

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 18734

Date of writing Report 19... When handed in at Local Office 19... Port of... Received at London Office 22 MAR 1953

No. in Survey held at... Reg. Book... Date, First Survey 28-11-52 Last Survey 23-2-1953

Single on the Twin Triple Quadruple Screw vessel M.V. "BIDURI" Number of Vistas 3

Built at WATERHUIZEN By whom built J. PATTJE Yard No. 216 When built 1953

Owners GOVERNMENT OF INDONESIA Port belonging to

Oil Engines made at AMSTERDAM By whom made KROMHOUT MOTOREN FABRIEK Engine No. 13042 When made 1953

Generators made at SLIKKERVEER By whom made SMIT Generator No. 40213 When made 1953

No. of Sets ONE B.H.P. of each Set 40 M.N. of each Set as per Rule 12 Capacity of each Generator 25 Kilowatts

Is Set intended for essential services AUX MOTOR

OIL ENGINES, &c.—Type of Engines HEAVY OIL ENGINE 4 G.S.V. 108 2 or 4 stroke cycle FOUR Single or double acting SINGLE

Maximum pressure in cylinders 55 kg/cm² Diameter of cylinders 108 mm Length of stroke 152.4 mm No. of cylinders 4 No. of cranks 4

Mean indicated pressure 7.7 kg/cm² Span of bearings (ie. distance between inner edges of bearings in way of a crank) 122 mm

Is there a bearing between each crank YES Moment of inertia of flywheel (16 m² or Kg.-cm.²)

Flywheel dia. Weight Means of ignition COMPRESSION Kind of fuel used DIESEL OIL

Crank Shaft, Solid forged dia. of journals as per Rule 82.553 mm Crank/pin dia 73 mm Crank Webs Mid. length breadth 109 mm Thickness parallel to axis

Flywheel Shaft, diameter as fitted Generator armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine 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

Cooling Water Pumps, No. and how driven 1-1450LT/HR Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1-600LT/HR TOOTHED WHEEL

Air Compressors, No. 1 No. of stages 2 Diameters 75-85 mm Stroke 70 mm Driven by CLUTCH

Scavenging Air Pumps or Blowers, No. How driven

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

State full details of safety devices

Can the internal surfaces of the receivers be examined and cleaned

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

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

ELECTRIC GENERATORS:—Type G-310

Pressure of supply 110 volts Full Load Current 227 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 YES

Details of driven machinery other than generator BELT DRIVEN ROTARY PUMP NO 3694 CAPACITY 35 M³/HR; CLUTCH DRIVEN AIR COMPRESSOR NO 4185 CAPACITY 15 M³/HR AT 30 ATS.

PLANS.—Are approved plans forwarded herewith for Shafting RETAINED FOR USE Receivers Separate Tanks

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

Has the spare gear required by the Rules been supplied MAKERS SPARES

The foregoing is a correct description,

KROMHOUT MOTOREN FABRIEK D. Goedkoop Jr. N.V. Amsterdam

Manufacturer.



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Dates of Survey while building: During progress of work in shops - - 28-11-52 3-12-52 23-2-53
During erection on board vessel - - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 3-12-52 Covers 28-11-52 Pistons 3-12-52 Piston rods ✓

Connecting rods 3-12-52 Crank and Flywheel shafts 28-11-52 Intermediate shafts ✓

Crank shaft Material CR-MO-STEEL Tensile strength 71.6 KG/MM²
Elongation 26.7% Identification Marks 260YDS N^o526A J.L. 9-4-51 J.D. 28-11-52

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 STANDARD TYPE

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

This engine has been built under Special Survey in accordance with the approved plans, Secretary's letters and the Society's Rules.
Material tests and workmanship found good.
The engine, generator + compressor tested on engine makers test-bed + all found working satisfactory.
The set now despatched to shipbuilders at Waterhuizen for installing.
This set in my opinion, merits the approval of the Committee.

411,52-T. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £ 55. : When applied for 27-2 1953
Travelling Expenses (if any) £ 2.50 : When received 19

FRIDAY 14 AUG 1953

Committee's Minute
Assigned See F.E. Welch. npt.

J. Dobbie
Surveyor to Lloyd's Register of Shipping.



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