

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11527.

Date of writing Report 22<sup>nd</sup> March 1943 when handed in at Local Office 19 Port of Copenhagen  
 No. in Survey held at Holsten - Copenhagen Date, First Survey 3<sup>rd</sup> March 1942 Last Survey 6<sup>th</sup> March 1943  
 Reg. Book. Single on the Twin Triple Quadruple Screw vessel "NAVITAS" Number of visits 25 AUG 1945

Built at Copenhagen By whom built Carl. Burmeister & Wain's Yard No. 666 When built 1943-3mo  
 Owners A/S O/S NAVITAS Port belonging to Copenhagen  
 Oil Engines made at Holsten By whom made A/S Holsten Dieselmotor Fabrik No. 443 3506-7 When made 1943  
 Generators made at Copenhagen By whom made A/S Titan No. 66 kW 104035-6 When made 1943  
 No. of Sets 3 Engine Brake Horse Power 240 Nom. Horse Power as per Rule 33 kW 103077 Total Capacity of Generators 165 Kilowatts.

IL ENGINES, &c. Type of Engines Vertical Diesel, trunk piston, Solid injection stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 49 kg/cm<sup>2</sup> Diameter of cylinders 205 mm Length of stroke 300 mm No. of cylinders 2 No. of cranks 2  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 254 mm Is there a bearing between each crank yes  
 Revolutions per minute 540 Flywheel dia. 1250 mm Weight 4400 kg Means of ignition electrical Kind of fuel used coal gas  
 as oil engine as per Rule 116 mm & 110 mm Crank pin dia. 125 mm Crank Webs 240 mm Mid. length breadth 295 mm Thickness parallel to axis -  
 Crank Shaft, dia. of journals 125 mm as fitted 125 mm Mid. length thickness 65 mm Thickness around eye hole -  
 Flywheel Shaft, diameter - as per Rule - Intermediate Shafts, diameter - as fitted - Thickness of cylinder liners 18 mm

Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Means of lubrication forced  
 Are the cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged  
 Cooling Water Pumps, No. 1 off 10 hp electrical driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Lubricating Oil Pumps, No. and size one off 3.95 hp each. Driven by the engine  
 Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -  
 Scavenging Air Pumps, No. - Diameter - Stroke - Driven by -

IR RECEIVERS: Have they been made under Survey yes State No. of Report or Certificate Nº 1664  
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes Can the internal surfaces of the receivers be examined yes  
 What means are provided for cleaning their inner surfaces - 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. one Total cubic capacity 115 litres Internal diameter 307 mm thickness 7 mm  
 Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 39 kg/cm<sup>2</sup> Working pressure by Rules 52.1 kg/cm<sup>2</sup>

ELECTRIC GENERATORS: Type Drift proof vertical  
 Pressure of supply 220 volts. Full Load Current 240 300 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 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  
 If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test yes and do the results comply with the requirements yes  
 If the generators are 100 kw. or over have they been built and tested under survey -

PLANS. Are approved plans forwarded herewith for Shafting yes (if not, state date of approval) Receivers - Separate Tanks -  
Spare gear as per Rules.

The foregoing is a correct description,

AKTIESELSKABET  
 HOLSTEN DIESELMOTOR FABRIK

Manufacturer.



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Dates of Survey while building  
 During progress of work in shops 3/3 - 24/3 - 9/10 - 31/7 - 3/8 - 4/8 - 1942  
 During erection on board vessel 5/9 - 20/9 - 29/10 - 1942 5/11 - 13/11 - 1/2 - 5/2 - 23/2 - 5/3 - 4/3 1943  
 Total No. of visits 16.

Dates of Examination of principal parts - Cylinders and Covers 31/3 - 42 Pistons 31/3 - 42 Piston rods

Connecting rods 20/9 - 24/9 - 41 3/3 - 42 Crank and Flywheel shafts 17/10 - 24/10 - 29/10 - 4/11 - 41 3/3 - 42 Intermediate shafts

Crank and Flywheel shafts, Material S. M. S. Steel Identification Marks 3506: LLOYD'S NO. 5642 4 3.3.42  
 3507 - - - 5648 4 3.3.42  
 3508 - - - 5630 4 3.3.42

Intermediate shafts, Material Identification Marks

Identification marks on Air Receivers  
 No. 1664  
 LLOYD'S TEST  
 711240  
 W.P. 356 lbs  
 18.8.38 V.S.

Is this machinery duplicate of a previous case yes If so, state name of vessel Lobley Standard engines 4.20 & 2.20

General Remarks (State quality of workmanship, opinions as to class, &c. The above 3 generating sets have been built under special survey in accordance with the Rules of the approved plans. The material used in construction has been tested as required by the Rules and the workmanship is good.

The dimensions of the crank shafts have been approved as for Stearns oil engine.

On completion when fitted on board the vessel all 3 engines were tested under full power working conditions as gas engines and the 2 cylinder engine was in addition tested as oil engine and all found to work satisfactorily.

The amount of Fee £475.00 When applied for 23.3.1943  
 Travelling Expenses (if any) £79.75 When received 29.3.1943

J. Langhills Secy.  
 Secretary to Lloyd's Register of Shipping

FRI. 4 JAN 1946

Committee's Minute

Assigned

See J. Langhills rpt.



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