

REPORT ON MACHINERY.

No. 16250
9229

Received at London Office

1a. REC'D NEW YORK May 19 1919. Port of New York & Philadelphia
Survey held at Schenectady, N.Y. Date, First Survey 7th Sept 1918 Last Survey 2nd May 1919
Book. (Number of Vistas 31)
on the STEEL SCREW STEAMER "SCHODACK" Tons { Gross 5784
Net 3513

ter Built at Philadelphia By whom built American International Corp. When built 1919
ines made at Schenectady, N.Y. By whom made General Electric Co. when made 1918
ers made at Bayonne, N.J. By whom made Babcock & Wilcox Co. (M.B. 575) when made 1918
inal Horse Power 600 Owners Emergency Fleet Corporation Port belonging to Philadelphia
ft Horse Power at Full Power 2500 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

BINE ENGINES, &c.—Description of Engines Grand Turbine 13490 No. of Turbines One
eter of Rotor Shaft Journals, H.P. 8 L.P. 4 Diameter of Pinion Shaft 4"
eter of Journals 6.10" Distance between Centres of Bearings 4.28" Diameter of Pitch Circle 4.57.888
eter of Wheel Shaft 14" Distance between Centres of Bearings 4.57.654" Diameter of Pitch Circle of Wheel 4.57.11.442
h of Face 20.44" Diameter of Thrust Shaft under Collars 13.25" Diameter of Tunnel Shaft 12.48
of Screw Shafts one Diameter of same 14" as per rule 14.5" Diameter of Propeller 17"0" Pitch of Propeller 13"9"
of Blades 4 State whether Moveable no Total Surface 98.8 f Diameter of Rotor Drum, H.P. ✓ L.P. ✓ Astern ✓
kness at Bottom of Groove, H.P. ✓ L.P. ✓ Astern ✓ Revs. per Minute at Full Power, Turbine 3234 Propeller 90

PARTICULARS OF BLADING.

	H.P.				L.P.				ASTERN.		
	ACTIVE HEIGHT OF BLADES.	PITCH. DIAMETER AT TIP.	NO. OF ROWS.		HEIGHT OF BLADES.	PITCH. DIAMETER AT TIP.	NO. OF ROWS.		ACTIVE HEIGHT OF BLADES.	PITCH. DIAMETER AT TIP.	NO. OF ROWS.
EXPANSION	75-125	2-11"	2						9125-1.5	3-2"	2
"	625	2-9"	1						8375	2-3"	1
"	125	3-10"	1								
"	25	4-2"	1								
"	6	4-2"	1								
"											
"											
"											
"											

and size of Feed pumps Two 10" x 6" x 24"
and size of Bilge pumps Two 12" x 8 1/2" x 12" and 10" x 12" x 12"
and size of Bilge suction in Engine Room Two 3 1/2" dia, Thrust recess 1-2 1/2", Fire room Two 3 1/2" dia.
In Holds, &c. No. 1 Hold Two 3 1/2", No. 2 1/2", No. 3 Two 3 1/2"
2 1/2" Two 3 1/2", No. one 3 1/2", No. 5 one 3 1/2", Tunnel well one 3 1/2"
of Bilge Injections one sizes 10" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine Room & size yes 3 1/2"
all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes
all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
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
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
that pipes are carried through the bunkers none How are they protected ✓
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes
the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper engine platform
SEE REPORT 5

MILERS, &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 Water tube boilers
Working Pressure 200 lbs Tested by hydraulic pressure to ✓ Date of test ✓ No. of Certificate ✓
an each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to ✓
ch 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 ✓
mg. seams Diameter of rivet holes in long. seams Pitch of rivets ✓ Lap of plates or width of butt straps ✓
Tons. ✓ per centages of strength of longitudinal joint ✓ Working pressure of shell by rules ✓ Size of manhole in shell ✓
Size of compensating ring No. and Description of Furnaces in each Boiler Material ✓ Outside diameter ✓
Length of plain part top Thickness of plates crown 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 ✓

FRAMES, In Fore

No. of Side St

FRAMES, In E.

FRAMES, In A

No. of Sid

Size of Face

CKET PLAT

Frames, de

KHEADS.

No. 71.

ULKHEAD

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SUPERHEATER.

Type

Foster

Date of Approval of Plan

In New York office

Tested by Hydraulic Pressure to

400 lb.

Date of Test

30/12/18

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

200

Is Easing Gear fitted

yes

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

yes

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, 20 of total number of bolts & nuts for each gear case joint and turbine easing joint, 2 thermometers for oil circulating system, 1 complete set of bearing bushes for rotor pinion and gear shafts, complete set of packing sleeves for turbine head and 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 feeders, 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, 1 Boiler, 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 S.A. Surg.

Manufacturer.

1918.
Dates of Survey while building
During progress of work in shops -- 24.9.17. 20. 24. 30 Oct. 1.7.
During erection on board vessel --- 1918. Oct 3, 10, 25, Nov 6, 14, 26. Dec 3, 6, 10, 17, 26, 28, 30, 31.
Total No. of visits 51.
1919. Jan 2, 8, 14, 18, 20, 28 Feb 3, 7, 11, 17, 20, 24, 27 Mar 3, 10, 13, 19, 24, April 2, 4, 7, 8, 10, 14, 24, 25, 29, 30 May 1, 5, 12, 19, 26, 31.

Is the approved plan of main boiler forwarded herewith.

Dates of Examination of principal parts—Casings 14.9.18 Rotors 9.9.18 Blading 20.9.18 Gearing 1.10.18
Rotor shaft 9.9.18 Thrust shaft 24/12/19 Tunnel shafts 24/12/19 Screw shaft 3/10/18 Propeller 3/10/18
Stern tube 30/12/18 Steam pipes tested 10/4/19 Engine and boiler seatings 20/1/19 Engines holding down bolts 4/4/19
Completion of pumping arrangements 25/4/19 Boilers fired 30/12/18 Engines tried under steam 25/4/19
Main boiler safety valves adjusted 25/4/19 Thickness of adjusting washers Lock nuts

Material and tensile strength of Rotor shaft Steel 80,000 lbs. □ "trimming" 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 75 "SAHLE" & previous vessel

General Remarks

(State quality of workmanship, opinions as to class, &c.)

These engines have been constructed under Special Survey in accordance with the approved plan. The materials and workmanship are sound and good. The engines have been shipped to Philadelphia Pa. To be fitted on board Philadelphia. During the steaming trial a crack developed in the astern turbine casing of Turbine No 13524 originally installed in this vessel. This turbine has now been replaced by a duplicate Turbine No 13490 built under special survey for a sister vessel. The boiler & machinery of this vessel have been securely fitted aboard & satisfactorily tried under steam. It is submitted that the vessel be eligible for a record of + LMC 5-19; Fitted for oil fuel 5-19; Flash point above 150°F in the Register Book.

The amount of Entry Fee ... £ :
Special 2 Philadelphia 250.00 :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for, 19 :
When received, 14/5/19 27/1

H. B. B. J. Blalock
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York MAY - 7 1919

Assigned + LMC 5.19 subject
Fitted for oil fuel 5.19 F.P. above 150°F.

MACHINERY CERTIFICATE

WRITTEN 27/5/19



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Foundation