

REPORT ON OIL ENGINE MACHINERY.

No. 1243.

Received at London Office 28 MAR 1930
 Report 21st March 1930 When handed in at Local Office 21st March 1930 Port of Bremen

Survey held at Augsburg Date, First Survey 1st June 1929 Last Survey 20th March 1930
 Number of Visits 68

Single }
 Twin }
 Triple } Screw vessel
 Quadruple }

By whom built Yokohama Dock Yard Yard No. 179 When built 1929/30
 By whom made Masch'fabrik Augsburg-Nürnberg Engine No. 330340 When made 1929/30

By whom made
 Owners. Kishimoto Kisen Kaisha
 Port belonging to Osaka

Power 2 x 3750
 Power as per Rule 2350 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

VES, &c.—Type of Engines 2 x 56 2 1/2 60/90
 2 or 4 stroke cycle 2 Single or double acting double

in cylinders 45 atw Diameter of cylinders 600 mm Length of stroke 900 mm No. of cylinders 2 x 6 No. of cranks 2 x 6
 adjacent to the Crank, measured from inner edge to inner edge 855 mm

minute 130 Flywheel dia. 2100 mm Weight 3400 kg Means of ignition Solid Injection Kind of fuel used Min. oil
 as per Rule 420 mm Crank pin dia. 420 mm Crank Webs Mid. length breadth 560 mm Thickness parallel to axis
 as fitted 420 mm M. d. length thickness 235 mm Thickness around eyehole

Intermediate Shafts, diameter as per Rule 320 Thrust Shaft, diameter at collars as per Rule
 as fitted 362 as fitted 380 mm

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

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

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

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

Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
 versing Engines directly, Comp. air Is a governor or other arrangement fitted to prevent racing of the engine when declutched governor Means of lubrication

thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes, 2 Are the exhaust pipes and silencers water cooled or lagged with
 material water cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Pumps, No. 2 x 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 74 m³/h, 50 inch height
 to the Main Bilge Line No. and Size How driven Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size means arranged for circulating water through the Oil Cooler yes
 size:—In Machinery Spaces

ower Pump Direct Suctions to the Engine Room Bilges, No. and size
 Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

ccessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 nections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

iently 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
 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

rough the bunkers How are they protected
 rough the deep tanks Have they been tested as per Rule

ks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 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

ther Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
 hat means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

ressors, No. No. of stages Diameters Stroke Driven by
 mpressors, No. 2 No. of stages 3 Diameters 360/305/105 mm Stroke 250 mm Driven by electric motor

Air Compressors, No. 1 No. of stages 2 Diameters 100/35 Stroke 100 Driven by Diesel engine
 Air Pumps, No. 3 turbo Homers Diameter Stroke Driven by

Engines crank shafts, diameter as per Rule 170 mm
 as fitted

REIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 al surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces bottom openings

in arrangement fitted at the lowest part of each receiver yes
 ire Air Receivers, No. Cubic capacity of each Internal diameter thickness

welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
 Receivers, No. 1 for aux. engines Total cubic capacity 400 lbs Internal diameter 405 mm thickness 17.5 mm
 welded or riveted longitudinal joint seamless Material S. M. Steel Range of tensile strength 44-50 kg/cm² Working pressure by Rules 10 kg/cm²

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers *yes*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *In accordance with the Society's Rules and Regulations*

The foregoing is a correct description,

Maschinenfabrik Augsburg-Nürnberg A.G.

Manufacturer.

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

Dates of Examination of principal parts—Cylinders *Dec 23. 24 Jan. 9. 10. 13* Covers *Dec. 12. 23. 24. 30 Jan. 2. 3. 4. 10. 11. 13* Pistons *Nov. 26 Dec. 12. 23* Rods *23. 12. 29* Connecting rods *24. 12. 29*
Crank shafts *30. 12. 29* Flywheel shafts *and* Thrust shafts *25. 10. 29* 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 *LLOYD'S 3624/22. V.S. 27. 9. 29* Thrust shaft, Material *LLOYD'S 3624/22. V.S. 27. 9. 29* Identification Mark *LLOYD'S P.K. 917. 27. P.K. 914. 27.*
Thrust shaft, Material *S. M. Steel* Identification Mark *LLOYD'S 13908/09 K.H. 25. 10. 29* 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. *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. *These Diesel engines and their accessories have been constructed under Special Survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the constructions are good and the workmanship is satisfactory. The engines have been tested under full working conditions during several hours on the makers test bed with satisfactory result and were found to be in safe working conditions.*

*In my opinion the vessel for which these engines are intended will be eligible for the notation * LMC (with date) when the engines and their accessories have been satisfactorily fitted on board. Max. pressure in the cylinders not to exceed 45 atm*

For identification the cylinder jackets have been stamped

LLOYD'S TEST 6 atm No 703 V.S. 23. 12. 29.

Crankshafts for Diesel engines driving auxiliary machinery are tested by the Germ. Lloyd (Please see London Letter E 10th July 1929).

The amount of Entry Fee *4/5* £ *4 : 16* : *0* When applied for,
Special *4/5* ... £ *127 : 0 : 0* *25. 8. 19. 30*
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ *4 : 0 : 0* *10/5/30*

Committee's Minute

FP 31 OCT 1930

Assigned

See F. E. Rpt.

Engineer Surveyor to Lloyd's Register of Shipping.



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