

REPORT ON MACHINERY.

No. 256

Received at London Office

MON SEP 27 1920

of writing Report 6/7/1920 When handed in at Local Office 6/7/1920 Port of Cleveland Ohio
in Survey held at Cleveland Ohio Date, First Survey 22/12/1919. Last Survey 11/5/1920
Book. on the 5/8" BACCARAT (5/8" SN 493. ENGINE NO 493 BOILERS NO 493) (Number of Visits 32)
ster Built at Cleveland Ohio By whom built American Shipbuilding Co. Tons { Gross
ines made at Cleveland Ohio By whom made American Shipbuilding Co. when made 1920. Net
lers made at Cleveland Ohio By whom made American Shipbuilding Co. when made 1920.
atered Horse Power 267 Owners U.S. Shipp. Board Emer Fleet Rep. Port belonging to Cleveland Ohio
Horse Power as per Section 28 267 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
GINES, &c.—Description of Engines Triple expansion (vertical) No. of Cylinders 3 No. of Cranks 3
of Cylinders 20"-33"-54" Length of Stroke 40" Revs. per minute 85 Dia. of Screw shaft 11.53" Material of steel
he screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight
the propeller boss yes. If the liner is in more than one length are the joints burned no joints If the liner does not fit tightly at the part
een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two
rs are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 51"
of Tunnel shaft 10.3" as per rule 10.8" Dia. of Crank shaft journals 11" as per rule 11" Dia. of Crank pin 11" Size of Crank webs 21x6 1/2" Dia. of thrust shaft under
rs 1 1/2" Dia. of screw 14'-0" Pitch of Screw 12'-5" No. of Blades 4 State whether moveable no Total surface 640'
of Feed pumps 2 Diameter of ditto 10"x7" Stroke 12" Can one be overhauled while the other is at work yes
of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 20" Can one be overhauled while the other is at work yes
of Donkey Engines 2 Duplex Sizes of Pump 7 1/2 x 6 x 10" No. and size of Suctions connected to both Bilge and Donkey pumps
Engine Room 5-3" Thrust Recess 1-3" Tunnel 1-3" In Holds, &c. Forward 2-3" after 3-3"
Hold 3-3"
of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump b.p. Is a separate Donkey Suction fitted in Engine room & size yes-3"
all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads 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 yes
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
at pipes are carried through the bunkers none How are they protected yes
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
he Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine Room Top Plate
LERS, &c.—(Letter for record +) Manufacturers of Steel Carnegie Steel Coy. Pittsburgh, Pa.
al Heating Surface of Boilers 3940 sq ft Is Forced Draft fitted yes No. and Description of Boilers Two Cyl. Mills, Single End
rking Pressure 185 lbs Tested by hydraulic pressure to 278 lbs Date of test 27/1/20 No. of Certificate 210
each boiler be worked separately yes Area of fire grate in each boiler 44 sq ft No. and Description of Safety Valves to
boiler Two Spring Area of each valve 7.07 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
allest distance between boilers or uptakes and bunkers or woodwork 8 1/2" Mean dia. of boilers 13'-2" Length 10'-10 1/2" Material of shell plates Steel
ckness 1 1/32" Range of tensile strength 60,000 lbs Are the shell plates welded or flanged no Descrip. of riveting: cir. seams SR/Lap
seams ABS/HR Diameter of rivet holes in long. seams 19/16" Pitch of rivets 8 3/8" Lap of plates or width of butt straps 1 1/2" x 20"
centages of strength of longitudinal joint rivets 89.9 Working pressure of shell by rules 189 lbs Size of manhole in shell 15" x 11"
of compensating ring 33" x 33" No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 52 1/4"
gth of plain part 1 1/32" Thickness of plates 39/64" Description of longitudinal joint Welded No. of strengthening rings 1
rking pressure of furnace by the rules 187 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 9/16" Bottom 5/8"
wh of stays to ditto: Sides 7/409" Back 7/409" Top 7/2 x 7 3/4" If stays are fitted with nuts or riveted heads (not riveted) Working pressure by rules 188
erial of stays Iron Area at smallest part 1.72 sq ft Area supported by each stay 52.5 sq ft Working pressure by rules 196.3 End plates in steam space:
erial Steel Thickness 1" Pitch of stays 16 7/8 x 14" How are stays secured 2 nuts Working pressure by rules 187 Material of stays Steel
a at smallest part 4.9 Area supported by each stay 240 sq ft Working pressure by rules 212 Material of Front plates at bottom Steel
ckness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 13 1/4" x 7 1/4" Working pressure of plate by rules 210
eter of tubes 2 1/2" Pitch of tubes 3 1/4" x 3 1/2" Material of tube plates Steel Thickness: Front 1" Back 1" Mean pitch of stays 1 1/4" x 7"
h across wide water spaces 13 1/4" x 7 1/4" Working pressures by rules 211 Girders to Chamber tops: Material Steel Depth and
ness of girder at centre 1 1/2" Length as per rule 32 7/8" Distance apart 20 1/4" Number and pitch of stays in each 3 @ 7 1/4"
king pressure by rules 1 Steam dome: description of joint to shell yes % of strength of joint
eter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes
of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes
ERHEATER. Type Forster Date of Approval of Plan 21 Feb. 1920 Tested by Hydraulic Pressure to 630 lbs
of Test 7-2-20 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
meter of Safety Valve 1 1/2" Pressure to which each is adjusted 190 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 Top End, & Bottom End, bolts & nuts. Two main Bearing bolts & nuts. One set of Coupling bolts & nuts. One set of valves for, Air, Feed, & Bilge, pumps. One set of springs for H.P. & L.P. pistons. A quantity of assorted bolts, nut & iron of various sizes. Two spare propeller blades.

The foregoing is a correct description,

The American Ship Bldg Co

Manufacturer.

ENG. NO 493. DEC. 22. 30. 31. 30. JAN. 6. 21. FEB. 3. 6. 12. 17. 21. 24. MAR. 1. 8. 15
BOILERS NO 493. DEC. 7. 2. 30. JAN. 5. 9. 13. 20. 22. 26. 27
HULL NO 493. FEB. 6. 12. 21. MAR. 1. 8. 23. 30. APRIL 3. 19. 26. 27. 29. MAY 4. 11. AUG.
Dates of Survey while building { During progress of work in shops --
{ During erection on board vessel --
Total No. of visits *Twice two.*

Is the approved plan of main boiler forwarded herewith *no*

Dates of Examination of principal parts—Cylinders *3/2/20* Slides *24/2/20* Covers *24/2/20* Pistons *1/3/20* Rods *15/3/20*
Connecting rods *21/2/20* Crank shaft *8/3/20* Thrust shaft *8/3/20* Tunnel shafts *23/3/20* Screw shaft *24/2/20* Propeller *1/3/20*
Stern tube *11/3/20* Steam pipes tested *29/4/20* Engine and boiler settings *6/2/20* Engines holding down bolts *19/4/20*
Completion of pumping arrangements *11/3/20* Boilers fixed *3/4/20* Engines tried under steam *11/5/20*
Completion of fitting sea connections *11/5/20* Stern tube *1/3/20* Screw shaft and propeller *8/3/20*
Main boiler safety valves adjusted *11/5/20* Thickness of adjusting washers *Lock nuts fitted*
Material of Crank shaft *Steel* Identification Mark on Do. *G.D. 1919* Material of Thrust shaft *Steel* Identification Mark on Do. *G.D.*
Material of Tunnel shafts *Steel* Identification Marks on Do. *G.D. 1919* Material of Screw shafts *Steel* Identification Marks on Do. *G.D.*
Material of Steam Pipes *Steel, lapwelded ultra heavy* Test pressure *555 lbs. sq. in.*
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 duplicate of a previous case *yes* If so, state name of vessel *no*

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

The above Engines & Boilers have been constructed under special survey. The materials & workmanship employed in their manufacture, so far as can be seen, are sound & efficient. The engines & boilers have been satisfactorily installed in the vessel & examined under full steam. The safety valves have been adjusted to release at 185 lbs per sq. in. on the Boilers, & 190 lbs per sq. in. on the Superheaters.

A 7 1/2" x 6" x 10" transfer pump is fitted in stokehold, & the double bottom piping is so arranged that the Ballast pump can be made to work on any of the oil tanks, or the transfer pump on any of the water tanks, with the exception of No 3 fresh water tank.

This vessel is eligible in my opinion to have the record of 8-20 with the notation of "Fitted for oil fuel 8-20 F.P. above 10" in the Register Book

The amount of Entry Fee ... *\$10.00* : When applied for, *25-6-1920*
Special ... *\$166.75* :
Donkey Boiler Fee ... *\$45.00* :
Travelling Expenses (if any) *\$—* :
When received, *10-7-1920*
\$221.75

Committee's Minute

Assigned *+ Lmb 8.30*

New York SEP 4 1920

MACHINERY CERT.
WRITTEN
27.9.20

S. Drummond

Engineer Surveyor to Lloyd's Register of Shipping



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Foundation