

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12003

Received at London Office 16 APR 1956

4c. of writing Report 22nd March 1956 When handed in at Local Office 14th April 1956 Port of Marseille  
No. in Survey held at La Penne sur Mer Date, First Survey 10 October 1955 Last Survey 10th March 1956  
No. of Vists \_\_\_\_\_ Tons Gross 1,678.63 Net 720.16  
Type of Vessel motor ship "ZAGORA"  
Built at La Penne sur Mer By whom built Forges et Chantiers de la Mediterranee Yard No. 1310 When built 1956  
Owners Compagnie Francaise Chercheuse de Navigation Port belonging to CASABLANCA  
Engines made at Marseille (Nord) By whom made Acieries du Nord Engine No. 208-209-210 When made 1955  
Generators made at Paris (Seine) By whom made Societe Gramme Generator No. 43.025 When made 1955  
No. of Sets 3 B.H.P. of each Set 150 M.N. of each Set as per Rule 50 Capacity of each Generator 100 Kilowatts  
Set intended for essential services yes

**INTERNAL ENGINES, &c.**—Type of Engines Internal Combustion, Solid Injection 2 or 4 stroke cycle 4 Single or double acting single  
Maximum pressure in cylinders \_\_\_\_\_ Diameter of cylinders 175 mm Length of stroke 220 mm No. of cylinders 6 No. of cranks 6  
Can indicated pressure \_\_\_\_\_ Span of bearings (i.e., distance between inner edges of bearings in way of a crank) \_\_\_\_\_  
Is there a bearing between each crank \_\_\_\_\_ Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) \_\_\_\_\_ Revolutions per minute 950 RPM  
Flywheel dia. \_\_\_\_\_ Weight \_\_\_\_\_ Means of ignition compression Kind of fuel used Diesel oil  
Crank Shaft, { Solid forged as per Rule \_\_\_\_\_ Crank pin dia. \_\_\_\_\_ Crank Webs \_\_\_\_\_  
Semi-built dia. of journals \_\_\_\_\_  
All-built as fitted \_\_\_\_\_  
Flywheel Shaft, diameter \_\_\_\_\_ Generator armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) \_\_\_\_\_

Are means provided to prevent racing of the engine yes Means of lubrication forced Kind of damper if fitted \_\_\_\_\_  
Are the cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes  
Cooling Water Pumps, No. and how driven one, Eng. Dr. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
Lubricating Oil Pumps, No. and size one, Eng. Dr.  
Air Compressors, No. one No. of stages two Diameters 100 mm Stroke \_\_\_\_\_ Driven by Dist. Motor  
S scavenging Air Pumps or Blowers, No. \_\_\_\_\_ How driven \_\_\_\_\_

**AIR RECEIVERS:**—Have they been made under Survey yes State No. of Report or Certificate \_\_\_\_\_  
(other than main engines)  
State full details of safety devices Safety valve fitted to receiver head  
Can the internal surfaces of the receivers be examined and cleaned yes  
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 \_\_\_\_\_  
Starting Air Receivers, No. one Total cubic capacity 0.250 cub. met Internal diameter 350 mm thickness 9 mm  
Seamless, lap welded or riveted longitudinal joint welded Material S.H. Steel Range of tensile strength 38/42 Kg/cm<sup>2</sup> Working pressure 30 kg/cm<sup>2</sup>

**ELECTRIC GENERATORS:**—Type DC generators, Marine Type, ventilated.  
Pressure of supply 220 volts. Full Load Current 495 Amperes. Direct or Alternating Current Direct  
If alternating current system, state the periodicity \_\_\_\_\_ 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 \_\_\_\_\_  
Are they 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 \_\_\_\_\_ and do the results comply with the requirements \_\_\_\_\_  
If the generators are 100 kw. or over have they been built and tested under survey yes  
Details of driven machinery other than generator \_\_\_\_\_

**PLANS.**—Are approved plans forwarded herewith for Shafting \_\_\_\_\_ Receivers \_\_\_\_\_ Separate Tanks yes  
(If not, state date of approval) \_\_\_\_\_ Armature shaft Drawing No. \_\_\_\_\_  
Have Torsional Vibration characteristics if applicable been approved \_\_\_\_\_ (State date of approval and name of previous duplicate case, if any) \_\_\_\_\_  
Has the spare gear required by the Rules been supplied yes

The foregoing is a correct description,

Manufacturer.



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Dates of Survey while building  
 During progress of work in shops - - Jan. 1955 to June 1955 (See Val. Surv. Cert. 27-6-55)  
 During erection on board vessel - - 10th October to 10th March 1956 (in conjunction)  
 Total No. of visits See Rpt 4 G No 12002

Dates of Examination of principal parts - Cylinders Covers Pistons Piston rods  
 Connecting rods Crank and Flywheel shafts Intermediate shafts  
 Crank shaft Material Tensile strength  
 Elongation Identification Marks  
 Flywheel shaft, Material Identification Marks

*See Valued Surveyors Rpts.*

Identification marks on Air Receivers  
 No 95765 LLOYDS TEST 48 KGM CM2 WP 30 KGM CM2 HJM 27-5-55

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.)

- (1) The diesel engines of these generator sets have been surveyed during construction to approved plans and tested under full load condition after completion (See Valued Surveyors Cert. 27-6-55 hereinto)
- (2) The D.C. generators for these sets have been surveyed during their construction and tested on completion (Rosen's Surveyors Cert. no 873 hereinto)
- (3) These 60 engine generator sets have been satisfactorily fitted on board and found satisfactory during trials under full load and 10 per cent over

4m.562.-T. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £ See Rpt 4 G No 12002 When applied for  19  
 Travelling Expenses (if any) £ : : When received  19

FRIDAY 18 MAY 1956

Committee's Minute  
 Assigned See Rpt. 4 G.

*[Signature]*  
 Henry Fowler  
 Surveyor to Lloyd's Register of Shipping.

