

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 3225

Received at London Office 11 APR 1930

Date of writing Report 8 April 1930 When handed in at Local Office

Port of Stockholm

No. in Survey held at SICKLA, SWED. DIST. Reg. Book.

Date, First Survey 12 Dec. 1929 Last Survey 4 April 1930

Number of Visits 6

on the Single }
Twin }
Triple }
Quadruple } Screw vessel

Tons } Gross 6074
Net 3575

Built at By whom built Yard No. When built
Engines made at Stockholm By whom made Aktiel. Atlas Diesel Engine No. 80367 When made 1930
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 50 Owners Aktiel. Atlas Diesel Port belonging to London
Nom. Horse Power as per Rule 23 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines Stationary Diesel Oil Engine (Type 1429) 2 or 4 stroke cycle Single or double acting
Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 290 mm. Length of stroke 410 mm No. of cylinders 1 No. of cranks 1
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 454 mm. Is there a bearing between each crank
Revolutions per minute 275 Flywheel dia. 1400 mm Weight 1185 kg. Means of ignition Compression Kind of fuel used Prude oil
Crank Shaft, dia. of journals as per Rule 164 mm Crank pin dia. 165 mm. Crank Webs Mid. length breadth 220 mm. Kind of fuel used Prude oil
Flywheel Shaft, diameter as fitted Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
Tube Shaft, diameter as fitted Screw Shaft, diameter as fitted Is the { tube } shaft fitted with a continuous liner { screw }
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes 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
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 Yes Means of lubrication pumps
Thickness of cylinder liners none fitted Are the cylinders fitted with safety valves Yes 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. 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. 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 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. none fitted No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
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 400
Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces mudhole 120 mm.
Is there a drain arrangement fitted at the lowest part of each receiver yes
High Pressure Air Receivers, No. none fitted solid injection Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
Starting Air Receivers, No. 1 Total cubic capacity 100 litres Internal diameter 340 mm thickness 15 mm Working pressure by Rules
Seamless, lap welded or riveted longitudinal joint lap welded Material S. M. Steel Range of tensile strength 38 kg as a min. Working pressure by Rules

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *E. 27.4.25*
(If not, state date of approval)

Receivers *25.10.26*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *as per list approved on the 4th Febr. 1926. will be inspected when machinery is being fitted in ship.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops - -	<i>5/12/24, 17/1, 19/2, 22/3, 10/4/1930.</i>
During erection on board vessel - - -	
Total No. of visits	<i>in shop 6.</i>

Dates of Examination of principal parts—Cylinders *with* Covers *22 1/4 30* Pistons *1/4 30* Rods Connecting rods *1 1/2 2 1/4*

Crank shaft *5-29 17 19 1* Flywheel shaft Thrust shaft 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 22 1/3 10*

Crank shaft, Material *S. N. Steel* Identification Mark **LLOYD'S N:05844 A.I. 19.2.30** 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.

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *see Gen. report no. 3219.*

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 approved as auxiliary to a classed main engine.

This Engine has been fitted on board the M.V. "KIM".

L. Pickett.

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 ... <i>218.40</i>	:	:	8.4. 1930
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £ <i>28.-</i>	:	:	30.6. 1930
<i>Total Per. 246.40</i>			

Committee's Minute

TUE. 2 SEP 1930

Assigned

See F. E. Rep.

A. Bakson
Engineer Surveyor to Lloyd's Register of Shipping.
Assisted by Mr. K. J. Andersson
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