

YACHT MACHINERY

REPORT ON OIL ENGINE MACHINERY.

No. 21537
1918

Received at London Office MAY 21 1937

Survey Report 10th May 1937. When handed in at Local Office 18.5.1937. Port of Bremen
Date, First Survey Jan. 29th 37 Last Survey 10th May 1937
Survey held at Augsburg Number of Visits 40

on the Single Screw vessel "Yadorna" Tons { Gross 226.25
Triple Net 145.23
Quadruple
made at Southampton By whom built Messrs. John, J. Thornycroft Yard No. 1172 When built 1937
Augsburg By whom made Messrs. M. A. M. Engine No. 5070701080 When made 1937
Boilers made at Augsburg By whom made G & W. P. Missegars Boiler No. ✓ When made ✓
Horse Power 180 Owners G & W. P. Missegars Port belonging to Amsterdam
Horse Power as per Rule 2x43.7 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted ✓
for which vessel is intended Yacht

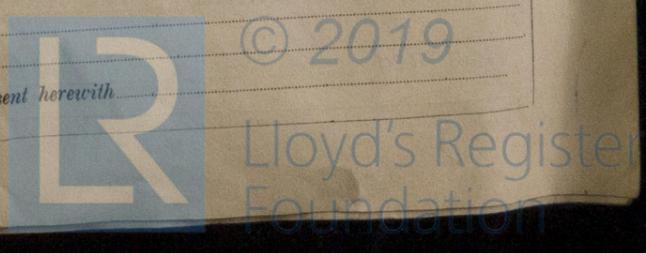
ENGINES, &c. Type of Engines 2 x 96 V 33 2 or 4 stroke cycle 4 Single or double acting single
Pressure in cylinders 49 Diameter of cylinders 220 Length of stroke 330 No. of cylinders 2 x 6 No. of cranks 2 x 6
Indicated Pressure 6.9 Is there a bearing between each crank yes
Bearings, adjacent to the Crank, measured from inner edge to inner edge 258 Means of ignition div. ign. Kind of fuel used gas oil on test bed
Revolutions per minute 380 Flywheel dia. 750 Weight 1050 kg Mid. length breadth 240 Thickness parallel to axis shrunk
Solid forged dia. of journals as per Rule 130 Crank pin dia. 130 Crank Webs Mid. length thickness 61 Thickness around eyehole shrunk
Semi built as fitted ✓ Thrust Shaft, diameter at collars as per Rule ✓
All built as fitted ✓ Screw Shaft, diameter as per Rule ✓ Is the { tube } shaft fitted with a continuous liner { ✓
as fitted ✓ as fitted ✓ as fitted ✓ Is the after end of the liner made watertight in the ✓

Liners, thickness in way of bushes as per Rule ✓ Thickness between bushes as fitted ✓
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
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 ✓
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 ✓
Pitch 13/7/37 No. of blades ✓ Material ✓ whether Moveable ✓ Total Developed Surface ✓ sq. feet ✓
Pitch 18/8/37 Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication ✓
Thickness of cylinder liners 15 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with ✓
ducting material W. covered If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓
No. 1 each engine 5.5 m³/h suction provided with an efficient strainer which can be cleared within the vessel ✓
Pumps worked from the Main Engines, No. 1 each Diameter 60 Stroke 120 Can one be overhauled while the other is at work ✓

connected to the Main Bilge Line { No. and Size ✓
How driven ✓
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 ✓
Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size ✓
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge ✓
In Pump Room ✓
two independent means arranged for circulating water through the Oil Cooler ✓
No. and size:—In Machinery Spaces ✓

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ✓ Are the Bilge Suctions in the Machinery Spaces ✓
all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bozes ✓
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓ Are they fitted with Valves or Cocks ✓
all Sea Connections fitted direct on the skin of the ship ✓ Are the Overboard Discharges above or below the deep water line ✓
they fixed sufficiently high on the ship's side to be seen without lifting the platform plates ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓
they each fitted with a Discharge Valve always accessible on the plating of the vessel ✓ How are they protected ✓
at pipes pass through the bunkers ✓ Have they been tested as per Rule ✓
at pipes pass through the deep tanks ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times. ✓
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 ✓
partment to another ✓ Is the Shaft Tunnel watertight ✓ worked from ✓
a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
in Air Compressors, No. 1 No. of stages 2 Diameters 80/70 Stroke 80 Driven by Main engine
Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 80/70 Stroke 80 Driven by ✓
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 80/70 Stroke 80 Driven by ✓
what provision is made for first Charging the Air Receivers ✓ Driven by ✓
Suctioning Air Pumps, No. 1 Diameter ✓ Stroke ✓ Position ✓
Auxiliary Engines crank shafts, diameter as per Rule ✓ as fitted ✓ Is a report sent herewith ✓
Are the Auxiliary Engines been constructed under special survey ✓



W319-0018

AIR RECEIVERS:—Have they been made under survey yes ✓ Are reports or certificates now forwarded please see in air
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes ✓
 Can the internal surfaces of the receivers be examined and cleaned yes ✓ Is a drain fitted at the lowest part of each receiver yes ✓
Injection 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. 2 ✓ Total cubic capacity 2 x 600 L Internal diameter 572 mm thickness 14 ✓
 Seamless, lap welded or riveted longitudinal joint electric fusion welded Material S. M. Steel Range of tensile strength 41-47 Working pressure by Rules 3 ✓
Actual 3 ✓

IS A DONKEY BOILER FITTED? 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 13. 10. 36 Receivers 18. 12. 36 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 yes ✓

State the principal additional spare gear supplied as per Rules

The foregoing is a correct description,
Maschinenfabrik Augsburg-Nürnberg A.-G.
K. W. ... Manufacturer.

Dates of Survey while building
 During progress of work in shops-- Jan. 29, 30. Feb. 9. 10. 13. 15. 16. 18. 19. 20. 22. 23. 26. March 1. 3. 4. 5.
 During erection on board vessel-- 12. 13. 15. 16. 17. 22. 23. 24. 30. 31. April 2. 3. 6. 27. 28. 30. May 4. 5. 7. 10.
 Total No. of visits 40

Dates of Examination of principal parts—Cylinders 13. 15. 2. 37 Covers 18. 2. 37 Pistons 18. 20. 2. 37 Rods - Connecting rods 18.
 Crank shaft 29. 30. 1. 37 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
 Crank shaft, Material S. M. Steel Identification Mark Logo V. S. 22. 20. 1. 37 Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark J. L. 11778. 30. 1. 37 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.
 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 Yard 660 Hilton Eijenoord (aux en)

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These 2 heavy oil main engines have been constructed under special survey in accordance with the Soc. Rules and Regulations, as well as with the approved plans and instructions hereto. The material used in the construction is good and the workmanship satisfactory. The engines have been tested running under full load, 10% overload and part load during 12 hours on the maker's test bed in the presence of the undersigned and were to work satisfactorily during these trials.
 In our opinion the vessel for which these main engines are intended will be eligible for the notation of + U.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	4/5 Rm	32.00	When applied for,
Special	4/5 R	35.20	20. 5. 1937.
2 x 400 hp Trial	"	126.00	
Donkey Boiler Fee	"	80.00	When received,
2 Weld. Air Receivers	"	40.00	17 July 1937
Travelling Expenses (if any)	"		

M. Schneider. N. Petersen.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **TUE 7 SEP 1937**

Assigned See Log 16791



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.