

REPORT ON OIL ENGINE MACHINERY.

No. 50553.

MAR 6 1940

5 MAR 1940

Received at London Office

Date of writing Report

When handed in at Local Office

Port of **HULL**No. in Survey held at
Reg. Book.

Date, First Survey

4. 12. 39.

Last Survey

10. 2.

1940

Number of Visits

10.

on the ~~Single~~
~~Triple~~
~~Quadruple~~ Screw vessel**"ALACRITY"**Tons { Gross 554
Net 283.

Built at

Goole

By whom built

The Goole Shipbuilding & Engineering Co. Ltd.

No. 347

When built

1940-

Engines made at

Newbury

By whom made

Newbury Diesel Co. Ltd.

Engine No. 726

When made

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

500

Owners

J. J. Everard & Sons Ltd.

Port belonging to

London

Nom. Horse Power as per Rule

139

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

boasting

IL ENGINES, &c.

Type of Engines

Heavy Oil, solid injection (L type) 2 or 4 stroke cycle 2 Single or double acting 5.9.

Maximum pressure in cylinders

700 lbs

Diameter of cylinders

320 7/8"

Length of stroke

426 7/8"

No. of cylinders

5

No. of cranks

5

Mean Indicated Pressure

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

448 7/8"

Is there a bearing between each crank

Yes

Revolutions per minute

300

Flywheel dia.

900 7/8"

Weight

885 lbs

Means of ignition

Compression

Kind of fuel used

Diesel oil

Crank Shaft,

Solid forged

dia. of journals

as per Rule

Alpha

Crank pin dia.

190 7/8"

Crank Webs

Mid. length breadth

252 7/8"

shrink

Thickness parallel to axis

Yes

All bolts

as fitted

190 7/8"

Intermediate Shafts, diameter

as per Rule

Alpha

as fitted

77 7/8"

Thrust Shaft, diameter at collars

as per Rule

Alpha

as fitted

7 1/2"

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

Alpha

as fitted

6 3/8"

Is the tube

screw

shaft fitted with a continuous liner

No

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

Newark type

Length of Bearing in Stern Bush next to and supporting propeller

30 1/2"

Propeller, dia.

6'-4"

Pitch

3'-8 1/2"

No. of blades

4

Material

Bronze

whether Moveable

Solid

Total Developed Surface

14 1/2

sq. feet

Method of reversing Engines

Direct

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

Yes

Means of lubrication

force

Thickness of cylinder liners

32 7/8"

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.

One - 11 1/2" x 12 1/4" DA and connection to auxiliary pump

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.

2

Diameter

11 1/4"

Stroke

12 1/4"

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

2 - 11 1/2 x 12 1/4"

How driven

Main engine

Aux. engine

Is the cooling water led to the bilges

Yes

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

None

Ballast Pumps, No. and size

One - 1 1/2" diam. bilge

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

One spare 12 1/2" x 11 1/4"

Are 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

4 @ 2 1/2" dia and one @ 2 3/8" dia

In Pump Room

In Holds, &c.

One peak 3" dia

Hold 3 @ 2 1/2" dia

After peak 2 1/2" dia

Ballast

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

One @ 2 3/4" dia included above

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

Yes

Are the Bilge Suctions in the Machinery Spaces

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

Yes

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

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

above

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

None

That pipes pass through the bunkers

None

How are they protected

Yes

That 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

On 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.

one

No. of stages

one

Diameters

110 7/8"

Stroke

110 7/8"

Driven by

Main engine

Auxiliary Air Compressors, No.

one

No. of stages

2

Diameters

2"

Stroke

11 1/2"

Driven by

Aux. engine (hand, starting)

Small Auxiliary Air Compressors, No.

one

No. of stages

one

Diameters

2"

Stroke

11 1/2"

Driven by

Main engine

What provision is made for first Charging the Air Receivers

The above aux. air compressor

Scavenging Air Pumps, No.

one

DA

Diameter

600 7/8"

Stroke

426 7/8"

Driven by

Main engine

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

No. (30 HP) 14 kw.

Position

Inside of CR.

Driven by

Main engine

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Yes

No. 2

See Rpt.

Newbury Diesel Eng. Co. Ltd. 112 7270 728.

003240-003244-00324

Ships Register
Foundation

AIR RECEIVERS:—Have they been made under survey

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

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Range of tensile strength

Working pressure by Rules

Seamless, lap welded or riveted longitudinal joint

Material

If so, is a report now forwarded?

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,

Manufacturer.

Dates of Survey while building

During progress of work in shops - - 1939. DEC. 4, 29,
During erection on board vessel - - 1940. JAN. 3, 8, 10, 16, 17, 24, FEB. 10,
Total No. of visits 10

Dates of Examination of principal parts—Cylinders *See Rpt* Covers *See Rpt* Pistons *See Rpt* Rods *See Rpt* Connecting rods *See Rpt*

Crank shaft *See Rpt* Flywheel shaft *See Rpt* Thrust shaft *See Rpt* Intermediate shafts *See Rpt* Tube shaft *See Rpt*

Screw shaft *See Rpt* Propeller 4-12-39 Stern tube *See Rpt* Engine seatings 29-12-39 Engines holding down bolts 8-1-40

Completion of fitting sea connections 4-12-39 Completion of pumping arrangements 10-2-40 Engines tried under working conditions 10-2-40

Crank shaft, Material *Steel* Identification Mark 10357 PK Flywheel shaft, Material *Steel* Identification Mark 4609 TO

Thrust shaft, Material *Steel* Identification Mark 4229 TOS Intermediate shafts, Material *Steel* Identification Mark 2030 TOS

Tube shaft, Material *Steel* Identification Mark *See Rpt* Screw shaft, Material *Steel* Identification Mark *See Rpt*

Identification Marks on Air Receivers

3 Riveted Air Recs. No 951-952-953 LLOYD'S TEST. 600 lbs WP. 400 lbs 10 One small Air Rec? 700510 LLOYD'S TEST 1000 lbs WP 500 lbs 9-1-39

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 *No* If so, have the requirements of the Rules been complied with *Yes*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Yes*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *SPIRALITY. Hull Rpt No. 50410*

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

The Machinery of this vessel has been fitted on board. under Special Survey in accordance with the Rules & the approved plans. The workmanship & materials are good & when tried under full working conditions it was found satisfactory in every respect & is eligible, in my opinion, to be classed with the records of L.M.C. 2-40-09.

The amount of Entry Fee .. £ : : When applied for, 5 MAR 1940
Special ... £ 11 : 6/8 :
Donkey Boiler Fee ... £ : : When received, 1-5-40
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

See Hull 25 50553
See L.M.C. 2-40-09



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