

COPY.

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY

No. 4341

MAY 18 1937

Received at London Office

Date of writing Report 4th Dec. 1937 When handed in at Local Office

Port of Stockholm.

No. in Survey held at Sidska, Skov. District
Reg. Book.

Date, First Survey 31/1/36

Last Survey 23/11/1936

Number of Visits 13

on the Single
Screw vessel "HOLMDALE".
Triple
QuadrupleTons { Gross
Net

Built at By whom built Yard No. 85501 When built
Engines made at Stockholm By whom made R.B. Atlas-Diesel Engine No. V When made 1936
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 725 Ordered by Messrs. Bowring & Co. Ltd. Port belonging to Wellington.
Nom. Horse Power as per Rule 157 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

IL ENGINES, &c. Type of Engines Polar Diesel Oil Engine, type M45M 2 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 55 kgs/cm² Diameter of cylinders 340 mm Length of stroke 570 mm No. of cylinders 5 No. of cranks 5
Mean Indicated Pressure 6.2
Span of 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 kgs Means of ignition Compression Kind of fuel used Marine Diesel Oil.
Crank Shaft, dia. of journals as per Rule 220 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 308 mm Thickness parallel to axis
as fitted 220 mm Mid. length thickness 122 mm shrunk Thickness around eyehole
The Flywheel is fitted on the thrust shaft.
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as per Rule
as fitted 260 mm

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner {
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
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 Compressed air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Pumps Thickness of cylinder liners 27 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
non-conducting 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

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

Bilge Pumps connected to the Main Bilge Line { No. and Size
How driven
the cooling 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
arrangements

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

Holds, &c.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 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
all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
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
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
at pipes pass through the bunkers How are they protected
at pipes pass through the deep tanks Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
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
partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
For starting air
in Air Compressors, No. 1 No. of stages 2 Diameters 175/70 mm Stroke 350 mm Driven by Main engine
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
all Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
venting Air Pumps, No. 1 Diameter 850 mm Stroke 350 mm Driven by Main engine
Auxiliary Engines crank shafts, diameter as per Rule No.
as fitted Position

Lloyd's Register
Foundation

008628-008633-0297

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/cm² 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. Are approved plans forwarded herewith for Shafting See Secretary's letter E 29/4/36 Receivers 6/8/30 Separate Fuel Tanks
(If not, state date of approval)
Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space
Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied } As per enclosed list. The spare gear has been
State the principal additional spare gear supplied } examined before it was despatched.
NOTE. The additional water circulating pump
will be delivered by the Ship Builders.
2 lubricating oil pumps fitted.

The foregoing is a correct description,
AKTIEBOLAGET ATLAS DIESEL
G. Jacobsson

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, 11
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 9, 9 36 Connecting rods 15, 15, 9, 7, 20
Crank shaft 22, 9, 9 36 Scav. air pump 9, 9 36 Flywheel shaft 9, 9 36 Thrust shaft 7, 20, 9 36 Intermediate shafts 9, 9 36 Tube shaft 9, 9 36
Screw shaft 4, 5 11 Propeller 1, 5 11 Stern tube 1, 5 11 Engine seatings 1, 5 11 Engines holding down bolts 1, 5 11

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions in shop 13/10/37
Crank shaft, Material S.M. Steel Identification Mark LLOYDS N° 6648 Scav. air pump S.M. Steel Identification Mark LLOYDS N° 6648
Thrust shaft, Material S.M. Steel Identification Mark K.A. 9-5-36 Flywheel shaft, Material S.M. Steel Identification Mark K.A. 9-5-36
Tube shaft, Material Identification Mark LLOYDS N° 6703 Intermediate shafts, Material Identification Marks K.A. 9-5-36
Screw shaft, Material Identification Mark K.A. 20-7-36

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
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 Please see Skm. Rpt. N° 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 +LMC, as soon as it has been fitted into the vessel to the satisfaction of the Society's Surveyors.

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, 19
Special AK. 610:- : :
Donkey Boiler Fee ... £ : : When received, 19
Travelling Expenses (if any) AK. 2:50: 3-3 19

Committee's Minute

Assigned Not for Classing
ACK H. K. L.

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



© 2020
Lloyd's Register
Foundation