

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 32532  
NOV 25 1938

Received at London Office

Date of writing Report

19

When handed in at Local Office

24 NOV. 1938

Port of

Sunderland

No. in Survey held at

Sunderland

Date, First Survey

5 July 1938 Last Survey 21<sup>st</sup> Nov 1938

Reg. Book.

Single  
on the ~~Turn~~  
Triple  
Quadruple

Screw vessel

"BRITISH INFLUENCE"

Tons

Gross 8439  
Net 4855

Built at

Wallingford-on-Tyne

By whom built

Swan Hunter &amp; Wigham Richardson

Tard No. 1592

When built

1939-2

Engines made at

Sunderland

By whom made

Wm. Beard &amp; Sons Ltd

Engine No.

204

When made

1938.

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

2850

Owners

British Tanker Co Ltd

Port belonging to

LONDON.

Nom. Horse Power as per Rule

684

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

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

540 lbs/sq. in.

Diameter of cylinders

600 in.

Length of stroke

980 in.

No. of cylinders

4.

No. of cranks

4 (3 for main)

Mean Indicated Pressure

84 lbs/sq. in.

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

2050 in.

Weight

88 cwt.

Means of ignition

Compression

Is there a bearing between each crank

Between each 3rd crank

Revolutions per minute

94

Flywheel dia.

2450 in.

Crank pin dia.

450 in.

Crank webs

Mid. length breadth

650 in.

Thickness parallel to axis

255 in.

Crank Shaft, dia. of journals

425 in.

as fitted

450 in.

as per Rule

450 in.

Mid. length thickness

255 in.

Thickness around eye hole

200 in.

as per Rule

425 in.

Flywheel Shaft, diameter

425 in.

as fitted

450 in.

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule

as fitted

450 in.

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

tube

shaft fitted with a continuous liner

Is the after end of the liner made watertight in the

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 lapped or protected between the liners

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

shaft. If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

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 disengaged

Yes.

Means of lubrication

Thickness of cylinder liners

25 in.

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

One main engine driven 100 in. x 610 in.

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, &amp;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

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

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

What pipes pass through the bunkers

How are they protected

What 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

Is the Shaft Tunnel watertight

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

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

Scavenging Air Pumps, No.

One

Diameter

1960 in.

Stroke

610 in.

Driven by

Revers from Main engine.

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

No.

Position

002465-002470-0014



AIR RECEIVERS:—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.

High Pressure 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)

20/1/35 Yes.

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

Yes (To latest requirements).

State the principal additional spare gear supplied

One Cylinder liner & jacket Complete, one Starting air non-return Valve, one Cylinder relief Valve Complete, 4 Scavenge pump Suct. & del. Valve half discs, 2 pump bodies Complete, with Suct. & del. Valves, one intermediate Crosshead with Stud, 1 bell crank lever & suction tappet for fuel pump, four fuel valves Complete, one main piston head, one upper & one lower piston skirt, one roller chain for Camshaft drive.

The foregoing is a correct description.

WILLIAM DOXFORD & SONS, Limited.

Manufacturer.

Dates of Survey while building

During progress of work in shops--  
During erection on board vessel--  
Total No. of visits

1938 July 5, 7, 8, 15, 19, 20, 22 Aug. 2, 3, 5, 8, 9, 10, 12, 15, 18, 24, 29, 30 Sep. 7, 8, 9, 19, 21, 23, 26, 27, 29

Oct. 4, 11, 12, 13, 19, 20, 21, 24, 25, 27, 28, 31 Nov. 1, 2, 3, 4, 8, 9, 10, 11, 14, 16, 17, 18, 21

53

22/4/38 2/8/38

8/11/38 9/11/38 8/11/38 9/11/38

31/10/38

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

4/11/38

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

Stern tube

Engine seatings

Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions

Crank shaft, Material

Inf. Steel

Identification Mark

Nos 1762, 1761, 1763 V.S. 4/10/38.

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

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

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 M/V "BRITISH FAME" etc.

General Remarks

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

This machinery has been built under Special Survey in accordance with the Rules of the Society & the Secretary's letters.

The materials & workmanship are good.

The engine has been tried under full load conditions on the test bed with satisfactory results & has been despatched to Messrs Swan Hunter & Whigham Richardson & Co. Ltd. Wallsend-on-Tyne for installation on board the vessel, after which it will be eligible, in my opinion to have notation "A" (with date) oil eng.

The engine has been satisfactorily fitted on board M.V. British Tenacity (Yard No 1592). A. Watt Newcastle-on-Tyne

The amount of Entry Fee

£

6

-

:

When applied for,

4/5 Special

...

£

84

10

2

:

4 NOV. 1938

Donkey Boiler Fee

£

12

12

:

When received,

Travelling Expenses (if any)

£

:

14 Dec 1938

Committee's Minute

Assigned

TUE 28 FEB 1939

See NWC. 76 97170

Engineer Surveyor to Lloyd's Register of Shipping.



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