

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 121

Received at London Office 6 JUN 1952

Date of writing Report 21st May 1952 When handed in at Local Office 19 Port of AUGSBURG

No. in Survey held at Augsburg Date, First Survey 11th December, 51 Last Survey 23rd March, 1952

Number of Visits 19

on the Twin Screw vessel M.V. Mosoth

Port of Hamburg By whom built Deutsche Werft A.G. Yard No. 640 When built

owners Neptune Shipping Corp., Panama Port belonging to Panama

Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg A.G. Engine No. 430740/1/2 When made 1951/2

Generators made at By whom made Generator No. When made

No. of Sets 3 B.H.P. of each Set 195 M.N. as per Rule Capacity of each Generator Kilowatts

Set intended for essential services

OIL ENGINES, &c.—Type of Engines M.A.N. Standard Type G5V33 3 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 52 atm. Diameter of cylinders 220 mm Length of stroke 330 mm No. of cylinders 5 No. of cranks 5

Mean indicated pressure 7.22 atm. Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 250 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 790 kgm² Revolutions per minute 500

Flywheel dia. 1200 mm Weight 780 kg Means of ignition dir., inj. Kind of fuel used gas oil

Crank Shaft, Solid forged dia. of journals as per Rule 130 mm Crank pin dia. 130 mm Crank Webs Mid. length breadth 240 mm Thickness parallel to axis

Att-built as fitted 130 mm Mid. length thickness 61 mm Thickness round eye-hole

Flywheel Shaft, diameter as per Rule 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 add. mass on crank shaft end

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

Lubricating Oil Pumps, No. and size 1 x 3,4 m³/h

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

Scavenging Air Pumps or Blowers, No. How driven

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

(other than main engines) 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

Pressure of supply volts Full Load Current Amperes Direct or Alternating Current

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

Generators, are they compounded as per Rule 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

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting appr. 4.7.51 Receivers Separate Tanks

(If not, state date of approval) Have Torsional Vibration characteristics if applicable been approved follows to Deutsche Werft Armature shaft Drawing No.

(State date of approval and name of previous duplicate case, if any) Has the spare gear required by the Rules been supplied 3 pistons, 3 connecting rods, 3 cyl. covers, 3 cyl. liners, 12 fuel

oil valves, 8 fuel oil press. pipes, 6 safety valves, 2 Bosch pumps, 2 bottom end bear. bolts,

4 cyl. cover studs, 8 main bearing bolts, 1 set of wheels for driving crankshaft.

The foregoing is a correct description, Maschinenfabrik Augsburg-Nürnberg A.G.

Manufacturer.

W. Gering



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Lloyd's Register Foundation

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Dates of Survey while building
During progress of work in shops - - 1951: Dec., 11; 1952: Jan., 15, 30, 31; Febr., 4, 8, 9, 13, 14, 18, 20, 26, 27, 29; March, 4, 7, 5, 11
During erection on board vessel - - -
Total No. of visits 19

Dates of Examination of principal parts—Cylinders 12.1.52 Covers 27.2.52 Pistons 15.1.52 Piston rods
Connecting rods 15.1.52 Crank and Flywheel shafts 26.4.27.2.52 Intermediate shafts

Crank shaft Material Siemens-Martin-Steel 2160: 28,4 Tensile strength 2160: 61,4
Elongation 2161: 27,4 % on 50 mm 2161: 65,0 kg/mm²
2162: 29,4 2162: 59,0
Flywheel shaft, Material Identification Marks 2160: LLOYDS 9431A GH 26.2.52
2161: LLOYDS 1207A GH 27.2.52
2162: LLOYDS 1288A GH 26.2.52

Identification marks on Air Receivers

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Heavy Oil Auxiliary Engines have been constructed under special survey in accordance with the Society's Rules, the Secretary's letters and instructions thereto. The material used in the construction was good and the workmanship was found to be satisfactory. The engines have been tested running on Makers test bed under full-, over-, and partial loads with satisfactory results.
In my opinion the vessel for which these engines are intended will be eligible for the notation **+** L M C (with date) when the whole machinery has been fitted aboard the vessel satisfactorily and has been tried under full working conditions.

304,51.—12. MADE AND PRINTED IN ENGLAND
96.52

The amount of Fee 3x 195 RHP DM : 750.-
3x testing chambers DM : 180.-
3x test bed trial DM : 120.-
Travelling Expenses (if any) DM : 40.-
When applied for 19
When received 19

Committee's Minute FRI. 24 OCT 1952
Assigned Su F.E. ushy. rpt. Ham 2023

W. R. ...
Surveyor to Lloyd's Register of Shipping.

