

# YACHT.

## REPORT ON OIL ENGINE MACHINERY.

No. 16791

AUG 27 1937

pt. 4b.

Received at London Office  
Date of writing Report 24 August 1937 When handed in at Local Office 26 August 1937 Port of Southampton  
Date, First Survey 25 August '37 Last Survey 24 August 1937  
Number of Visits 13

Survey held at Southampton  
Name of vessel "Yadorna"  
Tons Gross 226.25 Net 143.23

Single on the Twin Triple Quadruple Screw vessel  
Built at Southampton By whom built John J. Thornycroft & Co. Ltd Yard No. 1172 When built 1937  
Engines made at Augsburg By whom made M. A. N. Engine No. 1080 When made 1937  
Boiler No. When made  
Port belonging to Amsterdam  
Owners G. & W. P. Missagass  
Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Indicated Horse Power 2 @ 180  
Actual Horse Power as per Rule 2 @ 180  
Type of Engines Heavy Oil 8 1/16"  
Diameter of cylinders 220 mm Length of stroke 15" 2 or 4 stroke cycle 4 Single or double acting Single  
No. of cylinders 2 x 6 No. of cranks 2 x 6

Mean pressure in cylinders 49  
Flywheel dia. 19 1/2"  
Crank pin dia. 3 1/2"  
Crank webs 3.32"  
Kind of fuel used kerosene  
Means of ignition spark  
Thickness parallel to axis shrunk  
Thickness around eye-hole

Intermediate Shafts, diameter as per Rule 3 1/2"  
Screw Shaft, diameter as per Rule 3 1/8"  
Thrust Shaft, diameter at collars as per Rule 3.48"  
Is the tube screw shaft fitted with a continuous liner No

Size Liners, thickness in way of bushes as per Rule 3 7/8"  
Thickness between bushes as per Rule 3 1/16"  
Is the after end of the liner made watertight in the 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 Yes  
Is an approved Oil Gland or other appliance fitted at the after end of the tube No

Propeller, dia. 4'-0" Pitch 4'-1" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 5.25 sq. feet  
Length of Bearing in Stern Bush next to and supporting propeller 16 1/2"

Method of reversing Engines Hand direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes  
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 lagging Yes

Exhausting Water Pumps, No. One each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Special arrangements are made for dealing with cooling water if discharged into bilges Discharge overboard

Large Pumps worked from the Main Engines, No. One each Diameter 60 Stroke 120 Can one be overhauled while the other is at work Yes  
Pumps connected to the Main Bilge Line No. and Size One 10/18 1/2 ton per hour How driven Electric motor

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Duplex gear type pumps on each engine  
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pump Room

Oil Coolers, No. and size:—In Machinery Spaces One of 2" and one of 2 1/4"  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One of 2 1/4" Hand Pump 2" suction

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes  
Are they fitted with Valves or Cocks Both

Are all Sea Connections fitted direct on the skin of the ship Yes  
Are the Overboard Discharges above or below the deep water line Below

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes  
Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes  
How are they protected None

Do all pipes pass through the deep tanks None  
Have they been tested as per Rule Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Is the Shaft Tunnel watertight No tunnel Is it fitted with a watertight door Yes worked from Yes

Are the arrangements 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

Are the main Air Compressors, No. 1 No. of stages 1 Diameters 80/70 Stroke 80 Driven by Main Engine  
Are the auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 1 3/4 x 4 Stroke 3 Driven by Oil Engine

Are the small Auxiliary Air Compressors, No. 1 Diameter 1 3/4 Stroke 3 Driven by  
Are the scavenging Air Pumps, No. 1 Diameter 1 3/4 Stroke 3 Driven by

Are the auxiliary Engines crank shafts, diameter as per Rule 2 3/8"  
IR RECEIVERS:—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

Are the High Pressure Air Receivers, No. 1 Cubic capacity of each 2 x 600 Internal diameter 572 thickness 14  
Working pressure by Rules Actual 30 atm

Are the Starting Air Receivers, No. 2 Seamless, lap welded or riveted longitudinal joint Electric welded Material S.M. steel Range of tensile strength 41/47 Internal diameter 572 thickness 14  
Working pressure by Rules Actual 30 atm

W319-0017

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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*  
(If not, state date of approval)

Receivers

Separate Tanks *Yes*

Donkey Boilers

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied



The foregoing is a correct description of the machinery

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }  
{ During erection on board vessel - - }  
Total No. of visits

Dates of Examination of principal parts—Cylinders  Covers  Pistons  Rods  Connecting rods

Crank shaft  Flywheel shaft  Thrust shafts *25/5/37* Intermediate shafts *25/5/37* Tube shaft

Screw shafts *25/5/37* Propellers *1/6/37* Stern tubes *1/6/37* Engine seatings *1/6/37* Engines holding down bolts *13/7/37*

Completion of fitting sea connections *9/7/37* Completion of pumping arrangements *12/8/37* Engines tried under working conditions *18/8/37*

Crank shaft, Material *Bremen Report* Identification Mark  Flywheel shaft, Material Identification Mark

Thrust shafts Material *S m steel* Identification Mark *W LLOYD'S 658* Intermediate shafts, Material *S M steel* Identification Marks *W LLOYD'S*

Tube shaft, Material  Identification Mark  Screw shafts Material *S M steel* Identification Mark *W LLOYD'S*

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 *no* 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 *no*

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. Please also see Bremen Report No 1918)

The machinery of this vessel has been built under special survey, in accordance with approved plans and the Rules. The materials and workmanship are good. It has been efficiently fitted on board and proved satisfactory under working conditions and in opinion is eligible to have the notation of *h.m.p. 8.37* made in the Yacht Register.

The amount of Entry Fee	.. £	:	:	When applied for,
Special	... £	4-5-		<i>26/8/1937</i>
Donkey Boiler Fee	... £	:	:	When received,
Travelling Expenses (if any)	£	:	:	<i>8.9 1937/10.9</i>

*Wm Cowie*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 7 SEP 1937

Assigned + Enc 8.37 *inc log*

CERTIFICATE WRITTEN 10.7.37

