

REPORT ON OIL ENGINE MACHINERY.

No. 65770

22 JUL 1942

Received at London Office

to of writing Report

19 — When handed in at Local Office

18: 7: 1942 Port of

Glasgow

Date, First Survey

16th Jan 1941

Last Survey

9th July 1942

Number of Visits

58

o. in Survey held at

g. Book.

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel"BRITISH MERIT"Tons { Gross 8093
Net 4755

uilt at

Glasgow

By whom built Harland & Wolff. Ltd.

Yard No. 11176 When built 1942

Engines made at

Glasgow

By whom made Harland & Wolff. Ltd.

Engine No. 11176 When made 1942

nkey Boilers made at

Hyde

By whom made J. Adamson & Co. Ltd.

Boiler No. 99+100 When made 1942

ake Horse Power

3200

Owners British Tanker Co. Ltd.

Port belonging to London

m. Horse Power as per Rule

490

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ade 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.

imum pressure in cylinders

700 lb

Diameter of cylinders

740 mm

Length of stroke

1500 mm

No. of cylinders

6

No. of cranks

6

m Indicated Pressure

128

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

972 mm

Is there a bearing between each crank

yes

olutions per minute

115

Flywheel dia.

2489 mm

Weight

2590 Kgs

Means of ignition

Compression

Kind of fuel used

Diesel oil.

ank Shaft,

{ Solid forged
Semi built
All built

dia. of journals

as per Rule 490 mm
as fitted 505 mm
(Bored 115 ")

Crank pin dia.

505 mm
(Bored 230 mm)

Crank Webs

Mid. length breadth 980 mm
shrunk
Mid. length thickness 310 "

Thickness parallel to axis 310 mm

Thickness around eyehole 292.5

wheel Shaft, diameter

as per Rule
as fitted

Intermediate Shafts, diameter

as per Rule 13.15"
as fitted 18 "

Thrust Shaft, diameter at collars

as per Rule 351 mm
as fitted 454 mm

be Shaft, diameter

as per Rule
as fitted

Screw Shaft, diameter

as per Rule 14.48"
as fitted 16 "

Is the

{ tube
screw

shaft fitted with a continuous liner

yes

onze Liners, thickness in way of bushes

as per Rule
as fitted3"
4"
13"
16 "

Thickness between bushes

as per Rule
as fitted9"
16 "
21"
32 "

Is the after end of the liner made watertight in the

peller boss

yes

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

yes

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

yes

two liners are fitted, is the shaft lapped or protected between the liners

yes

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

yes

ft. If so, state type

11-6"

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

opeller, dia.

16'-0"

Pitch

9'-6"

No. of blades

4

Material

Bronze

whether Moveable

no

Total Developed Surface 81 sq. feet

ethod of reversing Engines Direct

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

yes

Means of lubrication

forced Thickness of cylinder liners

53 to

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

yes

oling Water Pumps, No. 1 @ 170 tons/hr; 2 @ 120 tons/hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel

yes

ge Pumps worked from the Main Engines, No. one

Diameter 80 tons/hr

Stroke

80 tons/hr

Can one be overhauled while the other is at work

yes

umps connected to the Main Bilge Line

No. and Size 1 Bilge & Sanitary, 80 tons/hr

How driven

Main engine

Standby Bilge & Sanitary, 80 tons/hr

Steam

Ballast, 120 tons/hr

Steam.

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

rangements

allast Pumps, No. and size One 120 tons/hr

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

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

yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

umps, No. and size:—In Machinery Spaces

Port 3 1/2"; Starboard 3 1/2";

Aft well 3 1/2"

In Pump Room

Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 @ 6";

O.F. Transfer pump suction from Gutters, P.S. 2"

Cofferdam, 2 1/2"

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

yes

Are the Bilge Suctions in the Machinery Spaces

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

yes

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

Steel studs

Are they fitted with Valves or Cocks

both

re 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

re 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

That pipes pass through the bunkers

How are they protected

That pipes pass through the deep tanks

Have they been tested as per Rule

re 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

mpartment to another

yes

Is the Shaft Tunnel watertight

yes

Is it fitted with a watertight door

worked from

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

tain Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

uxiliary Air Compressors, No.

Two

No. of stages

2

Diameters 280 + 265 mm

Stroke 130 mm

Driven by

Steam engine

mall Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

That provision is made for first Charging the Air Receivers

Steam driven compressors.

cavenging Air Pumps, No.

Diameter

Stroke

Driven by

uxiliary Engines crank shafts, diameter

as per Rule
as fitted

all auxiliaries steam driven

Position

ave the Auxiliary Engines been constructed under special survey

Is a report sent herewith

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002457-002464-0216

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

C. 45365

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

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.

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

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)

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

The foregoing is a correct description,

FOR HARLAND AND WOLFF, LIMITED.

Manufacturer.

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

Dates of Examination of principal parts—Cylinders 19-2-42 Covers 19-2-42 Pistons 5-3-42 Rods 5-3-42 Connecting rods 13-3-42

Crank shaft 20-1-42 Flywheel shaft 20-1-42 Thrust shaft 20-1-42 Intermediate shafts 30-3-42 Tube shaft 20-1-42

Screw shaft 30-3-42 Propeller 30-3-42 Stern tube 30-3-42 Engine seatings 14-4-42 Engines holding down bolts 2-6-42

Completion of fitting sea connections 14-4-42 Completion of pumping arrangements 3-7-42 Engines tried under working conditions 9-7-42

Crank shaft, Material Steel Identification Mark 1117 P.F. Flywheel shaft, Material Steel Identification Mark

Thrust shaft, Material Steel Identification Mark S. 1436 P.F. Intermediate shafts, Material Steel Identification Marks S. 2930

Tube shaft, Material Steel Identification Mark S. 2830

Identification Marks on Air Receivers 45365 Lloyd's 585th. WP 356th, J.S.C. 26-2-42.

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 Vigilance. G.L. Rpt No. 65

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 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 + LMC 7.42 C.L. 2 DB. WP 150th.

The amount of Entry Fee .. £ 5 : - :
Special £ 98 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 21 JUL 1942
When received, 19

Committee's Minute GLASGOW 21 JUL 1942

Assigned - LMC 7.42 L.C. Eng.

2 DB 150th

P. Fitzgerald & G. E. Murdoch
Engineer Surveyors to Lloyd's Register of Shipping,



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