

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 9070

20 AUG 1925

Date of writing Report 8/7/25 When handed in at Local Office 8/7/25 Port of Genoa
 No. in Survey held at Turin Date, First Survey 12/6/1924 Last Survey 19/6/1925
 Reg. Book. 89838 on the Single Screw vessels "MAULY." Number of Visits 24
 Master Monfalcone 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 Engines No. 1226 When made 1925
 Donkey Boilers made at Turin By whom made S.A. FIAT. STAB. GRANDI MOTORI Boiler No. 1227 When made 1925
 Brake Horse Power 2400 Owners Cosulich Soc. Triestina di Nav. Port belonging to Trieste
 Nom. Horse Power as per Rule 683 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

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/cm² No. of cylinders 8 (4 per motor) No. of cranks 8 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 Diameter of crank pins 370 Breadth of crank webs as per Rule 494 Thickness of ditto as per Rule 206
 as fitted 500 as fitted 205 (APPX) Diameter of flywheel shaft as per Rule 368 Diameter of tunnel shaft as per Rule 251 Diameter of thrust shaft as per Rule 264
 as fitted RYWHEEL ATTACHED TO CRANK SHAFT COUPLING. as fitted 265 as fitted 280
 Diameter of screw shaft as per Rule 276 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes
 as fitted 285 300 If the liner is in more than one length are the joints burned Yes (FLEC. WELDED)
 Is the after end of the liner made watertight in the propeller boss 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 If without liners, is the shaft arranged to run in oil Yes
 Type of outer gland fitted to stern tube Direct Length of stern bush 1200 Diameter of propeller 3500
 Pitch of propeller 3400 No. of blades 4 state whether moveable No Total surface 3.89 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 535 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 Yes
 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 — How driven —
 Sizes of pumps — No. and sizes of suction connections to both main bilge pumps and auxiliary bilge pumps:—In engine room — and in holds, etc. — No. of ballast pumps — How driven — Sizes of pumps —
 Is the ballast pump fitted with a direct suction from the engine room bilges — State size — Is a separate auxiliary pump suction fitted in Engine Room and size — Are all the bilge suction pipes fitted with roses — Are the roses in Engine Room always accessible —
 Are the sluices on Engine Room bulkheads always accessible — Are all connections with the sea direct on the skin of the ship —
 Are they valves or cocks — Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates —
 Are the discharge pipes above or below the deep water line — Are they each fitted with a discharge valve always accessible on the plating of the vessel —
 Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times — Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges — Is the screw shaft tunnel watertight — Is it fitted with a watertight door —
 worked from — If 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 2 - 1 PER MOTOR No. of stages 3 Diameters 510-455-110 Stroke 700 Driven by CRANK DIRECT COUPLED TO MAIN CRANK SHAFT.
 No. of auxiliary air compressors 1 No. of stages 3 Diameters 300-260-65 Stroke 250 Driven by ELEC. MOTOR
 No. of small auxiliary air compressors 1 No. of stages 3 Diameters 185-165-42 Stroke 140 Driven by HOT BULB MOTOR. 1CY-2SE.3.9 240 DIA X 250 STROKE.
 No. of scavenging air pumps 2 - 1 per motor Diameter 1120 Stroke 700 Driven by COMPRESSOR CRANK.
 Diameter of auxiliary Diesel Engine crank shafts as per Rule 147 Are the air compressors and their coolers made so as to be easy of access Yes
 as fitted 157

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 MIN².
 thickness 11 mm working pressure by Rules 71 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 MIN² thickness 11 mm Working pressure by rules 71 kg/cm² 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.

DUAL SURVEY
L. R. & R. I.

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	7/4/25 & PREVIOUS DATES	1 Kg./cm ²	5 Kg.	A.L. & TEST PRESSURE	Water Space only, Lu
" " COVERS	7/4/25	"	"	"	are of simple form and
" " JACKETS	7/4/25	"	"	"	of sufficient thickness
" " PISTON WATER PASSAGES	7/4/25	"	"	"	
MAIN COMPRESSORS—1st STAGE	12/2/25	70 Kg.	150 Kg.	"	
" 2nd "	12/2/25	15 Kg.	30 Kg.	"	
" 3rd "	12/2/25	4 Kg.	8 Kg.	"	
AIR RECEIVERS—STARTING	28/1/25	70 Kg.	150 Kg.	A.S.M. DATE & PRESSURE	May be used for high pressure
" INJECTION	28/1/25	70 Kg.	150 Kg.	"	air (70 Kg.).
AIR PIPES	12/2/25 & other dates	70 Kg.	150 Kg.	—	
FUEL PIPES	12/2/25 " "	75 Kg.	150 Kg.	—	
FUEL PUMPS	12/2/25 " "	75 Kg.	150 Kg.	A.L.	
SILENCER	✓				
" WATER JACKET	NONE				
SEPARATE FUEL TANKS	Trieste.				

PLANS. Are approved plans forwarded herewith for shafting LONDON 27/6/24 Receivers AUX LON E 6/7/25 Separate Tanks Trieste
 (If not, state date of approval) MAIN CRANK SHAFT LONDON 27/6/24 MAIN LON. E. 11/8/25
 AIR SHAFTING APPELON. 21/2/25 — L.252 TYPE. HOT BULB CRANK SHAFT LON. 21/2/25. — A.241 "

SPARE GEAR

Trieste

FIAT

STABILIMENTO GRANDI MOTORI

The foregoing is a correct description of the machinery.

Ing. G. CHIESA
 Ing. Elvini Manufacturer.

Dates of Survey while building: 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, JUN 6.
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits: TRIESTE = 24

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 Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Engine seatings 19/6/25
 Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions IN SHOP 1226 — 4/4/25 IN SHOP 1227 — 6/4/25
 Completion of fitting sea connections Stern tube Screw shaft and propeller
 Material of crank shaft STEEL Identification Mark on Do. A.S.M. 307, 323 A.L. 372, 583 Material of thrust shaft Identification Mark on Do.
 Material of tunnel shafts Identification Marks on Do. Material of screw shafts Identification Marks on Do.

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.) This oil engine machinery has been constructed under special survey in accordance with the approved plan, the Secretary's letters and the Requirements of the Rules. Materials and workmanship are good. In my opinion the machinery is such as may be fitted in a vessel building to the Society's class. The machinery has been sent to Trieste where it will be fitted on board. A copy of this report, together with the usual forging reports &c has been sent to the Trieste Surveyors.

DUAL SURVEY
 L. R. & R. I.

The amount of Entry Fee ... £ GENOVA 4/5 THS LT. 11614 =
 Special ... £
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) ... £ GENOVA LIT 3558 -
 When applied for, 28/7 25
 When received, 25

Alex Lawrence
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned See Tri. No. 6799



Trieste

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