

# Auxiliary REPORT ON OIL ENGINE MACHINERY.

No. 8362.  
15 OCT 1930

Date of writing Report 2/10 1930 When handed in at Local Office 10 Port of Copenhagen  
No. in Survey held at Holby and Odense Date, First Survey 29/1 1930 Last Survey 30/9 1930  
Reg. Book. 194/15 on the Single Screw vessel "Lase Marsk" Number of Visits 12

Tons { Gross 6184.41  
Net 5505.04

Built at Odense By whom built Odense Haabskibvaeft Yard No. 41 When built 1930  
Engines made at Holby By whom made Holby Dieselmotor Fabrik Engines No. 1831-2 When made 1930  
Donkey Boilers made at Harting By whom made Christiansen & Lange Boilers No. 49/5 When made 1930  
Brake Horse Power 2140 Owners 1/2 Soudborg & 1/2 as of 1912 Port belonging to Nyborg  
Nom. Horse Power as per Rule 490 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
Trade 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 single

Maximum pressure in cylinders 500 lbs. 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 162 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm dia. Thickness parallel to axis shrunk Mid. length thickness 95 mm Thickness around eye-hole 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 { 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

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

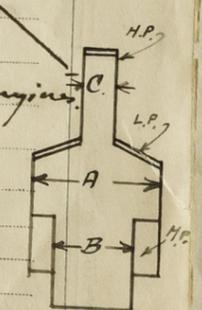
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 318-285-78 Stroke 170 mm Driven by alm. auxil. engine  
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

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 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. 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. = 104.5 atm. 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 2 off.* 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.*  
 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 DIESELMOTORFABRIK Manufacturer.

Dates of Survey while building  
 During progress of work in shops - *29/1. 3/2. 30/4. 1/5. 22/5. 23/6 30.*  
 During erection on board vessel - *14/8. 25/8. 12/9. 18/9. 19/9. 30/9 30.*  
 Total No. of visits *12.*

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 *23/6* Completion of pumping arrangements *18/9* Engines tried under working conditions *23/6. 18/9. 30/9*  
 Crank shaft, Material *S. 17. steel* Identification Mark *LLOYD'S N: 612 845- 30. 4. 30 1. 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.*

Certificate (if required) to be sent to  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

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

*A. C. Deane*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned *See F. E. Rpt.*  
 TUE. 21 OCT 1930

