

ORIGINAL FOR LONDON  
(COPY ALSO SENT TO NAME)

GENOA R.I. N° 19518 X

Rpt. 4c.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. \_\_\_\_\_

Received at London Office 29 NOV 1953

Date of writing Report 26-9-1953 When handed in at Local Office 28-9-1953 Port of ANCONA (GENOA)

No. in Survey held at ANCONA Date, First Survey 8-10-52 Last Survey 24-9-1953  
Reg. Book. \_\_\_\_\_ Number of Visits 22

on the Single Screw vessel "CONCA D'ORO" Tons { Gross \_\_\_\_\_  
Triple Net \_\_\_\_\_  
Quadruple \_\_\_\_\_

Built at PALERMO By whom built CANTIERI NAVALI RIUNITI, PALERMO Yard No. 203 When built \_\_\_\_\_

Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Oil Engines made at ANCONA By whom made CANTIERI NAVALI RIUNITI, ANCONA Contract No. ✓ When made 1953

Generators made at MONFALCONE By whom made CANTIERI RIUNITI DEL ADRIATICO Contract No. 02860 When made 1953

No. of Sets ONE Engine Brake Horse Power 120 M.N. as per Rule 24 Total Capacity of Generators 80 Kilowatts.

Is Set intended for essential services NO

**OIL ENGINES, &c.**—Type of Engines DIESEL TYPE T.4 SERIAL N° 39770.2 AIRLESS INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 5.6 Kg/cm<sup>2</sup> Diameter of cylinders 200<sup>m</sup>/m Length of stroke 270<sup>m</sup>/m No. of cylinders 4 No. of cranks 4

Mean indicated pressure 5.6 Kg/cm<sup>2</sup> Firing order in cylinders 1-2-4-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 225<sup>m</sup>/m

Is there a bearing between each crank YES Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 350 Kg/cm<sup>2</sup> Revolutions per minute 600

Flywheel dia 900<sup>m</sup>/m Weight 640 Kgs Means of ignition COMPRESSION Kind of fuel used DIESEL OIL

Crank Shaft, dia. of journals AS APPROVED as per Rule 125<sup>m</sup>/m as fitted ✓ Crank pin dia. 125<sup>m</sup>/m Crank Webs Mid. length breadth 175<sup>m</sup>/m shrunken Mid. length thickness 60<sup>m</sup>/m Thickness parallel to axis ✓ Thickness round eye-hole ✓

Flywheel Shaft, diameter as per Rule as fitted ✓ Intermediate Shafts, diameter as per Rule as fitted ✓ General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) ✓

Are means provided to prevent racing of the engine when disengaged GOVERNOR 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 LAGGED

Cooling Water Pumps, No. 1 CENT. PUMP 5 M<sup>3</sup>/HOUR Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size 1 @ 2.2 M<sup>3</sup>/HOUR

Air Compressors, No. 1 OF 4 H.P. PRESS 30 Kg/cm<sup>2</sup> No. of stages 2 Diameters ✓ Stroke ✓ Driven by DIESEL 1-4.2 HP. 4 STROKE

Scavenging Air Pumps, No. 15 M<sup>3</sup> CAPACITY Diameter ✓ Stroke ✓ Driven by ✓

**AIR RECEIVERS:**—Have they been made under Survey YES State No. of Report or Certificate 90/4-A

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 WIRE BRUSHES

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

High Pressure Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓

Starting Air Receivers, No. ONE Total cubic capacity 150 LITRES Internal diameter 351<sup>m</sup>/m thickness 8.5<sup>m</sup>/m

Seamless, lap welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength 61.0 Kg/mm Working pressure by Rules 50 Kg/cm<sup>2</sup>

**ELECTRIC GENERATORS:**—Type PROTECTED VENTILATED

Pressure of supply 450 volts. Full Load Current 128 Amperes. Direct or Alternating Current ALTERNATING

If alternating current system, state the periodicity 60 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 ✓ is an adjustable regulating resistance fitted in series with each shunt field ✓

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 ✓

Details of driven machinery other than generator ✓

**PLANS.**—Are approved plans forwarded herewith for Shafting CRANKSHAFT APP 25-6-52 Receivers 10-6-47 Separate Tanks ✓  
(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved 17-4-53 Armature shaft Drawing No. ✓  
(state date of approval)

**SPARE GEAR** AS PER RULE REQUIREMENTS

The foregoing is a correct description,

CANTIERI NAVALI RIUNITI  
CANTIERI E STABILIMENTO MECCANICI ANCONA

Acciari Allegri Manufacturer.



010289-010293-0362

4c 19618.

Dates of Survey while building { During progress of work in shops - - } FROM 8-10-52 To 24-9-53  
{ During erection on board vessel - - } ✓  
Total No. of visits 22

Dates of Examination of principal parts—Cylinders 8, 9 & 10/7/53 Covers 11-7-53 Pistons 21-7-53 Piston rods ✓  
Connecting rods 21-7-53 Crank and Flywheel shafts 21-7-53 Intermediate shafts ✓

Crank shaft { Material ELECTRIC FURNACE STEEL Tensile strength 52.1 Kgs/mm<sup>2</sup>  
Elongation ON 4 DIAS = 31.7% Identification Marks LLOYD'S N<sup>o</sup> 7 R.M.W. ANCONA 21-7-53

Flywheel shaft, Material ✓ Identification Marks ✓

Identification marks on Air Receivers LLOYD'S TEST 2-20188 T.P. 100 Kg/cm<sup>2</sup> W.P. 50 Kg/cm<sup>2</sup> G.M. DALMINE 23-1-53

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This oil engine has been built under survey of tested materials and in accordance with the approved plans, Secretary's letter and Rule Requirements.  
The materials and workmanship are good. On completion of this engine it was coupled to its generator and tried under working conditions on the bench with satisfactory results.

TRIPLE CLASS  
L.R. A.B. & RINA

5m. 1.48.-T. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee F.E. L. 24500 = L. 29.325 = When applied for 5/11/ 1953  
CAR FUNDS - - - - L. 880. =  
Travelling Expenses (if any) S.H.F. 3.520. = When received 19  
REV. TAX. - - - - L. 1.012. =

Committee's Minute FRIDAY 17 SEP 1954  
Assigned Sec Rpt. 4.

*R. Wilson*  
Surveyor to Lloyd's Register of Shipping.  
Lloyd's Register Foundation