

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 165

Received at London Office

Date of writing Report 10th Oct. 1952 When handed in at Local Office 19 Port of Augsburg

No. in Survey held at Augsburg Date, First Survey 7th April, Last Survey 2nd September 1952
Reg. Book. Number of Visits 32Single on the Twin Triple Quadruple
Screw vessel M.S. HOEGH CHIPPER Tons Gross Net

Built at Kiel By whom built Messrs. Howaldtswerke A.G. Yard No. 960 When built

Owners Reed. Leif Hoegh & Co. of Oslo Port belonging to Norway

Oil Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg A.G. Engine No. 430969/970/971 When made 1952

Generators made at By whom made Generator No. When made

No. of Sets 3 B.H.P. of each Set 300 M.N. as per Rule Capacity of each Generator Kilowatts.

Is Set intended for essential services.

OIL ENGINES, &c.—Type of Engines M.A.N. Standard Type G5V42 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 51 atm. Diameter of cylinders 285 mm Length of stroke 420 mm No. of cylinders 5 No. of cranks 5

Mean indicated pressure 6,72 atm. Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 358 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 3500 kgm² Revolutions per minute 365

Flywheel dia. 1500 mm Weight 2350 kg Means of ignition dir. inj. Kind of fuel used Diesel oil

Crank Shaft, Solid forged dia. of journals as per Rule 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 280 mm Thickness parallel to axis
dia. of journals as fitted 170 mm Mid. length thickness 89,5 mm Thickness round eyeholeFlywheel 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

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 4,54 m³/h each

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 yes State No. of Report or Certificate 382
(other than main engines)

State full details of safety devices safety valves

Can the internal surfaces of the receivers be examined and cleaned yes

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

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. 1 Total cubic capacity 200 ltrs. Internal diameter 421 mm thickness 12 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 49,0 Working pressure 30 atm.

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. 30.3.51 Receivers. Separate Tanks

Have Torsional Vibration characteristics if applicable been approved to be forw. by Yard Armature shaft Drawing No.

Has the spare gear required by the Rules been supplied yes

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

Manufacturer.

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Dates of Survey while building { During progress of work in shops - - 1952: April, 7; May, 14, 21; June, 4, 14, 18, 19, 21, 25; July, 2, 5, 15, 16, 18, 21, 22, 23, 28, 29, 31; Aug., 1, 2, 5, 6, 7, 11, 12, 14, 23, 25, 30; Sept., 2, -
During erection on board vessel - - - - -
Total No. of visits. Thirty-two

Dates of Examination of principal parts - Cylinders 28+30.7.52 + 1.8.52 Covers 2.8.52 16+29.7.52 Pistons 21.7.+2.8.52 Piston rods - -
Connecting rods 21.7.+2.8.52 Crank ~~and flywheel~~ shafts 14.6.52 Intermediate shafts - -
Crank shaft { Material S.M. Steel Tensile strength 2212 2213 2214
Elongation 2212 2213 2214 % on 50 mm 59,3 63,4 55,6 kg/mm
Identification Marks LLOYDS LLOYDS LLOYDS
1230A 1283A 9444A
Flywheel shaft, Material - - Identification Marks - - G.H.14.6.52
Identification marks on Air Receivers 129/1 Lloyd's Test
LLOYD'S TEST No. 2212
T.P. 852 lbs. T.P. 60 atm.
W.P. 426 lbs. W.P. 30 atm.
H.D. 19.12.51 G.H. 23.8.52

Is this machinery duplicate of a previous case - - - If so, state name of vessel 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 approved plans, the Secretary's letters and instructions thereto. The material used in the construction is 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 good results.

In our 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 satisfactorily fitted aboard the vessel and has been tried under full working conditions.

The amount of Fee ... 1050.-
3x working draughts ... 180.-
3x test bed trial ... 180.-
Travelling Expenses (if any) ... 60.-
When applied for 19
When received 19

FRI. 20 MAR 1953

Committee's Minute

Assigned

See F.B. inquiry. rpt.

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



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