

4c. **REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.** No. 167

Received at London Office **27 OCT 1952**

Writing Report **10th Oct 1952** When handed in at Local Office **19** Port of **Augsburg**

Survey held at **Augsburg** Date, First Survey **7th March**, Last Survey **2nd Sept 1952**

on the **Single** Screw vessel **... M.T. ASHAUG TORM** Number of Visits **37**

at **Uddevalla** By whom built **Uddevallavarvet A/B** Yard No. **126** When built **...**

rs. **Uddevallavarvet A/B of Uddevalla** Port belonging to **Sweden**

Engines made at **Augsburg** By whom made **Maschinenfabrik Augsburg-Nürnberg A.G.** Engine No. **430794/5/6** When made **1952**

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

f Sets **3** B.H.P. of each Set **200** M.N. as per Rule **...** Capacity of each Generator **...** Kilowatts **...**

intended for essential services **...**

ENGINES, &c.—Type of Engines **M.A.N. Standard Type G5V33** 2 or 4 stroke cycle **4** Single or double acting **single**

Maximum pressure in cylinders **51.2 atm.** Diameter of cylinders **220 mm** Length of stroke **330 mm** No. of cylinders **5** No. of cranks **5**

Indicated pressure **7.25 atm.** Span of bearings (i.e., distance between inner edges of bearings in way of a crank) **260 mm**

Are there a bearing between each crank **yes** Moment of inertia of flywheel (16 m² or Kg.-cm.²) **790 kgm²** Revolutions per minute **515**

Wheel dia. **1200 mm** Weight **780 kg** Means of ignition **dir. inj.** Kind of fuel used **Diesel oil**

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

Wheel Shaft, diameter **...** Generator armature, moment of inertia (16 m² or Kg.-cm.²) **...**

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**

Driving 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 3.34 m³/h eff. each**

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

Engines Air Pumps or Blowers, No. **...** How driven **...**

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

Are the internal surfaces of the receivers be examined and cleaned **...**

Are there a drain arrangement fitted at the lowest part of each receiver **...**

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

Are they less, lap welded or riveted longitudinal joint **...** Material **...** Range of tensile strength **...** Working pressure **...**

Other Air Receivers, No. **...** Total cubic capacity **...** Internal diameter **...** thickness **...**

Are they less, lap welded or riveted longitudinal joint **...** Material **...** Range of tensile strength **...** Working pressure **...**

ELECTRIC GENERATORS:—Type **...**

Voltage of supply **...** volts. Full Load Current **...** Amperes. Direct or Alternating Current **...**

Are they on an alternating current system, state the periodicity **...** Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off **...**

Are the 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 **...**

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

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

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

Are the drawings of driven machinery other than generator **...**

Are the plans **NS.**—Are approved plans forwarded herewith for Shafting **appr. 30.3.51** Receivers **...** Separate Tanks **...**

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

Are the spare gear required by the Rules been supplied **yes**

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

W. Peering, V. B. Wap
Manufacturer.



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Foundation

002602-002610-0029

DM
5/12/52
Ex 11
TVC

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Dates of Survey while building: During progress of work in shops - - 1952: March, 7.19.26.31; April, 3.4.10.16; May, 12.13.15; June, 5.6.7.9.19.21.24 July, 2.3.15.22.29.31; Aug., 1.5.11.12.14.18.19.21.26.28; Sept., 1.2:-
 During erection on board vessel - - -
 Total No. of visits thirty-seven

Dates of Examination of principal parts—Cylinders 5+11.8.52 Covers 14+18.8.52 Pistons 3.4.52 Piston rods -.-

Connecting rods 3.4.52 Crank and Flywheel shafts 3.7.52 Intermediate shafts -.-

Crank shaft	Material	S.M. Steel			Tensile strength	2180	2181	2182
		2180	2181	2182		64,2	57,4	61,7
	Elongation	27,4	32,4	29,0	% on 50 mm	Identification Marks	1277A	1652A

LLOYDS G.H. 3.7.52

Flywheel shaft, Material -.- Identification Marks -.-

Identification marks on Air Receivers -.-

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 ~~Specification~~ 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.

3m, 511.-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	AM	: 750.-	When applied for	19
3x testing + haulage	AM	: 180.-			
3x test bed trial	AM	: 120.-	When received	19	
Travelling Expenses (if any)	AM	: 40.-			
3x test. welded found. frame	AM	: 90.-			

TUES. 24 FEB 1953

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

Committee's Minute

Assigned *See P.E. mch. rpt.*

