

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

No. 10113

6 DEC 1927

Date of writing Report 24. 11. 1927 When handed in at Local Office 25. 11. 1927 Port of Genoa  
No. in Survey held at Genoa Date, First Survey 30. 11. 1925 Last Survey 11. 11. 1927  
Reg. Book.

Single  
on the Twin  
Triple  
Quadruple

Screw vessel "Augustus"

Number of Visits 177

Tons Gross 32649.8  
Net 19512.56

Built at Genoa - Sestri. By whom built Loc. Anon. Ansaldo. Yard No. 282 When built 1924  
Engines made at Genoa - Cornigliano By whom made Cant. Officine Savoia Engine No. 3275 When made 1924  
Donkey Boilers made at Genoa - Sampierd. By whom made S.A. Ansaldo Stat. Mec. Boiler No. 3275 When made 1924  
Brake Horse Power 6250 - 4000 Owners Nav. Generale Italiana Port belonging to Genoa  
Nom. Horse Power as per Rule 6368 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes  
Trade for which vessel is intended South American Trade.

OIL ENGINES, &c.—Type of Engines Savoia M.A.N. 2 or 4 stroke cycle 2 Single or double acting  
Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 400 mm Length of stroke 1200 mm No. of cylinders 6 No. of cranks 6  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1090 mm Is there a bearing between each crank Yes  
Revolutions per minute 120 - 125 Flywheel dia. 2400 mm Weight 10,800 Kgs. Means of ignition Self Kind of fuel used Diesel Oil  
Crank Shaft, dia. of journals as per Rule 530 mm Crank pin dia. 530 mm Crank Webs Mid. length breadth 420/1000 Thickness parallel to axis  
as fitted 530 mm Mid. length thickness 335 shrunk Thickness around eyehole  
Flywheel Shaft, diameter as per Rule 530 mm Intermediate Shafts, diameter as per Rule 430 mm Thrust Shaft, diameter at collars as per Rule  
as fitted 530 mm as fitted 430 mm as fitted 450 mm  
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner Yes  
as fitted 22 mm as fitted 440 mm  
Bronze Liners, thickness in way of bushes as per Rule 22 mm Thickness between bushes as per rule 16 mm Is the after end of the liner made watertight in the  
as fitted AFT. 23.5 mm FOR. 26 mm as fitted 16 mm propeller 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  
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 No. — Wood bush fitted Length of Bedring in Stern Bush next to and supporting propeller 244 mm  
Propeller, dia. 4400 mm Pitch 5.5 m. No. of blades 3 Material Bronze whether Moveable Yes Total Developed Surface 8.42 sq. feet  
Method of reversing Engines CAM SHAFTS Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
Forced Thickness of cylinder liners 50 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water-cooled or lagged with  
non-conducting material Yes 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. 9 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
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 3. 200 T.P.H. 2. 50 T.P.H.  
How driven Elec. Motor 90 H.P. 15 H.P.  
Ballast Pumps, No. and size 3. 200 Tons Lubricating Oil Pumps, including Spare Pump, No. and size 4. 6 of 55 HP 1 of 90 HP  
1 Emergency 170 120 T.P.H. 200 T.P.H.  
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size:—In Machinery Spaces 15. 120 mm dia  
In Holds, &c. 4. Ford. & 6 AFT. 120 mm

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 5. 120 mm d.  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes 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 Yes  
Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both  
Are they 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 below  
Are they 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 Yes  
What pipes pass through the bunkers Oil Suctions & air pipes 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 Yes  
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 Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from navigating bridge  
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. 4 No. of stages 3 Diameters 220-650-800 Stroke 650 mm Driven by main Engine  
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 80-340-380 Stroke 250 mm Driven by Elec. Motor 120 H.P.  
Small Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 45-178-200 Stroke 180 mm Driven by Steam 20 H.P.  
Scavenging Air Pumps, No. 3 Turbo-blowers Diameter 1980 mm Impeller Stroke Centrifugal Driven by Elec. Motor 820 H.P.

Auxiliary Engines crank shafts, diameter as per Rule 4. 280 K.W. 210 mm dia. 3. 600 K.W. 285 mm dia.  
as fitted

AIR 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 Yes What means are provided for cleaning their inner surfaces Covers each end

Is there a drain arrangement fitted at the lowest part of each receiver Yes  
High Pressure Air Receivers, No. 8 Main 8 aux. Cubic capacity of each 4. 275 litres 4. 1400 litres Internal diameter 413 mm thickness 20 mm  
4. 600 " reserves

Seamless, lap welded or riveted longitudinal joint Seamless. Material Steel. Range of tensile strength 55-65 Working pressure by Rules 45 kg/cm<sup>2</sup>  
Main aux 1725+1 = 173.5 Internal diameter 149 mm Main 560 mm thickness 28 mm Main 15 mm

Starting Air Receivers, No. 9 Main 1. Auxiliary Total cubic capacity 1725+1 = 173.5 Internal diameter 149 mm Main 560 mm thickness 28 mm Main 15 mm  
Seamless, lap welded or riveted longitudinal joint Yes Material Steel. Range of tensile strength 44-50 Working pressure by Rules 31 kg/cm<sup>2</sup>

W1042-0015 1/2



IS A DONKEY BOILER FITTED? *yes* *Two*. If so, is a report now forwarded? *yes*.  
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 *yes*

SPARE GEAR Main Motors: 2. *✓* covers with valves complete, 2 Bottom covers with valves & stuffing box complete, 2 Pulverizers complete. 18 Injection valve needles with springs, 2 Ruptured spraying discs with nuts, 2 maneuvering valves complete, 2 maneuvering valve spindles with spring, 2 Safety valves complete, 2 valves & springs for same, 2 Main pistons with rings & piston rod complete, 2 Set piston rings, 4 Set piston cooling gear, 2 *✓* liners for upper & 2 *✓* liners for lower cylinders, 2 Bottom end brasses, 4 Crosshead brasses, 2 pair main bearing bushes, 2 Set gears, 1 set compressor connecting rod bushes, 2 Set of bolts & nuts for top & bottom end bushes, with rings (nuts) & 2 Set main bearing bolts & nuts, 2 Set bolts & nuts for top & bottom cylinders 10% Safety valve springs for cylinders, compressors, air reservoir, thermometers, & gauges.  
Compressors: 2 Set piston rings for each cylinder, 2 Set suction & discharge valves with discs & springs, a. brasses, bolts & nuts, 2 Set of bolts & nuts for top & bottom end bushes, with rings (nuts) & 2 Set main bearing bolts & nuts, 2 Set bolts & nuts for top & bottom cylinders  
Oil Fuel Pumps: 6 Suction valves, complete, 6 valves & springs, 6 delivery & non return pumps, 6 valves with springs & pistons complete, 6 cams with bolts, liners etc, 6 rollers. Sufficient spares on board for all pumps  
& good assortment of piping, flanges, bolts etc have been placed on board.

The foregoing is a correct description.

CANTIERI OFFICINE SAVOIA OFFICINE ALLESTIMENTO E RIPARAZIONI MAR It Director											
ANSAALDO, Società Anonima STABILIMENTO MECCANICO SAMPIERDARENA											
L. Mellini Manufacturer. <i>L. Mellini</i>											
1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936											
During progress of work in shops - - - 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938											
Dates of Survey while building (RED INDICATES) 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938											
Total No. of visits 177											
Dates of Examination of principal parts - Cylinders 1.7.26 Covers 2.2.26 Pistons 2.5.26 Rods 2.10.25 Connecting rods 2.1.26											
Crank shaft 2.6.26 13.9.26 Flywheel shaft 9.11.26 Thrust shaft 12.10.26 Intermediate shafts 23.11.26 Tube shaft 9.2.26											
Screw shaft 10.9.26 21.9.26 Propeller 10.12.26 Stern tube 23.11.26 Engine seatings 9.2.26 Engines holding down bolts 9.2.26											
Completion of fitting sea connections 10.12.26 Completion of pumping arrangements 9.11.27 Engines tried under working conditions 6.11.27											
Crank shaft, Material Identification Mark PLEASE SEE SEPARATE SHEETS. Flywheel shaft, Material Identification Mark											
Thrust shaft, Material Identification Mark 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. *yes*

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 constructed under special survey in accordance with the Society's Rules, Approved Plans, & Secretary's letters. The material and workmanship are good. After being fitted on board the machinery has been examined under working conditions satisfactory.*

*The vessel in our opinion is eligible for the record of + L.M.C. 11.24. (Oil Engines)*  
*T. Skopis. C.L.*

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

The amount of Entry Fee ... £ : When applied for, 1. 12. 1927  
See 2000 letter 31.12.26 ... 1st £ 16708: :  
Special ... :  
SEE SEPARATE REPORT  
Donkey/Boiler Fee ... £ ✓ : When received, 21/2/28  
Travelling Expenses (if any) 1st 1750: = :  
SUNDAY & LATE FEE 1st 1260: = :  
Committee's Minute  
Assigned  
+ L.M.C. 11.24 C.L.  
Oil Engines 2.13.1926

pt. 9a.

ort of GENOA

Continuation of Report No. 10413 dated

Q.S.M.V. "AUGUSTUS"

on the

IDENTIFICATION MARKS ON SHAFTING FOR MAIN MOTORS

INTERMEDIATE SHAFTING

No.176 G.B. 23-11-26	No.191 G.B. 23-11-26	No.320 A.S.M. 29-10-26
No.315 G.B. 23-11-26	No.192 A.S.M.12-11-26	No.186 G.B. 23-11-26
No.249 A.S.M. 12-11-26	No.246 A.S.M.27-10-26	No.316 G.B. 23-11-26
No.246 A.S.M. 27-10-26	No.314 G.B. 23-11-26	No.188 G.B. 23-11-26
No.319 G.B. 12-11-26	No.317 A.S.M.27-10-26	No.313 G.B. 9-11-26
No.311 G.B. 5-11-26	No.189 G.B. 23-11-26	No.245 G.B. 12-11-26
No.190 A.S.M.12-11-26	No.312 A.S.M.29-10-26	No.248 G.B. 23-11-26
No.247 A.S.M.12-11-26	No.318 G.B. 12-11-26	No.187 G.B. 23-11-26

PROPELLER SHAFTING

No.321 322 G.B. 10-9-26	No.250 323 G.B. 31-8-26	No.209 251 G.B.28-12-26
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SPARES

FLYWHEEL SHAFTING

4. Nos 331 G.B. 9-11-26

THRUST SHAFTING

No.286 289 G.B. 12-10-26	No.287 288 G.B. 22-10-26
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CRANK SHAFTS AND COMPRESSOR CRANK SHAFTING

No.114 122 A.S.M. 26-5-26	(2) Nos 270 R.M. 13-9-26	No.195 T.R.M.13-1-27
		No.174 T.R.M.13-1-27
		No.148 A.S.M.10-8-26
		158 " "

Compressor cranks

No.133 A.S.M. 26-5-26	No.284 R.M. 13-9-26	No.133 A.S.M.10-8-26
No.134 T.R.M. 13-1-27		

SPARE CRANK SHAFTS

No.483 T.R.M. 31-10-27	No.602 T.R.M. 31-10-27
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SPARE COMPRESSOR CRANK

No.599 T.R.M. 31-10-27
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*Y.R. Morrison*