

REPORT ON OIL ENGINE MACHINERY.

No. 2056.

SEP 26 1938

Received at London Office

Date of writing Report 16.9.38. 19 When handed in at Local Office 20.9. 1938. Port of Bremen.
No. in Survey held at 1938. Date, First Survey 3rd April 1937 Last Survey 16th Sept. 1938
Reg. Book. *1938* Number of Visits 123.
on the Single }
Twin } Screw vessel
Triple }
Quadruple }
Built at Hamburg By whom built Messrs. Deutsche Werft AG Yard No. 204 When built 1937/38
Engines made at 1938 By whom made Messrs. M. P. U. Engine No. 690190 When made 1937/38
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 4100 Owners Port belonging to
Nom. Horse Power as per Rule 1001 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended 997 2674 474

OIL ENGINES, &c. Type of Engines

Maximum pressure in cylinders 45 kg/cm² 2 or 4 stroke cycle 2 Single or double acting single
Mean Indicated Pressure 5.6 Diameter of cylinders 680 mm Length of stroke 120 mm No. of cylinders 8 No. of cranks 8
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 925 mm Is there a bearing between each crank yes
Revolutions per minute 115 Flywheel dia. 2100 mm Weight 4380 kg Means of ignition dis. ign. Kind of fuel used
Crank Shaft, { Solid forged as per Rule Crank pin dia. 460 mm Crank Webs Mid. length breadth 880 mm Thickness parallel to axis 285 mm
Semi built dia. of journals as fitted 460 mm shrunk Mid. length thickness 285 mm Thickness around eyehole 205 mm
All built

Flywheel Shaft, diameter as per Rule as fitted 460 mm 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

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 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 by compound Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication
forced Thickness of cylinder liners 43 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

Is 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 main engine Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1; 38 m³/h.

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 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

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No. 1; 1/2 in. Diameter 1380 mm Stroke 850 mm Driven by main eng.

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

Have the Auxiliary Engines been constructed under special survey Is a report sent herewith

W1196-0014

First Landing
Hamburg Report No. 22995
Inspector

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Lloyd's Register
Foundation

State No. of Report or Certificate

Is a drain fitted at the lowest part of each receiver

Internal diameter ✓ thickness

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

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 12th. 9. 36.
(If not, state date of approval.)

Receivers ☒ Separate Fuel Tanks

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 not yet ready

State the principal additional spare gear supplied

The foregoing is a correct description,

Maschinenfabrik Augsburg-Nürnberg A.-G.

Manufacturer.

Dates of Survey while building		Remarks
During progress of work in shops -	1937 April. 3. 9. 21. 22. 26. June 8. 9. 23. 28. 30. July 13. 14. 23. 29. Nov. 8. Dec. 3. 15. 1938 Jan. 14. 19. 21. 22. 28. Feb. 5. 7. 28. March. 2. 3. 4. 5. 28. 29. 30. April. 1. 2. 4. 5. 6. 7. 8. 9. 11. 12. 13. 14. 20. 21. 22. 23. 25. 28.	
	30. 31. June 1. 4. 7. 8. 9. 13. 14. 17. 18. 20. 22. 24. 25. 27. 28. July 1. 4. 5. 6. 7. 11. 12. 14. 18. 19. 20. 26. 27. 28. 30. Aug. 1. 2. 3. 4. 5. 6. 8.	
	9. 10. 12. 13. 15. 16. 22. 23. 24. 27. Sept. 1. 2. 3. 5. 6. 7. 8. 9. 10. 12. 14. 16.	
During erection on board vessel - -		
Total No. of visits	123.	

Dates of Examination of principal parts—Cylinders 27.7./2.8.38. Covers 14.4/13.12.6.38. Pistons 29.3./31.5/14.7.38. Rods 9.12.8.38. Connecting rods 8.8.38.

Crank shaft 19-7-38. Flywheel shaft 9-9-38. 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 ✓

Crank shaft, Material *S. M. steel* Identification Mark *K. S. 1558/1559* Flywheel shaft, Material *S. M. steel* Identification Mark *M. B. 13128*
24-4-38 *24-5-37*

Thrust shaft, Material	Identification Mark	Intermediate shafts, Material	Identification Marks
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Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Identification Marks on Air Receivers

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 Messrs. Deutsche Kraft's gear's No 201, 202, 203

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

This heavy oil main engine has been constructed under special survey in accordance with the Soc. Rules and Regulations, as well as with the approved plans, and instructions thereto. The material used in the construction is good, and the workmanship is satisfactory.

This engine has not been tested on the makers' test bed.

In our opinion the vessel for which this engine is intended will be eligible for the notation of + L. M. C. (with date) when the whole machinery has been fitted satisfactorily on board, and tried under full working conditions.

The amount of Entry Fee	Rs 96.00	When applied for,
Special ...	Rs 2000.40	24.9.19.32
Donkey Boiler Fee	Rs :	When received,
Travelling Expenses (if any)	Rs 142.60	4.11.19.38

McCluskey W. Petersen.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Harn J.E. 22995

Engineer S

LR

Certificate (if required) to be sent to