

REPORT ON OIL ENGINE MACHINERY.

No. 6799

Received at London Office - 8 SEP 1925

Date of writing Report 19 When handed in at Local Office Sep 3 1925 Port of Trieste

No. in Survey held at Trieste & Turin Date, First Survey 1924 Nov 22 Last Survey Aug 24 1925
Reg. Book. 27173 on the Single Twin Triple Screw vessels MAULY Number of Visits 33 Tons Gross 5943 Net 3512

Master Built at Monfalcone By whom built Cant. Nav. Triest. Yard No. 137 When built 1925

Engines made at Turin By whom made S.A. FIAT STAB. GRANDI MOTORI Engine No. 1227 When made 1925

Donkey Boilers made at Lunan By whom made Catman & Co. Lunan Rd. Boiler No. 9288 When made 1924

Brake Horse Power 2400 Owners Cosulich Soc. Triestina di Navig. Port belonging to Trieste

Nom. Horse Power as per Rule 686 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

See also Genoa Report OIL ENGINES, &c. Type of Engines Vertical inverted Diesel 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 35 Kg 500 lb No. of cylinders 4 x 2 No. of cranks 4 Diameter of cylinders 600 mm

Length of stroke 950 mm Revolutions per minute 115 Means of ignition Compression Kind of fuel used Diesel oil

Is there a bearing between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 820 mm

Distance between centres of main bearings 1200 mm Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 368 mm as fitted 370 mm

Diameter of crank pins 370 mm Breadth of crank webs as per Rule 494 mm as fitted 500 mm Thickness of ditto as per Rule 206 mm as fitted 205 mm

Diameter of flywheel shaft as per Rule 368 mm as fitted 370 mm Diameter of tunnel shaft as per Rule 251 mm as fitted 265 mm Diameter of thrust shaft as per Rule 264 mm as fitted 280 mm

Diameter of screw shaft as per Rule 276 mm as fitted 300 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes

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 joints burned yes (Elect. welded)

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 / If without liners, is the shaft arranged to run in oil /

Type of outer gland fitted to stern tube none Length of stern bush 1200 mm Diameter of propeller 3500 mm

Pitch of propeller 3400 mm No. of blades 4 state whether moveable no Total surface 4.6 m² square feet

Method of reversing Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners 53.5 mm

Are the cylinders fitted with safety valves yes Means of lubrication forced 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 / No. of cooling water pumps 2 attached each motor Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

No. of bilge pumps fitted to the main engines none Diameter of ditto / Stroke / Can one be overhauled while the other is at work /

No. of auxiliary pumps connected to the main bilge lines two How driven electric Sizes of pumps 8 x 7 1/2, 10 x 11 (two) No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps: - In engine room 3 a 3 1/2, 3 a 4 1/2

and in holds, etc. two for each hold 3 1/2 No. of ballast pumps one How driven electric Sizes of pumps 10 x 11 two cylinders

Is the ballast pump fitted with a direct suction from the engine room bilges yes two State size 4 1/2 Is a separate auxiliary pump suction fitted in Engine Room and size yes 4 1/2

Are all the bilge suction pipes fitted with roses in holds Are the roses in Engine Room always accessible par 5 d Are the sluices on Engine Room bulkheads always accessible none

Are all connections with the sea direct on the skin of the ship yes Are they valves or cocks valves Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates yes

Are the discharge pipes above or below the deep water line above Are they each fitted with a discharge valve always accessible on the plating of the vessel yes

Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times yes Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges yes

Is the screw shaft tunnel watertight yes Is it fitted with a watertight door yes worked from top of cylinders a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork /

No. of main air compressors one per motor No. of stages 3 Diameters 510, 455, 110 Stroke 700 Driven by shaft

No. of auxiliary air compressors one No. of stages 3 Diameters 300, 260, 65 Stroke 250 Driven by Electric motor

No. of small auxiliary air compressors one No. of stages 3 Diameters 185, 165, 42 Stroke 140 Driven by Hot bulb motor

No. of scavenging air pumps one per motor Diameter 1120 Stroke 700 Driven by Compressor crank

Diameter of auxiliary Diesel Engine crank shafts as per Rule 147 mm as fitted 157 mm Are the air compressors and their coolers made so as to be easy of access yes

AIR RECEIVERS: - No of high pressure air receivers 4 (2 per motor) internal diameter 300 mm Cubic capacity of each 125 litres

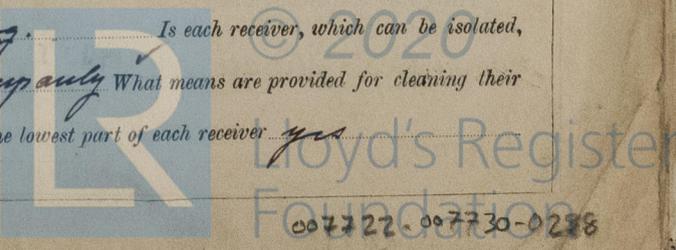
material Steel Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength 46 Kg minimum

thickness 11 mm working pressure by Rules 71 Kg No. of starting air receivers 21 Internal diameter 300 mm

Total cubic capacity 8300 litres Material Steel Seamless, lap welded or riveted longitudinal joint Seamless

Range of tensile strength 46 Kg min thickness 11 mm Working pressure by rules 71 Kg Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes, 4 groups Can the internal surfaces of the receivers be examined by lamp only What means are provided for cleaning their inner surfaces drain

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



IS A DONKEY BOILER FITTED? *yes*

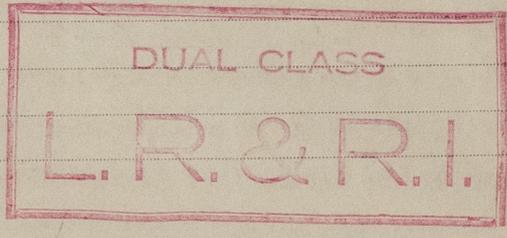
If so, is a report now forwarded? *yes Glasgow Report*

No 44110

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	7.4.25	1.50 Rg	5 Rg	A.L. & test pres.	Water space only.
" " COVERS	7.4.25	1.50 Rg	5 Rg	"	Cylinder liner
" " JACKETS.....	7.4.25	1.50 Rg	5 Rg	"	
" " PISTON WATER PASSAGES.....	7.4.25	1.50 Rg	5 Rg	"	
MAIN COMPRESSORS—1st STAGE.....	12.2.25	70 Rg	150 Rg	"	
" 2nd "	12.2.25	15 Rg	30 Rg	"	
" 3rd "	12.2.25	4 Rg	8 Rg	"	
AIR RECEIVERS—STARTING	28.1.25	70 Rg	150 Rg	ASM date	
" INJECTION	28.1.25	70 Rg	150 Rg	tested previous	
AIR PIPES	12.2.25, 3.7.25	70 Rg	180 Rg	L.S.	
FUEL PIPES	12.2.25	75 Rg	150 Rg	A.L. & test	
FUEL PUMPS	12.2.25	75 Rg	150 Rg	pressure	
SILENCER	—				
" WATER JACKET	<i>none</i>				
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *2*. Receivers *1*. Separate Tanks *2*.
 SPARE GEAR *see attached list. ✓*



The foregoing is a correct description,

See Girona Report

Manufacturer.

Dates of Survey while building
 During progress of work in shops -- 1924 June 12, Aug 8, 26 Sept 25, 26 Oct 9, 23, 29, Nov. 13, 20, 27, Dec 7, 11 1925 Feb. 3, 5, 12 Apr. 4, 7, 10, 22 May 18, 30 June 6, 19
 During erection on board vessel -- 1924 Nov 22, Dec 2, 19 1925 Jan 5, Mar 5, 27, Apr 3, 20, May 5, 8, 11, 15, June 2, 23, July 2, 7, 18, 21, 22, 28, 30, Aug 3, 6, 7, 11, 14, 16, 20, 21, 22, 24
 Total No. of visits *Turin 24 Monfalcone 33*

Dates of Examination of principal parts—Cylinders 7.4.25 Covers 7.4.25 Pistons 7.4.25 Rods 19.6.25 Connecting rods 19.6.25
 Crank shaft 19.6.25 Thrust shaft 2.7.25 Tunnel shafts 2.7.25 Screw shaft 12.12.24 Propeller 4.7.25 Stern tube 22.11.24 Engine seatings 22.11.24
 Engines holding down bolts 2.7.25 Completion of pumping arrangements 7.8.25 Engines tried under working conditions
 Completion of fitting sea connections 12.12.24 Stern tube 19.12.24 Screw shaft and propeller 14.12.24 & 4.7.25
 Material of crank shaft *Steel* Identification Mark on Do. *ASM 323, ASM 307, AL 372, AL 585* Material of thrust shaft *Steel* Identification Mark on Do. *ASM 434, ASM 387*
 Material of tunnel shafts *Steel* Identification Marks on Do. *ASM 464, 463, 343, 462, 449, 340, 341, 342, 415, 405, 430 AL 398, 406, 404* Material of screw shafts *Steel* Identification Marks on Do. *ASM 348-358*
 Is the flash point of the oil to be used over 150° F.

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. (*Girona Report*) This oil engine machinery has been constructed under special survey in accordance with the Secretary's letters and with the requirements of the Rules. Material and workmanship are good. In my opinion the machinery is such as may be fitted in a vessel building to this Society's class.

These engines were placed on board at the Cantiere Navale Triestino, Monfalcone, and fitted under special survey. They have been tested under full working condition and found in order. In my opinion the machinery is suitable for the notation of + LMC 8.25

The amount of Entry Fee ... £ 784-
 Special ... £ 3281-
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 10 70-
 Sunday fee " 278-

When applied for, 19. When received, 25. *Engineer Surveyor to Lloyd's Register of Shipping.*

Committee's Minute

Assigned

+ L.M.C. 8.25 Cl. at Regimes - D.B.

Certificate (if required) to be sent to the Secretary of the Society for Committee's Minute.

