

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY

No. 6987

22 FEB 1926

Received at London Office

Date of writing Report

8th Feb.

When handed in at Local Office

Feb 19th

26 Port of

Trieste

No. in Survey held at
Reg. Book.

Shute

Date, First Survey

7th Jan 1925

Last Survey

Feb 3

1926

Number of Visits

159

2812 on the

Single
Triple

Screw vessels

"INDIA"

Tons, Gross 6367

Net 4077

Built at

Shute

By whom built

Stalimento Scenico Sestimo

Yard No. 744

When built 1926

Engines made at

do

By whom made

do

Engine No. 8000

When made 1926

Donkey Boilers made at

Auman

By whom made

Boehman & Son

Boiler No. 9005

When made 1925

Brake Horse Power

Owners Societa Marittima Italiana

Port belonging to

Genoa

Nom. Horse Power as per Rule

652

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yps.

L ENGINES, &c.—Type of Engines

Bunnels & Wain Diesel

2 or 4 stroke cycle

4 Single or double acting

Single

Maximum pressure in cylinders

35 kg/cm²

No. of cylinders

8

Diameter of cylinders

140

No. of cranks

8

Length of stroke

1500

Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge

1004

Revolutions per minute

95

Flywheel dia.

2900

Weight

10,000

Means of ignition

Comp. Air

Kind of fuel used

Diesel oil

Crank Shaft, dia. of journals

as per Rule 481

as fitted 482

Crank pin dia.

482

Crank Webs

Mid. length breadth 760

Mid. length thickness 310

shrink

Thickness parallel to axis 310

Thickness around eye hole 208

Flywheel Shafts, diameter

as per Rule 481

as fitted 482

Intermediate Shafts, diameter

as per Rule 344

as fitted 345

Thrust Shaft, diameter at collars

as per Rule 361

as fitted 362

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 348

as fitted 345

Is the tube

screw

shaft fitted with a continuous liner

Yps.

Bronze Liners, thickness in way of bushes

as per Rule 19

as fitted 19.5

Thickness between bushes

as per rule 15

as fitted 15

Is the after end of the liner made watertight in the

propeller boss

Yps.

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

Yps.

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

two liners are fitted, is the shaft lapped or protected between the liners

Yps.

Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft

Yps.

Length of Bearing in Stern Bush next to and supporting propeller

1880

Propeller, dia.

4860

Pitch

4380

No. of blades

4

Material

Bronze

whether Moveable

Yps.

Total Developed Surface

7.24

sq. feet

Method of reversing Engines

Air (Brown)

Is a governor or other arrangement fitted to prevent racing of the engine when started

Yps.

Means of lubrication

Yps.

Thickness of cylinder liners

53.5/41

Are the cylinders fitted with safety valves

Yps.

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

Yps.

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

Yps.

Boiling Water Pumps, No.

2

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yps.

Large Pumps fitted to the Main Engines, No.

2

Diameter

160

Stroke

280

Can one be overhauled while the other is at work

Yps.

Pumps connected to the Main Bilge Line

No. and Size

2 @ 170 x 150, 1 @ 300 x 300 all duplex

How driven

Electric motors

Ballast Pumps, No. and size

1 duplex 300 x 300

Lubricating Oil Pumps, including Spare Pump, No. and size

2 @ 35 Tons per hour

Are two independent means arranged for circulating water through the Oil Cooler in double bottom

Pumps, No. and size:—In Engine and Boiler Room

2 @ 90, 2 hats @ 45, copper daisy 1 @ 45, tunnel well 1 @ 80

Holds, &c.

forward 6 @ 80, deep tank 2 @ 80, aft 4 @ 80

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

2 to high pumps @ 90, 1 to ballast pump @ 180

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yps.

Are the Bilge Suctions in the Machinery Space

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yps.

Are all Sea Connections fitted direct on the skin of the ship

Yps.

Are they fitted with Valves or Cocks

Valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the

platform

plates

Yps.

Are the Overboard Discharges above or below the deep water line

above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yps.

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yps.

Do all pipes pass through the bunkers

None

How are they protected

Yps.

Do all pipes pass through the deep tanks

Forward Suctions

Have they been tested as per Rule

Yps.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yps.

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

apartment to another

Yps.

Is the Shaft Tunnel watertight

In hull report

Is it fitted with a watertight door

Yps.

worked from

top platform

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

Main Air Compressors, No.

One

No. of stages

3

Diameters

150, 175, 150

Stroke

610

Driven by

Main crank shaft

Auxiliary Air Compressors, No.

Each 2

No. of stages

3

Diameters

322, 288, 19

Stroke

220

Driven by

2 cyl. Air Diesel engine

Small Auxiliary Air Compressors, No.

One

No. of stages

2

Diameters

106, 34

Stroke

80

Driven by

Single cyl. Steam engine

Savenging Air Pumps, No.

Yps.

Diameter

Yps.

Stroke

Yps.

Driven by

Yps.

Auxiliary Engines crank shafts, diameter

as per Rule 161.5

as fitted 162

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yps.

Are the internal surfaces of the receivers be examined

Yps.

What means are provided for cleaning their inner surfaces

Steam

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

Yps.

High Pressure Air Receivers, No.

3 main, 3 aux

Cubic capacity of each

2 @ 500 litres

Internal diameter

480

Thickness

15

Working pressure by Rules

10.5

10.6

10.7

10.8

10.9

11.0

Seamless, lap welded or riveted longitudinal joint

Seamless

Material

S

Range of tensile strength

41-47

Working pressure by Rules

10.5

10.6

10.7

10.8

10.9

11.0

Starting Air Receivers, No.

2

Total cubic capacity

4000

Internal diameter

1953

Thickness

26.5

Working pressure by Rules

24.9

25.0

25.1

25.2

25.3

25.4

Seamless, lap welded or riveted longitudinal joint

Riveted

Material

S

Range of tensile strength

44-50.5

Working pressure by Rules

24.9

25.0

25.1

25.2

25.3

25.4

25.5

25.6

74

Lloyd's Register

Foundation

W1052-0064

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	14/5/25 - 26/5/25	35 Kg/cm ²	60 Kg/cm ²	Gob NL	Plain form turned on
" " COVERS	26/5/25 - 31/8/25	" " "	" " "	Gob NL	tested 3 Kg/cm ² in water
" " JACKETS	14/9/25 - 31/9/25	15 " "	3 " "	Gob NL	
" PISTON WATER PASSAGES	14/8/25 - 25/9/25	" " "	10 " "	Gob NL	
MAIN COMPRESSORS—1st STAGE	7/9/25 - 21/9/25	4.5 " "	10 " "	Gob NL	water circulating pumps tested to 3 Kg/cm ²
" 2nd "	17/9/25 - 6/10/25	20 " "	40 " "	Gob NL	
" 3rd "	19/8/25 - 6/10/25	65 " "	130 " "	Gob NL	
AIR RECEIVERS—STARTING	23/9/25 & 8/10/25	25 " "	39 " "	NO 55 & 58 DATE TEST Gob.	
" INJECTION	25/5/25 - 25/9/25	65 " "	1860 lbs	DATE TEST JQ	
AIR PIPES	8/9/25 - 11/1/25	25 & 65 " "	50 & 130 Kg/cm ²	Gob	
FUEL PIPES	1/1/26 & 8/1/26	65 " "	130 " "	DATE TEST	
FUEL PUMPS	14/8/25	" " "	" " "	G.O.B.	
SILENCER	26/9/25	" " "	3.5 " "	Gob	Hot water cooled.
EXHAUST WATER JACKETS	22/9/25 & 26/8/25	1.5 " "	50 lbs	T.R.M. NO 54 & 56	
SEPARATE FUEL TANKS	18/9/25 & 23/9/25	depth of Tanks	15 " "	DATE TEST Gob.	Seams and joints electrically welded.

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

Donkey Boilers

Yes.

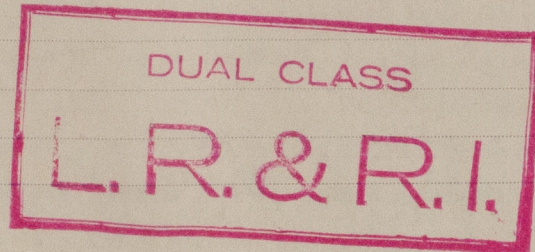
General Pumping Arrangements

Yes.

Oil Fuel Burning Arrangements

SPARE GEAR

See attached list.



The foregoing is a correct description.

STABILIMENTO TECNICO TRIESTINO

Ant. Biondi

Manufacturer.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel --
Total No. of visits 159

See separate sheet

Dates of Examination of principal parts—Cylinders 14/5/25 } 26/5/25 } 14/8/25 } Rods 21/7/25 Connecting rods 21/7/25
31/8/25 } Covers 31/8/25 } 25/9/25 }
Crank shaft 24/3/25 Flywheel shaft and Thrust shaft 3/7/25 Intermediate shafts 30/12/25 Tube shaft
Screw shaft 3/12/25 Propeller 11/1/26 Stern tube 21/7/25 Engine seatings 17/1/25 Engines holding down bolts 30/12/25
Completion of fitting sea connections 31/3/25 Completion of pumping arrangements 15/1/26 Engines tried under working conditions 20/1/26
Crank shaft, Material SM. Anwed I St Identification Mark 574-578-AS17-AL-24/3/25 Flywheel shaft, Material SM. Anwed I St Identification Mark 70-31/7/25
Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks NO 41/45-31/7/25
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark 120-3/2/25

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

Yes.

Is this machinery duplicate of a previous case

Yes.

If so, state name of vessel

"GIOLIA"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been built under special survey and in accordance with the approved plans. The material and workmanship are good. The machinery has been efficiently secured in position on board and on completion has been tried under full working conditions with satisfactory results. The manoeuvring trials have been satisfactorily carried out in accordance with the Rules.

The machinery of this vessel is eligible, in our opinion, to be classed in the Register Book with notation of + LMC 2.26 CL.

See Tri 11r 1/3/26.

The amount of Entry Fee ... £ 728-: When applied for,

Special ... £ 14.082-: 4619 1926

Donkey Boiler Fee ... £ : When received,

Travelling Expenses (if any) £ 130-: 27.4.26

Committee's Minute

Assigned

+ LMC 2.26 CL
Oil Engines

Engineer Surveyor to Lloyd's Register of Shipping.



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