

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11091

Date of writing Report 18<sup>th</sup> Jan. 1940 When handed in at Local Office 19

Received at London Office 24.1.40

Port of Copenhagen.

No. in Survey held at Copenhagen & Nakskov Date, First Survey 13 March 1939 Last Survey 4<sup>th</sup> January 1940.  
Reg. Book.

Number of Visits 30.

on the <sup>Single</sup> ~~Twin~~ <sup>TANK</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel

SATURNUS.

Tons { Gross 9964.73.  
Net 5817.86.

Built at Nakskov By whom built Nakskov Skibsværft Yard No. 91 When built 1940

Owners Rederi A/B. SATURNUS.

Port belonging to Stockholm

Oil Engines made at Copenhagen By whom made Bismister &amp; Wain Contract No. 3004-05 When made 1940.

Generators made at Västervik By whom made ASEA Contract No. 1212669-70 When made 1940.

No. of Sets 2. Engine Brake Horse Power 225 Nom. Horse Power as per Rule Total Capacity of Generators 300. Kilowatts.

OIL ENGINES, &amp;c.—Type of Engines Diesel, trunk piston, solid injectors or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 49 kg/cm<sup>2</sup> Diameter of cylinders 220 mm Length of stroke 370 mm No. of cylinders 4 No. of cranks 4.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 280 mm Is there a bearing between each crank Yes.

Revolutions per minute 375 Flywheel dia. 1200 mm Weight 1550 kgs Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 130 mm as fitted 150 mm Crank pin dia. 150 mm 75 mm cent. hole Crank Webs Mid. length breadth 245 mm Mid. length thickness 85 mm Thickness parallel to axis 85 mm Thickness around eyehole 67.5 mm.

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 18 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced.

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 off - independent Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 off - 4.5 l/h. on each engine.

Air Compressors, No. 1 off - on each engine No. of stages 2 Diameters L.P. 280 mm H.P. 280-250 mm Stroke 190 mm Driven by the engine direct

Scavenging Air Pumps, No. 1 off - 26.8 m<sup>3</sup>/min Diameter for each engine Stroke Rotary Driven by the engine

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 853.

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

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 by Rules

EMERGENCY Starting Air Receivers, No. 1 off. Total cubic capacity 250 litres Internal diameter 380 mm thickness 11.0 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S. M. Steel Range of tensile strength 35.5 kg/mm<sup>2</sup> Working pressure by Rules 43 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type trip proof, ventilated

Pressure of supply 220 volts. Full Load Current 682 Amperes. Direct or Alternating Current direct

If alternating current system, state the periodicity Has the Automatic Governor been tested and found efficient when the whole 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 No, please see London letter dated 28/11/1939.

PLANS. Are approved plans forwarded herewith for Shafting Yes. Receivers 2/2/1935 Separate Tanks

SPARE GEAR supplied as per Rules.

The foregoing is a correct description.

AKTIESELSKABET  
BURMEJER  
SKIBSBYGGERI

Manufacturer.



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Lloyd's Register  
Foundation

003429-003433-0086



Dates of Survey while building { During progress of work in shops - - } 13/3-4/4-11/4-24/11-25-7/6-16/6-14/7-20/7-27/7-2/8-18/8-28/8-31/8-8/9/1939.  
 { During erection on board vessel - - - } 5/10-11/10-20/10-27/10-9/11-15/11-21/11-29/11-6/12-12/12-19/12-28/12-30/12/1939-3/1-4/1/1940.  
 Total No. of visits 30.

Dates of Examination of principal parts—Cylinders *with* Covers *297-8/9* Pistons *8/9* Piston rods *✓*  
 Connecting rods *13/3-4/4-7/6* Crank and Flywheel shafts *11/4-24/4-16/6-14/7* Intermediate shafts *✓*

Crank and Flywheel shafts, Material *S. M. Steel* Identification Marks *Stagis No 4808-09 K.L. 14.7.39.*

~~Connecting rods~~ ~~Intermediate shafts~~ Material *S. M. Steel* Identification Marks *Stagis No 4745 K.L. 7.6.39.*

Identification marks on Air Receivers *No 853. Stagis Test 50 Atm.  
 W.P. 25 Atm.  
 CV. 2.5.39.*

Is this machinery duplicate of a previous case *✓* If so, state name of vessel *B & W. Standard Type.*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The above engines have been constructed and fitted under special survey in accordance with the Society's Rules and the approved plan. The material has been tested and examined as per Rules and found satisfactory and the workmanship is good. On completion the engines were tested under working condition and found to work satisfactorily.*

The amount of Fee ... £ *✓* : : When applied for, *✓* 19...  
 Travelling Expenses (if any) £ *✓* : : When received, 19...

Committee's Minute  
 Assigned *See Cpn. J.C. 11091*

*J. Langhorne Lewis. A.T. Westbury.*  
 Surveyor to Lloyd's Register of Shipping.

Rpt. 13.  
 Date of writing R...  
 No. in Su...  
 Reg. Boob...  
 Built at...  
 Owners...  
 Electrical Ins...  
 Is vessel fi...  
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