

Dpt. Rpt. 4b.

AUXILIARY REPORT ON OIL ENGINE MACHINERY.

No. 8017.

24 JUN 1929

Date of writing Report 20th June 1929 When handed in at Local Office

10

Port of

Copenhagen

No. in Survey held at
Reg. Book.

Copenhagen

Date, First Survey 26th Nov 1928 Last Survey 12th June 1929

Number of Visits 30

List

Single
✓ on the Twin
Triple
Quadruple } Screw vessel

(MITSUI 12.) Tons { Gross ✓
Net ✓

Built at Yama, Japan

By whom built Mitsui Bussan Kaisha

Yard No. 161 When built ✓

Auxiliary Engines made at Copenhagen

By whom made Mitsui Bussan Kaisha

Engine No. 1663 When made 1929

Donkey Boilers made at ✓

By whom made ✓

Boiler No. ✓ When made ✓

Brake Horse Power 144 - 53

Owners ✓

Port belonging to ✓

Net Horse Power as per Rule ✓

Is Refrigerating Machinery fitted for cargo purposes ✓

Is Electric Light fitted

Trade for which vessel is intended ✓

AUXILIARY
L ENGINES, &c.—Type of Engines Vertical Diesel Oil Engines, (Trunk type, Solid injection) 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 39 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders { 2 No. of cranks { 2
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 362 mm Is there a bearing between each crank No
Revolutions per minute 400 Flywheel dia. 1800 mm - 1200 mm - 2500 mm Weight 2710 kg Means of ignition Compression Kind of fuel used Crude oil flash point above 150° F
Crank Shaft, dia. of journals as per Rule 161.8 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 2 1/2" 350 mm Thickness parallel to axis ✓
as fitted 170 mm Mid. length thickness 95 mm Thickness around eye hole Solid forged.

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

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

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
as fitted as fitted as fitted

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

If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface 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 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

Boiling 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

Ballast Pumps, No. and size 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

Holds, &c.

Dependent 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-bones Are the Bilge Suctions in the Machinery Spaces

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 bulkheads 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

Are 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

apartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

On wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. 1 off to each engine No. of stages 2 Diameters 210 mm 176 mm 216 mm Driven by Auxiliary engines

All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Exhausting Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted Please see above.

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

Are the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces ✓

Is there a drain arrangement fitted at the lowest part of each receiver Yes.

High Pressure 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

Working Air Receivers, No. 1 off. Total cubic capacity 250 litres Internal diameter 16" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material 5M. Steel Range of tensile strength 31.85 tons/sq. inch Working pressure by Rules 25 ATM.

W1310 - 0212

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting *For crank shafts* (If not, state date of approval)

Receivers ✓

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR

as per accompanying list.

The foregoing is a correct description,

AKTIESELSKABET

BURMEISTER & WAINSKIN- OG SKIBSBYGGERI

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 26/11, 4/12, 28, 14/1, 16/1, 22/1, 24/1, 25/1, 26/1, 29/1, 30/1, 31/1, 1/2, 2/2, 14/2, 16/2, 22/2, 25/2, 26/2, 28/2, 29/2, 30/2, 31/2, 4/3, 26/3, 30/3, 8/4, 19/4, 3/5, 28/5, 12/6, 29/6.
During erection on board vessel - - }
Total No. of visits 30

Dates of Examination of principal parts—Cylinders *and* Covers 14/1, 22/1, 29/1, 29. Pistons 22/1, 3/1, 29 Rods ✓ Connecting rods 26/11, 4/12, 28, 7.
Crank shafts 26/11, 4/12, 28, 16/1, 29. 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 *S.M. Steel* Identification Mark *Q 16.1.29* 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 ✓

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 ✓

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 2 auxiliary engines as above described have been constructed under Special Survey and are in accordance with the Society's Rules, the approved plans and the requirements contained in the Secretary's letter E dated the 3rd Jan. 1929.

The material used in the construction of the engines and the air receiver have been tested as required by the Rules, either by us or as per test certificates produced.

The engines are direct coupled to a 35 H.W. and a 75 H.W. generator respectively, and have been tested under full power working condition on the test bed in the shop and found to work satisfactorily.

The amount of Entry Fee ... £ : : When applied for.
Special ... *£ 200.00* : : 22.6.1929.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 3.8.29

Committee's Minute

Assigned

FRI. 8 NOV 1929

Engineer Surveyor to Lloyd's Register of Shipping.



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