

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 3104.

Received at London Office

Date of writing Report 6th June, 1952. When handed in at Local Office 11th June 1952. Port of M A L M Ö

No. in Survey held at Malmö Date, First Survey 29.11.51 Last Survey 30th May, 1952.  
Reg. Book. Number of Visits 14.41109s. on the ~~Triple~~ <sup>Single</sup> Screw vessel M/T "SOYA-MARGARETA" Tons Gross 10.628  
Net 7.906

Built at Malmö By whom built Kockums Mek. Verkstads A.-B. Yard No. 343 When built 1952.

Owners Rederi A.-B. Soya Port belonging to Stockholm

Oil Engines made at Malmö By whom made Kockums Mek. Verkstads A.-B. Contract No. 621,622 When made 1952.

Generators made at Västerås By whom made ASEA Contract No. When made

No. of Sets 2 Engine Brake Horse Power 280 M.N. as per Rule 57 Total Capacity of Generators 2x200 Kilowatts.

Is Set intended for essential services yes.

**OIL ENGINES, &c.**—Type of Engines Heavy oil Kockum-MAN-G5V42 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 45 kg/cm<sup>2</sup> Diameter of cylinders 275 mm Length of stroke 420 mm No. of cylinders 5 No. of cranks 5  
 Mean indicated pressure 17 kg/cm<sup>2</sup> Firing order in cylinders 1.2.4.5.3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 352 mm  
 Is there a bearing between each crank yes Moment of inertia of flywheel (16 mm<sup>2</sup> or Kg.-cm.<sup>2</sup>) 6506x10<sup>3</sup> Revolutions per minute 350  
 Flywheel dia. 1625 mm Weight 1495 kg. Means of ignition Cmpmp. Kind of fuel used Heavy oil

Crank Shaft, dia. of journals 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 280 mm Thickness parallel to axis  
 as fitted 170 mm Mid. length thickness 85 mm Thickness round eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 mm<sup>2</sup> or Kg.-cm.<sup>2</sup>) 1021x10<sup>3</sup>  
 as fitted

Are means provided to prevent racing of the engine when declutched 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 lagged

Cooling Water Pumps, No. 2 à 35 m<sup>3</sup>/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel yesLubricating Oil Pumps, No. and size 1-2 m<sup>3</sup>/h for each engine

Air Compressors, No. none No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. none Diameter Stroke Driven by

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

Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manhole

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

High Pressure Air Receivers, No. 1 Spare Cubic capacity of each 200 ltr. Internal diameter 474 mm thickness 13 mm  
47.4-47.9

Seamless, lap welded or riveted longitudinal joint El. weld. Material S.M. Steel Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. 2 Total cubic capacity 20.4 m<sup>3</sup> Internal diameter 1590 mm thickness 30 mm  
43.9-47.5

Seamless, lap welded or riveted longitudinal joint El. weld. Material S.M. Steel Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type ASEA

Pressure of supply 230 volts Full Load Current 870 Amperes Direct or Alternating Current Direct

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 Air compressor - 2 stages - Diam. 110-300 mm; stroke 240 mm.

PLANS.—Are approved plans forwarded herewith for Shafting 12.7.49 Receivers 27.2.51 Separate Tanks

Have Torsional Vibration characteristics if applicable been approved 12.7.51 Armature shaft Drawing No. S 10797 A  
(state date of approval) noted 4.7.49.

SPARE GEAR As per Rule

Additional:— 1 cylinder liner, 1 cylinder cover, 2 pistons with gudgeon pins.

The foregoing is a correct description,

MEKANISKA VERKSTADS AKTIEBOLAG

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - } 29.11.51, 4.2.52, 5.2.52, 15.2.52, 18.2.52, 20.2.52, 24.3.52, 27.3.52.  
{ During erection on board vessel - - } 16.4.52, 15.5.52, 17.5.52, 19.5.52, 24.5.52, 30.5.52.  
Total No. of visits 14

Dates of Examination of principal parts—Cylinders 29.11.51 Covers 4.2.52 Pistons 4.2.52 Piston rods -

Connecting rods 4.2.52 Crank and Flywheel shafts 5.2.52 Intermediate shafts -

Crank shaft { Material S.M. Steel Tensile strength 50.7 - 52.6 kg/cm<sup>2</sup>  
Elongation 33 - 34 % Identification Marks Lloyd's Nos. 7727/8 G.A. 9.851.

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers Nos. 119 + 120 - Lloyd's test 48.5 kg/cm<sup>2</sup>

W.P. 30 kg/cm<sup>2</sup> T.O. 21.3.52

No. 111; Lloyd's test 60 kg/cm<sup>2</sup> W.P. 30 kg T.O. 8.8.51

Is this machinery duplicate of a previous case yes If so, state name of vessel M/T "AVANCE"

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

These two auxiliary Diesel engines have been constructed and fitted onboard ship under Special Survey, in accordance with the approved plans and the Society's Rules.

The material and workmanship are good.

(The Surveyors are requested not to write on or below the space for Committee Minute.)

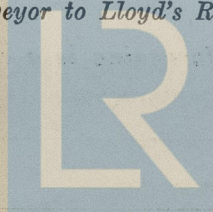
The amount of Fee ... Kr: ... 540:- When applied for 11th June, 1952.

Travelling Expenses (if any) £ : : When received 19

Committee's Minute TUES. 8 JUL 1952

Assigned See F.E. mch. rpt.

Surveyor to Lloyd's Register of Shipping.



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