rule

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

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

On 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.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Is provision made for first Charging the Air Receivers

Revolving Air Pumps, No.

Yes

Diameter

1510 mm

Stroke

510 mm

Driven by

Revolving from Main Engines

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

Lloyd's Register

002583-002591-0019



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 the Ship (If not, state date of approval)

4/3/45

Circ. 1803

20/1/45

Receivers

Separate Fuel Tanks

Donkey Boilers

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

1 Cylinder liner & packet Complete, 1 upper & lower piston skirt, 4 Scrapers  
1 main piston head, 4 main piston rings, 4 fuel valves Complete, 8 Spray Flaps, 1 Center Cam. rod ball  
bearing (sph.), 2 Side Cam rod ball end Sph. bearings, 1 main bearing, 2 main bearing slides & nuts  
4 Centre & Side (each) top & ball end bearing balls & nuts, 2 Side rod ball end nuts, 1 Set. Camshaft ball  
2 N.R. Sliding valves, 2 Cyl. relief valves, 1 fuel pump & fuel chamber, 2 fuel pump bodies Complete with  
valves, 1 Serv. pump del. valve, 1 del. for suction, 1 Set. Pads for thrust, 8 rubber hoses for piston cooling,  
1 roller chain for camshaft drive.  
For and for bearing is a correct description,  
WILLIAM DOXFORD & SONS, LIMITED.

Manufacturer.

Director.  
Dates of Survey while building  
work in shops - 1946 - Oct 21, 25, 29, 30, 31. Nov 12, 19, 21, 22. Dec 2.  
During erection on board vessel - 1947 - Jan 7, 20, 22, 23, 24, 29, 30. Feb 17, 19, 24, 27, 28. Mar 17, 18, 19, 20, 21, 24, 26  
Apr 2, 9, 14, 22, 23, 25, 29, 30. May 1, 6, 7, 13, 15, 16, 19, 21, 27, 29. Jun 2, 3.  
Total No. of visits 49  
20/1/47, 22/1/47  
15/5/47 15/5/47 6/5/47  
Dates of Examination of principal parts - Cylinders 23/4/47, 29/1/47. Covers - Pistons 16/5/47 Rods 16/5/47 Connecting rods 6/5/47  
Crank shaft 29/4/47 Flywheel shaft as crank Thrust shaft as crank Intermediate shafts - Tube shaft -  
Screw shaft - Propeller - Stern tube - Engine sealings - Engines holding down bolts - (Test BGD) 2nd 13th June/47  
Completion of fitting sea connections - Completion of pumping arrangements - Engines tried under working conditions  
Crank shaft, Material Ingot Steel Identification Mark No 259 WHF. 29/4/47. Flywheel shaft, Material as crank Identification Mark as crank.  
Thrust shaft, Material as crank Identification Mark as crank 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

Yes. If so, state name of vessel "BRITISH ENSIGN".

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

Special Survey in accordance with the approved plans & the rules of the Society

The materials & workmanship are good.

On Completion it has been tried under full load conditions on test bench with satisfactory results.

It has now been despatched to Harston Mill for installation on board the vessel & on being completed satisfactorily the machinery will be eligible, in my opinion, to have notation of LMC (with date) oil

The amount of Entry Fee .. £ 6 : : When applied for,  
2/3 Special ... £ 42 : 18 : JUN 13 1947  
Donkey Boiler Fee ... £ 12 : 12 :  
Travelling Expenses (if any) £ : : When received, 19.

Committee's Minute

Assigned See F.E. mchey. rpt.

J. H. Kasev.

Engineer Surveyor to Lloyd's Register of Shipping.



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