

REPORT ON OIL ENGINE MACHINERY.

No. 1003

Received at London Office

MAY -7 1940

Date of writing Report 16/4 1940 When handed in at Local Office 19 Port of Groningen
 No. in Survey held at Groningen Date, First Survey 11/0 1939 Last Survey 16/4 1940
 Reg. Book. Single on the Twin Screw vessel M.V. "LOLA" Number of Visits 9 Tons ^{Gross} 499 _{Net} 120
 Built at Westerbroek By whom built E. J. Smit Yard No. 661 When built 1940
 Engines made at Cologne By whom made Humboldt Deutz Motoren A.G. Engine No. 612549/56 When made 1939
 Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 400 Owners N.V. E. J. Smit & Zoon's Scheepswerk Port belonging to Hoogerzand
 Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended seagoing services

OIL ENGINES, &c.—Type of Engines Heavy oil engines 2 or 4 stroke cycle 4 Single or double acting single
please see Dudding report No 548.

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 300 Flywheel dia. ✓ Weight ✓ Means of ignition compression and of fuel used Diesel oil

Crank Shaft, ^{Solid forged} _{Semi built} _{All built} dia. of journals as per Rule ✓ as fitted ✓ Crank pin dia. ✓ Crank Webs Mid. length breadth ✓ shrink Thickness parallel to axis ✓ Mid. length thickness ✓ Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule ✓ as fitted 145 mm Thrust Shaft, diameter at collars as per Rule ✓ as fitted 160 mm

Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule ✓ as fitted 140/150 mm 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 no If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 630 mm

Propeller, dia. 1790 mm Pitch 1040 mm No. of blades 4 Material bronze whether Moveable no Total Developed Surface 45.75 sq feet

Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

forced 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 yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine to funnel

Cooling Water Pumps, No. 2 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. one Diameter 100 mm Stroke 100 mm Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line ^{No. and Size} one 100 x 100 mm ^{How driven} main engine one 50 1/2 h rotary one 70 1/2 h rotary 10 BHP aux 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 one 70 1/2 h Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 & 00 ltr/min.

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 2 & 2 1/2" 2 & 2 1/2" In Pump Room ✓

In Holds, &c. 4 & 2 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 & 2 1/2" are in plan

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

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 valves

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 ✓

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 Is the Shaft Tunnel watertight ✓ 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. one No. of stages 2 Diameters 125/110 mm Stroke 100 mm Driven by 2 cyl aux engine

What provision is made for first Charging the Air Receivers hand air compressor charging 50 l air vessel

Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule ✓ as fitted please see Dudding report No. 2 Eng No 631200/19 Eng No 620050

Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate *Dundee upat No 34*

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

Is a drain fitted at the lowest part of each receiver

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

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?

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

(If not, state date of approval)

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--

During erection on board vessel--

Total No. of visits

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

Stern tube

Engine seatings

Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions

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

Identification Marks on Air Receivers

LLOYD'S TEST No. 3960/3974
40.5 ATM
WP 30. ATM
HB 7-7-39

Nº 3987
LLOYD'S TEST
56 ATM
W.P. 35 A.T.M.
H.B. 18-7-39

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 *H.S. BUG Groningen upat No 70*

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

The machinery has been made under special survey and has been satisfactorily fitted on board in accordance with the approved plans Society's Rules and Secretary's letters and has been tried under full working condition and was found in a good working and manoeuvring order and is in my opinion eligible for the record of + L.M.E. 4-40 oilengines in the Society's Registerbook

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

Assigned *Strengthened for Nav. in Ice*
RL Inf.

Engine Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation