

Rpt. 4a.

REPORT ON MACHINERY.

No. 16251
3272
1919

REC'D NEW YORK June 1919
Date of writing Report 19 When handed in at Local Office 3rd June 1919 Port of New York & Philadelphia
No. in Survey held at Schmitz & Co. Philadelphia Date, First Survey 20 Sept 1918 Last Survey 28 May 1919
Reg. Book. on the STEEL SCREW STEAMER "SEEKONK" (Number of Visits 38)
Master Built at Philadelphia By whom built American International Corp When built 1919
Engines made at Schmitz & Co. By whom made General Electric Company when made 1918
Boilers made at Bayonne N.J. By whom made Babcock & Wilcox Co. M.B. 586 when made 1918
Registered Horse Power 600 Owners United States Shipping Board
Shaft Horse Power at Full Power 2500 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

TURBINE ENGINES, &c.—Description of Engines Grand Turbine 13528 No. of Turbines One
Diameter of Rotor Shaft Journals, H.P. 8" L.P. 7" Diameter of Pinion Shaft 7"
Diameter of Journals 4.5" Distance between Centres of Bearings 4.28" Diameter of Pitch Circle 4.57.898
Diameter of Wheel Shaft 14" Distance between Centres of Bearings 4.57.634 Diameter of Pitch Circle of Wheel 4.57.11.442
Width of Face 20.44 Diameter of Thrust Shaft under Collars 13.25 Diameter of Tunnel Shaft as per rule 12.48
No. of Screw Shafts (Calculation) Diameter of same as per rule 14.5 as fitted 14.5 Diameter of Propeller 17' 0" Pitch of Propeller 13' 9"
No. of Blades 4 State whether Moveable No Total Surface 98.8 f 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 3234 Propeller 90

PARTICULARS OF BLADING.

ACTIVE H.P. 4764				L.P.				ACTIVE ASTERN. PITCH.			
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	75'-1.25"	2'-11 1/2"	2					81.25'-1.5"	3'-3"		2
2ND	62.5"	3'-9"	1					3'-27.5"	3'-3"		1
3RD	1.25"	3'-10 1/2"	1								
4TH	2.5"	4'-0"	1								
5TH	6' 0"	4'-2"	1								
6TH											
7TH											
8TH											

No. and size of Feed pumps Two 10" x 6" x 24"
No. and size of Bilge pumps Two 12" x 8 1/2" x 12" and 10" x 12" x 12"
No. and size of Bilge suction in Engine Room Two - 3 1/2" dia, Must recess 1-2 1/2", Fire room 2-3 1/2"
In Holds, &c. No. 1 Two - 3 1/2", No. 2 Two - 3 1/2", No. 3 Two - 3 1/2"
No. of Bilge Injections one size 10" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size yes - 3 1/2"
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 both
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 below
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 Upper engine platform
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BOILERS, &c.—(Letter for record S) Manufacturers of Steel
Total Heating Surface of Boilers 8706 Is Forced Draft fitted yes No. and Description of Boilers 3. Watertube Boilers
Working Pressure 200 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 bottom Thickness of plates Description of longitudinal joint 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

SUPERHEATER. Type *Foster* Date of Approval of Plan *In New York office* Tested by Hydraulic Pressure to *400 lbs.*
Date of Test *21/2/19.* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *yes*
Diameter of Safety Valve *1"* Pressure to which each is adjusted *700 lbs* Is Easing Gear fitted *yes*

IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *Two bolts & nuts or studs for each rotor bearing, gear & pinion bearings; 1 set of coupling bolts for each size used; 30 of total number of bolts & nuts for each gear case joint & turbine casing joint; 2 thermometers for oil circulating system; 1 complete set of bearing bushes for rotor, pinion & gear shafts; complete set of packing sleeves for turbine head & diaphragm; 2 main thrust shoes; 1 set of thrust rings for turbine; 1 set of feed pump valves; 1 set of bilge pump valves; 1 set of valves for lubricating oil pump; 1 bucket & rod for lubricating oil pump; 1 emergency governor complete; quantity of assorted bolts, studs & nuts, bars & plates of mild steel; 1 high speed pinion shaft; 1 propeller; 14 boiler tubes; 15 ripples; 15 hand hole doors 38 condenser tubes and 1 set of boiler feed check valves.*

The foregoing is a correct description,

General Electric Co.
per J. A. Berg.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *1918. Oct 23. 1919. Jan 17, 21, 28. Feb 5, 12, 21, 28. Mar 3, 10, 13, 19, 24, 27, 28. April 3, 4, 5, 9, 15, 16,*
During erection on board vessel --- *25, 29. May 7, 14, 16, 19, 21, 23, 28.*
Total No. of visits *38.* Is the approved plan of main boiler forwarded herewith *no*

Dates of Examination of principal parts—Casings *20. 9. 18* Rotors *24. 9. 18* Blading *2. 10. 18* Gearing *15. 10. 18*

Rotor shaft *20. 9. 18* Thrust shaft *16/4/19* Tunnel shafts *16/4/19* Screw shaft *23/10/18* Propeller *23/10/18*

Stern tube *10/3/19* Steam pipes tested *25/4/19* Engine and boiler settings *17/1/19* Engines holding down bolts *22/4/19*

Completion of pumping arrangements *16/5/19* Boilers fired *21/2/19* Engines tried under steam *21/5/19*

Main boiler safety valves adjusted *23/5/19* Thickness of adjusting washers *lock nuts*

Material and tensile strength of Rotor shaft *Steel 80,000 lbs. 5" minimum* Identification Mark on Do. *T.G.D.*

Material and tensile strength of Pinion shaft *" 85,000 " " "* Identification Mark on Do. *T.G.D.*

Material of Wheel shaft *Steel* Identification Mark on Do. *T.G.D.* Material of Thrust shaft *Steel* Identification Mark on Do. *T.H.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *T.H.* Material of Screw shafts *Steel* Identification Marks on Do. *T.H.*

Material of Steam Pipes *Steel* Test pressure *600 lbs.*

Is an installation fitted for burning oil fuel *yes* Is the flash point of the oil to be used over 150°F. *yes*

Have the requirements of Section 49 of the Rules been complied with *yes*

Is this machinery a duplicate of a previous case *yes* If so, state name of vessel *S/S "Satartia" & previous vessel*

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines have been constructed under Special Drawing in accordance with the approved plans. The materials and workmanship are sound and good. The engines have been forwarded to Philadelphia Pa. to be fitted on board.*

Philadelphia:— The boilers and machinery of this vessel have been securely fitted on board and satisfactorily tried under steam. It is submitted that the vessel be eligible for a record of + L.M.C. 5-19; Fitted for oil fuel 5-19; Flash point above 150°F in the Register Book.

The amount of Entry Fee ... £
Special *Philadelphia* *250.00*
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for,

19

When received,

7/8/19

J. A. Berg. J. B. Block.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *New York JUN 10 1919*

Assigned *+ L.M.C. 5-19 Subject*
Fitted for oil fuel 5-19 J.P. above 150°F.

MACHINERY CERTIFICATE
WRITTEN 2-7-19



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Foundation