

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1619 ⁴

Received at London Office
 Date of writing Report *3rd May 1934* When handed in at Local Office *19* Port of *Bremen and Vienna*
18. 9. 1933
 No. in Survey held at *Augsburg and Budapest* Date, First Survey *2. 3. 1934* Last Survey *11. 11. 1933*
 Reg. Book. *28. 4. 1934*
 Number of Visits *26*
 on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel *motor-tanker, named "Danube Shell II"* Tons { Gross
 Net
 Built at *Budapest (Hungary)* By whom built *Ganz & Co. Ltd.* Yard No. *1430* When built *1933/34*
 Owners *International Inland Waterway Co. London* Port belonging to *London*
 Oil Engines made at *Augsburg* By whom made *Maschinenfabr. Augsb. Nürnberg* No. *491450* When made *1933*
 Generators made at *Budapest* By whom made *Ganz & Co. Ltd.* Contract No. *1217/346* When made *1933/34*
 No. of Sets *1* Engine Brake Horse Power *45* Nom. Horse Power as per Rule *11.6* Total Capacity of Generators *30* Kilowatts.

OIL ENGINES, &c.—Type of Engines *W 3 V 16/22 heavy oil engine* 2 or 4 stroke cycle *4* Single or double acting *single*
 Maximum pressure in cylinders *50 atm* Diameter of cylinders *160 mm* Length of stroke *220 mm* No. of cylinders *3* No. of cranks *3*
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *202 mm* Is there a bearing between each crank *yes*
 Revolutions per minute *550* Flywheel dia. *1100 mm* Weight *507 kg* Means of ignition *solid inject* Kind of fuel used *gas-oil*
 Crank Shaft, dia. of journals ^{as per Rule} *105 mm* Crank pin dia. *105 mm* Crank Webs ^{Mid. length breadth} *150 mm* Thickness parallel to axis *shrunk*
^{as fitted} *105 mm* ^{Mid. length thickness} *46 mm* Thickness around eyehole
 Flywheel Shaft, diameter ^{as per Rule} *—* Intermediate Shafts, diameter ^{as per Rule} *—* Thickness of cylinder liners *13.5/8 mm*
^{as fitted} *—* ^{as fitted} *—*

Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *forced*
 Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *water cooled*
 Cooling Water Pumps, No. *1, worked from engine* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *common with main engines*
 Lubricating Oil Pumps, No. and size *1 about 435 l/hour, at 550 r.p.m.*

Air Compressors, No. *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*
 Scavenging Air Pumps, No. *—* Diameter *—* Stroke *—* Driven by *—*

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve *yes*
 Can the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *cover on top of the air-receiver*
 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. *1* Total cubic capacity *55 liter* Internal diameter *249 mm* thickness *9 mm*
 Seamless, lap welded or riveted longitudinal joint *seamless* Material *S. 4. Steel* Range of tensile strength *—* Working pressure by Rules *30 atm*

ELECTRIC GENERATORS:—Type *Ganz EBC 22*
 Pressure of supply *220* volts. Load *131* Amperes. Direct or Alternating Current *Direct current*

Is the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off *The engines governor has been tested on the test bed and was found satisfactory, as well as on board, when the electric load is suddenly thrown off.*
 Generators, do they comply with the requirements regarding rating *yes* are they compound wound *yes*

Are they over compounded 5 per cent. *yes*, if not compound wound state distance between each generator *—*
 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*

Are approved plans forwarded herewith for Shafting *yes* Receivers *yes* Separate Tanks *—*
 (If not, state date of approval)

ARE GEAR as per Rules and additional gear.

The foregoing is a correct description, *

Ganz & Co. Ltd.
 Electrical & Mechanical Engineers,
 Railway Carriage Manufacturers & Shipbuilders

Manufacturer.

* Relating details not mentioned in the report of Surveyor of Augsburg.

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Dates of Survey while building { During progress of work in shops - - } Sept. 1933; 18. 29. 30. Oct. 1933; 3. 9. 11. 12. 16. 17. 23. 24. 25. Nov. 1933; 2. 4. 6. 7. 8. 11.
 { During erection on board vessel - - } March 1934; 2. 16. April 1934; 6. 11. 14. 20. 25. 28. April 1934.
 Total No. of visits 26

Dates of Examination of principal parts—Cylinders 29. IX. 8. XI. 1933 Covers 3. X. 8. XI. 1933 Pistons 3. X. 8. XI. 1933 Piston rods

Connecting rods 3. X. 1933 Crank and Flywheel shaft 18. IX. 8. XI. 1933 Intermediate shaft

Crank and Flywheel shafts, Material S. H. Steel

Identification Mark LLOYD'S, V.S. 1577, 18. IX.

Intermediate shafts, Material

Identification Marks

Is this machinery duplicate of a previous case yes If so, state name of vessel main engines for Messrs. P. de Vries & Co. Amsterdam

General Remarks (State quality of workmanship, opinions as to class, &c.) This heavy oil engine has been constructed under special Survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the construction are good and the workmanship is satisfactory. The engine has been tested on the makers test bed during 8 hours incl., 2 hours 10% overload in the presence of Mr. V. Schrowck of Augsburg and was found to work satisfactorily. In my opinion the vessel for which this aux.-engine is intended will be eligible for the notation of * LMC April 1934 because the whole machinery has been fitted on board and tried under full working conditions.

The amount of Fee ... £ Inclusive
 Travelling Expenses (if any) £ Free see
 Hull Rpt

When applied for, 19.
 When received, 19.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

JUN 8 1934

Assigned

See Tri. 7E. 10408



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