

REPORT ON OIL ENGINE MACHINERY.

No. 4341

-7 DEC 1936

Received at London Office

Date of writing Report 4th Dec 1936 When handed in at Local Office 10 Port of Stockholm
No. in Survey held at Sickla, Skm District Date, First Survey 31/1/36 Last Survey 23/11/ 1936
Reg. Book. Number of Visits 3

on the Single Double Triple Quadruple Screw vessel HOLMDALE Tons Gross Net

Built at Stockholm By whom built A.B. Atlas-Diesel Yard No. 85501 When built 1936
Engines made at Stockholm By whom made A.B. Atlas-Diesel Engine No. ✓ When made 1936
Donkey Boilers made at Stockholm By whom made Messrs. Boving & Co. Ltd. Boiler No. ✓ When made 1936
Brake Horse Power 725 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓
Nom. Horse Power as per Rule 157 Trade for which vessel is intended MN 163 13 3/4 22 1/2

II. ENGINES, &c. Type of Engines Polar Diesel Oil Engine, type M45112 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 55 kg/cm² Diameter of cylinders 340 mm Length of stroke 570 mm No. of cylinders 5 No. of cranks 5
Mean Indicated Pressure 6.2

Bearings, adjacent to the Crank, measured from inner edge to inner edge 478 mm Is there a bearing between each crank Yes

Revolutions per minute 250 Flywheel dia. 1320 mm Weight 2250 kg Means of ignition Compression Kind of fuel used Crude oil

Crankshaft, dia. of journals as per Rule 220 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 308 mm Thickness parallel to axis shrunk
as fitted 220 mm Mid. length thickness 122 mm Thickness around eyehole shrunk

Flywheel is as fitted on the thrust shaft. Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted 260 mm

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

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 stern
as fitted as fitted

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes

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 Yes

Are the liners 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

Means of reversing Engines Compressed air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Oil

Thickness of cylinder liners 27.0 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

insulating material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes

Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. 1 Diameter 135 mm Stroke 140 mm (Double acting) Can one be overhauled while the other is at work Yes

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

Is 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

Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

and size:—In Machinery Spaces In Pump Room

Power Pump Direct Suctions to the Engine Room Bilges, No. and size Are the Bilge Suctions in the Machinery Spaces

Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

Readily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Are the Bilge Suctions in the Machinery Spaces

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

Are 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 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

Are they protected How are they protected

Have they been tested as per Rule Have they been tested as per Rule

Are Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Are they tested as per Rule

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 Are they tested as per Rule

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

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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. None fitted 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. 2 Total cubic capacity 1600 litres Internal diameter 650 mm thickness 14 mm ✓
Seamless, lap welded or riveted longitudinal joint Riveted Material S.M. Steel Range of tensile strength 41.44 kg/mm² Working pressure _____ by Rules Actual 25 kg/cm²

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. See Secretary's letters. Are approved plans forwarded herewith for Shafting E 29/4/36 Receivers 6/8/30 Separate Tanks _____
(If not, state date of approval)

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 _____

As per enclosed list. The spare gear has been examined before it was despatched.

NOTE. The additional water circulating pump will be delivered by the Shipbuilders. 2 lubricating oil pumps fitted.

The foregoing is a correct description,

AKTIEBOLAGET ATLAS DIESEL

G. Jacobson

Manufacturer.

Dates of Survey while building { During progress of work in shops-- 31. 15. 15.22. 9. 7.20.22. 2.9.13. 9.23.36
During erection on board vessel-- 1 3 4 5 7 10 "
Total No. of visits 13 in shop.

Dates of Examination of principal parts—Cylinders 9. 9.36 Covers 9. 9.36 Pistons 9. 9.36 Rods _____ Connecting rods 5. 15. 9. 7.20
Crank shaft 22. 9. 9.36 Sea air pump shaft 31. 9. 9.36 Thrust shaft 7.20. 9.36 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 in shop 13/10
Crank shaft, Material S.M. Steel Identification Mark LLOYDS No 6648 Sea air pump shaft, Material S.M. Steel Identification Mark LLOYDS No 665
Thrust shaft, Material S.H. Steel Identification Mark K.R. 9.5.36 Intermediate shafts, Material _____ Identification Marks K.R. 9.5.36
Tube shaft, Material _____ Identification Mark LLOYDS No 6703 Screw shaft, Material _____ Identification Mark K.R. 20.7.36

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 Yes If so, state name of vessel. See Mem. Rpt. 4314.

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

I am of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under Special Survey. I have respectfully to submit that it be classed LHC, as soon as it has been fitted into the vessel to the satisfaction of the Society's Surveyors.

The amount of Entry Fee .. £ : : When applied for, _____
Special £ 610.- : : 19
Donkey Boiler Fee ... £ : : When received, _____
Travelling Expenses (if any) £ : 2.50 : : 19

Committee's Minute

Assigned

Not for Classing Committee

K. J. Andersson
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation