

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

Registered at London Office

Genoa

No. in Survey held at

Turin

Date, First Survey

12/6/1924

Last Survey

19/6/25

1925

Reg. Book.

89838

on the

Single  
Twin  
Triple

Screw vessels

"MAULY."

Master

Built at

Monfalcone

By whom built

Cant. Nav. Trieste

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

By whom made

Boiler No.

When made

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

Is Electric Light fitted

Yes

## OIL ENGINES, &amp;c.

Type of Engines

Vertical Inverted "Diesel"

2 or 4 stroke cycle

2

Single or double acting

Single

Maximum pressure in cylinders

35 kg/cm<sup>2</sup>

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

as fitted 500

Thickness of ditto

as per Rule 206

as fitted 205 (APPR)

Diameter of flywheel shaft

as per Rule 368

as fitted FLYWHEEL ATTACHED TO CRANK SHAFT COUPLING

Diameter of tunnel shaft

as per Rule 251

as fitted 265

Diameter of thrust shaft

as per Rule 264

as fitted 280

Diameter of screw shaft

as per Rule 276

as fitted 285 300

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

If the liner is in more than one length are the joints burned

Yes (ELEC. 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

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

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

within the vessel

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 suctions connected 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

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

as fitted 157

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 MIN<sup>2</sup>

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 MIN<sup>2</sup>

thickness

11 mm

Working pressure by rules

71 kg/cm<sup>2</sup>

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

YES

inner surfaces

DRAIN

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

YES

DUAL SURVEY  
L. R. & R. I.

007722-007730-0291



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 <sup>2</sup>	5 Kg.	A.L. & TEST PRESSURE	Water Space only. In
" " 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 air (70 Kg.).
" INJECTION .....	28/1/25	70 Kg.	150 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) AIR SHAFING APP LON. 21/2/25 — L252 TYPE.  
HOT BULB CRANK SHAFT LON. 21/2/25 — A.241 "

SPARE GEAR

FIAT

STABILIMENTO GRANDI MOTORI

The foregoing is a correct description.

Director

(ING. G. CHIESA)

Ing. Elvino

Manufacturer.

1924  
Dates of Survey while building  
During progress of work in shops -- JUNE 12, AUG. 8, 26, SEPT. 25, 26, OCT. 9, 23, 29, NOV. 13, 20, 27, DEC. 7, 11, FEB. 3, 5, 12, APR. 4, 7, 10, 22, MAY 18, 30, JUN 6  
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 plans, 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 ... £ 4/5 THS LIT. 116/14 =

Special

Donkey Boiler Fee ... £

Travelling Expenses (if any) ... £ GENOVA LIT 3558-

When applied for,

28/7 25

When received,

28/7 25

Alex Lawrence

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 4 JUN 1926

Committee's Minute

Assigned

See Tri. 26 6799



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Foundation