

REPORT ON OIL ENGINE MACHINERY.

No. 7672

Received at London Office
 Aug 10 27 When handed in at Local Office
 Aug 14 27 Port of Trieste
 6 SEP 1927
 Survey held at Monfalcone Date, First Survey Mar 22 Last Survey Aug 13 1927
 Number of Visits 23

on the ^{Single} Twin ^{Triple} Screw vessel ^{Quadruple} Grarangua Tons { Gross 4872 Net 2974

By whom built lanchiere nav. triest. Yard No. 175 When built 1927
 By whom made Fiat Balgrandi Motori Engine No. 1369 When made 1927
 Boilers made at Annan By whom made Lochran & Co Boiler No. 10099 When made 1927
 Owners Lloyd National S. A. Port belonging to Rio de Janeiro
 Horse Power 1008 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

Genoa Report No. 9951 Type of Engines Triat Diesel 2 or 4 stroke cycle 2 Single or double acting single
 pressure in cylinders 35 kg Diameter of cylinders 680 mm Length of stroke 960 mm No. of cylinders 4 No. of cranks 4
 bearings, adjacent to the Crank, measured from inner edge to inner edge 950 mm Is there a bearing between each crank yes
 as per minute 125 mm Flywheel dia. 3000 mm Weight 12000 kg Means of ignition Lampress Kind of fuel used Diesel oil
 shaft, dia. of journals as per Rule 407 1/2 mm Crank pin dia. 420 mm Crank Webs Mid. length breadth 530 Thickness parallel to axis -
 as fitted 420 mm Mid. length thickness 266 shrunk Thickness around eyehole -
 1 Shaft, diameter as per Rule 407 1/2 Intermediate Shafts, diameter as per Rule 277.3 Thrust Shaft, diameter at collars as per Rule 291.2
 as fitted 420 to 300 as fitted 290 as fitted 310
 shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 315.3 Is the { tube } shaft fitted with a continuous liner { No liner
 as fitted - as fitted 335 as fitted -

Liners, thickness in way of bushes as per Rule - Thickness between bushes as fitted - Is the after end of the liner made watertight in the
 boss - If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -
 er 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 -
 ners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland or other appliance fitted at the after

ie tube shaft yes Federal Length of Bearing in Stern Bush next to and supporting propeller 1860 mm
 er, dia. 3800 Pitch 4050 No. of blades 3 Material Bronze whether Moveable no Total Developed Surface 5.27 sq. ft
 of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

ed Thickness of cylinder liners 55 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
 acting 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.
 Water Pumps, No. 2 on Main Motor Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

pumps worked from the Main Engines, No. 3 Diameter 85 mm Stroke 100 mm Can one be overhauled while the other is at work yes
 connected to the Main Bilge Line No. and Size Two 150 Tons. a 210 x 250 mm How driven Electric Motors
 Pumps, No. and size One transfer pump 170 x 150 Lubricating Oil Pumps, including Spare Pump, No. and size one to each Main Motor
 one worked by Electric Motor

ndependent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 No. and size: - In Machinery Spaces Two 3 1/2" on main line. Three in Tunnel well 3 1/2"
 &c. Hold No. 1 two 3 1/2". Hold No. 2 two 3 1/2". Refrig. Hold two 3 1/2". Hold No. 3 four 3 1/2". Hold No. 4
 3 1/2". Cofferdam forward to Tank No. 1 one 3 1/2". Three Cofferdam in E. H. one in each 3 1/2"

ident Power Pump Direct Suctions to the Engine Room Bilges, No. and size Three, two a 4 1/4" one a 8"
 he Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes

ea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks valves
 ized 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
 ach 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

is pass through the bunkers none How are they protected -
 s pass through the deep tanks - Have they been tested as per Rule -
 ipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

angement 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
 nt to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from above deck
 vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Compressors, No. one each Eng. No. of stages three Diameters 120 x 50 x 600 Stroke 620 Driven by main Eng.
 y Air Compressors, No. one No. of stages three Diameters 70 x 270 x 310 Stroke 250 Driven by Electric Motor
 xiliary Air Compressors, No. one No. of stages three Diameters 42 x 165 x 185 Stroke 140 Driven by Hot bulb Motor

ing Air Pumps, No. 2 each Engine double acting Diameter 850 Stroke 800 Driven by Main Engine
 Engines crank shafts, diameter as per Rule 154.3
 as fitted 160

ECEIVERS: - Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 ternal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces plugs in ends
 drain arrangement fitted at the lowest part of each receiver yes

essure Air Receivers, No. 4 Cubic capacity of each 190 Lit. Internal diameter 291 mm thickness 12.5 mm
 lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 45 kg/mm² Working pressure by Rules 80 kg
 Air Receivers, No. 2 Auxiliary Total cubic capacity 9200 Lit. Internal diameter 291 mm thickness 12.5 mm
 23 Main lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 45 kg/mm² Working pressure by Rules 80 kg

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes. G.L.O. Rpt No 4640

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

See Genoa Rpt

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Up 31.8.26

Oil Fuel Burning Arrangements

SPARE GEAR

One cylinder cover with valves, springs etc. One set of valves etc. for one cylinder. Four needle valves. One cylinder liner. One piston complete with rings, studs & nuts. One set of piston rings for one pig. Two telescopic cooling pipes. One complete set of skew wheels for one. One set of studs and nuts for two cylinder covers. One cross head cover in bearing with bolts & nuts. One bottom end bearing with bolts & nuts. One main bearing with bolts & nuts. Two sets of bolts & nuts for each shaft. Two sets of bolts & nuts for intermediate shaft coupling. One set of piston rings for each size used in the air compressors. One retractor and delivery valve for main and auxiliary compressor. One complete set of retractor and delivery valves for scavenging air pump. Mountings for one fuel pump. One water circulating pump fitted in iron. One complete set of valves, springs etc. for one cylinder. The foregoing is a correct description, auxiliaries diesel. Four needle valves for

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

1927 Mar 22, 25, Apr 15, 22, May 16, 20, 23, June 13, 27, 28, 30, July 7, 14, 20, 22, 26, 27, Aug

Twenty three

Dates of Examination of principal parts - Cylinders 1.22/4/27 Covers 1.22/4/27 Pistons 1.22/4/27 Rods 22/4/27 Connecting rods 22/4/27

Crank shaft 28.6.27 Flywheel shaft 28.6.27 Thrust shaft 28.6.27 Intermediate shafts 26.6.27 Tube shaft -

Screw shaft 23.5.27 Propeller 23.5.27 Stern tube 22.3.27 Engine seatings 22.3.27 Engines holding down bolts 28

Completion of fitting sea connections 22.3.27 Completion of pumping arrangements 20.7.27 Engines tried under working conditions 4.8

Crank shaft, Material S M P Identification Mark MB 7131-2 Flywheel shaft, Material - Identification Mark -

Thrust shaft, Material S M P Identification Mark MB 179 Intermediate shafts, Material S M P Identification Marks MB 73

Tube shaft, Material - Identification Mark - Screw shaft, Material S M P Identification Mark MB 73

Is the flash point of the oil to be used over 150° F. Diesel oil

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 engines, ^{were} fitted on board at Monfalcone under supervision and satisfactorily tested under full working condition. In my opinion the machinery is eligible for notation of + L M C 8.27

See also Genoa Report No 9951

The amount of Entry Fee ... £ 68. When applied for, 30.8.27
1/5 Special ... £ 3895. When received, 26.9.27
Donkey Boiler Fee ... £ 1.820.
Travelling Expenses (if any) ... £ 1.820.

Committee's Minute FRI 16 SEP 1927

Assigned Home 8.27 09.

Oil Engines

Certificate (if required) to be sent to retained in duplicate in London Office (See Trieste & Genoa Rpt 23/5/27 & London D.O. 26.8.27)

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



© 2021 Lloyd's Register Foundation

a. Trieste

Continuation of Report No. 7672 dated Aug 11, 1927 on the

Ch V Arardigue

one set of piston rings for one piston of the Auxiliaries. One
set of stud and nuts for one cylinder cover of the Auxiliaries.
two crank pin bearing bolts and nuts and two main bea-
ring bolts and nuts for Auxiliaries. One set of piston rings
and one piston of each size in the air compressors of the
auxiliaries. One set of suction and delivery valves for
like compressors of the Auxiliaries. Working parts for one
crank pump of the Auxiliaries. Suction and delivery
valves for daily fuel supply pump. Suction and delivery
valves for cooling water pump. Suction and delivery
valves for bilge pumps. Assorted quantity of bolts and
nuts. Length of pipes of each size used for the fuel de-
livery and injection air pipes with suitable flanges &
unions. One piston rod for pistons of main engine. One
complete set of pads for Thrust block. 2 gudgeon pins for
crank piston of the auxiliaries

