

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10805

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No. in Survey held at Copenhagen & Odense Date, First Survey 4<sup>th</sup> February 1938 Last Survey 27 Feb 1939  
Reg. Book. Number of Visits 44

87537 on the ~~Single~~ ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "CANADIAN STAR". Tons { Gross 8293.01 Net 5004.09

Built at Copenhagen By whom built A.S. Burmeister & Wain Yard No. 640 When built 1939.  
Owners Blue Star Line Ltd. Port belonging to London.

Oil Engines made at Copenhagen By whom made A.S. Burmeister & Wain Contract No. 2909-10-11. When made 1939.

Generators made at Odense By whom made Thomas B. Thrige. Contract No. 232203-04-05. When made 1939.

No. of Sets 3. Engine Brake Horse Power 420. Nom. Horse Power as per Rule Total Capacity of Generators 840. Kilowatts.

OIL ENGINES, &c.—Type of Engines Diesel, trunk piston, solid inject 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 7. No. of cranks 7.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 294 mm. (at No 3 crank 324 mm) Is there a bearing between each crank Yes.

Revolutions per minute 400. Flywheel dia. 980 mm Weight 1310 kg. Means of ignition Compression Kind of fuel used heavy oil.

Crank Shaft, dia. of journals as per Rule 143 mm as fitted 180 mm Crank pin dia. 180 mm Crank Webs Mid. length breadth 280 mm Mid. length thickness 102 mm Thickness parallel to axis 102 mm Thickness around eyehole 72.5 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. 1 off - 40 gph. sea water 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 - 9.25 gph. for each engine.

Air Compressors, No. 1 off - 52 m<sup>3</sup>/min. for each engine No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. 1 off - 52 m<sup>3</sup>/min. for each engine Diameter engine Stroke Rotary Driven by chain from crank shaft.

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 831-32.

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. none. 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. 2 off - Total cubic capacity 2x180=360 litres Internal diameter 336 mm thickness 10.0 mm.

Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. Steel Range of tensile strength 43.0 kg/mm<sup>2</sup> Working pressure by Rules 50 Atm.

ELECTRIC GENERATORS:—Type drip proof, ventilated

Pressure of supply 220 volts. Full Load Current 1275 Amperes. Direct or Alternating Current direct.

If alternating current system, state the periodicity Yes. 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 Yes. 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.

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

SPARE GEAR supplied as required by the Rules.

The foregoing is a correct description,

AKTIESELSKABET

BURMEISTER & WAIN MASKIN-OG SKIBSBYGGERI

Manufacturer.



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Lloyd's Register

Foundation







Steel Single Screw Motor Vessel CANADIAN STAR of London  
 Yard No 640 by P. Burmeister & Wain's Maskin-og Skibsbyggeri Copenhagen

DESCRIPTION	No ON PLAN	No OF MOTORS	CONDUCTORS		COMP. OF STRAND		MAX CURRENT		LENGTH M.	INSULAT WITH.	PROTECT. WITH.
			No PER POLE	No. AREA mm <sup>2</sup>	No	DIA mm	CIRCUIT	RULE			
CO <sub>2</sub> compressors	E 1-2-3	3	2	2x310	61	2.54	580	647	47-59-67	Vulcaniz	Lead
Cooler fans forward	5S	12	1	240	61	2.24	245	272	100	india	covered
" " Hold I	5S 1-2	2	1	10	7	1.35	17.5	38	86-80	rubber	braided
" " Lower Sw. dk I	5S 3	1	1	10	7	1.35	23	38	70	"	"
" " Hold II	5S 4-5	2	1	16	7	1.70	25.5	49	24-33	"	"
" " Lower Sw. dk II	5S 6	1	1	16	7	1.70	28	49	40	"	"
" " Hold III	5S 7-8	2	1	10	7	1.35	23	38	33-40	"	"
" " Lower Sw. Deck III	5S 9-10	2	1	6	7	1.05	15	28	30	"	"
" " Upper Sw. Deck III	5S 11-12	2	1	6	7	1.05	15	28	36	"	"
Brine sightling pump	5S "	1	1	2.5	7	0.67	6	15	22	"	"
Cooler fans aft	6S	10	1	95	37	1.80	118	148	136	"	"
" " Hold IV	6S 1-2	2	1	10	7	1.35	17.5	38	108	"	"
" " Lower Sw. Deck IV	6S 3-4	2	1	6	7	1.05	15	28	84-76	"	"
" " Upper Sw. Deck IV	6S 5-6	2	1	4	7	0.85	10	22	90-82	"	"
" " Upper Sw. Deck FOR	6S 7-8	2	1	4	7	0.85	10	22	31-31	"	"
" " Upper Sw. Deck Aft	6S 9-10	2	1	2.5	7	0.67	8	15	106	"	"
Brine sightling pump	6S 9	1	1	2.5	7	0.67	6	15	25	"	"
Brine pump feeder	7E	5	1	240	61	2.24	245	243	22	"	"
Brine pump I-II-III	7E 1-2-3	3	1	25	19	1.3	60	64	25	"	"
" " IV, V	7E 4-5	2	1	10	7	1.35	26	38	20	"	"
Brine forcing pump	7E 6	1	1	4	7	0.85	12.5	22		"	"
Cooling water pumps Ref. 4	8E	2	1	50	19	1.83	82	98	80	"	"
" " " I-II	8E 1-2	2	1	16	7	1.70	41	49	25	"	"
4 Winches fore + Windlass	20S	5	1	240	61	2.24	260	272	170	"	"
3 Ton Winches	20S 1-2	2	1	50	19	1.83	94	98	40	"	"
5 " "	20S 3-4	2	1	70	37	1.55	124	130	50	"	"
Windlass	20S 5	1	1	185	37	2.52	230	235	52	"	"
6 Winches amidships	21S	6	1	240	61	2.24	270	272	90	"	"
5 Ton Winches	21S 1-2	4	1	70	37	1.55	124	130	10-10 20-20	"	"
3 " "	21S 5-6	2	1	50	19	1.83	94	98	45	"	"
Winches aft	22S	7	1	185	37	2.52	225	235	122	"	"
3 Ton Winches	22S 1-2-3	6	1	50	19	1.83	94	98	60-42 44-16	"	"
Hauling winch	22S 4-5-6	1	1	70	37	1.55	124	130	77	"	"
Provision Ref. Mech.	9E	3	1	16	7	1.70	33	49	60	"	"
" compressor	9E 1	1	1	10	7	1.35	28	38	10	"	"
" circ. pump	9E 2	1	1	1.5	1	1.38	4	10	10	"	"
" ventil fan	9E 3	1	1	1.5	1	1.38	1	10	30	"	"
Electric crane	35E	1	1	16	7	1.70	28	49	40	"	"