

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13057

Received at London Office 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 1st February 1949 Last Survey 21st Nov. 1949

Reg. Book. 12178 on the Twin Single Screw vessel HENNING MERSEY

Number of Visits 3 Tons Gross 10106 Net 6117

Built at Odense By whom built Odense Hvalskibsværft 71 Yard No. 97 When built 1945

Owners A/S Sundby & Søn af 1912 A/S Port belonging to Fredericia

Oil Engines made at Katindborg By whom made A/S Motorfabriken Bueh Contract No. 6217-6218 When made 1949

Generators made at Belgard By whom made Harland & Wolff, Ltd Contract No. 8878-8879 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, 2 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 60 kg/cm<sup>2</sup> Diameter of cylinders 135 mm Length of stroke 180 mm No. of cylinders 5 No. of cranks 5

Mean indicated pressure 6.5 kg/cm<sup>2</sup> 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<sup>2</sup> or Kg.-cm.<sup>2</sup>) 40.5 x 10<sup>4</sup> 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 95 mm Crank pin dia 85 mm Crank Webs Mid. length breadth 37.5 mm Thickness parallel to axis ✓

as fitted Mid. length thickness 135 mm Thickness round eyehole ✓

Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule ✓ General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) ✓

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 water cooled

Cooling Water Pumps, No. 1 off 1.8 t/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 t/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

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 ✓

Details of driven machinery other than generator ✓

PLANS.—Are approved plans forwarded herewith for Shafting Receivers ✓ Separate Tanks ✓

Have Torsional Vibration characteristics if applicable been approved ✓ Armature shaft Drawing No. ✓

SPARE GEAR as per Rules

The foregoing is a correct description,

MOTORFABRIKEN BUKH

Manufacturer.

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Dates of Survey while building { During progress of work in shops - - 1949: 1/2 - 25/4 - 2/11.  
 { During erection on board vessel - - - 3 +  
 Total No. of visits - - - 3 +

Dates of Examination of principal parts - Cylinders and Covers and Pistons 1/2 - 49 Piston rods. ✓  
 Connecting rods 1/2 - 49 Crank and Flywheel shafts 1/2 - 49 Intermediate shafts ✓  
 Crank shaft { Material Mild Steel Tensile strength 79.9 kg/mm<sup>2</sup>  
 { Elongation 25.4 % on 50mm Identification Marks LLOYD N: 837-835 18.12.49  
 Flywheel shaft, Material ✓ Identification Marks ENG. N: 6217-6218 ✓  
 Identification marks on Air Receivers. ✓

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

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

The above oil engines have been constructed under Special Survey in accordance with the Rules and plans approved by the Lloyds Survey N: 110 by Messrs. Odense Skibsskroft A/S, Odense.

The material used has been examined and tested as required by the Rules of this Society, the crank shafts as per Copenhagen Conf. N: 1026 of the 12th November 1948 and the connecting rods as per Copenhagen Conf. N: 7128.

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

The amount of Fee ...

£ 150/-

When applied for

19/5

19 50

Travelling Expenses (if any) £ -

When received

19

Committee's Minute

FRI. 19 MAY 1950

Assigned

See vol 10900

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