

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 19419.

Received at London Office

SEP 23 1937

Date of writing Report 21-9-1937

When handed in at Local Office 22-9-1937

Port of Leith.

No. in Survey held at Leith.

Date, First Survey 5-8-37

Last Survey 14-9-1937.

Reg. Book.

Number of Visits 14.

17803 on the Single Twin Triple

MOTOR Screw vessel

"JOSEPH FLINT."

Tons Gross 319.60
Net 164.68

Built at Leith

By whom built H. Robb, Ltd.

Yard No. 243 When built 1937

Engines made at Bologna

By whom made Humboldt-Heutzmotoren A.G.

Engine No. 419558/63. When made 1937

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 360

Owners United Africa Co. Ltd.

Port belonging to Lagos.

Nom. Horse Power as per Rule 104

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

Trade for which vessel is intended

ALL ENGINES, &c. Type of Engines

2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

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

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft, dia. of journals

as per Rule

Crank pin dia.

Crank Webs

Mid. length breadth

Thickness parallel to axis

Flywheel Shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

Thrust Shaft, diameter at collars

as per Rule

Stern Shaft, diameter

as per Rule

Screw Shaft, diameter

as per Rule

Is the

shaft fitted with a continuous liner

No.

Bronze Liners, thickness in way of bushes

as per Rule

Thickness between bushes

as per Rule

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

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

No.

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 1'-4 1/2"

Propeller, dia.

57"

Pitch varying

No. of blades 4

Material Bronze

whether Moveable

No.

Total Developed Surface 7.78 sq. feet

Method of reversing Engines

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

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Yes.

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

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.

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

Bilge Pumps worked from the Main Engines, No. 1-back by

Diameter 100mm

Stroke 60mm

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

1-35 tons/hr. capacity

How driven

Auxiliary engine

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

Ballast Pumps, No. and size 1-20 tons/hr.

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

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

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

Port Forward 1-2"

Starboard Forward 1-2"

Aft centre 1-2"

In Pump Room

In Holds, &c.

No. 2 hold Port 1-2 1/2"

Starboard 1-2 1/2"

Centre 1-2 1/2"

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Starboard 1-2 1/2"

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AIR RECEIVERS:—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

High Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

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?

No.

If so, is a report now forwarded?

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

PLANS.

Are approved plans forwarded herewith for Shafting *Sturgeon (yes)*

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

With Hull Report

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes

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--

During erection on
board vessel--

Total No. of visits

1937. Aug. 5-7-9-12-16-21-25-27-31. Sept. 1-3-6-11-14.

14.

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shafts

in place 9-8-37

Completion of fitting sea connections

in place 9-8-37

Stern tubes *in place 7-8-37*

Engine seatings

5-8-37

Engines holding down bolts

1-9-37 PORT & 6-9-37 STAR

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

Identification Mark

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

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

No.

If so, state name of vessel

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

This machinery - Jusseldorf Report N° 168 for Main Engines - Jusseldorf Rpt. N° 169 for Auxiliary Engine N° 432574/75 and Jusseldorf Rpt. N° 171 for Auxiliary Engine N° 426035 has been efficiently fitted on board, the materials and workmanship being sound and good. The Main and Auxiliary Machinery was finally tried out at sea, under full load and working conditions, and it was found satisfactory in all respects. Manoeuvring tests were carried out, & the capacity of the receivers was found to be in excess of the rule requirements. Safety valves have been fitted to the cylinder heads as previously recommended. Both Auxiliary Diesel Engine N° 426035 & 432574, which drive an air compressor, can be started by hand. In our opinion the Machinery of this vessel is eligible to be classed in the Register Book with the notation of *L.M.C. 9-37, bil engine.*

The amount of Entry Fee .. £

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

FRI 1 OCT 1937

Assigned

John Houston & J. Campbell
Engineer Surveyors to Lloyd's Register of Shipping.



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Foundation