

Rpt. 4a

24 APR 1962

Date of writing report 16.4.62. Received London Port Gothenburg. No. 27564.

Survey held at Uddevalla. No. of visits { In shops 73
On vessel 75

First date 9.12.61. Last date 6.4.62.

FIRST ENTRY REPORT ON STEAM TURBINE MACHINERY

No. in Register Book Name S/S "ASA V. CALL" Gross tons 38471.

Owners California Shipping Co. Managers --- Port of Registry Monrovia.

Hull built at Uddevalla. By Sörviksvarvet AB. Yard No. 204. When 1962 - 4.

Main engines made at Trenton N.J. By De Laval Steam Turb. Co. Engine No. 652031. When 1961.

Gearing made at Trenton N.J. By De Laval Steam Turb. Co. Gear No. 652031. When 1961.

Machinery installed at Uddevalla. By Sörviksvarvet AB. When 1962.

Particulars of restricted service of ship if limited for classification

If ship is to be classed for navigation in ice, state whether Class 1, 2 or 3 No. Particulars of vegetable or similar cargo oil notation if required

Is ship an oil tanker? Yes. Is a refrigerating installation fitted? Yes. If so, is it for cargo purposes? No.

Type of refrigerant Freon. Is the compartment containing the refrigerating machinery isolated from the propelling machinery space? Yes. Is the refrigerated cargo installation intended to be classed?

The following particulars should be given as fully and as clearly as possible. Dashes, ticks and other signs of doubtful meaning are not to be used. Wording not applicable to the installation should be cancelled with a black line.

BOILERS AND OTHER STEAM PRESSURE VESSELS.

No. of main boilers Two. Type and licence name, if any Water Tube Babcock & Wilcox Co. Position Boiler room aft.

No. of aux./donkey boilers (See Circular 2144) Type and licence name, if any Position

Saturated safety valve pressure, main boilers 700 - 705 PSI. Aux./donkey boilers

Steam temperature if superheated 875°F. Superheater safety valve pressure 620 PSI. Natural, forced or induced draught Forced. (Two)

No. of steam heated steam generators None. Generator safety valve pressure

Report on main, aux./donkey boilers and steam heated steam generators (Port and No.) Cleveland 2340 and Got. 27564.

If the boilers are oil fired, is the arrangement of pipes, valves and controls in accordance with the Rules? Yes.

Licence name of oil burning system IOWA. No. and position of oil burning pressure units Two - pumps, & heaters

E.R. floor starboard side; Heaters boiler platform starboard side.

No. and position of oil fuel settling or service tanks not forming part of the hull structure One - 1000 USA. gall. capacity - Diesel oil for emergency gen. and dead ship starting up.

No. of forced or induced draught fans Two. How driven El. motors.

MAIN PROPULSION. (If the main steam turbines, generators or propelling motors have been constructed at another port and are covered by a separate report, the particulars given in that report should not be repeated below but the port and report No. must be stated and all other applicable information must be given.)

Geared or electric transmission? Geared. No. of propellers One.

Maximum S.H.P. for which each line of shafting has been approved 22000 at 105 R.P.M. Machinery numeral 4400

STEAM TURBINES. Description and licence name, if any. (State whether impulse, reaction, impulse-reaction, etc., and whether in tandem.)

De Laval, Trenton N.J. as per Phila.pa. F.E. Rpt. No. 11428.

No. of ahead turbines No. of astern turbines

If ship is single screw, can steam be led direct to M.P. or L.P. turbine and can either H.P. or M.P. turbine exhaust direct to condenser?

Are ahead turbines fitted with emergency overspeed governors as per Rule? Is provision made for reheating the exhaust steam from the H.P. or M.P. turbines?

and leaving reheater If so, state pressure and temperature of steam on entering reheater

What means are provided for protecting reheat boiler against overheating when by-passed?

Temperature of stabilisation of H.P. rotor Residual eccentricity

TURBINES	H.P.		M.P.		L.P.	
	Ahead	Astern	Ahead	Astern	Ahead	Astern
No. of velocity compounded impulse stages						
No. of other impulse stages						
Material of blades						
Material of nozzles						
No. of rows of reaction blading						
Material of blades						
Type of glands						
Type of rotor construction						
Material of rotor shaft						
Tensile strength						
Rotor shaft diameter at bearings						
Span of bearing centres						
S.H.P. at approved maximum power						
Corresponding R.P.M.						
Type of casing construction and material. State if fabricated						

REDUCTION GEARING. (Full particulars to be reported on Form 4e) Port Phil. pa. Report No. 11428. A

ELECTRIC PROPULSION. (Full particulars to be reported on Form 4d) Port _____ Report No. _____

No. of alternators _____ Kw. each alternator _____ at _____ R.P.M. Position in ship _____
 No. of propulsion motors _____ S.H.P. each _____
 motor _____ at _____ R.P.M. Position in ship _____

LINE SHAFTING. THRUST SHAFT (If not integral with gearwheel or electric motor shaft) Is it forward or abaft of the gear case or motor? _____

Diameter at collar _____ Minimum approved tensile strength _____ INTERMEDIATE SHAFT Diameter 575 mm.

Minimum approved tensile strength 48.2 kg/mm² SCREW SHAFT Diameter of cone at large end 678 mm.

Is continuous liner fitted? Yes. Type of propeller key Regular. TUBESHAFT (If separate from screwshaft) _____

Diameter _____ Is continuous liner fitted in way of sterntube? Yes. Thickness of screw/tubeshaft liner at bearings 32.5 mm.

Thickness between bearings 31.5 mm. How is end of liner made watertight in propeller boss? Round rubber packing in gland box.

Is an approved oil gland fitted? No. If so, state type _____ Length of bearing next to and supporting propeller 2620 mm.

Material of bearing Lignum Vitae. In multiple screw ships, is the liner between sterntube and "A" bracket continuous? _____

If not, is the exposed length of shafting between liners readily visible in drydock? _____

Minimum approved tensile strength of screw/tubeshaft 48.9 kg/mm² Is screw/tubeshaft of approved corrosion resisting material? _____

PROPELLER. If of special design, state type _____ Is it of reversible pitch type? No.

If so, is it of approved design? _____ State method of control _____

Propeller	Diameter mm.	Pitch mm.	Built or solid	Total developed surface Sq.ft.	No. of blades	Blade thickness at top of root fillet mm.	Blade material	Tensile strength Tons/	Design moment of inertia of propeller (dry) KpM ²	For Class 1 or 2 ice strengthening only			
										Blade thickness at 25% radius	Blade thickness at tip	Length of blade section at 25% radius	Rake of blade
Working	7300	5080	Solid	308	5	290	Bronze	42.8	329470				
Spare	7300	5080	Solid	308	5	290	Bronze	45.2	329470				

TORSIONAL VIBRATION CHARACTERISTICS. Date of approval with (a) working propeller Lon. 13.2.59. (b) spare propeller Lon. 13.2.59.

State barred speed ranges if imposed with (a) working propeller _____ (b) spare propeller Case 43

STEAM PIPES. Material of main steam pipes Cr - Mo. Tensile strength 45 - 58 kg/mm²

External diameter 10" & 8" Thickness 1/2" How are flanges attached? Welded.

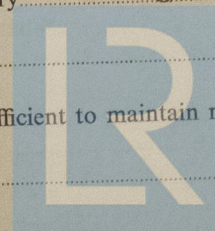
Material of valves and fittings for superheated steam Cast steel - Cr. Mo. Are any auxiliary steam pipes for essential services over 3" bore? Yes.

If so, what is the material? Cr - Mo. Tensile strength 45 - 58 kg/mm²

Hydraulic test pressure on steam pipes: main 116 kg/cm² auxiliary 100 kg/cm² Is adequate drainage provided for the steam piping, including reheater piping, and fittings? Yes.

LUBRICATION. No. of lubricating oil pumps Two. Are their capacities sufficient to maintain normal oil supply with any one pump out of action? Yes.

How are the pumps driven? El. - driven.



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Is an emergency supply of oil automatically available as per Rule? Yes. Is an alarm device fitted to give warning of failure or reduction of the oil supply from the pumps? Yes. No. of oil coolers Two.

Are duplex strainers/filters fitted on the suction/pressure side of the pumps? Yes.

Are they of magnetic type? On suction side - Yes.

FEED SYSTEM. Are all boilers provided with two separate means of feed? Yes. No. of pressure feed heaters One economiser/boiler.

Temperature of feed water at admission to boilers 347°F. normal No. of duplex feed filters: suction None. pressure None. No. of feed water evaporators Two.

Capacity of each in tons/hour 1.88 max. Is feed water distilled from fresh water carried on board, or sea water? Seawater.

Is the feed water single or double distilled? Single. Is the feed system closed? Yes.

No. of condensers: main 1 aux. 1 Cooling surface of main condensers 21100 sq.ft.

Material specification of condenser tubes Cu - Ni. No. of air ejectors, main One aux. One.

PUMPS Name below each essential pump and state its position. Give capacities of bilge pumps.	Service for which each pump is connected to be marked thus x												
	SUCTION							DELIVERY					
	Bilge Main	Bilge Direct	Ballast Main	Oil Fuel Main	Condr. Extr.	Sea	Feed Tanks	Diesel oil tank	Boiler Feed	Main Condr. Cooling	Oil Fuel Burners	Oil Fuel Tanks	Fire Main
E.R. floor port side:													
Main circulating-21300 G.P.M (USA)		X				X				X			
2" - lub. oil													
E.R. floor fwd. end:													
2" - main condensate					X				X				
Aux. circulating (1)						X				X			
Aux. condensate (1)					X				X				
E.R. floor stb. side:													
Oil fuel transfer (1)				X								X	
2" - oil fuel service				X								X	
Bilge & ballast-270 G.P.M (IMP)(1)	X	X	X			X					X	X	X
Fire & gen. service - 91 M/H (1)	X	X				X						X	X
Boiler room floor port side:													
Fire & gen. service - 91 M/H (1)	X	X				X				X			X
Boiler room platform:													
3 - main feed water													
Dead ship starting							X		X				
Main pump room:								X			X		
Bilge (1)		X											
Aux. pump room:													
Bilge (1)		X				X							
O.F. transfer (1)				X								X	

BILGE SUCTIONS. No. and size in each hold, deep tank or pump room Dry cargo hold: 2 - 2½"; Fore peak space: 2 - 2";

Fwd. pump room: 1 - 2½"; Main pump room: 3 - 2½"; Steering gear comp: 3 - 2".

No. and size connected to main bilge line in main engine room 4 - 4"; 2 - 2½". 2@2" (Pump recesses) c/o 1@2"

in aux. engine room in boiler room 1 - 4"; 2 - 2½". 1@2" in tunnel

Size and position of direct bilge suction in machinery spaces E.R: 1 - 6", 1 - 5"; B.R. 1 - 6".

Size and position of emergency bilge suction in machinery spaces 20" at 54 port side. Are all bilge suction valves of non-return type? Yes. Is the bilge or ballast system fitted with means for separating oily water on the overboard discharge side? No.

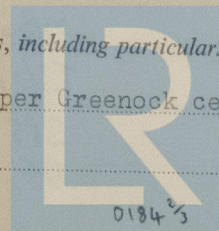
Do the pumping arrangements comply with the Rules, including special requirements for oil tankers, ships carrying cargo oil, or classed for navigation in ice class, 2 or 300 (Strike out words not applicable). Yes.

ELECTRIC GENERATOR PRIME MOVERS.

Position of each	Prime Mover	Made by	Port and No. of Report or Certificate	Output in Kw.	Volts	Amps.
E.R. lower platform deck port side						
Fwd:	Steam Turbine	De Laval, Trenton	Phila.pa. No. 11418	750	450	1202
Aft:	Steam Turbine	De Laval, Trenton	Phila.pa. No. 11418	750	450	1202
Gen. room boat deck aft	Heavy oil eng.	Südd. Bremsen	Aug. No. 1480	100	450	160

If electric current is used for essential services at sea, state the minimum No. and capacity of generators required in order that the ship may operate at sea One - 500 KW.

STEERING GEAR. (State type, also No. of steam engines, electric motors, hydraulic pumps and other particulars, including particulars of the alternative means of steering) Electric hydraulic - Two el. motors - Two pumps and telemotor - as per Greenock cert. C.8210, attached.



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AIR COMPRESSORS AND RECEIVERS FOR ESSENTIAL SERVICES. (State purpose, capacity, prime mover, position in ship, Port and No. of Certificate) Control air - 32 cu.ft/min. - el. motor - boiler platform - Ham. No. 61/2508; Control air - 30 cu.ft/min. - boiler platform - Got. No. 29220.

Have the Rules for fire extinguishing arrangements been complied with? Yes. Brief description of arrangements. Total flooding, CO₂, in engine-, boiler- and main pump room. - Steam smothering in cargo tanks, dry cargo hold, paint lockers and aux. pump room. - Fire hoses with nozzles and extinguishers in engine-, boiler- and pumps rooms to Rule requirements. Has the spare gear required by the Rules been supplied? Yes. Has all the machinery been tried under full working conditions and found satisfactory? Yes. Has the manoeuvring of the main engines been tried and found satisfactory? Yes. Date and duration of full-power sea trials of main engines. 27-28.3 and 5-6.4.62. - 36 hours. Does this machinery installation contain any features of a novel or experimental nature? (State particulars) No. Date of approval of plans for: Main boilers N.Y.K. 21.8.58 and 25.3.60. Auxiliary boilers Donkey boilers Main steam pipes Lon: 24.5.61. Superheaters N.Y.K. 25.3.60. Economisers N.Y.K. 21.8.58. Steam heated steam generators Lon: 11.11.60, 14.2 and 24.5.61. Shafting Lon: 9.6.58. Pumping and piping arrangements Lon: 11.11.60, 14.2 and 24.5.61.

Separate oil fuel tanks. Lon. 24.5.61. Propeller (including spare if supplied) Lon: 19.4.58. If the installation is a duplicate of a previous case, state name of ship S/S "George L. Parkhurst". The foregoing description of the main engines and installation is correct and the particulars are as approved for torsional vibration characteristics. (Strike out words not applicable.)

GENERAL REMARKS. (State if machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and give recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification, the circumstances should be explained as fully as possible.) The machinery of this vessel has been built under Special Survey in accordance with approved plans, Secretary's letters and requirements of the Rule.

The main steam turbine machinery has been built under Special Survey at Trenton N.J. as per Philadelphia Surveyors' Report No. 11428 attached.

Engineer Surveyor to Lloyd's Register of Shipping

PARTICULARS OF IDENTIFICATION MARKS (including port of origin) of important Forgings and Castings. Copies of certificates to be forwarded with report.

Turbine Rotors

Turbine Casings

Flexible Couplings

Thrust Shaft

BJG 21.3.61 Udv, OS 4.4.61 Udv.

Working: Lloyd's DTM No. 281 GN 21.3.61. Working: Lloyd's D77111, USC. Lon. 20.3.61. Spare: DTM No. 344 GN 21.3.61. Propellers Spare: Lloyd's D81185, ADH. Lon. 6.9.61.

Other important items

DATES OF EXAMINATION OF PRINCIPAL PARTS.

Casings Rotors 14.12.61 - 4.4.62. Flexible Couplings Alignment of Turbines and Gearing 21.6.61. Alignment of Straight Shafting 8.11.61. Boiler Supports 16.8.61. Fitting of Sterntube 21.6.61. Fitting of Propeller 3.7.61. Completion of Sea Connections 15.5.61. Testing of Pumping Arrangements 14.2 - 6.4. Oil Fuel Lines 4.2 - 8.2.62. Steering Machinery 6.4.62. Windlass 27.3.62. Date of Committee FRIDAY 25 MAY 1962. Special Survey Fee 5720:-- L.A.F. 1235:-- Decision + LMC ES } MBS } 4/62 } TS(cu) } SPS } DF } Tr. Expenses 354:-- Date when a/c rendered 19/4-62.

Rpt. 9a- Cont. Sheet

Port of Gothenburg.

Continuation of Ship Mch. Report No. 27564

Continuation of Report No.

dated 16.4.62.

on the

on the S.S./M.S. "ASA V. CALL", 38471 tons gross, of Monrovia.

The Main Engine Reduction Gearing has been built under Special Survey at Trenton N.J. as per Philadelphia Surveyors' Report No. 11428 A, signed after installation at Uddevalla, and attached.

Two auxiliary steam turbines have been built under Special Survey at Trenton N.J. as per Philadelphia Surveyors' Report No. 11418, signed after installation at Uddevalla, and attached.

An emergency Heavy Oil engine generator set has been built under Special Survey at Munich as per Augsburg Surveyor's report No. 1480, signed after installation at Uddevalla, and attached.

The workmanship and materials are good.

Note I.

The Owners wish to adopt the Continuous Survey basis of the Machinery.

Note II.

This machinery also holds American Bureau of Shipping Class.

Part of the Survey has been carried out by the undersigned on Builders request as follows.

Monday	19. 6.61	7-8.30 p.m.	70:--	O.S.
Sunday	4. 2.62.	3-4 p.m.	85:--	L.L.
Sunday	11. 2.62.	1-2 p.m.	100:--	L.L.
Thursday	15. 2.62.	7-8 p.m.	80:--	L.L.
Sunday	18. 2.62.	3-5 p.m.	100:--	L.L.
Monday	19. 2.62.	7-10.30 p.m.	80:--	L.L.
Wednesday	21. 2.62.	9.30-10.30 p.m.	80:--	L.L.
Thursday	22. 2.62.	8.30-10.30 p.m.	80:--	L.L.
Sunday	25. 3.62.	9.30 a.m.-1.30 p.m.	100:--	L.L.
Sunday	25. 3.62.	8.00-10.00 p.m.	100:--	L.L.
Friday	30. 3.62.	8.30-10.00 p.m.	80:--	L.L.
Saturday	31. 3.62.	3-5 p.m.	80:--	L.L.
Sunday	1. 4.62.	7.30 a.m.-1.30 p.m.	120:--	L.L.
Monday	2. 4.62.	8.30-11.30 p.m.	80:--	L.L.

Recommendation. The machinery of this vessel is, in our opinion, eligible to be classed in the

Register Book of this Society with record of +LMC 4.62, 2 water tube boilers with a working pressure of 705 PSI and Tail shaft fitted with Continuous Liner.

Surveyor to Lloyd's Register.