

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 2035.

Received at London Office DEC 13 1938

Date of writing Report 7<sup>th</sup> Dec 1938 When handed in at Local Office 12. 12. 1938 Port of Gremen  
 No. in Survey held at Darmstadt Date, First Survey 6<sup>th</sup> April. 37 Last Survey 3<sup>rd</sup> August 1937  
 Reg. Book. Number of Visits 5

Single on the Twin Triple Screw vessel "Inversuir"  
 Built at Hamburg By whom built Messrs. Deutsche Werft A.G. Yard No. 203 When built 1937/38  
 Owners Port belonging to

Oil Engines made at Darmstadt By whom made Messrs. Motorenfabrik Darmstadt A.G. Contract No. 9788 When made 1937  
 Generators made at Gremen By whom made Messrs. A.E.G. Contract No. 526899 When made

No. of Sets 1 Engine Brake Horse Power 50 Nom. Horse Power as per Rule 12.2 Total Capacity of Generators 30 Kilowatts.

OIL ENGINES, &c.—Type of Engines R.B. 32 2 or 4 stroke cycle 2 Single or double acting single  
 Maximum pressure in cylinders 60 atm Diameter of cylinders 150 mm Length of stroke 270 mm No. of cylinders 2 No. of cranks 2  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 185 mm Is there a bearing between each crank yes  
 Revolutions per minute 500 Flywheel dia. 1050 mm Weight 300 kg Means of ignition dis. ign. Kind of fuel used gas oil on hot bed.  
 Crank Shaft, dia. of journals as per Rule 90 mm Crank pin dia. 90 mm Crank Webs Mid. length breadth 140 mm Thickness parallel to axis shrunk  
 as fitted 90 mm Mid. length thickness 47 mm Thickness around eyehole —  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 12.5 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, 3 1/2 h Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
 Lubricating Oil Pumps, No. and size 1, 500 ltr/h  
 Air Compressors, No. 1 No. of stages 1 Diameters — Stroke — Driven by —  
 Scavenging Air Pumps, No. 1, 300 m<sup>3</sup>/h Diameter rotary pumps Stroke — Driven by same engine.

AIR RECEIVERS:—Have they been made under Survey — State No. of Report or Certificate —  
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule —  
 Can the internal surfaces of the receivers be examined — What means are provided for cleaning their inner surfaces —  
 Is there a drain arrangement fitted at the lowest part of each receiver —

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. — Total cubic capacity — Internal diameter — thickness —  
 Seamless, lap welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure by Rules —

ELECTRIC GENERATORS:—Type A.E.G. A.N. 97 No. 526899  
 Pressure of supply 115 volts. Full Load Current 260 Amperes. Direct or Alternating Current direct.  
 If alternating current system, state the periodicity — Has the Automatic Governor been tested and found efficient when the whole 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 —  
 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched — 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 —

PLANS. Are approved plans forwarded herewith for Shafing 12-3-37. Receivers — Separate Tanks —  
 (If not, state date of approval)

SPARE GEAR as per Rules

The foregoing is a correct description.

Motorenfabrik Darmstadt

Aktiengesellschaft

Manufacturer.



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Lloyd's Register  
Foundation

W1196-0039

Dates of Survey while building { During progress of work in shops - April 6-14, May 12 August 2-3, 1937  
 { During erection on board vessel - - -  
 Total No. of visits 5.

Dates of Examination of principal parts—Cylinders 14/4 + 3/8, 1937 Covers 14/4 + 3/8, 1937 Pistons May 12 - Aug. 3, 1937 Piston rods

Connecting rods ✓ Crank and Flywheel shafts 6" 1/2 + 3" 1/2 Aug. 1937 Intermediate shafts ✓

Crank and Flywheel shafts, Material S.M. Steel Identification Marks Lloyd's No. 66. V.S. 2-3-37.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers ✓

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

General Remarks (State quality of workmanship, opinions as to class, etc. This aux. heavy oil engine has been constructed under special survey in accordance with the Society's Rules and Regulations, as well as with the approved plans and instructions thereto.

The material used in the construction is good and the workmanship satisfactory. This auxiliary engine has been tested running several hours under full load and 10% overload on the maker's test bed with satisfactory results.

In my opinion, the vessel for which this engine is intended will be eligible for the notation of + H.M.C. (with date) when the whole machinery has been fitted satisfactorily on board and tried under full working conditions.

The amount of Fee ... Rev. 84.00  
 ship welded plate - 21.00  
 12 air bed trial 21.00  
 Travelling Expenses (if any) \$ 60.00

When applied for, 11.3.1937  
 When received, HAMBURG, 20.11.1937

H. Currier  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned