

Rpt. 4a.

## Report on Steam Turbine Machinery.

No. 4481

Date of writing Report 21, August 1953

When handed in at Local Office

No. in Survey held at Lynn, Massachusetts

19

Port of Boston, Massachusetts

Received at London Office

23 SEP 1953

Reg. Book

Date, First Survey 6, May

Last Survey 18, July

19 53

on the

"MARE ADRIACUM"

(Number of Visits 6)

Built at Trieste, Italy

By whom built Cantieri Riuniti

Dell'Adriatico

Engines made at Lynn, Mass.

By whom made General Electric Co.

Yard No. 1773

Turbine 97893

Boiler No. 97895

Tons (Gross)

When built 1953

Boilers made at

By whom made

Boiler No.

When made

Shaft Horse Power at Full Power 16,000

Owners Fratelli d'Amico Armatori

Port belonging to

Nom. Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes

Trade for which Vessel is intended

## STEAM TURBINE ENGINES, &amp;c.—Description of Engines

Cross Compound

Double Reduction

No. of Turbines

Ahead Two

Astern One

Direct coupled,

single reduction geared

double reduction geared

to one

propelling shafts.

No. of primary pinions to each set of reduction gearing two

direct coupled to Alternating Current Generator

phase periods per second

Direct Current Generator

for supplying power for driving

Propelling Motors, Type

Kilowatts

Volts at

revolutions per minute;

TURBINE  
BLADING.

Impulse

Blading

No. of rows

H. P.

8

I. P.

None

L. P.

8

ASTERN.

3

2

Reaction

Blading

No. of stages

8

No. of rows in each

stage

Shaft Horse Power at each turbine

H.P. 8000

(Referred to prop. shaft)

L.P. 8000

Revolutions per minute, at full power, of each Turbine Shaft

H.P. 6854

I.P. 3393

1st reduction wheel 763

Rotor Shaft diameter at journals

H.P. 4"

L.P. 6-1/2"

H.P. 10.0004"

L.P. 14.7266"

H.P. 89.80"

L.P. 65.473"

H.P. 15-1/2"

L.P. 15-1/2"

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If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.

2m, 8, 70, T.

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Lloyd's Register

Foundation

013186-013191-0111



4A 4481.  
Is { a Donkey Boiler fitted? If so, is a report now forwarded?  
{ an Auxiliary }  
Is the donkey boiler intended to be used for domestic purposes only  
Plans. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers  
(If not, state date of approval)  
Superheaters General Pumping Arrangements Oil Fuel Burning Arrangements  
Geared turbines Have torsional vibration characteristics of system been approved Date of approval  
situated aft.

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied Standard list as specified by the American Bureau of Shipping.

The foregoing is a correct description.

J. J. Moore - Turbine Eng. Dir.  
General Electric Co 8/4/53 Manufacture

Dates of Survey while building During progress of work in shops - - May 6 - 22, July 17 & 18, 1953  
During erection on board vessel - - 6  
Total No. of visits 6  
Dates of Examination of principal parts - Casings May 22, July 17 Rotors May 7-22 July 18 Blading May 22 July 18 Gearing May 6-7  
Wheel shaft May 6-7 Thrust shaft Intermediate shafts Tube shaft Screw shaft  
Propeller Stern tube Engine and boiler seatings Engine holding down bolts  
Completion of fitting sea connections Completion of pumping arrangements Boilers fixed Engines tried under steam  
Main boiler safety valves adjusted Thickness of adjusting washers  
Rotor shaft, Material and tensile strength O.H. Steel, L.P. 100,700 PSI: H.P. 110,000 PSI Identification Mark  
Pinion Shaft, Material and tensile strength O.H. Steel - HS HP 162,500 HS LP 146,875 Identification Mark  
Pinion shaft, Material and tensile strength O.H. Steel IS HP 152,000 IS LP 154,500 Identification Mark

If Pinion Shafts are made of special steel state date of approval of chemical analyses, physical properties and heat treatment June 16, 1953

1st Reduction Wheel Shaft, Material and tensile strength O.H. Steel - H.P. 108,000 PSI L.P. 91,250 PSI Identification Mark

Wheel shaft, Material Identification Mark Thrust shaft, Material O.H. Steel Identification Mark

Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks

Screw shaft, Material Identification Marks Steam Pipes, Material Test pressure

Date of test Is an installation fitted for burning oil fuel

Is the flash point of the oil to be used over 150°F Have the requirements of the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery a duplicate of a previous case If so, state name of vessel

General Remarks. (State quality of workmanship, opinions as to class, &c.) This machinery has been completed under Special Survey in accordance with approved plans. The forgings and castings were tested by A. B. S. Surveyors and for particulars, please refer to attached report. The workmanship and materials are good. The turbines and gears have been tried out separately in the shop under no load conditions and found satisfactory. The units have been forwarded to Trieste, Italy.

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

The amount of Entry Fee ... : : When applied for.  
Special ... 1003 : 60 : 21, Aug 19 53  
Donkey Boiler Fee ... : : When received.  
Travelling Expenses (if any) 20 : 00 :  
Committee's Minute NEW YORK SEP 2 1953  
Assigned Transmit to London.

H.P. Turbine No. 97893

LLOYD'S  
600  
22-5-53

T.B.

L.P. Turbine No. 97895

W.S.H.  
LLOYD'S  
7-18-53

T.B.

Engineer Surveyor to Lloyd's Register of Shipping.

Gear No. 104800  
7-5-53  
T.B.

Lloyd's Register  
Foundation

See Tri. Rpt. 4.