

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No 20782.

DEC 12 1938

Writing Report *J. H. Hume* 1938 When handed in at Local Office *J. H. Hume* 1938 Port of *Trinidad*  
 Survey held at *Lincoln* Date, First Survey *12th July 1937* Last Survey *8th December 1938*  
 Number of Visits *9*  
 90 on the *Single* Screw vessel *M/S. DOÑA AURORA* Tons { Gross *5011*  
*Double* Net *2977*  
*Triple*  
*Quadruple*  
 at *Trinidad* By whom built *Cantieri Riuniti dell'Adriatico* Yard No. *1227* When built *1938*  
 THE DELA RAMA STEAMSHIP CO. INC. Port belonging to *ILOLO - P.I.*  
 Engines made at *Lincoln* By whom made *Ruston & Hornsby, Ltd* ENGINE Contract No. *193428* When made *1938*  
 Generator made at *Odense* By whom made *Thomas B. Thige* GENERATOR Contract No. *231697* When made *1938*  
 The Sets / Engine Brake Horse Power *30* Nom. Horse Power as per Rule *5.93* Total Capacity of Generators *15* Kilowatts.

ENGINES, &c. Type of Engines *3 VROZ Vertical Solid Injection* 2 or 4 stroke cycle *4* Single or double acting *Single*  
 Mean pressure in cylinders *800 lbs.* Diameter of cylinders *4 1/2"* Length of stroke *5 1/2"* No. of cylinders *3* No. of cranks *3*  
 Bearings, adjacent to the Crank, measured from inner edge to inner edge *7 3/32"* Is there a bearing between each crank *Yes*  
 Revolutions per minute *1000* Flywheel dia. *26"* Weight *424 lbs.* Means of ignition *Compression* Kind of fuel used *Heavy oil.*  
 Shaft, dia. of journals as per Rule *Approved* Crank pin dia. *3"* Crank Webs Mid. length breadth *3 1/2"* Thickness parallel to axis *shrunk*  
 as fitted *3"* Mid. length thickness *1 1/16"* Thickness around eye hole *5/16"*  
 Wheel Shaft, diameter as per Rule *Approved* Intermediate Shafts, diameter as per Rule *5/16"*  
 as fitted *3"* Thickness of cylinder liners *5/16"*  
 Governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubrication *Lined.*  
 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. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes*  
 L Lubricating Oil Pumps, No. and size *One, geared*  
 Compressors, No. *One* No. of stages *Two* Diameters *3 1/4" x 1 1/8"* Stroke *3 1/4"* Driven by *Engine*  
 Suctioning Air Pumps, No. *Yes* Diameter *Yes* Stroke *Yes* Driven by *Yes*  
 RECEIVERS: Have they been made under Survey *Yes* State No. of Report or Certificate *Yes*  
 receiver, which can be isolated, fitted with a safety valve as per Rule *Yes*  
 Are the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *Yes*  
 Is there a drain arrangement fitted at the lowest part of each receiver *Yes*  
 Pressure Air Receivers, No. *Yes* Cubic capacity of each *Yes* Internal diameter *Yes* Thickness *Yes*  
 Is the lap welded or riveted longitudinal joint *Yes* Material *Yes* Range of tensile strength *Yes* Working pressure by Rules *Yes*  
 Suctioning Air Receivers, No. *Yes* Total cubic capacity *Yes* Internal diameter *Yes* Thickness *Yes*  
 Is the lap welded or riveted longitudinal joint *Yes* Material *Yes* Range of tensile strength *Yes* Working pressure by Rules *Yes*  
 ELECTRIC GENERATORS: Type *Ship proof, ventilated.*  
 Voltage of supply *220* volts. Full Load Current *68* Amperes. Direct or Alternating Current *Direct*  
 Alternating current system, state the periodicity *Yes* Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off *YES.*  
 Are the generators, are they compounded as per rule *Yes* Is there an adjustable regulating resistance fitted in series with each *Yes*  
 Are all terminals accessible, clearly marked, and furnished with sockets *Yes*  
 Are the terminals 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*  
 Are the generators under 100 kw. full load rating, have the Makers supplied certificates of test *Yes* and do the results comply with the requirements *Yes*  
 Are the generators 100 kw. or over have they been built and tested under survey *Yes*  
 Are approved plans forwarded herewith for Shafting *31.12.36* Receivers *Yes* Separate Tanks *Yes*  
 (If not, state date of approval)

GE GEAR

As per Rule requirements.

The foregoing is a correct description,  
*Ruston & Hornsby, Limited*

*A. Geo. Kintor*

Manufacturer.

*21st Gas Engine Co.*



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H.C. NO. 20482

Dates of Survey while building { During progress of work in shops - 1937: July 12. 19 Aug 9. Oct 7. 18 1938 Aug 25 Sep 12 Nov 7 Dec 8  
During erection on board vessel - 1939 May 8, 1939 July 19, Oct 11  
Total No. of visits 9 + 3

Dates of Examination of principal parts - Cylinders 12-9-38 Covers 12-9-38 Pistons 12-9-38 Piston rods

Connecting rods 25-8-38 Crank and Flywheel shafts 7-10-37 Intermediate shafts

Crank and Flywheel shafts, Material Steel Identification Marks LLOYDS 3282 - 7-10-37AS

Intermediate shafts, Material Identification Marks Housing LLOYDS 3279 - 25-8-38AS

Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes If so, state name of vessel Guss Rpt. 20461

General Remarks (State quality of workmanship, opinions as to class, &c.)

This engine and compressor have been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

Running tests have been carried out at the Makers works with satisfactory results.

The engine is direct coupled to Generator No. 231697 and clutch coupled to compressor No. 40693.

The set is being despatched to Messrs Cantieri Riuniti dell'Adriatico, Trieste for fitting on board the vessel.

Trieste 25/10/1939. -

This set has been fitted on board the vessel for emergency purposes. It has been tested under full working conditions and found satisfactory. -

Request form attached Guss Rpt. 20461  
92177/P/11.8437 - 38/12/316

The amount of Fee ... £ 3 - -

Travelling Expenses (if any) £ :

When applied for,  
9.12.38

When received,  
9.3.39

FRI. 24 NOV 1939

Committee's Minute

Assigned

See Tri. G.C. 12712

Charles Forth  
Surveyor to Lloyd's Register of Shipping



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