

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 18915.

Received at London Office

APR 1952

Date of writing Report 21st March 1952. When handed in at Local Office 4th April 1952. Port of Gothenburg

No. in Survey held at Gothenburg Date, First Survey 3rd July, 1951 Last Survey 13th March 1952. Number of Visits 14.

on the ~~Tuna~~ ~~Motor~~ ~~Motor~~ ~~Motor~~ Screw vessel Motor Tanker "A STRID ONSTAD" 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  $\frac{BHP}{5} = 120$  Capacity of each Generator 200 Kilowatts.

Set intended for essential services. Yes.

OIL ENGINES, &c.—Type of Engines Heavy oil trunk type ~~450~~ <sup>300</sup> 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 ~~(15000 kg cm sec<sup>2</sup>)~~ 13750 Revolutions per minute 350

Flywheel dia. 1500 mm. Weight 3800 mm. Means of ignition Comp. Kind of fuel used Diesel oil

Crank Shaft, ~~xxxxxx~~ dia. of journals ~~190 mm.~~ Appd. 190 mm. Crank pin dia. 190 mm. Crank Webs Mid. length breadth 260 mm Thickness parallel to axis ---

Flywheel Shaft, diameter as per Rule --- Generator armature, moment of inertia ~~(15000 kg cm sec<sup>2</sup>)~~ 1040. Mid. length thickness 105 mm Thickness round eyehole ---

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 & 1 FW @ 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 ---

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 ---

Have Torsional Vibration characteristics if applicable been approved Yes. 28.1.-47 & 24.1.-51 Armature shaft Drawing No. 108257

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  
*W. G. Swanström*  
Manufacturer.



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Foundation

011610-011618-0028

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 Surveyors certificates attached.

3m.651.-T. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

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

*Oluf P. ...*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned *See F.E. sketch, r.p.p.*

