

REPORT ON OIL ENGINE MACHINERY.

No. 60600

JAN 21 1939

Received at London Office

Date of writing Report

19

When handed in at Local Office

20.1.1939

Port of

Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey

12:11:37

Last Survey

19:1:1939

Number of Visits

69

on the ~~Triple~~
Single
Triple
Quadruple

Screw vessel

"BRITISH TRUST"

Tons { Gross 8466
Net 4913

Built at Glasgow

By whom built Harland & Wolff Ltd.

Yard No. 10116 When built 1939

Engines made at Glasgow

By whom made Harland & Wolff Ltd.

Engine No. 10116 When made 1939

Donkey Boilers made at Belfast

By whom made Harland & Wolff Ltd.

Boiler No. 10116 When made 1938

Brake Horse Power 2850 @ 105 RPM

Owners British Tanker Co. Ltd.

Port belonging to London

Nom. Horse Power as per Rule 490

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

Oil Tanker.

L ENGINES, &c. Type of Engines Solid Injection 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 700 lb

Diameter of cylinders 740 mm

Length of stroke 1500 mm

No. of cylinders 6

No. of cranks 6

Mean Indicated Pressure 128

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

972 mm

Is there a bearing between each crank Yes

Revolutions per minute 185

Flywheel dia. 2489 mm

Weight 2540 Kgs

Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, { Solid forged
Semi built
All built

dia. of journals

as per Rule 483 mm
as fitted 505 mm

Crank pin dia. 505 mm

Crank Webs

Mid. length breadth 840 mm

Thickens parallel to axis 310 mm

Flywheel Shaft, diameter

as per Rule 483 mm
as fitted 505 mm

Intermediate Shafts, diameter

as per Rule 13.6
as fitted 17

Thrust Shaft, diameter at collars

as per Rule 14.3
as fitted 454 mm (17.87)

Stern Shaft, diameter

as per Rule
as fitted

Screw Shaft, diameter

as per Rule 15
as fitted 17Is the { tube
screw } shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes

as per Rule 7.58
as fitted 2

Thickness between bushes

as per Rule 11.57
as fitted 16

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

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

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

If so, state type

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

Propeller, dia. 17-0

Pitch 11-6

No. of blades 4

Material Alloy Steel whether Moveable No

Total Developed Surface 89 sq. feet

Method of reversing Engines Direct

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

Means of lubrication

Need Thickness of cylinder liners 53 & 32

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with

conducting 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

Cooling Water Pumps, No. Three 2 @ 100

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 1 Ballast pump 150 ton / hr. / 2 Bilge & sanitary pumps each 100 ton / hr.
How driven Steam 9x10x10 Steam 7x8x8

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

Fast Pumps, No. and size One 9x10x10

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 70 ton / hr.

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

Port drain hot 3 1/2", Starb. drain hot 3 1/2", aft. Well 3 1/2"

In Pump Room

Holds, &c. Fore hold, One 3" Port & one 3" Starb.

2 @ 6"; 1 @ 4 1/2"

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

2 @ 6"; 1 @ 4 1/2"

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

Yes

Are the Bilge Suctions in the Machinery Spaces

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

Yes

all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both

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

Yes

Are the Overboard Discharges above the deep water line

Yes

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

at pipes pass through the bunks

How are they protected

Yes

at pipes pass through the deep tanks

Have they been tested as per Rule

Yes

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

Yes

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

Yes

Is it fitted with a watertight door

worked from

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.

2

No. of stages

2

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

2

No. of stages

2

Diameters

Stroke

Driven by

at provision is made for first Charging the Air Receivers

above steam driven compressors

Serving Air Pumps, No.

Under side of pistons

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

All aux. machinery steam driven except 30KW generator driven by

Position

Engine room. Starb. side aft.

the Auxiliary Engines been constructed under special survey

Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate **Z. 302.**

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

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED?

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)

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

For HARLAND AND WOLFE, LIMITED,

Wm. J. Wright.

Manufacturer.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

Flintston-Secretary

1937 Nov: 12 Dec: 29.13 (1938) Jan: 11 21 27 Feb: 9 Mar: 21 22 24 25

Dates of Examination of principal parts—Cylinders

Crank shaft

Screw shaft

Completion of fitting sea connections

Crank shaft, Material

Thrust shaft, Material

Tube shaft, Material

Identification Marks on Air Receivers

Flywheel shaft

Propeller

Completion of pumping arrangements

Identification Mark

Identification Mark

Identification Mark

Thrust shaft

Stern tube

Completion of pumping arrangements

Identification Mark

Identification Mark

Identification Mark

Covers

Engine seatings

Engines tried under working conditions

Identification Mark

Identification Mark

Identification Mark

Pistons

Engines holding down bolts

Engines tried under working conditions

Identification Mark

Identification Mark

Identification Mark

Rods

Engines holding down bolts

Engines tried under working conditions

Identification Mark

Identification Mark

Identification Mark

Connecting rods

Engines holding down bolts

Engines tried under working conditions

Identification Mark

Identification Mark

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

If so, state name of vessel "British Fidelity" G.L. Rpt No 603

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

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

The materials & workmanships 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-L.M.C. 1.39 C.L. 2 D.B. 150 lb.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

TUE 24 JAN 1939

Assigned

1.39 oil L.P. 2 D.B. -150 lb.

P. Fitzgerald & S. B. Murdoch

Engineer Surveyor to Lloyd's Register of Shipping.



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