

Mels Nielson

pt. 4a.

# REPORT ON MACHINERY

No. 13381

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Date of writing Report Dec. 13<sup>th</sup> 1916 When handed in at Local Office Dec. 13<sup>th</sup> 1916 Port of New York  
No. in Survey held at Shenectady Date, First Survey July 5 Last Survey Oct 9<sup>th</sup> 1916  
Reg. Book. S.P. Mels Nielson (Number of Visits 5)

Master Built at Seattle By whom built Skinner & Eddy Corporation When built 1916  
Engines made at Shenectady By whom made The General Electric Company when made 1916  
Boilers made at By whom made when made  
Registered Horse Power Owners Port belonging to  
Shaft Horse Power at Full Power 2500 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines Gearing Turbine No. of Turbines One  
Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft 3 1/2  
Diameter of Journals 6 1/4 Distance between Centres of Bearings 32 1/2 H.S. PINION Diameter of Pitch Circle H.S. PIN. 7.167" GEAR 2' 8"  
Diameter of Wheel Shaft 1 1/4 Distance between Centres of Bearings 48 1/4 Diameter of Pitch Circle of Wheel 25" PIN 10 1/4" GEAR 6' 6 1/2"  
Width of Face 14.35" Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted  
No. of Screw Shafts Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller  
No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. L.P. Astern  
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3505 Propeller 100

## ARTICULARS OF BLADING.

	H. P.			HEIGHT OF BLADES.	L. P.			ASTERN.		
	ACTIVE HEIGHT OF BLADES.	PITCH DIAMETER AT TIP.	NO. OF ROWS.		DIAMETER AT TIP.	NO. OF ROWS.	ACTIVE HEIGHT OF BLADES.	PITCH DIAMETER AT TIP.	NO. OF ROWS.	
1ST EXPANSION	8.75"	2' 1 1/2"	2			8.85"	3' 3"	2		
2ND	6.25"	3' 9"	1			3.375"	3' 3"	1		
3RD	1.25"	3' 10 1/2"	1							
4TH	2.5"	4' 0"	1							
5TH	6"	4' 2"	1							
6TH										
7TH										
8TH										

No. and size of Feed pumps  
No. and size of Bilge pumps  
No. and size of Bilge suction in Engine Room  
In Holds, &c.  
No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size  
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible  
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate  
What pipes are carried through the bunkers How are they protected  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

## BOILERS, &c.—(Letter for record ) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers  
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate  
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler  
Area of each valve Pressure to which they are adjusted Are they fitted with easing gear  
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates  
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams  
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates  
Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter  
Length of plain part top crown Thickness of plates Description of longitudinal joint bottom bottom No. of strengthening rings  
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom  
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules  
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space  
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays  
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules  
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays  
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter  
Thickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets  
Working pressure of shell by rules Crown plates: Thickness How stayed

