

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

5 MAR 1928

Date of writing Report

Feb 23 1928

When handed in at Local Office

Feb 24 1928

Port of Trieste

No. in Survey held at

Glasgow & Monfalcone

Date, First Survey

3 Nov 1927

Last Survey

21 Feb 1928

Reg. Book.

39799 on the

S. S. Astra III

(Number of Visits)

22

Built at

Monfalcone

By whom built

Cantiere Navale Triestino

Yard No.

186

When built

1928

Engines made at

Glasgow

By whom made

D. Rowan & Co. Ltd.

Engine No.

866

when made

1927

Boilers made at

Glasgow

By whom made

D. Rowan & Co. Ltd.

Boiler No.

866

when made

1927

Registered Horse Power

Owners "Astra" Cia. Argentina de Petroleos

Port belonging to Buenos Aires

Nom. Horse Power as per Rule

651

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

See also Glasgow Report 47198

ENGINES, &c.—Description of Engines

Triple Expansion

Revs. per minute 78

Dia. of Cylinders

27 1/2" x 46" x 77"

Length of Stroke

54"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 15.183"

as fitted 15 1/4"

Crank pin dia.

as per Rule 14.46"

Crank webs

Mid. length breadth 22 1/4"

Mid. length thickness 9 3/4"

Thickness parallel to axis 9 3/4"

Intermediate Shafts, diameter

as per Rule 14.46"

as fitted 14 1/2"

Thrust shaft, diameter at collars

as per Rule 15.18"

as fitted 15 1/2"

Tube Shafts, diameter

as per Rule 15.96"

as fitted 16"

Screw Shaft, diameter

as per Rule 15.96"

as fitted 16"

Is the shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule 0.787"

as fitted 0.812"

Thickness between bushes

as per Rule 0.59"

as fitted 0.75"

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

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

no

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

end of the tube shaft

no

Length of Bearing in Stern Bush

next to and supporting propeller

5' 4"

Propeller, dia.

18'-0"

Pitch

18'-0"

No. of Blades

4

Material

Bronze

whether Movable

yes

Feed Pumps worked from the Main Engines, No.

none

Diameter

Stroke

Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No.

none

Diameter

Stroke

Can one be overhauled while the other is at work

Feed Pumps

No. and size

Two 12" x 9" x 24"

How driven

Steam

Pumps connected to the

No. and size

One 6" x 8" x 8" duplex. Also Ballast pump

Ballast Pumps, No. and size

One 10 x 12 x 12

How driven

Steam

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

Two 6 x 7 1/2 x 6"

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

Bilge Pumps;—In Engine and Boiler Room Two 3 1/2" & one direct 4 1/4" on bilge pump. Two 2" on transfer pump. One 3" for B.A. Cofferdam on bilge pump and one 3" on transfer pump. In Holds, &c. Forward Pump space, three 3 1/2". Peak tank one 2". Forward Cofferdam two 4". After Pump space one 3 1/2". After Cofferdam two 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size

one 12"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

one 4 3/4"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

Are they fitted with Valves or Cocks

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

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

What Pipes pass through the bunkers

What pipes pass through the deep tanks

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

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

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers

Is Forced Draft fitted

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for Shafting

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

Two connecting rod top and bottom end bolts & nuts.

Two main bearing bolts. One set of coupling bolts. One set of piston springs

for each piston. One screw shaft. Two bronze propeller blades. One 1/3 crank shaft

One piston rod. One top end brasser. One bottom end brasser. One thrust shoe. One

eccentric strap. One set of piston rings for each donkey pump (steam & water).

One set of valves for each donkey pump. Assorted quantity of bolts & nuts. Iron

of various sizes.

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register
Foundation

009879-009881-0295

During progress of work in shops - - - See Glasgow Report No 47198.
Dates of Survey while building { During erection on board vessel - - - 1927 Nov 3, 4, 11, 16, 23 Dec. 7, 12, 15. 1928 Jan 25, 27 Feb. 1, 2, 2, 6, 9, 10, 13, 15, 16.
Total No. of visits twenty two.

See also Glasgow Report No 47198
Dates of Examination of principal parts—Cylinders 6.2.28 Slides 9.2.28 Covers 6.2.28
Pistons 6.2.28 Piston Rods 6.2.28 Connecting rods 6.2.28
Crank shaft 2.2.28 Thrust shaft 2.2.28 Intermediate shafts 2.2.28
Tube shaft — Screw shaft 4.11.27 Propeller 11.11.27
Stern tube 3 & 4.11.27 Engine and boiler seatings 23.11.27 Engines holding down bolts 25.1.28
Completion of fitting sea connections 11.11.27
Completion of pumping arrangements 10.2.28 Boilers fixed 25.1.28 Engines tried under steam 17.2.28
Main boiler safety valves adjusted 15.2.28 Thickness of adjusting washers 8 1/2 10 8 10 9 1/2 8 7/8
Crank shaft material J. Steel Identification Mark 866 JDM 2.9.27 Thrust shaft material J. Steel Identification Mark 2017 LCD 2.9.27
Intermediate shafts, material J. Steel Identification Marks 2018 LCD 8.9.27 Tube shaft, material — Identification Mark —
Screw shaft, material J. Steel Identification Mark 2785 LCD 12.9.27 Steam Pipes, material Steel Test pressure 600 lbs Date of Test 3.10.27, 1.2.28
Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150° F. yes
Have the requirements of the Rules for the use of oil as fuel been complied with yes
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Oil tanker If so, have the requirements of the Rules been complied with —
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.)
The machinery has been constructed at Glasgow under special survey; it has been fitted and efficiently run on board by the Cantiere Navale Triestino at Monfalcone and in my opinion is eligible to be entered in the Society Register Book + LMC 2.28
"Fitted for oil fuel 2.28 F.P. above 150° F."

It is submitted that this vessel is eligible for THE RECORD + LMC 2.28. FD. CL.
Fitted for oil fuel 2.28. F.P. above 150° F.

J.W.D.
5/3/28

The amount of Entry Fee ... £ : : When applied for, 2/3 19.28
1/5 Special ... £ : :
Donkey Boiler Fee ... £ : : When received, 16.3.28
Travelling Expenses (if any) £ : : 724.:

W. H. F. ...
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 13 MAR 1928

Assigned + J.M.C. 2.28 F.D. C.L.
Fitted for Oil Fuel 2.28, F.P. above 150° F.