

Rpt. 4a

REC'D NEW YORK JUN 12 1961

PLEASE RETURN THIS REPORT WITH YOUR FIRST ENTRY.

12 JUN 1961

Date of writing report May 22, 1961 Received London..... Port PHILA., PA. No. 11128

Survey held at Trenton, New Jersey No. of visits { In shops Eight
On vessel..... First date Nov. 4, 1960 Last date April 19, 1961

FIRST ENTRY REPORT ON STEAM TURBINE MACHINERY

No. in Register Book..... Name..... Gross tons.....

Owners California Transport Company Managers..... Port of Registry.....

Hull built at Uddevalla By Sorviksvarvet Aktiebolag Yard No. 204 When 1961 Year Month

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..... By..... When.....

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..... Particulars of vegetable or similar cargo oil notation if required.....

Is ship an oil tanker? Yes Is a refrigerating installation fitted?..... If so, is it for cargo purposes?.....

Type of refrigerant..... Is the compartment containing the refrigerating machinery isolated from the propelling machinery space?..... 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..... Type and licence name, if any..... Position.....

No. of aux./donkey boilers..... Type and licence name, if any..... Position.....

Saturated safety valve pressure, main boilers..... Aux./donkey boilers.....

Steam temperature if superheated..... Superheater safety valve pressure..... Natural, forced or induced draught.....

No. of steam heated steam generators..... Generator safety valve pressure.....

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

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

Licence name of oil burning system..... No. and position of oil burning pressure units.....

No. and position of oil fuel settling or service tanks not forming part of the hull structure.....

No. of forced or induced draught fans..... How driven.....

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 22,000 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 cross-compound impulse turbines

No. of ahead turbines Two No. of astern turbines One (in L.P. turbine casing)

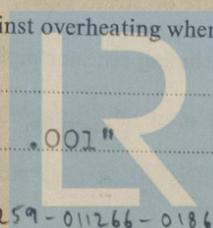
Is ship single screw, can steam be led direct to M.P. or L.P. turbine and can either H.P. or M.P. turbine exhaust direct to condenser? Yes

Are ahead turbines fitted with emergency overspeed governors as per Rule? Yes Is provision made for reheating the exhaust steam from

the H.P. or M.P. turbines? No If so, state pressure and temperature of steam on entering reheater.....

and leaving reheater..... What means are provided for protecting reheat boiler against overheating when by-passed?.....

Temperature of stabilisation of H.P. rotor 850° F. Residual eccentricity..... .001"



TURBINES	H.P.		M.P.		L.P.	
	Ahead	Astern	Ahead	Astern	Ahead	Astern
No. of velocity compounded impulse stages	1 ✓				-	1 ✓
No. of other impulse stages	10 ✓				8 ✓	1 ✓
Material of blades	Steel KB-1				Steel KB-1	Steel KB-1
Material of nozzles	KD-1				KD-2	KC-2
No. of rows of reaction blading						
Material of blades						
Type of glands	Labyrinth ✓				Labyrinth	3 Wheels integral with shaft - 7 wheels assembled ✓
Type of rotor construction	Solid ✓					
Material of rotor shaft	Steel LB ✓				Steel LB	
Tensile strength	90,000 psi ✓				90,000 psi	
Rotor shaft diameter at bearings	5.988" ✓				7.985" ✓	
Span of bearing centres	70" ✓				98" ✓	
S.H.P. at approved maximum power	11,000 ✓				11,000 ✓	
Corresponding R.P.M.	5590 ✓				3344 ✓	
Type of casing construction and material. State if fabricated	Steel castings				Steel castings and fabrication	

REDUCTION GEARING. (Full particulars to be reported on Form 4e) Port PHILADELPHIA, PA. Report No. 11428

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? Aft

Diameter at collar 24" ✓ Minimum approved tensile strength 75,000 psi INTERMEDIATE SHAFT Diameter.....

Minimum approved tensile strength..... SCREWSHAFT Diameter of cone at large end.....

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

Diameter..... Is continuous liner fitted in way of sterntube?..... Thickness of screw/tub shaft liner at bearings.....

Thickness between bearings..... How is end of liner made watertight in propeller boss?.....

Is an approved oil gland fitted?..... If so, state type..... Length of bearing next to and supporting

propeller..... Material of bearing..... 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/tub shaft..... Is screw/tub shaft of approved corrosion resisting material?.....

PROPELLER. If of special design, state type..... Is it of reversible pitch type?.....

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

Propeller	Diameter	Pitch	Built or solid	Total developed surface	No. of blades	Blade thickness at top of root fillet	Blade material	Tensile strength	Design moment of inertia of propeller (dry)	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													
Spare													

TORSIONAL VIBRATION CHARACTERISTICS. Date of approval with (a) working propeller..... (b) spare propeller.....
 State barred speed ranges if imposed with (a) working propeller..... (b) spare propeller.....

STEAM PIPES. Material of main steam pipes..... Tensile strength.....

External diameter..... Thickness..... How are flanges attached?.....

Material of valves and fittings for superheated steam..... Are any auxiliary steam pipes for essential

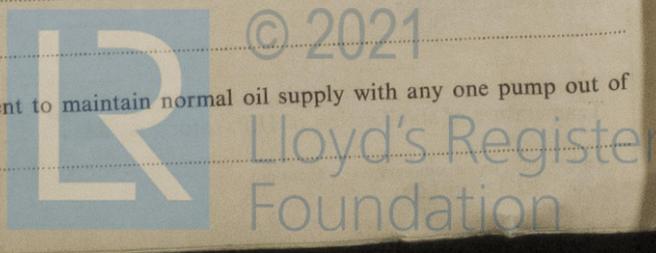
services over 3" bore?..... If so, what is the material?..... Tensile strength.....

Hydraulic test pressure on steam pipes: main..... auxiliary..... Is adequate drainage provided for

the steam piping, including reheater piping, and fittings?.....

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

action?..... How are the pumps driven?.....



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