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pt. 4.

REPORT ON MACHINERY.

No. 922

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Date of writing Report January 17 1920 When handed in at Local Office January 22 1920 Port of Seattle Wash. U.S.A.in Survey held at Seattle Date, First Survey Oct 25 - 1919 Last Survey January 8 - 1920Book. ENTRY on the Steel Screw Steamer "ROBIN ADAIR" (Builder's No B-74) Tons Gross 6855.8Master Chas. Smith Built at Seattle By whom built Skinner & Eddy Corporation When built 1919-20Engines made at Schenectady N.Y. By whom made General Electric Company when made 1919Boilers made at Seattle By whom made Commercial Boiler Works when made 1919Registered Horse Power 637.20 Owners Robinson Steamship Co (Skinner & Eddy Corp Mgrs) Port belonging to Pan FranciscoHorse Power as per Section 28 637.20 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yesENGINES, &c.—Description of Engines Curtis Turbine with reduction gears No. of Cylinders ✓ No. of Cranks ✓Dia. of Cylinders ✓ Length of Stroke ✓ Revs. per minute 90 Dia. of Screw shaft as per rule 14.47 Material of steelthe screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tightthe propeller boss yes If the liner is in more than one length are the joints burned yes If the liner does not fit tightly at the partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If twobearers are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 61"Dia. of Tunnel shaft as per rule 13.27 Dia. of Crank shaft journals as per rule 13.5 Dia. of Crank pin ✓ Size of Crank webs ✓ Dia. of thrust shaft underrollers 14.4 Dia. of screw 17' 0" Pitch of Screw 14' 3" No. of Blades 4 State whether moveable yes Total surface 89.54No. of Feed pumps 2 Diameter of ditto 9 Stroke 24 Can one be overhauled while the other is at work yesNo. of Bilge pumps 3 Duplex Diameter of ditto 6x5.34x6 Stroke 12x14x12 Can one be overhauled while the other is at work yesNo. of Donkey Engines as above Sizes of Pumps ✓ No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 5-3 1/2" Fire Room 4-3 1/2" In Holds, &c. 10-3 1/2" Deep Tank 4-4 1/2" Shaft Tunnel 1-3 1/2"No. of Bilge Injections 1 sizes 10" Connected to condenser to circulating pump yes 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 the sluices on Engine room bulkheads always accessible HowAre all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks ValvesAre 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 BelowAre 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 yesWhat pipes are carried through the bunkers Tank air pipes How are they protected wood casingsAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesIs the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine room casing at upper deckOILERS, &c.—(Letter for record New York Aug. 12 1919 Manufacturers of Steel Illinois Steel Co. and Carnegie Steel Co.Total Heating Surface of Boilers 8346 Is Forced Draft fitted yes No. and Description of Boilers 3 Single End Scotch MarineWorking Pressure 210 lbs Tested by hydraulic pressure to 315 Date of test Nov. 20 No. of Certificate ✓Can each boiler be worked separately yes Area of fire grate in each boiler 63.4 No. and Description of Safety Valves toeach boiler Two 3 1/2" Spring loaded Area of each valve 9.6 Pressure to which they are adjusted 210 lbs Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers on woodwork Uptakes 12" Mean dia. of boilers 14'-9" Length 11'-9" Material of shell plates steelThickness 1 7/16 Range of tensile strength 60,000 min Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double Laplong. seams Triple Butt Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 10 1/4 Lap of plates or width of butt straps 22 3/8Per centages of strength of longitudinal joint ✓ rivets 96.2 Working pressure of shell by rules 229 Size of manhole in Upper Head 12" x 16"Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 48 1/16Length of plain part top 1 1/2" Thickness of plates bottom 2 1/32" Description of longitudinal joint Welded No. of strengthening rings ✓Working pressure of furnace by the rules 222 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 5/16Pitch of stays to ditto: Sides 7 x 7 3/4 Back 7 1/2 x 7 3/4 Top 7 x 7 3/4 If stays are fitted with nuts or riveted heads Other Riveted Working pressure by rules Back 214Material of stays Iron Area at smallest part 2.07 Area supported by each stay Others 56.8 Working pressure by rules Top 226 End plates in steam space:Material Steel Thickness 1 1/4 Pitch of stays 18" x 18 1/2" How are stays secured Double Nuts Working pressure by rules 210 Material of stays SteelArea at smallest part 8.29 Area supported by each stay 33.3 Working pressure by rules 258 Material of Front plates at bottom SteelThickness 1 3/8 Material of Lower back plate Steel Thickness 1 3/8 + 1/8 Greatest pitch of stays 7 1/4 x 12 1/2 Working pressure of plate by rules 300Diameter of tubes 2 3/4 Pitch of tubes 3 3/4 x 3 7/8 Material of tube plates Steel Thickness: Front 1 3/16 Back 1 3/16 Mean pitch of stays 7.56Pitch across wide water spaces 13 1/2 Working pressures by rules 248 Girders to Chamber tops: Material Steel Depth andthickness of girder at centre 11 1/2 x 1 1/2 Length as per rule 34 Distance apart 9 1/2 Number and pitch of stays in each 4-7"Working pressure by rules 234 Steam dome: description of joint to shell None % of strength of jointDiameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓SUPERHEATER. Type Horizontal Date of Approval of Plan September 19 - 1919 Tested by Hydraulic Pressure to 630 lbsDate of Test December 30th 1919 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yesDiameter of Safety Valve 1 1/2" Pressure to which each is adjusted 210 Is Easing Gear fitted yes

006387-006400-0085

If so, is a report now forwarded?

TURBINE SPPES

- 6 Coupling bolts for intermediate shafts.
- 2 Thrust shoes for main thrust block.
- AXILIARIES
- 1 Set brasses and piston rings for circulating pump
- 1/2 Set valves, glands, springs and studs for main & auxiliary air pumps, oil cooling and pulverizing pumps
- 1 Full set valves, glands, springs and studs for feed & lubricating oil pump and cargo pumps
- BOILER 2 Feed check valves
- 24 Plain boiler tubes,
- 2 Safety valve springs
- 1 Complete set fire bars and liners for one boiler
- 3 Fuel oil burners
- 4 quantity of assorted bolts, nuts, pipe and of various sizes.

Shirley Elder Corporation
per D. E. Linn, Pres.

Manufacturer.

Is the approved plan of main boiler forwarded herewith copy

“ “ “ *donkey* “ “ “

Turbine No. 18687 } New York Report No. 17847 herewith forwarded
Gear. " 3034 }

James Fowler
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. MAY. 20 1921

Assigned

+ LmC. 1.20

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MACHINERY CENT
WATSON / P

Lloyd's Register
Foundation