

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 8551.

Date of writing Report 22nd June 1931 When handed in at Local Office 24th June 1931 Port of Copenhagen Received at London Office 27 JUN 1931

No. in Survey held at Holby and Nakskov Date, First Survey 24/10/1930 Last Survey 19/6 1931

Reg. Book. 91530 on the Single Twin Triple Quadruple Screw vessel "Münster" Tons Gross 3113.04 Net 1739.32

Built at Nakskov By whom built Nakskov Skibvaerk Yard No. 43 When built 1931

Engines made at Holby By whom made Holby Dieselmotor Fabrik Engines No. 353 When made 1930-1

Donkey Boiler made at Nakskov By whom made Nakskov Skibvaerk Boiler No. 15 When made 1931

Brake Horse Power ✓ Owners Det Kongelige Højskole Port belonging to Copenhagen

Nom. Horse Power as per Rule ✓ Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted yes

Trade for which vessel is intended Ocean trade, Gen. Cargo

OIL ENGINES, &c. Type of Engines Diesel, trunk piston, air injection or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 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 360 mm Is there a bearing between each crank yes

Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2650 kg Means of ignition compression Kind of fuel used crude oil

Crank Shaft, dia. of journals as per Rule 161.8 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm da Thickness parallel to axis ✓

as fitted 170 mm Mid. length thickness 95 mm da Thickness around eye-hole ✓

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 ✓

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. ✓ 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 ✓

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 ✓

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 ✓ 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 A. B. C. Stroke ✓ Driven by ✓

Auxiliary Air Compressors, No. 3 No. of stages 3 Diameters 318 285 78 Stroke 170 Driven by auxil. Diesel engine

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

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

Auxiliary Engines crank shafts, diameter as per Rule ✓ No. — Position —

as fitted ✓

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. 3 Cubic capacity of each 27 litres Internal diameter 185 mm thickness 9.5 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. steel Range of tensile strength 59 Working pressure by Rules 123 kg/cm² Actual 65

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

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied

please see accompanying list.

The foregoing is a correct description,

AKTIESELSKABET
HOLEBY DIESEL MOTOR FABRIK

Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops - -
During erection on
board vessel - - -
Total No. of visits

24/10. 21/11. 12/12 1930. 23/2 1931.
11/3. 18/3. 27/3. 1/4. 13/4. 1/5. 13/5. 28/5. 11/6. 16/6. 17/6. 19/6. 1931.
16.

Dates of Examination of principal parts—Cylinders with Covers 12/12 Pistons 12/12 Rods ✓ Connecting rods 21/11. 12/12.
Crank shafts 21/11 Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings 20/2. 3/3 Engines holding down bolts 18/3. 27/3
Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions 23/2.
Crank shaft, Material S. H. ingot steel Identification Mark 21. 11. 30 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.

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

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

This auxiliary engine has been built and fitted under special survey and in accordance with the Society's Rules, the approved plans and the requirements contained in the Surveyor's letter dated 10/3/30. The material used for the construction has been tested and examined as per Rules and found good and the workmanship is good.

Each engine has been connected to a 66 kwts. dynamo, and on completion of the installation on board the vessel the engines were tested under full power working conditions and found to work satisfactorily.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

FRI. 3 JUL 1931

Assigned

See F. C. Rep.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation