

REPORT ON MACHINERY.

No. 2543

REC'D NEW YORK

Received at London Office

Date of writing Report Aug. 10, 1917 When handed in at Local Office

Port of SAN FRANCISCO,

No. in Survey held at Alameda, California.

Date, First Survey Jan. 31,

Last Survey August 6th, 1917.

Reg. Book.

(Number of Visits thirty)

- on the S. S. "DICTO" (Union Iron Works Co.'s S.S. No. 17.)

Tons } Gross 3892.07
Net 2491.61

Master E. Gabrielsen Built at Alameda, Cal. By whom built Union Iron Works Company When built 1917

Engines made at Schenectady, N. Y. By whom made General Electric Co. when made 1917

Boilers made at San Francisco, Cal By whom made Union Iron Works Company when made 1917

Registered Horse Power 400 Owners B. Stolt-Nielsen. Port belonging to Haugesund, Norway.

Shaft Horse Power at Full Power 2400 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

TURBINE ENGINES, &c.—Description of Engines Curtis geared turbine. No. of Turbines 1

Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft

Diameter of Journals Distance between Centres of Bearings Diameter of Pitch Circle

Diameter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel

Width of Face Diameter of Thrust Shaft under Collars 13 1/2" Rule 12.9" Diameter of Tunnel Shaft as per rule 11.77" / 2.3

No. of Screw Shafts One Diameter of same as per rule 12.6" / 13.85" as fitted 14" Diameter of Propeller 17'-0" Pitch of Propeller 13'-6"

No. of Blades 4 State whether Moveable No. Total Surface 85.5 sq. ft. 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 3380 Propeller 90

PARTICULARS OF BLADING.

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.
1ST EXPANSION									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps 2-2", 3-stage turbine centrifugal, 1-Donkey feed 8" x 4 1/2" x 10".

No. and size of Bilge pumps 1-7" x 6" x 10" 1-12" x 8 1/2" x 12" 1-6" x 5 1/2" x 6"

No. and size of Bilge suction in Engine Room 4-3 1/2" and 1-3"

In Holds, &c. Forepeak 1-3"; No. 1 hold 2-3 1/2"; No. 2 hold

2-3 1/2"; No. 3 hold 4-3 1/2"; No. 4 hold 2-3 1/2"; after well 1-3"; after peak 1-3"

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Cir. pump Is a separate Donkey Suction fitted in Engine Room & size Yes 3"

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

Are all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks Valves.

Are they fixed 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 above.

Are they each 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.

What pipes are carried through the bunkers None. How are they protected -

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes.

Is the Screw Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from Deck.

BOILERS, &c.—(Letter for record (S.) Manufacturers of Steel Worth Brothers, Philadelphia.

Total Heating Surface of Boilers 6690 sq. ft. Is Forced Draft fitted No. No. and Description of Boilers 2 Scotch Marine type.

Working Pressure 214 lbs. Tested by hydraulic pressure to 323 lbs. Date of test 29.5.17 No. of Certificate 82-83

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

each boiler 2-3 1/2" spring loaded Area of each valve 9.6 Pressure to which they are adjusted 215 lbs. Are they fitted with easing gear Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork - Mean dia. of boilers 16' 5 1/2" Length 11' 9" Material of shell plates steel

Thickness 1 1/2" Range of tensile strength 60,000 to 71,680 Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams D R L

long. seams TR DBS Diameter of rivet holes in long. seams 1-11/16" Pitch of rivets 10 1/2" Lap of plates or width of butt straps 23 1/2"

Per centages of strength of longitudinal joint rivets 90.1 Working pressure of shell by rules 232 lbs. Size of manhole in end 12 x 16

plates 83.9

Size of compensating ring flanged No. and Description of Furnaces in each Boiler 4 Morrison Corrugated. Material steel Outside diameter 3'-8 1/4"

Length of plain part top - Thickness of plates crown 21" bottom 32" Description of longitudinal joint Welded. No. of strengthening rings -

Working pressure of furnace by the rules 227 lbs. Combustion chamber plates: Material Steel. Thickness: Sides 3" Back 3" Top 3" Bottom 7/8"

Pitch of stays to ditto: Sides 6 1/2" x 8" Back 7 1/2" x 8" Top 8 1/2" x 6 1/2" If stays are fitted with nuts or riveted heads Riv. heads. Working pressure by rules 247 lbs.

Material of stays steel Area at smallest part 1.76 Area supported by each stay 58" Working pressure by rules 273 lbs. End plates in steam space

Material Steel Thickness 19/32" Pitch of stays 18" x 18" How are stays secured d. nuts Working pressure by rules 227 Material of stays steel

Diameter at smallest part 8.29 Area supported by each stay 324 Working pressure by rules 266 lbs. Material of Front plates at bottom. Steel

Thickness 7/8" Material of Lower back plate Steel Thickness 13/16" Greatest pitch of stays 8" x 7 1/4" Working pressure of plate by rules 289 lbs.

Diameter of tubes 3" Pitch of tubes 4 x 4-1/8" Material of tube plates steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 10-1/8"

Pitch across wide water spaces 13 1/2" Working pressures by rules 273 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 11" x 1 1/2" Length as per rule 34" Distance apart 7 1/2" Number and pitch of stays in each 4 @ 6 1/2"

Working pressure by rules 273 lbs. 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



