

REPORT ON OIL ENGINE MACHINERY.

No. 44324.

31 OCT 1936

Received at London Office

30 OCT 1936

Port of

Date of writing Report

19

When handed in at Local Office

19

No. in Survey held at
Reg. Book.

67422

Single
Twin
Triple
Quadruple

Screw vessel

Goole

Date, First Survey

24th Aug 1936

Last Survey

23rd Oct 1936

Number of Visits

11

CRESCENCE

Tons { Gross 255.
Net 127.

Built at

Goole

By whom built

Goole Shipbuilding & Reps Co

Yard No.

319

When built

1936

Engines made at

Cologne

By whom made

Humboldt, Deutz, and others A.G.

Engine No.

382099

When made

1936

Donkey Boilers made at

Clyde

By whom made

Boiler No.

✓

When made

✓

Brake Horse Power

300

Owners

London & Rochester Trading Co

Port belonging to

Rochester

Nom. Horse Power as per Rule

70

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Coasting

OIL ENGINES, &c.—Type of Engines

Heavy Oil (R.V.C. M 345) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders

700 lb/sq in

Diameter of cylinders

280 mm

Length of stroke

450 mm

No. of cylinders

6

No. of cranks

6

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

307.5 mm

Is there a bearing between each crank

Yes

Revolutions per minute

300

Flywheel dia.

1250 mm

Weight

2600 kg

Means of ignition

Solid

Kind of fuel used

Heavy oil

Crank Shaft, dia. of journals

as per Rule 163.

as fitted 190 mm

Crank pin dia.

170 mm

Crank Webs

Mid. length breadth 325 mm

Mid. length thickness 70 mm

Thickness parallel to axis

Thickness around eyehole

✓

Flywheel Shaft, diameter

as per Rule 163.

as fitted 6 in

Intermediate Shafts, diameter

as per Rule 4.42

as fitted 4 5/8 in

Thrust Shaft, diameter at collars

as per Rule 118 mm

as fitted 140 mm

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 5.06

as fitted 5 1/8 in

Is the

tube screw

shaft fitted with a continuous liner

No liners

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

Cylindrical

Length of Bearing in Stern Bush next to and supporting propeller

20 1/2 in

Propeller, dia.

64 in

Pitch

46 in

No. of blades

4

Material

C.I.

whether Moveable

Solid

Total Developed Surface

9 1/4 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

Locked

Thickness of cylinder liners

25 mm

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

Cooling Water Pumps, No.

One & Cross

Connects to bilge pumps the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

What special arrangements are made for dealing with cooling water if discharged into bilges

All overboard

Bilge Pumps worked from the Main Engines, No.

One

Diameter

100 mm

Stroke

85 mm

Can one be overhauled while the other is at work

✓

Pumps connected to the Main Bilge Line

No. and Size

One 100 mm x 85 mm

How driven

Main Engine

One Rotary 50 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

One Rotary 40 tons/hr

Ballast Pumps, No. and size

2 Rotary

See above

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

One one spare (see above)

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

Pumps, No. and size:—In Machinery Spaces

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

2 2 1/2 in dia

In Holds, &c.

F.P. One 2 3/4 in dia

H.P. One 2 3/4 in dia

A.P. One 2 3/4 in dia

Tanks No. 1 3 2 3 in dia

No. 2 3 2 3 in dia

No. 3 3 2 3 in dia

No. 4 3 2 3 in dia

No. 5 3 2 3 in dia

No. 6 3 2 3 in dia

No. 7 3 2 3 in dia

No. 8 3 2 3 in dia

No. 9 3 2 3 in dia

No. 10 3 2 3 in dia

No. 11 3 2 3 in dia

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

2 2 1/2 in 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

Yes

led 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

What pipes pass through the bunkers

None

How are they protected

✓

What pipes pass through the deep tanks

None

Have they been tested as per Rule

✓

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

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.

One

No. of stages

2

Diameters

145 x 60 mm

Stroke

85 mm

Driven by

Main Engines

Auxiliary Air Compressors, No.

One

No. of stages

One

Diameters

3 1/4 in

Stroke

3 1/4 in

Driven by

Aux. Engine

Small Auxiliary Air Compressors, No.

One

No. of stages

One

Diameters

3 1/4 in

Stroke

3 1/4 in

Driven by

Hand starting

Scavenging Air Pumps, No.

One

Diameter

145 mm

Stroke

85 mm

Driven by

Main Engines

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

See Son Rpt D. 1509

No. —

One

Position —

Star Side Engine Room

✓

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yes

Can the internal surfaces of the receivers be examined and cleaned

Yes

Is a drain fitted at the lowest part of each receiver

Yes

High Pressure Air Receivers, No.

None

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.

2

Total cubic capacity

1000 litres

Internal diameter

450 mm

thickness

12 mm

Seamless, lap welded or riveted longitudinal joint

lap welded

Material

Steel

Range of tensile strength

38.4 kg/cm²

Working pressure

by Rules

IS A DONKEY BOILER FITTED?

None

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 13-2-35 & 15-4-36, Receivers 21-7-32, Separate Tanks 16-4-36

(If not, state date of approval)

Donkey Boilers

None

General Pumping Arrangements

1-5-36

Oil Fuel Burning Arrangements

✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State the principal additional spare gear supplied 1. Main bearing, 1 crank bearing, 1 fuel pump bearing, 1 complete fuel pump valve, 2 sets of suction & delivery valves for fuel pump. Various valve springs & fuel needles.

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

1936: - Aug 27, 31, Sept 5, 10, 25, 26, 28, Oct 9, 14, 15, 23.

11

Dates of Examination of principal parts—Cylinders Des Rpt Covers Des Rpt Pistons Des Rpt Rods ✓ Connecting rods Des Rpt

Crank shaft Des Rpt Flywheel shaft ✓ Thrust shaft Des Rpt Intermediate shafts 28-9-36 Tube shaft ✓

Screw shaft 31-8-36 Propeller 31-8-36 Stern tube 31-8-36 Engine seatings 31-8-36 Engines holding down bolts 28-9-36

Completion of fitting sea connections 5-9-36 Completion of pumping arrangements 15-10-36 Engines tried under working conditions 15-10-36

Crank shaft, Material Steel Identification Mark 12016 M.B. 1/4 Flywheel shaft, Material Steel Identification Mark ✓

Thrust shaft, Material Steel Identification Mark 180 H.R. 1/4 Intermediate shafts, Material Steel Identification Marks 16300. K.H. 545. C.S.P.

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel Identification Mark 345. C.S.P. 24/6/36

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

Not required

Is this machinery duplicate of a previous case

Yes

If so, state name of vessel

KESTOR. Hull Rpt No 47223.

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

The machinery of this Vessel has been satisfactorily fitted on board under Special Survey & is in accordance with the Rules & the approved plans, and is eligible, in my opinion to be classed with the record of 241 M.C. 10-36. 06 and to have the notations of Oil Eng. 4.S.C.S.A. 11" x 17 1/16" & Co. 70 N.H.

A new piston & liner has been received from Dusseldorf & fitted in place of the piston & liner used for the "Kestor" and the & the whole main & auxiliary machinery was found satisfactory when tried under working conditions

The amount of Entry Fee .. £

Special ...

Donkey Boiler Fee ...

Travelling Expenses (if any) £

When applied for,

30 OCT 1936

When received,

27. 45 1937

FRI. 6 NOV 1936

Committee's Minute

Assigned

+ LMC 10.36
Oil Engine
O.B.

Signature of Engineer Surveyor

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation