

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1750

Received at London Office _____

Date of writing Report 7th March 1952 When handed in at Local Office 19 Port of HAMBURG

No. in Survey held at HAMBURG Date, First Survey 6.10.1951 Last Survey 19.2. 1952

Number of Visits 14

mm D 6347 on the Single Screw vessel "GRONLAND" Tons { Gross 11600
Net -

uilt at Hamburg By whom built Deutsche Werft A.G. Yard No. 635 When built 1951/2

wners A/S Det Dansk-Franske Dampskibsselskab Port belonging to Copenhagen

il Engines made at Augsburg By whom made M.A.N. Engine No. 430725 When made 1952

d diam generators made at Bremen By whom made Lloyd-Dynamowerke A.G. Generator No. 618031/033 When made 1952

o. of Sets 3 B.H.P. of each Set 195 M.N. as per Rule 39 Capacity of each Generator 130 Kilowatts.

Set intended for essential services yes

OIL ENGINES, &c.—Type of Engines Airless Injection 2 or 4 stroke cycle 4 Single or double acting single

aximum pressure in cylinders 51/52 Atm. Diameter of cylinders 220 mm Length of stroke 330 mm No. of cylinders 5 No. of cranks 5

ean indicated pressure 7.22 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 260 mm

there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 790 kg/m² Revolutions per minute 500

lywheel dia. 1200 mm Weight 778 kgs Means of ignition comp. Kind of fuel used diesel

rank Shaft, { Solid forged dia. of journals as per Rule 130 mm Crank pin dia. 130 mm Crank Webs Mid. length breadth 61 mm Thickness parallel to axis -
Semi built as fitted 130 mm Mid. length thickness 24 mm Thickness round eyehole -
All built

lywheel Shaft, diameter as per Rule - Generator armature, moment of inertia (16 m² or Kg.-cm.²) -

re means provided to prevent racing of the engine yes Means of lubrication forced Kind of damper if fitted -

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

ooling Water Pumps, No. and how driven 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Manufacturing Oil Pumps, No. and size 1-3,34 m³/h (each, attached gear pumps)

r Compressors, No. 2 No. of stages 2 Diameters 2x 140/160 mm Stroke 130 mm Driven by el. motor

avenging Air Pumps or Blowers, No. none How driven -

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

(other than main engines)

ate full details of safety devices -

n the internal surfaces of the receivers be examined and cleaned -

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

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

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

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

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

ELECTRIC GENERATORS:—Type A.E.G., AW 117 Mod., spray water proof, ventilated.

essure of supply 230 volts. Full Load Current 565 Amperes. Direct or Alternating Current direct

alternating current system, state the periodicity - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown and off yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes

e all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced

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

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

the generators are 100 kw. or over have they been built and tested under survey yes

ails of driven machinery other than generator none

ANS.—Are approved plans forwarded herewith for Shafting 28.9.48 Receivers - Separate Tanks -

(If not, state date of approval)

ve Torsional Vibration characteristics if applicable been approved See Augsburg Rpt. No. 84-29.10.51 Armature shaft Drawing No. -

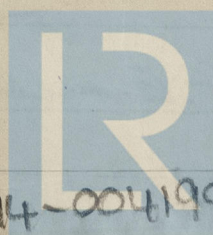
(State date of approval and name of previous duplicate case, if any)

s the spare gear required by the Rules been supplied yes

The foregoing is a correct description,

DEUTSCHE WERFT
AKTIENGESELLSCHAFT

Manufacturer.

Handwritten signature

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Foundation

004194-004199-0306

Dates of Survey while building During progress of work in shops - - Oct.: 6, 20, Nov.: 7, 20, 29, Dec.: 12, Jan.: 2, 12, 22, 26, Feb.: 1, 8, 15, 19.
During erection on board vessel - -
Total No. of visits 14

Dates of Examination of principal parts—Cylinders 13.8.51 Covers 12/14.9.51 Pistons 23.8.51 Piston rods -

Connecting rods 23.8.51 Crank and Flywheel shafts 23.8 and 7.9.51 Intermediate shafts -

Crank shaft Material SMOH steel Tensile strength (2115) Top 56,9 Bottom 56,1 kg/cm²
(2116) 56,8 55,1
(2117) 57,5 56,8
Elongation on 50 mm Top 30,2% Bottom 30,6% Identification Marks 430725: 2115/ 7859 A HKS 7.9.
29% 28,2% 430726: 2116/ 7861 A HKS 7.9.
30,2% 30,4% 430727: 2117/ 7863 A HKS 23.8.

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers -

Is this machinery duplicate of a previous case - If so, state name of vessel M.A.N. Standard Type of Auxiliary Engines

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

These generator engines have been built under Special Survey.

See Augsburg Report No. 84, dated 2nd November, 1951, Properly installed in the above vessel, full load overload, full speed and overspeed running and governor trials have been completed with good results.

30,651.-T. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 24 : 0 : 0 When applied for 19
Travelling Expenses (if any) £ 6 : 10 : 0 When received 19

FRI. 16 MAY 1952

Committee's Minute

Assigned

See F.E. mch. rpt.

W. Schenck & R. Kähler
Surveyors to Lloyd's Register of Shipping.



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