

REPORT ON OIL ENGINE MACHINERY.

No. 19824

11 APR 1931

Received at London Office

Date of report 31. 3. 1931 When handed in at Local Office

Port of HAMBURG

No. in Survey held at
Reg. Book.

KIEL

Date, First Survey 18th Nov 1929 Last Survey 30th March 1931

Number of Visits 39

Single
on the Twin
Triple
Quadruple

1 OIL ENGINE FOR STUCK.

See Ham. Ltr 27/12/32

Tons { Gross
Net

Built at

By whom built

Deutsche Werke

Yard No. 228 When built

Engines made at

KIEL

By whom made DEUTSCHE WERKE KIEL A.G. Engine No. 456-63 When made 1931

Donkey Boilers made at

By whom made

Boiler No. — When made —

Brake Horse Power 3200

Owners DEUTSCHE WERKE KIEL A.G Port belonging to

Nom. Horse Power as per Rule 672

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines DEUTSCHE WERKE DIESEL MOTOR - 14075 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 $\frac{kg}{cm^2}$ Diameter of cylinders 750 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1000 mm

Is there a bearing between each crank yes

Revolutions per minute 115 Flywheel dia. 2770 Weight 16400 kg Means of ignition Diesel principle Kind of fuel used gas oil

Crank Shaft, dia. of journals as per Rule 477 mm as fitted 480 mm Crank pin dia. 480 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 300 mm Mid. length thickness Thickness around eye hole 209 mm

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 430 mm

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

Liner, 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

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 direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced Thickness of cylinder liners 75 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged 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 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. 1 No. of stages 3 Diameters 700/620/140 Stroke 670 mm Driven by Main Engine

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

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. 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. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

003721-003733-0060

© 2021

Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting..... **23. 9. 29.**
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *no spare gear*

The foregoing is a correct description,

DEUTSCHE WERKE KIEL
AKTIENGESELLSCHAFT

Manufacturer.

Dates of Survey while building	During progress of work in shops--	<u>1929</u> Nov. 11. Dec. 9. 19. <u>1930</u> Jan. 6. 10. 15. 18. 20. 29. 31. Febr. 3. 5. 10. 19. March 19. 24. 29.
	During erection on board vessel--	April 4. 11. 14. 17. 22. 25. 28. May 2. 6. 16. 19. 23. 26. June 2. 25. 27. 30. July 14. 18. 21. <u>1931</u> March 27. 30.
	Total No. of visits	39

Dates of Examination of principal parts—Cylinders 14/4, 25/4. 30 Covers 19/3-28/4. 30 Pistons 26/5. 30 Rods 15/1. 30 Connecting rods 5.2.30

Crank shaft 22.4.30 Flywheel shaft ✓ Thrust shaft 25.4.30 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.....

Crank shaft, Material *S. M. Steel* Identification Mark *No 207-9, F. S. 18.3.36* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *S. M. Steel* Identification Mark *G & L 8054/806* Intermediate shafts, Material *W* Identification Marks *W*

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.....

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 _____

Is this machinery duplicate of a previous case no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This Engine has been built under Special Survey in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules. The Materials used in the construction are made of works recognized by the Committee and tested by the Port Surveyors. The thrust shaft has been tested by the Germanischer Lloyd. In the crank shaft dowel pins have not yet been fitted. This Engine has been tried on test bed under full load conditions and has given full satisfaction. Materials & workmanship are of good quality. The Engine will be placed on stock for sale. This engine will be eligible in my opinion for notation of * LMC with date when fitted on board.

Accepted without demurs

The amount of Entry Fee	...	£	✓	:	—	:	When applied for,
Special	...	(45) £	86	:	18	:	31. 3 19 31
Donkey Boiler Fee	...	£		:		:	When received,
Travelling Expenses (if any)	£	19	:	12	:		30. 4. 19 31

Committee's Minutez

Assigned

Not for Classific.
Committee

A. Parstensen
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 27 APR 1934

FRI. 26 JAN 1934

TUE. 3 JUL 1934

TUE 16 OCT 1934

Lloyd's Register
Foundation