

Rpt. 4b.

# Auxiliary REPORT ON OIL ENGINE MACHINERY.

No. 8362.  
15 OCT 1930

Date of writing Report

2/10

When handed in at Local Office

Port of

Received at London Office

Copenhagen.

No. in Survey held at  
Reg. Book.

Hobly and Odense.

Date, First Survey

29/1 1930

Last Survey

30/9

1930

Number of Visits

12.

 194/5 on the Single Twin Triple Quadruple Screw vessel

"Lase Mark."

 Tons { Gross 6184 4/1  
Net 5505. 04

 Built at Odense  
Engines made at Hobly
By whom built Odense HaabkibvæftYard No. 41 When built 1930By whom made Hobly Bismarck FabrikEngines No. 1831-2 When made 1930Donkey Boilers made at HarbingBy whom made Christiansen & SørensenBoilers No. 4915-18 When made 1930Brake Horse Power 2140Owners 9/10 Sørensen & Sørensen 1/10 Sørensen & SørensenPort belonging to NyborgNom. Horse Power as per Rule 490Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted yesTrade for which vessel is intended Ocean trade, carrying petroleum in bulk.

## AUXILIARY

OIL ENGINES, &c.—Type of Engines 4 S. C. S. A. Diesel, air injection 2 or 4 stroke cycle 4 Single or double acting singleMaximum pressure in cylinders 500 lbs. Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 2 No. of cranks 2Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank yesRevolutions per minute 400 Flywheel dia. 1240 mm Weight 2650 kg Means of ignition compression Kind of fuel used crude oilCrank Shaft, dia. of journals as per Rule 162 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm dia. Thickness parallel to axis 1

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 screw 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

Pumps, No. and size:—In Machinery Spaces Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

In Holds, &amp;c. In Pump Room

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

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

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. 2 No. of stages 3 Diameters 318-285-78 mm Stroke 170 mm Driven by alm. aux. engine

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

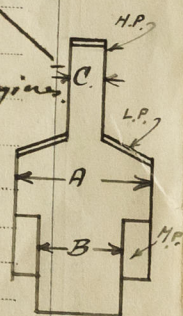
Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yesCan the internal surfaces of the receivers be examined and cleaned yesIs a drain fitted at the lowest part of each receiver yesHigh Pressure Air Receivers, No. 2 Cubic capacity of each 25 liter Internal diameter 7 1/4" thickness 3/8"Seamless, lap welded or riveted longitudinal joint solid drawn Material mild steel Range of tensile strength 31.2 t/a Working pressure by Rules 185 lbs./sq. in. Actual 60 atm.

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



002352-002361-0114

002352-002361-0116 2/2



IS A DONKEY BOILER FITTED? *yes 29/1* If so, is a report now forwarded? *yes*

Is the donkey boiler intended to be used for domestic purposes only *No.*

PLANS. Are approved plans forwarded herewith for Shafting *yes* Receivers *✓* Separate Tanks *yes*  
(If not, state date of approval)  
Donkey Boilers *No.* General Pumping Arrangements *yes* Oil Fuel Burning Arrangements *No.*

### SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

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 - -	<i>29/1. 3/2. 30/4. 1/5. 22/5. 23/6 30.</i>
	During erection on board vessel - -	<i>14/8. 25/8. 12/9. 18/9. 19/9. 30/9 30.</i>
	Total No. of visits	<i>12.</i>

Dates of Examination of principal parts—Cylinders *with* Covers *1/5* Pistons *1/5* Rods *✓* Connecting rods *29/1. 3/2. 30/4*

Crank shaft *29/1. 3/2. 30/4. 1/8* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *✓* Tube shaft *✓*

Screw shaft *✓* Propeller *✓* Stern tube *✓* Engine seatings *16/7. 1/8* Engines holding down bolts *14/8. 20/8*

Completion of fitting sea connections *28/6* Completion of pumping arrangements *18/9* Engines tried under working conditions *23/6. 18/9. 30/9*

Crank shaft, Material *S. 7. steel* Identification Mark *LLoyds N: 6/2 845- 430.4.30 51.8.30* 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. *yes.*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *yes.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *oil tanks.* 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.)

*These engines have been built under special survey and in accordance with the approved plan, the Society's Rules and the requirements contained in the Secretary's letter E. dated 10/10/1929. The material used for the construction has been examined and tested as per Rules and found good, and the workmanship is of good description throughout. The engines are each working a 66 h.p. dynamo, and after completion the engines were tested under full power working conditions, first in the shop and later on board the vessel, and found to work satisfactorily.*

The amount of Entry Fee	£ <i>4. 200. 00</i>	When applied for, <i>25/6 19. 30</i>
Special	£ <i>80. 00</i>	When received, <i>3/7 19. 30</i>
Donkey Boiler Fee		
Travelling Expenses (if any)		

Committee's Minute

TUE. 21 OCT 1930

Assigned

*See F. E. Rpt.*

*A. C. Dubouché, Chairman.*  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation