

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 542

Received at London Office - 4 OCT 1955

Date of writing Report 21st July 1955 When handed in at Local Office 19 - Port of Augsburg, Moritzplatz 4

No. in Survey held at Munich Date, First Survey 4th July, Last Survey 21st July, 1955
Reg. Book. "Milana" Number of Visits 2

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

Built at Bremen-Hemelingen By whom built Messrs. Rolandwerft G.m.b.H. Yard No. 854 When built -

Owners - Port belonging to -

Oil Engines made at Munich By whom made Messrs. Süddeutsche Bremsen A.G. Engine No. 93 533 When made 1955

Generators made at - By whom made - Generator No. - When made -

No. of Sets 1 B.H.P. of each Set 150 M.N. of each Set as per Rule - Capacity of each Generator - Kilowatts

Is Set intended for essential services -

OIL ENGINES, &c. - Type of Engines heavy oil engine type RHS 518 S 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 140 mm Length of stroke 180 mm No. of cylinders 6 No. of cranks 6Mean indicated pressure 7.7 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 136 mmIs there a bearing between each crank { Moment of inertia of flywheel (16 m² or Kg.-cm.²) 31 kgm² 4 x 0.525 kgm² Revolutions per minute 1150

Flywheel dia. 590 x 105 mm Weight 160 kgs. Means of ignition pre-chamber Kind of fuel used diesel oil

Crank Shaft { Solid forged dia. of journals as per Rule - Crank pin dia. 100 mm Crank Webs Mid. length breadth 152 mm Thickness parallel to axis -
Semi-built dia. of journals as fitted 115 mm Mid. length thickness 32 mm Thickness round eyebolts -
All-builtFlywheel 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 friction damper

Are the cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material water cooled

Cooling Water Pumps, No. and how driven 1 toothed wheel pump 10.2 m³/h for seawater Is the sea suction provided with an efficient strainer which can be cleared within the vessel -Lubricating Oil Pumps, No. and size 1 rotary pump 5.2 m³/h for freshwater 1 toothed wheel pump 3.8 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 no. appr. 3.2.51 Receivers - Separate Tanks -

(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved yes; London letter 6.9.55 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 according to Rules

The foregoing is a correct description,

SÜDDEUTSCHE BREMSEN A.G. München Manufacturer.

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1570-665110-165110

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Dates of Survey while building { During progress of work in shops - - } 1955: July 4th and 21st.
{ During erection on board vessel - - } -
Total No. of visits 2

Dates of Examination of principal parts—Cylinders 4-7-55 Covers 4-7-55 Pistons 4-7-55 Piston rods -

Connecting rods G.S. 3632 Crank and Flywheel shafts 26.4.55 Intermediate shafts -

Crank shaft { Material S.M. Steel Tensile strength 84.7 kg/mm²
Elongation 18.0 % on 5 x d Identification Marks LLOYDS AUG 7651
526902/202
W.S.E. 26.4.55

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers -

Is this machinery duplicate of a previous case - If so, state name of vessel -

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

This heavy oil auxiliary engine has been constructed under special survey in accordance with the requirements of the Rules and Regulations of this Society and otherwise with the approved plans. The material used in the construction is good and the workmanship was found to be satisfactory. The engine has been tested running on makers' test bed under full-, over-, and partial loads with satisfactory results.

In my opinion the vessel for which this engine is intended will be eligible for the notation + L.M.C. (with date) when the whole machinery has been satisfactorily fitted aboard the vessel and has been tried under full working conditions.

1m.754-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 ... | DM 200.- | When applied for | 19 |
| Test bed trial | DM 40.- | When received | 19 |
| Travelling Expenses (if any) | DM 25.- | | |
| | DM 265.- | | |
| | ===== | | |

Committee's Minute TUESDAY 10 JUL 1956
Assigned Su Rpt. 4 C.

Surveyor to Lloyd's Register of Shipping.



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