

REPORT ON OIL ENGINE MACHINERY.

No. 16864

21 MAR 1949

Date of Report 14 March 1949 When handed in at Local Office

19 Port of Amsterdam

Received at London Office

No. in Survey held at Hoengelo

Date, First Survey 31 Oct '1945 Last Survey 1st March 1949

Reg. Book.

Number of Visits 30

Single
on the Twin
Triple
Quadruple
Screw Vessel

"ALTAIR"

Tons
Gross
Net

Built at West Hartlepool By whom built Wm. Gray Yard No. 1136 When built
Engines made at Hoengelo By whom made Gebr. H. H. & Co Engine No. 565A When made 1949
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 32.00 Owners Nieuvelt Goudriaan Port belonging to Rotterdam
Nom. Horse Power as per Rule 196 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines 2 C.C. & 2 H.C. Hesselman 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 5.8 kg/cm² 27.2 kg/cm² Diameter of cylinders 700 mm Length of stroke 1200 mm No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 5.65 kg/cm²

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 950 mm Is there a bearing between each crank Yes.
Revolutions per minute 115 Flywheel dia. 1572 mm Weight 4390 kg Means of ignition Compression Kind of fuel used Diesel oil

Crank { Solid forged as per Rule
Shaft, { Semi built dia. of journals as fitted 450 mm Crank pin dia. 450 mm Crank Webs Mid. length breadth 030 mm shrunk Thickness parallel to axis
All built 100 mm Central hole Mid. length thickness 170 mm Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { screw }

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 Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. 1572 mm Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines by an overhauling governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced Thickness of cylinder liners 50 mm 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. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size
How driven

Is the cooling water led to the bilges 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 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 In Pump Room

In Holds, &c. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks 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

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 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. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No. 1 Rotary Diameter 700 mm Stroke 1440 mm Driven by Main Engine Capacity = 2 x 27326 m³ p. mnt.

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

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

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

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 forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting

41-1-49

Receivers

Separate Fuel Tanks

(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

Torsional vibration characteristics of the shafting installation of this installation have been approved for a Service speed of 115 R.P.M. Notice Board to be fitted at the Control Station stating that the engine is not to be operated continuously below 33 R.P.M. tachometer be marked accordingly. See letter 12/2/49.

The foregoing is a correct description,

Koninklijke Machinesfabriek

Gebr. Stork & Co.

Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops

During erection on
board vessel

Total No. of visits

38

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

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 the vessel

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

Special Survey in accordance with approved plan and Society's Rules.

Material tested as required and workmanship found good.

The engine has been tested on makers test bench and found in order.

In my opinion the vessel for which the engine is intended will be

eligible for the notation of + L.M.C. with date when the

whole machinery has been fitted and tried under working

condition. The engine will be shipped to West Hartlepool.

Cert. of Crankshaft Enclosed

For T.V.C. see above

The amount of Entry Fee

£

When applied for,

Special

£

17-3 1949

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£

19

Committee's Minute

FRI. 1 SEP 1950

Assigned

See E. mch. rpt.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation