

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 111

Date of writing Report 27th Oct. 19... When handed in at Local Office... 19... Port of K I E L Received at London Office 5 NOV 1949

No. in Survey held at K I E L Date, First Survey... Last Survey... 19... Number of Visits...

22050 on the ^{Single} ~~Tuna~~ ~~Prata~~ ~~quadrapla~~ Screw vessel "SIRENELL" ex "Picardie" ex "Kollgrim" Tons Gross 8477 Net...

at Gothenburg By whom built Eriksberg M.V. Aktiebol. Yard No... When built 1936

ers Olav Ringdal Port belonging to Oslo

Engines made at Kiel By whom made Bohn & Kähler Contract No... When made 1949

Generators made at - By whom made Brown, Boveri & Cie. Contract No... When made -

of Sets 1 Engine Brake Horse Power 150 M.N. as per Rule... Total Capacity of Generators 100 Kilowatts.

Intended for essential services... yes

ENGINES, &c.—Type of Engines KR 18

2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 4.8 kg/cm² Diameter of cylinders 190 mm Length of stroke 280 mm No. of cylinders 6 No. of cranks 6

Indicated pressure 6.5 kg/cm² Firing order in cylinders 1.2.3. 6.5.4. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 220 mm

Are there a bearing between each crank... yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 260 kg/cm² Revolutions per minute 500

Wheel dia. 1000 Weight 420 kg Means of ignition spontaneous Kind of fuel used gas oil

Crank Shaft, dia. of journals as per Rule... 105 mm Crank pin dia. 105 mm Crank Webs Mid. length breadth 58 mm Thickness parallel to axis... shrunk Mid. length thickness 140 mm Thickness round eyehole...

Wheel Shaft, diameter as per Rule... directly flanged Intermediate Shafts, diameter as per Rule... General armature, moment of inertia (16 m² or Kg.-cm.²)...

Means provided to prevent racing of the engine when declutched... Means of lubrication pressure Kind of damper if fitted -

Are cylinders fitted with safety valves... yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material... yes

Is the sea suction provided with an efficient strainer which can be cleared within the vessel... -

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

Feeding Oil Pumps, No. and size 1 gear pump in the engine

Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Feeding Air Pumps, No. - Diameter - Stroke - Driven by -

RECEIVERS:—Have they been made under Survey - State No. of Report or Certificate -

receiver, which can be isolated, fitted with a safety valve as per Rule -

Are the internal surfaces of the receivers be examined - What means are provided for cleaning their inner surfaces...

Are there a drain arrangement fitted at the lowest part of each receiver... -

Pressure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

Are they lap welded or riveted longitudinal joint... - Material - Range of tensile strength... Working pressure by Rules...

Feeding Air Receivers, No. - Total cubic capacity - Internal diameter - thickness -

Are they lap welded or riveted longitudinal joint... - Material - Range of tensile strength... Working pressure by Rules...

ELECTRIC GENERATORS:—Type Brown, Boveri & Cie.

Voltage of supply 220 volts Full Load Current 430 Amperes Direct or Alternating Current direct

Are they a rotating current system, state the periodicity... - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off... yes

Generators, are they compounded as per Rule... yes is an adjustable regulating resistance fitted in series with each shunt field... -

Are the terminals accessible, clearly marked, and furnished with sockets... yes Are they so spaced...

Are they so spaced that they cannot be accidentally earthed, short circuited, or touched... yes Are the lubricating arrangements of the generators as per Rule... yes

Are generators under 100 kw. full load rating, have the makers supplied certificates of test... yes and do the results comply with the requirements... herewith

Are generators 100 kw. or over have they been built and tested under survey... no (not new)

Are there any driven machinery other than generator... none

Are approved plans forwarded herewith for Shafting Secretary's letter (If not, state date of approval) 23/8/49 Receivers... Separate Tanks...

Are special Vibration characteristics if applicable been approved herewith (state date of approval) Armature shaft Drawing No...

GEAR as per rule

The foregoing is a correct description,

Bohn & Kähler Manufacturer.



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Dates of Survey while building: During progress of work in shops - - 7th and 23rd April and 18th May, 1949; During erection on board vessel - - - 23rd May and 15th August 1949; Total No. of visits 5

Dates of Examination of principal parts: Cylinders 7/4/49; Covers 7/4/49; Pistons 7/4/49; Piston rods 7/4/49; Crank and Flywheel shafts 7/4/49; Intermediate shafts

Connecting rods: Tensile strength; Crank shaft: Material, Elongation, Identification Marks; Flywheel shaft, Material, Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case... no If so, state name of vessel... This engine has been built under survey.

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.) This engine has been built under survey, and workmanship and material is good. It has been coupled to a B.B.C. generator and tried under working conditions on the test bed and found satisfactory.

After two hours full load test run, the governors were tested and the generator temperature rise checked and all found in good order.

It is recommended that this unit is eligible for class as contemplated and has been stamped

No. 201 LLOYD'S TEST 18/5/49

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

The amount of Fee ... £ 60 : 0 : 0 When applied for 19 Travelling Expenses (if any) £ 1 : 0 : 0 When received 19

FRI. 24 FEB 1950

Committee's Minute Assigned See minute on R.M. 9

