

Rpt. 4b. 1943

REPORT ON OIL ENGINE MACHINERY.

No. 52091.

9 AUG 1943

Received at London Office

Port of **HULL**

Date of writing Report

When handed in at Local Office

19

GAINSBOROUGH & HULL Date, First Survey **26. 1. 43.**

Last Survey

14. 6. 1943.

Number of Visits

No. in Survey held at
Reg. Book.

Single
on the **TR.V.5**
Triple
Quadruple

Screw vessel

H.M.

Tons } Gross
Net

Built at **GAINSBOROUGH.**

By whom built **J. S. Water (Gainsborough)**

Yard No. **1535** When built **1943.**

Engines made at **KEIGHTLEY.**

By whom made **H. Widdop & Co. Ltd**

Engine No. **4216** When made **1943.**

Donkey Boilers made at **None.**

By whom made

Boiler No. — When made —

Brake Horse Power **300.**

Owners **THE ADMIRALTY.**

Port belonging to

Nom. Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted **Yes.**

Trade for which vessel is intended

IL ENGINES, &c. Type of Engines **For particulars of Main 2 or 4 stroke cycle Single or double acting**
and Auxiliary Engines please see LEADS Rpt No 57.

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

Is there a bearing between each crank

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

Means of ignition

Kind of fuel used

Revolutions per minute

Flywheel dia.

Weight

Mid. length breadth

Thickness parallel to axis

Crank Shaft, { Solid forged
Semi built
All built

dia. of journals

as per Rule

as fitted

Crank pin dia.

as per Rule

as fitted

Crank Webs

Mid. length thickness

shrunk

Thickness around eyehole

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule

as fitted

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

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

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 **Yes.** If so, state type **Dr. No 3536. Approved 27.10.41** Length of Bearing in Stern Bush next to and supporting propeller **17 1/2** sq. feet

Propeller, dia. **56** Pitch **43** No. of blades **4** Material **C.I.** whether Moveable **Solid** Total Developed Surface **9** Means of lubrication

Method of reversing Engines

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

Are the exhaust pipes and silencers water cooled or lagged with

Main & Aux. Engines Exhaust up funnel.

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

Main & Aux. Engines Exhaust up funnel.

non-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.**

Cooling Water Pumps, No. **ME 4 1/2" Dia 3" Stroke**

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

or ME Bilge P. 4 1/2" x 3" ~ Aux. Driven G.S. Pump.

Diameter

Stroke

Can one be overhauled while the other is at work

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 **4 1/2" Dia 3" Stroke**, Centrifugal pump attached to **Pro. Auxiliary**

How driven

4 5" low Danks Pump.

Is 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 **Self Priming Centrifugal Pump.**

Ballast Pumps, No. and size **32 tons per hour @ 7 1/2" Dia**

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size **3 @ 1 1/4" Bore x 3" Stroke**

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

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

In Pump Room **None**

Pumps, No. and size:—In Machinery Spaces **3 @ 2 1/2" Bore.**

In Holds, &c. **3 @ 2 1/2"**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **3 @ 2 1/2"**

Are the Bilge Suctions in the Machinery Spaces

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

Are they fitted with Valves or Cocks **Yes.**

Are 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 **A.W.L.**

Are 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 **No. On Bl.**

What pipes pass through the bunkers **3 Hold suction, Fire Service, F.P. suction & Discharge.**

How are they protected **(Oil fuel under pipes not protected)**

What pipes pass through the deep tanks **None**

Have they been tested as per Rule

Yes.

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

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 **Yes.**

Is the Shaft Tunnel watertight **None**

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

What provision is made for first Charging the Air Receivers

Diameter

Stroke

Driven by

Scavenging Air Pumps, No.

as per Rule

as fitted

No.

Position

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

Is a report sent herewith

Have the Auxiliary Engines been constructed under special survey



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AIR RECEIVERS:—Have they been made under survey *Yes*.

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

State No. of Report or Certificate *See Leech Rpt.*

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?

Is the donkey boiler intended to be used for domestic purposes only

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *13-11-40*
(If not, state date of approval) *27-10-41*

Receivers *13-11-40* Separate Fuel Tanks *4-10-41*

Donkey Boilers —

General Pumping Arrangements

27-1-42

Pumping Arrangements in Machinery Space *10-3-42*

Oil Fuel Burning Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*.

State the principal additional spare gear supplied *A Specification.*

The foregoing is a correct description,

J. Mac Head
J. Mac Head & COMPANY LTD.
Manufacturer.

Manufacturer.

Dates of Survey while building
During progress of work in shops —
During erection on board vessel — *Jan 26, 29, Mar 8, Apr 14, May 16, 28, June 15, 14.*
Total No. of visits *8.*

Dates of Examination of principal parts—Cylinders —

Covers —

Pistons —

Rods —

Connecting rods —

Crank shaft —

Flywheel shaft —

Thrust shaft —

Intermediate shafts —

Tube shaft —

Screw shaft *16-5-42*

Propeller *29-1-43*

Stern tube *26-1-43*

Engine sealings *14-4-43*

Engines holding down bolts *14-4-43*

Completion of fitting sea connections *26-1-43*

Completion of pumping arrangements *28-5-43*

Engines tried under working conditions *28-5-43*

Crank shaft, Material —

Identification Mark

Flywheel shaft, Material —

Identification Mark

Thrust shaft, Material —

Identification Mark

Intermediate shafts, Material —

Identification Marks

Tube shaft, Material —

Identification Mark

Screw shaft, Material *F.I. Steel.*

Identification Mark *381 C.S.N. 16/5/42*

Identification Marks on Air Receivers

878568

54585.

D. 987.

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 —

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 *Watson Yard No 1527 (LCGS Rpt. 24)*

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

*This engine, having been constructed under Special Survey, of tested materials, is accordance with the Secretary's letter, approved plan and Rule requirements and the machinery and auxiliaries being now fitted on board and tried under full power at her moorings with satisfactory results in, in my opinion, eligible when closed, to have the records of *LMC-6.43. T.S.O.G.*

The amount of Entry Fee .. £ *29* :

Special Balance .. £ *27* :

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for,

When received,

Committee's Minute

FRI. 20 AUG 1943

Assigned

+ LMC 6.43 O.G.

J. Mac Head
Engineer Surveyor to Lloyd's Register of Shipping.



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