

# YACHT.

## REPORT ON OIL ENGINE MACHINERY.

19124  
No. 12181

Date of writing Report 21-1-33 When handed in at Local Office 21/1/33 Port of GENOA  
 Received at London Office 27 JAN 1933  
 No. in Survey held at GENOA Date, First Survey 13 SEPT. 1932 Last Survey 14 JANUARY 1933  
 Reg. Book. 4 on the Single Twin Triple Quadruple Screw vessel "AAR V" Number of Visits 20  
 Tons Gross 427.2  
Net 180.-  
 Built at GLASGOW By whom built A. & W. HENDERSON & Co. Ltd. Yard No. ✓ When built 1903  
 Engines made at HAMBURG By whom made BLOHM & VOSS Engine No. 1431 When made 1931  
 Monkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓  
 Brake Horse Power 880 Owners E. HERZOG VON ARENBERG Port belonging to HAMBURG  
 Indicated Horse Power as per Rule 794.7 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted YES  
 Trade for which vessel is intended PRIVATE YACHT.

**ENGINES, &c.**—Type of Engines SOLID INJECTION BLOHM & VOSS 2 or 4 stroke cycle 4 Single or double acting SINGLE  
 Maximum pressure in cylinders 47 Kg. Diameter of cylinders 325 mm. Length of stroke 450 mm. No. of cylinders 2 x 6 No. of cranks 6  
 No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 370 mm. Is there a bearing between each crank YES  
 Revolutions per minute 360 Flywheel dia. 1200 mm. Weight 1750 Kg. Means of ignition COMPRESSION Kind of fuel used DIESEL OIL  
 Crank Shaft, dia. of journals as per Rule 181.3 mm. Crank pin dia. 205 mm. Crank Webs Mid. length breadth 320 mm. Thickness parallel to axis ✓  
as fitted 210 mm. Mid. length thickness 100 mm. Thickness around eye-hole ✓  
 Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 112.8 mm. Thrust Shaft, diameter at collars as per Rule 118.5 mm.  
as fitted as fitted 137 mm. as fitted 140 mm.  
 Propeller Shaft, diameter as per Rule Screw Shaft, diameter as per Rule 123 mm. Is the ✓ screw shaft fitted with a continuous liner YES  
as fitted as fitted 146 mm.  
 Liners, thickness in way of bushes as per Rule 14.2 mm. Thickness between bushes as per rule Is the after end of the liner made watertight in the  
as fitted 16 mm. as fitted  
 After boss YES If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓  
 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 ✓  
 No 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 ✓  
NO If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 615 mm.  
 Propeller, dia. 1450 mm. Pitch 1400 mm. No. of blades 4 Material BRONZE whether Moveable SOLID Total Developed Surface 0.63 sq. m.  
 Method of reversing Engines By HAND Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication ✓  
REC'D Thickness of cylinder liners 30 ÷ 26 mm. Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with ✓  
 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 ✓  
 Suction Water Pumps, No. TWO DRIVEN BY MAIN ENGINES Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES  
ONE DRIVEN BY ELECT. MOTOR  
 Pumps worked from the Main Engines, No. TWO Diameter 109 mm. Stroke 128 mm. Can one be overhauled while the other is at work YES  
 Pumps connected to the Main Bilge Line No. and Size TWO ONE CENTRIFUGAL: 25 TONS PER HOUR.  
WATER How driven MAIN ENGINES ELECTRIC MOTOR.  
 Suction Pumps, No. and size ONE - 10 TONS PER HOUR. Lubricating Oil Pumps, including Spare Pump, No. and size TWO GEAR WHEELS (MAIN ENGINES)  
ONE - 10 TONS PER HOUR. TWO GEAR WHEELS (ELECTRIC MOTOR)  
 Independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge ✓  
 No. and size:—In Machinery Spaces TWO. 50 mm DIAM. In Pump Room ✓  
 Suctions, &c. FORW. PEAK. ONE 50 mm DIAM. - FORW. HOLD. ONE 50 mm DIAM. - TUNNEL ONE 50 mm DIAM.  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 50 mm DIAM.  
 Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES Are the Bilge Suctions in the Machinery Spaces YES  
 Are easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES  
 Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks VALVES  
 Are fixed sufficiently high on the ship's side to be seen without lifting the platform plates YES Are the Overboard Discharges above or below the deep water line ABOVE  
 Are each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓  
 Pipes pass through the bunkers ✓ How are they protected ✓  
 Pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓  
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES  
 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 YES Is the Shaft Tunnel watertight YES Is it fitted with a watertight door YES worked from MAIN DECK  
 On a vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓  
 Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓  
 Main Air Compressors, No. ONE No. of stages TWO Diameters 180 mm / 40 mm Stroke 170 mm Driven by AUXILIARY ENGINE  
 Auxiliary Air Compressors, No. ONE No. of stages TWO Diameters 115 mm / 45 mm Stroke 80 mm Driven by ELECTRIC MOTOR  
 Suctioning Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓  
 Main Engines crank shafts, diameter as per Rule No. TWO  
as fitted 65 mm NICKEL STEEL. Position PORT & STARBOARD SIDE OF ENGINE ROOM.  
**RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES  
 Are internal surfaces of the receivers be examined and cleaned YES Is a drain fitted at the lowest part of each receiver YES  
 Pressure Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓  
 Are lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules  
Actual  
 Air Receivers, No. THREE Total cubic capacity 1500 LITRES Internal diameter 614 mm thickness 18 mm  
 Are lap welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength 44 ÷ 50 Kg. Working pressure by Rules 58.3 Kg/cm<sup>2</sup>  
Actual 30 Kg/cm<sup>2</sup>



4 B. No 19124.

IS A DONKEY BOILER FITTED? No 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 YES Receivers YES Separate Tanks ✓  
(If not, state date of approval)  
Donkey Boilers ✓ General Pumping Arrangements YES Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied ✓  
State the principal additional spare gear supplied

MAIN ENGINES.

ONE CYLINDER COVER COMPLETE WITH ALL VALVES.  
ONE COMPLETE SET OF VALVES FOR ONE CYLINDER.  
ONE PISTON COMPLETE WITH PISTON RINGS AND 30 ADDITIONAL PISTON RINGS.  
ONE CYLINDER LINER.  
ONE SET OF GEAR WHEELS FOR THE CAM SHAFT DRIVE.  
ONE FUEL PUMP COMPLETE.  
ONE SET OF CRANK PIN AND MAIN BEARING BOLTS.  
ONE SET OF BOLTS FOR THRUST AND INTERMEDIATE SHAFT COUPLING  
ONE STERN BUSH.  
PLUNGERS FOR THE BILGE AND CIRCULATING PUMP ATTACHED.  
ASSORTED SPRINGS, BOLTS, STUDS, PIPES ETC.

AUXILIARY ENGINES.

ONE SET OF PISTON RINGS.  
ONE SET OF VALVES FOR ONE CYLINDER  
ONE FUEL PUMP COMPLETE.  
ONE LUBRICATING OIL PUMP COMPLETE  
ONE CIRCULATING PUMP COMPLETE.  
ASSORTED SPRINGS, BOLTS, STUDS ETC.

AIR COMPRESSORS.

ONE SET OF PISTON RINGS FOR EACH SIZE OF PISTON  
ONE SET OF VALVES.  
ASSORTED SPRINGS, STUDS ETC.

ELECTRIC GENERATOR.

ONE ARMATURE.  
24 BRUSHES.

The foregoing is a correct description, ✓

Manufacturer.

Dates of Survey while building { During progress of work in shops - - ✓  
During erection on board vessel - - - 1932, SEPT. 13. 19. 22. OCT. 5. 17. 19. NOV. 11. 15. 21. 29. DEC. 2. 5. 6. 9. 16. 30. 1933 JAN. 10. 11. 14. 14.  
Total No. of visits TWENTY.

Dates of Examination of principal parts—Cylinders 19-9-32 Covers 19-9-32 Pistons 19-9-32 Rods 19-9-32 Connecting rods 19-9-32  
Crank shafts 19-9-32 Flywheel shaft 5-10-32 Thrust shafts 19-10-32 Intermediate shafts 19-10-32 Tube shaft 19-9-32  
Screw shafts 14-1-33 Propellers 10-1-33 Stern tubes 11-1-33 Engine seatings 19-9-32 Engines holding down bolts 19-9-32  
EXAMINATION OF Completion of fitting sea connections 10-1-33 Completion of pumping arrangements 19-10-32 Engines tried under working conditions 14-1-33  
Crank shaft, Material STEEL Identification Mark 1731 1732 Flywheel shaft, Material ✓ Identification Mark ✓  
Thrust shaft, Material STEEL Identification Mark ILLEGIBLE Intermediate shafts, Material STEEL Identification Marks ILLEGIBLE  
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material STEEL Identification Mark ILLEGIBLE

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 YES.  
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 No. If so, state name of vessel ✓

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

THE MACHINERY OF THIS VESSEL HAS BEEN OPENED OUT AND EXAMINED IN ITS ENTIRETY. ALL PARTS HAVE BEEN FOUND IN GOOD CONDITION AND IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATIONS.

THE VESSEL IS FITTED WITH ELECTRIC LIGHT 29.5 KW. 110 VOLTS. THIS INSTALLATION HAS BEEN EXAMINED AND FOUND GENERALLY IN ACCORDANCE WITH THE RULES.

THE VESSEL, IN OUR OPINION, IS ELIGIBLE TO BE CLASSED IN THE YACHT REGISTER BOOK WITH THE NOTATION OF N.E 1931, LMC 1-1933 AND C.L 1-1933.

GENOA OFFICE.

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, 16/1/33  
Special RECLASSIFICATION 2950.00  
Donkey Boiler Fee ... £ : : When received, 4.2.1933  
Travelling Expenses (if any) £ : : 50.-  
EARLY Fee. " 200.-

Committee's Minute TUE. 14 FEB 1933

Assigned See Report 9

J. H. Leitch. J. H. Leitch  
Engineer Surveyor to Lloyd's Register of Shipping



© 2020

Lloyd's Register Foundation