

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13058.

12 MAY 1950

Date of writing Report 8th May 1950 When handed in at Local Office 19 Port of Copenhagen
 No. in Survey held at Katindborg Date, First Survey 16 February 1949 Last Survey 21st Nov. 1949
 Reg. Book. 12178 on the Single Screw vessel HENNING MAZSK For stock at Odense Steel Shipyard Number of Visits 3 Gross 19106 Tons Net 6117
 Built at Odense By whom built Odense Steel Shipyard A/S Yard No. 97 When built 1945-7
 Owners A/S S/S Jernbanen v D/S af 1912 Port belonging to Jernbanen
 Oil Engines made at Katindborg By whom made Motorfabriken BUKH No. 6219-6220 When made 1949
 Generators made at Belgisk By whom made Starland, Wolff No. 8880-8881 When made 1949
 No. of Sets 2 Engine Brake Horse Power 47 M.N. as per Rule ✓ Total Capacity of Generators 60 Kilowatts.
 Is Set intended for essential services ✓

OIL ENGINES, &c.—Type of Engines Heavy oil, Runk piston type SC 135 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 60 Diameter of cylinders 135 mm Length of stroke 180 mm No. of cylinders 5 No. of cranks 5
 Mean indicated pressure 6.53 kg/cm² Firing order in cylinders 1-2-4-5-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 138 mm
 Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m^2 or Kg.-cm.²) 46.5 x 10⁴ Revolutions per minute 625
 Flywheel dia. 675 mm Weight 180 kg Means of ignition compression Kind of fuel used Heavy oil
 Crank Shaft, dia. of journals as per Rule as app. Crank pin dia. 85 mm Crank Webs Mid. length breadth 37.5 mm Thickness parallel to axis ✓
as fitted 95 mm Mid. length thickness 135 mm Thickness round eye hole ✓
 Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule ✓ General armature, moment of inertia (16 m^2 or Kg.-cm.²) ✓
as fitted as fitted
 Are means provided to prevent racing of the engine when declutched Yes Means of lubrication forced Kind of damper if fitted ✓
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material none used
 Cooling Water Pumps, No. 1 off 1.8 l/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
 Lubricating Oil Pumps, No. and size 1 off rotary 4 l/h
 Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
 Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
 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 enclosed, ventilated
 Pressure of supply 110 volts. Full Load Current 273 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 Yes
 Are the generators 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 ✓
 Details of driven machinery other than generator ✓
 PLANS.—Are approved plans forwarded herewith for Shafting No 3/11-47 Receivers ✓ Separate Tanks ✓
 Have Torsional Vibration characteristics if applicable been approved ✓ Armature shaft Drawing No. ✓
 PARE GEAR as per Rules

The foregoing is a correct description,

MOTORFABRIKEN BUKH

AKTIESELSKAB

Manufacturer.



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004591-004595-0071

Dates of Survey while building { During progress of work in shops - - 1949: 1/2 - 2/4 - 2/11.
During erection on board vessel - - -
Total No. of visits 3+

Dates of Examination of principal parts—Cylinders. and Covers. and Pistons. and Piston rods. ✓

Connecting rods. 1/2-49. Crank and Flywheel shafts. 1/2-49 Intermediate shafts. ✓

Crank shaft { Material. Low Steel Tensile strength. 79.9 kg/mm²
Elongation. 25.4 % on 50 mm. Identification Marks LLOYD'S N: 836-834 18-12.49
ENG. N: 6219-6220.

Flywheel shaft, Material. ✓ Identification Marks. ✓

Identification marks on Air Receivers. ✓

Is this machinery duplicate of a previous case. Yes If so, state name of vessel. M/ HENNING MERIK. Gen. Reg. N-13057.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The above oil engines have been constructed under Special Licence in accordance with the Rules and plans approved by the Lloydseller E dated 3rd. November 1947 and originally intended for Gen. N: 113 by Messrs. Odense Skibsbyggeri A/S, Odense.

The material used has been examined and tested as required by the Rules of this Society, the crankshafts as per Copenhagen Cert. N: 10036 of the 12th. November 1948 and the connecting rods as per Copenhagen Cert. N: 7128.

The engines have been tested at Madsen works and found to work satisfactorily.

The generator sets have now been placed in stock at Odense Skibsbyggeri A/S, Odense.

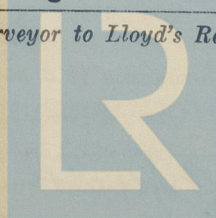
The amount of Fee ... kr. 150,- : When applied for 1950

Travelling Expenses (if any) £ — : When received 19

Committee's Minute. FRI 19 MAY 1950

Assigned. See Incl 10900

Surveyor to Lloyd's Register of Shipping.



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