

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 18915.

APR 1952

Date of writing Report 21st March 1952 When handed in at Local Office 4th April 1952 Port of Gothenburg  
 Received at London Office  
 No. in Survey held at Gothenburg Date, First Survey 3rd July, 1951 Last Survey 13th March 1952  
 eg. Book. Number of Visits 14  
 pening 6242 on the Single Screw vessel Motor Tanker "A S T R I D O N S T A D"  
 Tons Gross 14685  
 Net 8673  
 Built at Gothenburg By whom built Aktiebolaget Götaverken Yard No. 660 When built 1952  
 Owners Rederi Aktiebolaget Monacus Port belonging to Kungsbacka  
 Oil Engines made at Gothenburg By whom made Aktiebolaget Götaverken Engine No. 2240/1 When made 1952  
 Generators made at Västerås By whom made A S E A Generator No. 2769042/3 When made 1951  
 No. of Sets 2 B.H.P. of each Set 300 M.N. as per Rule BHP = 120 Capacity of each Generator 200 Kilowatts.  
 Set intended for essential services. Yes.

OIL ENGINES, &c.—Type of Engines Heavy oil trunk type 450 G 5. 2 or 4 stroke cycle 4 SC Single or double acting SA.  
 Maximum pressure in cylinders 45kgs/cm<sup>2</sup> Diameter of cylinders 300 mm. Length of stroke 450 mm. No. of cylinders 5 No. of cranks 5  
 Mean indicated pressure 6.5 kgs/cm<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 378 mm.  
 Is there a bearing between each crank Yes Moment of inertia of flywheel 13750 Kg cm sec<sup>2</sup>  
 Flywheel dia. 1500 mm. Weight 3800 mm. Means of ignition Comp. Kind of fuel used Diesel oil  
 Crank Shaft, Solid forged dia. of journals 190 mm. Crank pin dia. 190 mm. Crank Webs 260 mm Mid. length breadth 105 mm Thickness parallel to axis shrunk  
 Flywheel Shaft, diameter as per Rule. Generator armature, moment of inertia 1040. Kg cm sec<sup>2</sup>  
 Are means provided to prevent racing of the engine Yes Means of lubrication Forced Kind of damper if fitted None  
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged  
 Cooling Water Pumps, No. and how driven 1 SW & 1FW & 500 l/m. also connected to the main system Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Lubricating Oil Pumps, No. and size 1 x 5050 l/hour

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. None fitted Total cubic capacity ---- Internal diameter ---- thickness ----  
 Seamless, lap welded or riveted longitudinal joint --- Material ---- Range of tensile strength ---- Working pressure ----

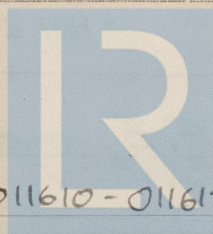
ELECTRIC GENERATORS:—Type Drip proof compound  
 Pressure of supply 220 volts. Full Load Current 2 x 909 Amperes. Direct or Alternating Current Direct current  
 If alternating current system, state the periodicity --- Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off Yes Generators, are they compounded as per Rule Yes Is an adjustable regulating resistance fitted in series with each shunt field Yes  
 Are all terminals accessible, clearly marked, and furnished with sockets Yes Are they so spaced ---  
 Or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes  
 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 Yes  
 Details of driven machinery other than generator Generator only

PLANS.—Are approved plans forwarded herewith for Shafting London 24.1.1951 Receivers --- Separate Tanks ---  
 (If not, state date of approval)  
 Have Torsional Vibration characteristics if applicable been approved Yes. 28.1.-47 & 24.1.-51 Armature shaft Drawing No. 108257  
 (State date of approval and name of previous duplicate case, if any)  
 Has the spare gear required by the Rules been supplied As per Rule supplied.

The foregoing is a correct description, and particulars of the installation as fitted are as approved for  
 Torsional Vibration characteristics.

AKTIEBOLAGET GÖTAVERKEN

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - } 3.7.-1951 - 13.3.1952  
{ During erection on board vessel - - }  
Total No. of visits 14  
Dates of Examination of principal parts—Cylinders 26/11,3,5,7,8/12 1951. Covers 26/11,3,5,7,8/12 1951. Pistons 18.12.1951 Piston rods ----  
Connecting rods 18.12.51. Crank ~~and flywheel~~ shafts 9.11.1951 Intermediate shafts ----  
Crank shaft { Material S.M. Steel Tensile strength 53.9 - 55.2 kg/mm<sup>2</sup>.  
Elongation 32 - 30 % on 50 mm. Identification Marks Lloyd's No. 134 B-n 8.12.1949 Lloyd's No. 135. B-n 8.12.1949.  
Flywheel shaft, Material --- Identification Marks ---  
Identification marks on Air Receivers ---

Is this machinery duplicate of a previous case Yes If so, state name of vessel M/T Margaret Onstad, Got.F.E. Rpt. No. 18385.

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

These auxiliary engines have been built under Special Survey in accordance with the Rules and approved plans. The workmanship and materials used are good and certificate in respect of crank shafts are attached.

The machinery has been securely fitted on board under our inspection and to our satisfaction, tried under full working power on a trial trip and found to work satisfactorily.

One steam auxiliary engine manufactured by Öresundsvarvet Aktiebolag, Landskrona, having No. 28 rating 165 BHP at 450 r/m has also been installed. The engine has been built under special Survey as per Helsingborg Surveyor's certificates attached.

The amount of Fee ... Kr. 525:00 :

When applied for 4th April 19 52.

Travelling Expenses (if any) £ -----

When received ----- 19 ----

FRI. 2 MAY 1952

Committee's Minute

Assigned

See F.E. sketch. + pp.

