

REPORT ON MACHINERY.

No. 4138

Received at London Office

TUE. 19 APR. 1921

Writing Report 22nd March 1921 When handed in at Local Office 25th March 1921 Port of Philadelphia Pa.Survey held at Essington & Chester Pa. Date, First Survey 17th Feb 1920 Last Survey 18th March 1921
on the SS MOUNT. CARROLL (Number of Volls 91)C.F. SMITH Built at Chester Pa. By whom built Merchant S B Co. When built 1921
es made at Essington Pa. By whom made Westinghouse & Co. when made 1921
made at Chester Pa. By whom made Sun Shipbuilding Co. when made 1921
ed Horse Power 930 NHP. Owners Shawmut Steamships Co Port belonging to New York
se Power at Full Power 4200 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YesMINE 11 P. 8412 L.P. 8414 GEAR N^o 2004. 2005. 2008.

E ENGINES, &c.—Description of Engines

Double reduction geared turbines No. of Turbines 2
Rotor Shaft Journals, H.P. 5" L.P. 6" Diameter of Pinion Shaft 2 1/2" 2 1/2" 2 1/2" 2 1/2"
Journals 5 1/2" 10 1/2" 10 1/2" 10 1/2" Distance between Centres of Bearings 22 1/2" 31 1/2" Diameter of Pitch Circle 22 1/2" 31 1/2" (37 TEETH)
Wheel Shaft 15 1/4" Distance between Centres of Bearings 15 1/4" 15 1/4" 15 1/4" Diameter of Pitch Circle of Wheel 22 1/2" 31 1/2" (37 TEETH)
Diameter of Thrust Shaft under Collars 15 1/4" 15 1/4" 15 1/4" 15 1/4" Diameter of Tunnel Shaft as per rule 14 3/8
as fitted 14 3/8
Shafts 10 1/2" Diameter of same as per rule 15 1/4" 15 1/4" 15 1/4" 15 1/4" Diameter of Propeller 19 1/4" Pitch of Propeller 16 1/4"
as fitted 15 1/4" 15 1/4" 15 1/4" 15 1/4"
4 State whether Moveable Yes Total Surface 94.4 ft² Diameter of Rotor Drum, H.P. 18" L.P. 32" Astern
Bottom of Groove, H.P. 18" L.P. 32" Astern Revs. per Minute at Full Power, Turbine 2600 Propeller 90

CLARS OF BLADING. Reaction

H. P.			L. P.			ASTERN.		
HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1 1/2"	21"	2	2"	36"	1	Drum Dia	1st Rotating	27 1/2" 27 1/2"
2"	22"	4	3"	38"	1	"	2nd "	30 25" 27 1/2"
2 1/2"	23"	2	4"	40"	2	Max Tip	1st "	32 25" 35 1/4"
3"	24"	4	6"	44"	1	"	2nd "	34 1/2" 36 1/2"
4"	26"	3	8"	48"	1	Blade Width	1st "	1" 1 1/2"
						"	2nd "	1" 1"
						Mean Dia. Passage Thru Blades		32" 32"
						No. of Rotating Rows		2 2

of Feed pumps 2 @ 14x10x24

of Bilge pumps 3 @ 10x12x12. 10x8 1/2 x 12. 6x5 1/4 x 6

of Bilge suction in Engine Room 4 @ 3 1/2" Fire Room 2 @ 3 1/2" Shaft Alley 2 @ 3 1/2"

In Holds, &c. No. 1. 2 @ 3 1/2" No. 2. 2 @ 3 1/2" No. 3. 2 @ 3 1/2"

suctions 1 sizes 10" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine Room & size 4 1/2"

suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes

sions with the sea direct on the skin of the ship Yes Are they Valves or Cocks 12 inch Yes

sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Yes

fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

carried through the bunkers None How are they protected Yes

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

raft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

G.C.—(Letter for record) Manufacturers of Steel Lukens Iron Steel Co

g Surface of Boilers 12264 Is Forced Draft fitted Yes No. and Description of Boilers 4 S.E. Berth

ssure 220 Tested by hydraulic pressure to 330 Date of test 28-5-20 No. of Certificate 460

be worked separately Yes Area of fire grate in each boiler 65.6 No. and Description of Safety Valves to

2 1/2" Area of each valve 9.62 Pressure to which they are adjusted 220 Are they fitted with easing gear Yes

e between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15 1/4" Length 12 3/4" Material of shell plates Steel

4" Range of tensile strength 6000 to 7000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DRL

RDBS Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 9 1/16" Lap of plates or width of butt straps 25 1/4"

length of longitudinal joint rivets 95.5% Working pressure of shell by rules 236 Size of manhole in shell 12x16"

plates 83% Working pressure of shell by rules 236 Size of manhole in shell 12x16"

ing ring flanged No. and Description of Furnaces in each Boiler 3 Morrison Material Steel Outside diameter 52 1/16"

top Thickness of plates crown 23 1/2" Description of longitudinal joint Field No. of strengthening rings

bottom Thickness of plates bottom 23 1/2" Description of longitudinal joint Field No. of strengthening rings

e of furnace by the rules 229 Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 3/4" Top 1/16" Bottom 1/16"

ditto: Sides 8 1/8 x 6 1/2 Back 8 x 8 Top 8 1/8 x 5 1/2 If stays are fitted with nuts or riveted heads Both Working pressure by rules 223

W.I. Diameter at smallest part 1 9/16" Area supported by each stay 68.046" Working pressure by rules 220 End plates in steam space

Thickness 1 1/16" Pitch of stays 16 1/8 x 16" How are stays secured D nuts Working pressure by rules 233 Material of stays Steel

least part 7.0656 Area supported by each stay 240" Working pressure by rules 242 Material of Front plates at bottom Steel

Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 13" Working pressure of plate by rules 249

2 1/2" Pitch of tubes 3 1/4 x 3 1/2" Material of tube plates Steel Thickness: Front 1 1/32" Back 1/32" Mean pitch of stays 9"

water spaces 13" Working pressures by rules 225 Girders to Chamber tops: Material Steel Depth and

at centre 11 x 2" Length as per rule 3' 4" Distance apart 8 3/8" Number and pitch of stays in each 4 @ 8 1/8"

pressure by rules 265 Steam dome: description of joint to shell % of strength of joint Diameter

Total No. of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets

pressure of shell by rules Crown plates: Thickness How stayed

