

REPORT ON OIL ENGINE MACHINERY.

No. 6735.

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of writing Report Various 19 When handed in at Local Office 12-2 19 51 Port of Oslo
 ment Survey held at Saen = Oslo Date, First Survey 16-9-50 Last Survey 30-12-50 19
 Book. Number of Visits
 241 Single M Screw vessel "SANTO" ex MMS 111 Tons Gross 163
on the Twin Triple Quadruple Net 56
 at Gosport By whom built J. Morris Yard No. When built 1942
 nes made at Manchester By whom made Crawley Bros Engine No. When made
 ey Boilers made at None By whom made Boiler No. When made
 e Horse Power 480 Owners All Mortensen Port belonging to Oslo
 Power as per Rule 155 NHP Is Refrigerating Machinery fitted for cargo purposes None Is Electric Light fitted Yes
 e for which vessel is intended Towing Purposes

ENGINES, &c. — Type of Engines Vertical trunk type 2 or 4 stroke cycle 2 Single or double acting Single
 mum pressure in cylinders 950 Diameter of cylinders 10 1/2 Length of stroke 13 1/2 No. of cylinders 8 No. of cranks 8
 Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured
 inner edge to inner edge 14 1/16 Is there a bearing between each crank Yes Revolutions per minute 325
 heel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition Compass Kind of fuel used Diesel
 k Solid forged dia. of journals as per Rule 7 1/2 Crank pin dia. 7 1/2 Crank webs Mid. length breadth 9 1/4 Thickness parallel to axis
Semi built as fitted 7 1/2 Mid. length thickness 3 23/32 shrunk Thickness around eye hole
All built
 heel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 5 7/16 Thrust Shaft, diameter at collars as fitted 3.699
 as fitted Shaft, diameter as per Rule 5 3/4 Is the tube shaft fitted with a continuous liner no
 as fitted Screw Shaft, diameter as fitted 5 3/4
 ze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the
 uller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 e 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-
 sive 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
 tube shaft Yes If so, state type Approved Not OG. See Oslo 21/4/51 Length of bearing in Stern Bush next to and supporting propeller 25"
 ells, dia. 5-10 Pitch 4'-0" No. of blades 3 Material Bronze whether moveable no Total developed surface 120 sq. feet
 nt of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted
 od of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of
 ation Forced Thickness of cylinder liners Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
 ged with non-conducting material Water ball If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 o the engine Cooling Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Pumps worked from the Main Engines, No. One Diameter 2 1/16 Stroke Can one be overhauled while the other is at work
 s connected to the Main Bilge Line No. and size One 2 1/16 Suction One 2" centrifugal Hammerhead
 How driven From M.E. Clutch drive from Auxiliary
 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
 ements
 t Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size Integral
 o independent means arranged for circulating water through the Oil Cooler no Grossly standard Yes Suctions, connected to both main bilge pumps and auxiliary
 umps, No. and size:—In machinery spaces 2 @ 2 1/2 In pump room
 s, &c. 2 Suction 2 1/2 2 @ 2 1/2
 endent Power Pump Direct Suctions to the engine room bilges, No. and size One 2 1/2
 l the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction pipes in the machinery spaces led from easily
 ble mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
 Sea Connections fitted direct on the skin of the Ship Yes Are they fitted with valves or cocks Cocks Are they fixed
 ntly high on the ship's side to be seen without lifting the platform plates no Are the overboard discharges above or below the deep water line above
 ey 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
 pipes pass through the bunkers None How are they protected
 pipes pass through the deep tanks None Have they been tested as per Rule
 pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 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
 or from one compartment to another Yes Is the shaft tunnel watertight None Is it fitted with a watertight door None worked from
 od vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Drain trays
 Air Compressors, No. 1 No. of stages 2 diameters 5 stroke driven by M.E.
 ry Air Compressors, No. 1 Hammerhead of stages 2 diameters 4 1/2 x 1 1/2 stroke 3 1/4 driven by Auxiliary Pile
 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 rovision is made for first charging the air receivers Auxiliary compressor Hand starting 5 ft driven from auxiliary engine
 ing Air Pumps, No. 1 Tandem diameter stroke driven by M.E. Hand starting
 ry Engines crank shafts, diameter as per Rule No. Cowling 2 cyl. N° 131438 Ingland 6 cyl. N° 20412
 as fitted Position P. side S. side
 e auxiliary engines been constructed under special survey no Is a report sent herewith

012246-012255-0065

AIR RECEIVERS:—Have they been made under survey

State No. of report or certificate

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

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

by Rules

Seamless, welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

by Rules

Seamless, welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

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)

Receivers

Separate fuel tanks

Donkey boilers

General pumping arrangements

Pumping arrangements in machinery space

Oil fuel burning arrangements

Have Torsional Vibration characteristics been approved

Date of approval

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

Engine holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions

Crank shaft, material

Identification mark

WFL 2-5-42

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

Welded receivers, state Makers' Name

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

Description of fire extinguishing apparatus fitted

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

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

The machinery of this vessel has been opened up and examined and found in good order. Modifications have been made to the general arrangements in accordance with the Rules and the Secretary's letters. The machinery is eligible in our opinion to vessel as now classed with fresh record of LMC 12.50 when the spare gear has been brought up to Rule Requirements.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

£ 480.00

£

£ 80.00

£

When applied for

12-2

1951

When received

19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

LMC 12.50
S (not OG) 12.50

REL 5 OCT 1951

CERTIFICATE WRITTEN.
(8.10.51)



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