

4b.

REPORT ON OIL ENGINE MACHINERY.

No. 65550

Received at London Office

F 3 JUN 1942

Writing Report

When handed in at Local Office

1: 6:

10: 42 Port of

Glasgow

Survey held at

Glasgow

Date, First Survey

16/1/41

Last Survey

26/5/1942

Number of Visits

58

Single
on the Twin
Triple
Quadruple

Screw vessel

"BRITISH VIGILANCE"

Tons { Gross 8093
Net 4575

at Glasgow

By whom built Harland & Wolff, Ltd.

Yard No. 11166 When built 1942-5

es made at

Glasgow

By whom made Harland & Wolff, Ltd.

Engine No. 11166 When made 1942

Boilers made at

Hyde

By whom made J. Adamson & Co. Ltd.

Boiler No. 967 When made 1942

Horse Power 3200

Owners British Tanker Co. Ltd.

Port belonging to London

Horse Power as per Rule 490

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted yes

for which vessel is intended

Tanker

ENGINES, &c.—Type of Engines Heavy oil. Airless injection 2 or 4 stroke cycle 4 Single or double acting S.A.

m pressure in cylinders 700 lb

Diameter of cylinders 29 1/8 in

740 mm

Length of stroke 59 1/16 in

No. of cylinders 6

No. of cranks 6

Indicated Pressure 128 lb

bearings, adjacent to the Crank, measured from inner edge to inner edge 972 mm

Is there a bearing between each crank

yes

ons per minute 110

Flywheel dia. 2489 mm

Weight 2590 Kgs

Means of ignition Compression

Kind of fuel used Diesel oil

Solid forged
Semi built
All builtdia. of journals as per Rule 490 mm
as fitted 505 mm
Bored 115 mm

Crank pin dia. 505 mm

Crank Webs Bored 230 mm

Mid. length breadth 980 mm
Mid. length thickness 310 mmThickness parallel to axis 310 mm
Thickness around eyehole 292.5 mmShaft, diameter as per Rule
as fittedIntermediate Shafts, diameter as per Rule 13.15"
as fitted 18"Thrust Shaft, diameter at collars as per Rule 351 mm
as fitted 454 mmShaft, diameter as per Rule
as fittedScrew Shaft, diameter as per Rule 14.48"
as fitted 16"

Is the { tube screw } shaft fitted with a continuous liner { yes

Liners, thickness in way of bushes as per Rule 3/4
as fitted 13/16Thickness between bushes as per Rule 9/16
as fitted 21/32

Is the after end of the liner made watertight in the

boss yes

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

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

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 11-6 E

Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

ler, dia. 16'-0"

Pitch 9'-6"

No. of blades 4

Material Bronze

whether Moveable no

Total Developed Surface 81 sq. feet

d of reversing Engines Direct

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

Means of lubrication

Thickness of cylinder liners 53 t

Are the cylinders fitted with safety valves yes

Are the exhaust pipes and silencers water cooled or lagged with

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

g Water Pumps, No. 1 at 170 tons/hr; 2 at 130 tons/hr each.

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

Pumps worked from the Main Engines, No. One

Diameter 80 tons/hr. Stroke

Can one be overhauled while the other is at work

s connected to the Main Bilge Line

No. and Size One Bilge & Sanitary, 80 tons/hr.

Standby Bilge & Sanitary 80 tons per hour

Ballast, 120 tons per hour

How driven

Main engine

Steam

Steam

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

Pumps, No. and size One 120 tons/hr

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 each 100 tons/hr

o independent means arranged for circulating water through the Oil Cooler yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

, No. and size:—In Machinery Spaces Port 3 1/2"; Starboard 3 1/2"; aft well 3 1/2".

In Pump Room

ds, &c.

endent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 at 6" dia.

O.F. Transfer pump suction from guttering, 2" P.S. O.F. " " " Coffenden, 2 1/2"

l the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes

Are the Bilge Suctions in the Machinery Spaces

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

Sea Connections fitted direct on the skin of the ship Steel studs

Are they fitted with Valves or Cocks both

y 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

y 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

pipes pass through the bunkers

How are they protected

pipes pass through the deep tanks

Have they been tested as per Rule

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

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

partment to another yes

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

ary Air Compressors, No. 2

No. of stages 2

Diameters 280 + 245

Stroke 130

Driven by Steam engine

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

provision is made for first Charging the Air Receivers

Steam driven compressors

nging Air Pumps, No.

Diameter

Stroke

Driven by

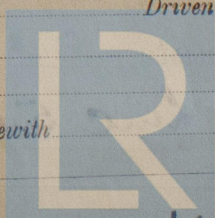
ary Engines crank shafts, diameter as per Rule
as fitted

all auxiliaries steam driven

Position

the Auxiliary Engines been constructed under special survey

Is a report sent herewith



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W11624015

AIR RECEIVERS:—Have they been made under survey *yes* State No. of Report or Certificate *C.44790*

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

Can the internal surfaces of the receivers be examined and cleaned *yes*

Is a drain fitted at the lowest part of each receiver *yes*

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

Starting Air Receivers, No. *2*

Total cubic capacity *900 Cu. ft.*

Internal diameter *6'-0 5/16"*

thickness

Seamless, lap welded or riveted longitudinal joint *Riveted*

Material *Steel*

Range of tensile strength *Ends 26/30 tons*

Working pressure

by Rules

IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *Yes. Manchester Rpt. 20*

Is the donkey boiler intended to be used for domestic purposes only *no*

PLANS. Are approved plans forwarded herewith for Shafting *Handwritten 27-8-40*
(If not, state date of approval) *Inter+Screw 10-1-41*

Receivers

23-12-40

Separate Fuel Tanks

16-1-42

Donkey Boilers *✓*

General Pumping Arrangements

30-4-41

Pumping Arrangements in Machinery Space

15-12-41

Oil Fuel Burning Arrangements

15-1-42

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied

as per attached list.

The foregoing is a correct description,

Wm. J. Wright

Manufacturer.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits *58*

Dates of Examination of principal parts—Cylinders *23-12-41* Covers *23-12-41* Pistons *13-1-42* Rods *13-1-42* Connecting rods *19-1-42*

Crank shaft *16-12-41* Flywheel shaft *✓* Thrust shaft *8-1-42* Intermediate shafts *27-1-42* Tube shaft *✓*

Screw shaft *26-3-42* Propeller *26-3-42* Stern tube *26-3-42* Engine seatings *15-1-42* Engines holding down bolts *21-6-42*

Completion of fitting sea connections *15-1-42* Completion of pumping arrangements *19-5-42* Engines tried under working conditions *21-5-42*

Crank shaft, Material *Steel* Identification Mark *1116 P 7 9 test 20* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *Steel* Identification Mark *S. 1437 N.K.* Intermediate shafts, Material *Steel* Identification Marks *S. 2931*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *S. 2932*

Identification Marks on Air Receivers *44790 Lloyd's 585 lb. WP 356 lb. J.S.C. 16-12-41*

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

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

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 *Engines similar to "British Power"*

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

The machinery of this vessel has been built under Special Survey and in accord with the approved plans and the Rules of this Society.

The materials and workmanship are good.

The machinery has been efficiently secured in position on board the vessel and afterwards tried under full working conditions with satisfactory results.

The machinery is eligible in my opinion to be classed in the Register Book with notation of *1-LME 5.42 C.L. 2 DB WP 150 lb.*

The amount of Entry Fee .. £ *5* : - : :

Special ... £ *98* : *10* : :

Donkey Boiler Fee ... £ : : :

Travelling Expenses (if any) £ : : :

When applied for,

2 JUN 1942

When received,

19

Committee's Minute *GLASGOW*

2 JUN 1942

Assigned

1-LME 5.42 oil eng.

2 DB 150 lb.

P. Fitzgerald & G. E. Murdoch

Engineer Surveyor to Lloyd's Register of Shipping



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