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Pt. 4c.
D.O.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

12789

22 AUG 1949

Date of writing Report 13th Aug 49 When handed in at Local Office _____ 19__ Port of Copenhagen

No. in Survey held at Katindborg Date, First Survey 10.11.1948 Last Survey 9th August 1949
Reg. Book. _____ Number of Visits 5

_____ on the Single Twin Triple Quadruple Screw vessel. Tons Gross _____ Net _____

Built at Göteborg By whom built Beckings Verk. Västergöt 7/13 Yard No. 388 When built _____

Owners _____ Port belonging to _____

Oil Engines made at Katindborg By whom made A/B Motorfabriken BUKH ENGI No. 5662 Contract No. 5663 When made 1949

Generators made at Copenhagen By whom made A/TITAN GEN. No. 168476 Contract No. 168477 When made 1949

No. of Sets 2 Engine Brake Horse Power 210 M.N. as per Rule 52.5 Total Capacity of Generators 280 Kilowatts.

Is Set intended for essential services _____

OIL ENGINES, &c.—Type of Engines 40260 Diesel, crank piston type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 55 kg/cm² Diameter of cylinders 260 mm Length of stroke 400 mm No. of cylinders 4 No. of cranks 4

Mean indicated pressure 6.45 kg/cm² Firing order in cylinders 1-3-4-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 283 mm

Is there a bearing between each crank Yes Moment of inertia of flywheel (~~18 m²~~ Kg.-cm.²) 15 x 10⁴ Revolutions per minute 400

Flywheel dia 1280 mm Weight 1510 kg Means of ignition compression Kind of fuel used diesel oil

Crank Shaft, dia. of journals 148.5 mm as per Rule 180 mm as fitted Crank pin dia. 180 mm Crank Webs shrunk Mid. length breadth 270 mm Thickness parallel to axis shrunk Mid. length thickness 79 mm Thickness round eye-hole _____

Flywheel Shaft, diameter _____ as per Rule _____ as fitted Intermediate Shafts, diameter _____ as per Rule _____ as fitted General armature, moment of inertia (~~18 m²~~ Kg.-cm.²) 2.3 x 10⁴

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 lagged

Cooling Water Pumps, No. _____ Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____

Lubricating Oil Pumps, No. and size 1 off cog wheel 12 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 H3/32 - drip proof, bench tested.

Pressure of supply 220 volts. Full Load Current 635 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 _____

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 _____

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 Yes

Details of driven machinery other than generator _____

PLANS.—Are approved plans forwarded herewith for Shafting No, 7/11-46. Receivers _____ Separate Tanks _____

Have Torsional Vibration characteristics if applicable been approved Yes 7/11-46 Armature shaft Drawing No. 21221A

SPARE GEAR as per Rules 400 + 500 ft.

The foregoing is a correct description,
MOTORFABRIKEN BUKH
AKTIESELSKAB Manufacturer.
B. J. ...



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Dates of Survey while building: During progress of work in shops - 1948: 10/11; 1949: 1/2-1/3-18/5-9/8; During erection on board vessel - ; Total No. of visits -

Dates of Examination of principal parts - Cylinders and Covers 18.5.49 Pistons 18.5.49 Piston rods 18.5.49

Connecting rods ✓ Crank and Flywheel shafts 1.3.49 Intermediate shafts ✓

Crank shaft Material: Sm. Steel Tensile strength: 49.4-51.5 kg/mm² Elongation: 37% - 34.6% Identification Marks: LLOYD'S No. 2092 - 2289 18-1.3.49

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/OLGA MERIK - PETER MERIK - ANNA MERIK

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

The Generator sets have been constructed under Special Survey in accordance with the requirements of the Rules, the approved plan and the requirements contained in the Secretary's letters E dated London 7/11-46, 18/3-47, 1/6-48.

The material used has been tested as required by the Rules and the workmanship is good.

The Oil engines and Generator have been tested separately at the makers works and found to work satisfactory

501.448.-I. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £. 630.- : When applied for 298 19 49 Travelling Expenses (if any) £. 100.- : When received 19

TUES. 20 DEC 1949

[Signature]

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned In which see J.E. Rhi.



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Rpt. 4c. Date of writing No. in Reg. Book. 35473 Built at Owners Oil Engines m Generators m No. of Sets Is Set intende OIL ENGI Maximum pre Mean indicate pressur Is there a beo Flywheel dia Crank Shaft Flywheel Sh Are means p Are the cylin Cooling Wat Lubricating Air Compre Scavenging AIR REC Is each recei Can the inte Is there a d High Pressu Seamless, la Starting Ai Seamless, la ELECTRI Pressure of If alternati on and off Are all term or shielded If the gener If the gener Details of PLANS. Have Torsi SPARE