

REPORT ON MACHINERY.

No. 11394

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Date of writing Report 10-8-1920 When handed in at Local Office 19 Port of Rotterdam
 No. in Survey held at Schiedam Date, First Survey 14th Feb 1919 Last Survey 28 Aug 1920
 Reg. Book. on the Steel Screw Steamer, ALCHIBA (Number of Visits 28)
 Master Ebes Built at Schiedam By whom built New Waterway Ship Co Tons ^{Gross} 1457 _{Net} 1120 When built 1920
 Engines made at Schiedam By whom made New Waterway Ship Co when made 1920
 Boilers made at Schiedam By whom made " when made 1920
 Registered Horse Power 459 Owners Maxwell Goudmann & Co Port belonging to Rotterdam
 Nom. Horse Power as per Section 28 459 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Vertical Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 26 x 42 x 40 Length of Stroke 40 Revs. per minute 66 Dia. of Screw shaft 14 1/2 Material of screw shaft SM Steel
 Is the 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
 in the propeller boss Yes If the liner is in more than one length are the joints burned one length the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 60"
 Dia. of Tunnel shaft 13 1/2 Dia. of Crank shaft journals 14 1/2 Dia. of Crank pin 14 Size of Crank webs 9 x 15 1/2 Dia. of thrust shaft under
 collars 14 Dia. of screw 17 9/16 Pitch of Screw 17 No. of Blades 4 State whether moveable No Total surface 90 sq ft
 No. of Feed pumps 2 Diameter of ditto 5 5/16 Stroke 10 1/2 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 5 5/16 Stroke 18 1/2 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 4 Sizes of Pumps 8 x 4 x 10 8 x 4 x 10 10 x 8 x 10 10 x 8 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 @ 3 1/2" in tunnel @ 3 1/2" In Holds, &c. 1 @ 1-2, 3 and 4 each 2 @ 3 1/2"
 No. of Bilge Injections 1 sizes 0" Connected to condensers or 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 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 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 Bilge pumps How are they protected Yes
 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 platform

OILERS, &c.—(Letter for record S) Manufacturers of Steel Abens & William Beasmore & Co Ltd
 Total Heating Surface of Boilers 6660 Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended Marine boilers
 Working Pressure 100 lb. Tested by hydraulic pressure to 270 lb. Date of test 25-5-20 No. of Certificate 400
 Can each boiler be worked separately Yes Area of fire grate in each boiler 49.5 sq ft No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 7.67 sq ft Pressure to which they are adjusted 100 lb. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork over 16" Mean dia. of boilers 15" Length 11' Material of shell plates SM Steel
 Thickness 1 1/4" Range of tensile strength 20-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams lap 2 x riv
 long. seams Double but 3 x riv Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 0 3/4" Lap of plates or width of butt straps 18 1/2"
 Percentages of strength of longitudinal joint rivets 80% Working pressure of shell by rules 187 lb. Size of manhole in shell 12 x 16"
 plate 84.8% Size of compensating ring 6 x 1 1/8" No. and Description of Furnaces in each boiler 3 Morrison Material SM Steel Outside diameter 5' 9 1/4"
 Length of plain part top 1' bottom 1' Thickness of plates top 3/8" bottom 1/2" Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 195 Combustion chamber plates: Material SM Steel Thickness: Sides 2 1/2" Back 1 1/2" Top 2 1/2" Bottom 1 1/2"
 Pitch of stays to ditto: Sides 8 x 8" Back 8 x 7 1/2" Top 8 x 8" If stays are fitted with nuts or riveted heads riveted heads Working pressure by rules 206 lb.
 Material of stays SM Steel Area at smallest part 1.40 Area supported by each stay 6.40 Working pressure by rules 105 lb. End plates in steam space:
 Material SM Steel Thickness 1 1/8" Pitch of stays 19 x 17" How are stays secured Secured in plates Working pressure by rules 194 Material of stays SM Steel
 Area at smallest part 5.940 Area supported by each stay 3230 Working pressure by rules 190 Material of Front plates at bottom SM Steel
 Thickness 1 1/8" Material of Lower back plate SM Steel Thickness 1 1/8" Greatest pitch of stays 14" Working pressure of plate by rules 209 lb.
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates SM Steel Thickness: Front 1 1/8" Back 5/8" Mean pitch of stays 8 1/2" x 8 1/4"
 Pitch across wide water spaces 15 1/2" Working pressures by rules 201 lb. Girders to Chamber tops: Material SM Steel Depth and
 thickness of girder at centre 2 x 1/4" x 9 1/2" Length as per rule 36" Distance apart 8 1/2" Number and pitch of stays in each 3 @ 8"
 Working pressure by rules 106 lb. Steam dome: description of joint to shell Yes % of strength of joint Yes
 Diameter 1' Thickness of shell plates 1/2" Material SM Steel Description of longitudinal joint Yes Diam. of rivet holes 1/2"
 Pitch of rivets 1" Working pressure of shell by rules 106 lb. Crown plates Yes Thickness 1/2" How stayed Yes
 PERHEATER. Type Schmidt Date of Approval of Plan 1920 Tested by Hydraulic Pressure to 540 lb.
 Date of Test 1920 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 105 lb. Is Easing Gear fitted Yes

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