

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. **21181**

Received at London Office

Drafting Report **5-12-1955** When handed in at Local Office **13/12/1955** Port of **Genoa**

Survey held at **Genoa and La Spezia** Date, First Survey **9-8-55** Last Survey **21-11-1955**
Number of Visits **11**

on the **Single** Screw vessel **S/S "IRPINIA" ex "CAMPANA"** Tons **Gross 10816**
Triple
Quadruple
N.W.C. By whom built **Swan Hunter & Wigham Rehdsm.** Yard No. **✓** When built **1929**

SICULA OCEANICA S.A. Port belonging to **PALERMO**

Engines made at **Genoa - Sestri** By whom made **Nuova S. GIORGIO - S.p.A.** Engine No. **(8090/77)** When made **1950**
(8091/78)

Generators made at **✓** By whom made **General Electric Co.** Generator No. **1742516** When made **✓**
1742519

Sets **two** B.H.P. of each Set **280** M.N. of each Set as per Rule **56** Capacity of each Generator **✓ 90** Kilowatts

tended for essential services **YES**

Engines, &c.—Type of Engines Type **"SAN GIORGIO, 6DS26-Airless injection"** or 4 stroke cycle **✓ 4** Single or double acting **single**

Pressure in cylinders **45 Kg/cm²** Diameter of cylinders **260 m/m** Length of stroke **400 m/m** No. of cylinders **✓ 6** No. of cranks **6**

Indicated pressure **6.44 Kg/cm²** Span of bearings (i.e., distance between inner edges of bearings in way of a crank) **322 m/m**

Distance between each crank **yes** Moment of inertia of flywheel **(16 m² or Kg.-cm.²) 1385** Revolutions per minute **375**

Balance weights **" " " "** Means of ignition **Compression** Kind of fuel used **diesel/oil**

Journal dia. **1200 m/m** Weight **1400 Kg** Mid. length breadth **275 m/m** Thickness parallel to axis **✓**

Shaft, **Solid forged** dia. of journals **as per Rule, 25 approved** Crank pin dia. **155 m/m** Crank Webs **shrunk** Mid. length thickness **70 mm** Thickness round eyeballs **✓**

Generator Shaft, diameter **as per Rule, 25 approved** Generator armature, moment of inertia (16 m² or Kg.-cm.²) **✓**

Means provided to prevent racing of the engine **governor** Means of lubrication **forced** Kind of damper if fitted **NO**

Cylinders fitted with safety valves **✓ YES** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **water cooled**

Water Pumps, No. and how driven **1 each engine** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**

Oil Pumps, No. and size **1 each engine - gear type - 1600 lt/h capacity**

Compressors, No. **✓** No. of stages **✓** Diameters **✓** Stroke **✓** Driven by **✓**

Air Pumps or Blowers, No. **✓** How driven **✓**

RECEIVERS:—Have they been made under Survey **No - See Secretary-Eng letter** State No. of Report or Certificate **dd 25.8.55**

Details of safety devices **Spring loaded relief valve**

Internal surfaces of the receivers be examined and cleaned **yes**

A drain arrangement fitted at the lowest part of each receiver **yes**

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

Lap welded or riveted longitudinal joint **✓** Material **✓** Range of tensile strength **✓** Working pressure **✓**

Air Receivers, No. **two** Total cubic capacity **800 liters** Internal diameter **351 m/m** thickness **8.5 m/m**

Lap welded or riveted longitudinal joint **seamless** Material **SM steel** Range of tensile strength **≥ 55 kg/cm²** Working pressure **35 kg/cm²**

Electric Generators:—Type **PROTECTED - FORCED VENTILATED**

Voltage of supply **110** volts. Full Load Current **820** Amperes. Direct or Alternating Current **Direct**

Regulating current system, state the periodicity **✓** Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

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

Terminals accessible, clearly marked, and furnished with sockets **yes** Are they so spaced

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

Generators are under 100 kw. full load rating, have the makers supplied certificates of test **(1)** and do the results comply with the requirements **(1)**

Generators are 100 kw. or over have they been built and tested under survey **✓**

Other driven machinery other than generator **✓**

3.—Are approved plans forwarded herewith for Shafting **8-1-1949** Receivers **10-6-1947** Separate Tanks **✓**

Resonant Vibration characteristics if applicable been approved **8-1-1949** Armature shaft Drawing No. **✓**

Is spare gear required by the Rules been supplied **YES**

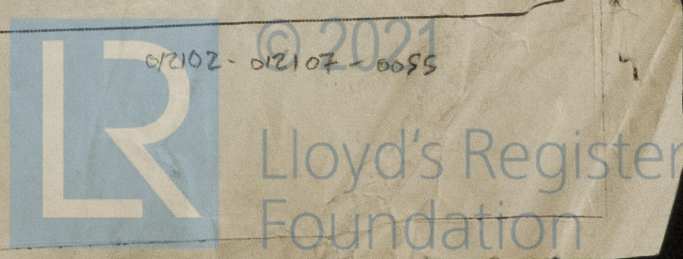
4.—Please, general remark notation

The foregoing is a correct description,

NUOVA SAN GIORGIO S.p.A.

Manufacturer.

Paulo Louella



Dates of Survey while building { During progress of work in shops - - 9-8-1955 to 18-8-1955 = 4
During erection on board vessel - - 20-9-1955 to 21-11-1955 = 7
Total No. of visits 11

Dates of Examination of principal parts - Cylinders 16.8.55/18.8.55 Covers 16.8.55/18.8.55 Pistons 16.8.55/18.8.55 Piston rods ✓
Connecting rods 16.8.55/18.8.55 Crank and Flywheel shafts 27.7.49/18.8.55 Intermediate shafts ✓

Crank shaft { Material S.M. STEEL Tensile strength > 50 Kg/mm²
Elongation > 24% Identification Marks LLOYD'S P548 - RINA P638
GM-27-7-1949 D 17510
Flywheel shaft, Material ✓ Identification Marks ✓ GA 7-4-50

Identification marks on Air Receivers. HYDRAULIC TEST GEN- 70 Kg/cm² - WP 35 Kg/cm² - 24-8-1955 - SF

Is this machinery duplicate of a previous case. YES If so, state name of vessel m/v "MARIA LETIZIA G." See, please Genl. R.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These new oil engines have been originally built under Survey of the Registro Italiano Navale for stock. These oil engines have now been examined under working condition at full power in shop against a brake with satisfactory result. Afterwards these oil engines have been entirely opened out, all their working parts examined, the scantlings of the crankshaft, of the oil engine makers no 8091/78, checked with the approved plan, checks Brinnell tests carried out and they confirmed the mechanical characteristics shown on the test certificate of the Registro Italiano Navale produced - So far as could be seen the materials and the workmanship are good. These engines are fitted with explosion relief devices.

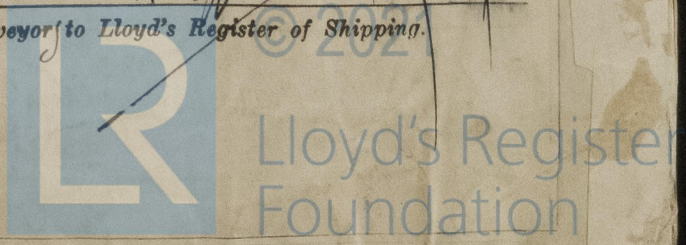
As the 190 Kw generators intended to be coupled to the above oil engines have not yet been supplied by Messrs CRDA - MONFALCONE, as a temporary measure, second hand 90 Kw generators, available in stock, have now been fitted. The sets have been examined under full working condition on board. The temperature rises of the 90 Kw generators were found to slightly exceed the limits permitted by the Society's Rules. It was recommended to increase the mechanical ventilation and to fit an additional resistance connected to the field regulator for limiting the field current. It was stated that the above recommendations will be dealt with at Naples for which port the vessel has now left. The Naples' Surveyors has been duly informed -
The O/R state that the new 190 Kw generators will be installed as soon as possible.

[Signature]

The amount of Fee ... £ WILL BE PAID LATER ON When applied for 19
Travelling Expenses (if any) £ : : When received 19

Committee's Minute
Assigned See Nos. Rec No 5696

Surveyor to Lloyd's Register of Shipping.



MADE AND PRINTED IN ENGLAND
(The Surveyors are requested not to write on or below the space for Committee Minutes.)