

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 14014

14 AUG 1954

Date of writing Report 5th July 1954 When handed in at Local Office 10 8 1954 Port of TRIESTE Received at London Office

No. in Survey held at Trieste - Monfalcone Date, First Survey Please see Last Survey Rpt. 4a 19 Reg. Book.

No. 694 on the Single Triple Quadruple Screw vessel S.T. "MARE NOSTRUM" Number of Visits 1 Tons Gross 2045 Net 12458

Built at Monfalcone By whom built Cantieri Riuniti dell'Adriatico Yard No. 1777 When built 1954

Owners Fratelli d'Amico - Armatori Port belonging to PALERMO

Oil Engines made at Trieste By whom made Cant. Riun. dell'Adriatico Eng. No. 5594 When made 1954

Generators made at Monfalcone By whom made -4- Gen. No. 129253 When made 1954

No. of Sets 1 Engine Brake Horse Power 150 M.N. as per Rule 30 Total Capacity of Generators 100 Kilowatts.

Is Set intended for essential services No

OIL ENGINES, &c.—Type of Engines C.R.D.A. - SULZER 4 BH 22 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 220 mm Length of stroke 320 mm No. of cylinders 4 No. of cranks 4Mean indicated pressure 6.775 kg/cm² Firing order in cylinders 1-2-4-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 238 mmIs there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1450 Kg.m² PD² Revolutions per minute 500

Flywheel dia. 1500 mm Weight 956 kg. Means of ignition compr. Kind of fuel used heavy oil?

Crank Shaft, dia. of journals as per Rule as app. Crank pin dia. 145 mm Crank Webs Mid. length breadth 90 mm Thickness parallel to axis 6 mm as fitted 155 mm Mid. length thickness 64 mm Thickness round eyehole 6 mm

Flywheel Shaft, diameter as per Rule as app. DYNAMO Intermediate Shafts, diameter as per Rule as app. General armature, moment of inertia (16 m² or Kg.-cm.²) 110 mm as fitted 155 mm

Are means provided to prevent racing of the engine when disengaged yes Means of lubrication forced Kind of damper if fitted

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes

Cooling Water Pumps, No. 1-6 T/h. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Lubricating Oil Pumps, No. and size 1 of 5 T/h.

Air Compressors, No. 1 No. of stages 1 Diameters 100 mm Stroke 100 mm Driven by 1

Scavenging Air Pumps, No. 1 Diameter 100 mm Stroke 100 mm Driven by 1

AIR RECEIVERS:—Have they been made under Survey yes State No. of Report on Certificate Gen. A. 10

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

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces upper flange

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

High Pressure Air Receivers, No. 1 Cubic capacity of each 100 litres Internal diameter 303 mm thickness 7.5 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M.S. Range of tensile strength 60.8 kg/cm² Working pressure by Rules 40 kg/cm²

Starting Air Receivers, No. 1 Total cubic capacity 100 litres Internal diameter 303 mm thickness 7.5 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M.S. Range of tensile strength 60.8 kg/cm² Working pressure by Rules 40 kg/cm²

ELECTRIC GENERATORS:—Type C.R.D.A. Protected & self ventilated

Pressure of supply 220 volts Full Load Current 454 Amperes Direct or Alternating Current D.C.

If alternating current system, state the periodicity 50 Hz Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

on and off yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced

or shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test yes and do the results comply with the requirements yes

If the generators are 100 kw. or over have they been built and tested under survey yes

Details of driven machinery other than generator none

PLANS.—Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks yes

Have Torsional Vibration characteristics if applicable been approved 28th February 1953 Armature shaft Drawing No. 6088/5

(state date of approval)

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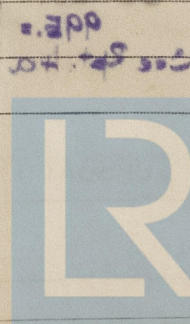
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The foregoing is a correct description,

CANTIERI RIUNITI DELL'ADRIATICO

Manufacturer.



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Lloyd's Register Foundation

015366-015379-0369

Dates of Survey while building } During progress of work in shops - - } See Rpt. 4a
During erection on board vessel - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders 22-2-54 Covers 22-2-54 Pistons 22-2-54 Piston rods

Connecting rods 22.2.54 Crank and Flywheel shafts 22.2.54 Intermediate shafts

Crank shaft Material S.M.S. Tensile strength 52.6-54.9 Kgmm²
Elongation on Hd 31% Identification Marks Lloyd's 23 2430 A.C. 12-2-54

Dynamo Flywheel shaft, Material S.M.S. Identification Marks Lloyd's 6072 SC 26-6-54

Identification marks on Air Receivers 2-128582 Lloyd's TEST 80 kgcm² W.P. 40 kgcm² C.M. 2-5-54

Is this machinery duplicate of a previous case. Yes If so, state name of vessel "Mare Adriaticum" C.R.D.A. Yard 1773

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.)

This oil engine electric generator set has been constructed under special survey of tested materials and in accordance with the Secretary's letter, approved plans and Rule requirements.

The workmanship and materials are good.

This set, together with two turbo generator sets rated at 450 kW each (see Genoa Cert. M.349 attached), have been installed on board the vessel in an efficient manner and found satisfactory when tried under full working conditions.

In my opinion these sets are eligible for full classification.

The amount of Fee ... £ 33.150.00 When applied for 11. 8. 1954
Rev. Tax. 3% 995.00
Expenses (if any) £ See Rpt. 4a When received 19

Committee's Minute JUESDAY 14 SEP 1954

Assigned See Rpt. 4a

