

REPORT ON OIL ENGINE MACHINERY.

No. 10233

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Date of writing Report 5/3/28 When handed in at Local Office 5/3/28 Port of GENOA

No. in Survey held at Turin, Spezia & Genoa Date, First Survey Feb. 11th 1926 Last Survey Feb. 11th 1928

Reg. Book 37868 on the Single Screw vessel "CHISONE" ex "VALTELLINA" Tons Gross 6284 Net 3817

Built at Naples By whom built Cant. Nav. "Ilva" Yard No. 1342 When built 1922

Engines made at Turin By whom made Fiat S.G.M. Engine No. 1342 When made 1927

Donkey Boilers made at Turin By whom made Sec. Commerciale di Nav. Boiler No. 1342 When made 1927

Brake Horse Power 2200 Owners Sec. Commerciale di Nav. Port belonging to Genoa

Nom. Horse Power as per Rule 610 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended None

OIL ENGINES, &c. Type of Engines Fiat Diesel 2 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 750 m/m Length of stroke 1250 m/m No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1050 Is there a bearing between each crank Yes

Revolutions per minute 95 Flywheel dia. 3970 m/m Weight 16500 kg. Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals 467 as per Rule 467 Crank pin dia. 480 as fitted 480 Crank Webs 300 Mid. length breadth 650 Mid. length thickness 300 Thickness parallel to axis 340 Thickness around eye hole 340

Flywheel Shaft, diameter 467 as per Rule 467 Intermediate Shafts, diameter 480 as fitted 480 Thrust Shaft, diameter at collars 350 (original) as fitted 350 (original)

Tube Shaft, diameter None as per Rule None Screw Shaft, diameter 360 as fitted 385 (original) Is the tube shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes Original as fitted Original Thickness between bushes Original as fitted Original Is the after end of the liner made watertight in the 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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Original

Length of Bearing in Stern Bush next to and supporting propeller Original

Propeller, dia. 4 Pitch 4 No. of blades 4 Material Cast iron Whether Moveable No Total Developed Surface sq. feet

Method of reversing Engines Direct Is a governor fitted to prevent racing of the engine Yes Means of lubrication Forced

Thickness of cylinder liners 60 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Exhaust pipes attached If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes

Cooling Water Pumps, No. 2 (i.e. 135 x 200) 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. 1 Diameter 150 m/m Stroke 300 m/m Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size 4-1 at 300x300x250, 1 at 150x150x150, 1 at 190x150x150, 1 at 150x300 How driven Steam Steam Steam Main motor

Ballast Pumps, No. and size 1 at 300x300x250 Lubricating Oil Pumps, including Spare Pump, No. and size 2 automatic at 4 lts each

Are two independent means arranged for circulating water through the Oil Cooler No cooler fitted Are the Bilge Suctions in the Machinery Spaces Yes

Pumps, No. and size:—In Machinery Spaces Original. No. 1-2 at 90 m/m No. 2-2 at 90 m/m No. 3-2 at 90 m/m No. 4-2 at 90 m/m No. 5-2 at 90 m/m No. 6-2 at 90 m/m

In Holds, &c. Yes Are the Bilge Suctions in the Machinery Spaces Yes

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 at 150 m/m

Are all the Bilge Suction pipes in Holds and Machinery Spaces fitted with strum-boxes Yes Are they fitted with Valves or Cocks Yes

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

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 Wood casings

What pipes pass through the bunkers Hold bilge suction & pipes Have they been tested as per Rule Yes

What pipes pass through the deep tanks Yes Are they fitted with a watertight door Yes

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 None

If a wood vessel what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes

Main Air Compressors, No. 1 No. of stages 3 I.P. dia. 560/140 I.P. 350/130 Stroke 750 Driven by Main engine

Auxiliary Air Compressors, No. 1 No. of stages 3 I.P. dia. 140 I.P. 140 Stroke 250 Driven by Int. comb. eng.

Small Auxiliary Air Compressors, No. 1 No. of stages 3 I.P. dia. 186 I.P. 186 Stroke 130 Driven by Steam

Scavenging Air Pumps, No. 2 d.a. Diameter 950 Stroke 1000 Driven by Main engine

Auxiliary Engines crank shafts, diameter 147 aux. motor comp. as per Rule 157 as fitted 64 Aux. steam comp. Yes

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, by lamp What means are provided for cleaning their inner surfaces Openings at ends

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 2 Cubic capacity of each 1 t. 190 Internal diameter 291 thickness 12.5

Seamless, Seamless Material Steel Range of tensile strength 45 kg/cm² Working pressure by Rules 82.5 kg/cm²

Starting Air Receivers, No. 19 Total cubic capacity 1 t. 7600 Internal diameter 291 thickness 12.5

Seamless, Seamless Material Steel Range of tensile strength 45 kg/cm² Working pressure by Rules 80 kg/cm²

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

PLANS. Are approved plans forwarded herewith for Shafting 14/5/25 Receivers 6-1-26 Separate Tanks

Donkey Boilers 26/1/28 General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR 1 cylinder cover complete for main engines, 1 complete set of valves, valve seats, springs for one main and one aux. Diesel engine cylinder, fuel needle valves for half number of cylinders. 1 piston complete with all piston rings, studs and nuts for main engines. 1 complete set of main skew wheels for one main engine. 2 connecting rod top end bolts for the main & aux. motors. 2 connecting rod bottom end bolts for the main and aux. motors. 2 main bearing bolts for main & aux. motors. 1 set of crank shaft coupling bolts. 1 set of intermediate shaft coupling bolts. 1 complete set of piston rings for each piston of main & aux. motors. 1/2 set of aux. compressor valves. 1 complete set of spare parts for fuel pumps of main and aux. motors. 1 complete set of valves each for the daily fuel supply, water circulating bilge pumps. A quantity of assorted bolts and nuts including one set of cylinder cover studs and nuts. Length of pipes suitable for the fuel delivery & blast pipes to the cylinders, and the air delivery from the compressors to the receivers, with unions of flanges to suit. And an assortment of small spares.

The foregoing is a correct description,

STABILIMENTO GRANDI MOTORI
S. Di Sestiere
(ING. GIOVANNI CHIERA)
Ruggeri Manufacturer.

Dates of Survey while building 1926 Feb. 11, 24, March 9, 10, 17, April 1, 8, 13, 14, 20, 23, 28, May 4, 5, 14, 15, 20, 21, 26, 27, June 3, 8, 15, 22, 30 July 1, 8, 22, 29, Aug. 9, 12, 21, Sep. 2, 9, 16, 23, 30 Oct. 7, 14, 21, 29 Nov. 11, 18, 25, 30 Dec. 3, 7, 16, 23, 28, 31 1927 Jan. 4, 7, 11, 19, Feb. 10, 11, 18, 22, 25, March 1, 4, 9, 16, 18, 22, April 1, 5, 10, 20 June 25, Sep. 22. - 73 visits.
During erection on board 1927-March 29, July 26, Aug. 18, 24, Sep. 14, Oct. 26, Nov. 3, 8, 9, 1928-Jan. 4, 5, 13, 23, 27, 28, 30, 31 Feb. 1, 6, 6, 11 - 21 visits

Dates of Examination of principal parts—Cylinders 27.1.28 Covers 27.1.28 Pistons 27.1.28 Rods 27.1.28 Connecting rods 27.1.28

Crank shaft 27/1/28 Flywheel shaft 27/1/28 Thrust shaft 27/1/28 Intermediate shafts - Tube shaft -

Screw shaft 5/1/28 Propeller 5/1/28 Stern tube 5/1/28 Engine seatings 27/1/28 Engines holding down bolts 27/1/28

Completion of fitting sea connections 5/1/28 Completion of pumping arrangements 27/1/28 Engines tried under working conditions 27/1/28

Crank shaft, Material Steel Identification Mark N.209 G.B. Flywheel shaft, Material Steel Identification Mark No.468 R.M.

Thrust shaft, Material Steel Identification Mark No.201 P.T.B. Intermediate shafts, Material None Identification Marks

Tube shaft, Material None Identification Mark 10-1-21 Screw shaft, Material Steel Identification Mark No.4 P.T.B. 23-3-21

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

Is this machinery duplicate of a previous case Yes If so, state name of vessel "MARIA" Motor only

General Remarks (State quality of workmanship, opinions as to class, &c. The new engines have been constructed under supervision of tested materials, in accordance with the requirements of the Rules and with the Secretary's letters. Materials and workmanship are good. The engines have been satisfactorily fitted on board and tried under working conditions with good results. The vessel is eligible in our opinion for the notation L.M.C. 2-28, N.E. 2-28 (Oil Eng.) and the notation T.S. (C.L.) seen 2-28, and D.B. refitted 2-28 (see separate report).

The Owners state that the vessel has now only the classes of the R.I. & L.R. the class of the B.C. having been withdrawn at their request.

The two daily service tanks (no drawing available) are circular of diameter 1400 m/m. & 3500 m/m. high, plating 9 m/m. thick, end plates 10 m/m thick, double riveting, bottom stiffened by angles. They are placed in the old bunker space at the level of the first stringer. They have been tested to their maximum head possible under working conditions & found tight.

DUAL SURVEY
L.R. & R.I.

The amount of Entry Fee ... Lit. 600.- : When applied for, 5/3/28
Special ... £ 2000.- :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 750.- : When received, 18.6.28

Committee's Minute
Assigned + L.M.C. 2:28 + N.E. 2:28
S. 2:28 Oil Engines

14 MAY 1929
19 JUL 1929
25 APR 1930
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