

REPORT ON MACHINERY.

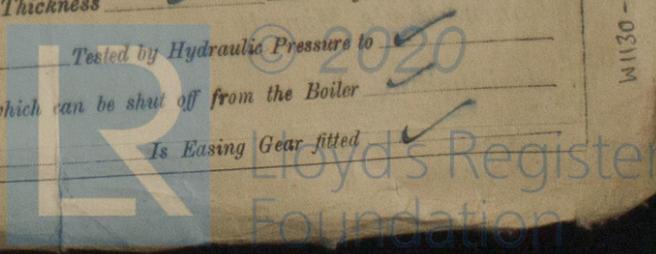
No. 5290.
OCT 28 1940

Received at London Office
 Date of writing Report Sept 7 1940 When handed in at Local Office Sept 7 1940 Port of Newport News Va
 No. in Survey held at Newport News Va Date, First Survey June 14 Last Survey Aug 14 1940
 Reg. Book. 2503 on the Boilers and Machinery of the S.S. Val Kenyon (Number of Vents 24) Tons Gross 5620
 Master Howe Built at Long Beach Cal By whom built Long Beach S.B. Co. Tons Net 3516
 Engines made at Los Angeles By whom made Lawrence Iron Works when made 1920
 Boilers made at Pittsburg Ore By whom made Millamette Iron & Steel Works when made 1920
 Registered Horse Power 2800 Owners Duffus Ramsay & Co. Ltd Port belonging to Glasgow
 Nom. Horse Power as per Section 28 552 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Vertical direct acting triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24 1/2 - 4 1/2 - 72 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 1 1/4 Material of screw shaft 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 Yes If 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 5-0
 Dia. of Tunnel shaft as per rule 3-3 Dia. of Crank shaft journals as per rule 3-97 Dia. of Crank pin 1 1/2 Size of Crank web 12x29 Dia. of thrust shaft under
 collars 1 1/4 Dia. of screw 10-7 Pitch of Screw 15-8 No. of Blades 4 State whether moveable Yes Total surface 88 sq ft
 No. of Feed pumps 2 Diameter of ditto 2x8 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 5 Stroke 21 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 12x8 1/2 x 12 12x10 x 12 6x5 1/4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 3 1/2 In Holds, &c. Two 3 1/2 dia
 Tunnel well 1 3 1/2 dia Cofferdams 3 dia (one suction in each)
 No. of Bilge Injections 1 sizes 10 Connected to condenser, or to circulating pump Yes Pump as 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 in 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 ~~below~~ the deep water line Yes
 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 For Bilge Suctions etc. How are they protected During hrs. deep water
 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 Cylinder Top Platform

BOILERS, &c.—(Letter for record 7) Manufacturers of Steel Union Steel Co. Gary Indiana
 Total Heating Surface of Boilers 8112 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Cylindrical Single Pass
 Working Pressure 210 lbs Tested by hydraulic pressure to 315 lbs Date of test 23/7/40 No. of Certificate 1
 Can each boiler be worked separately Yes Area of fire grate in each boiler Oil fuel No. and Description of Safety Valves 1
 each boiler 2 Spring loaded Area of each valve 9.62 sq in Pressure to which they are adjusted 212 lbs Are they fitted with casing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 1 1/2 dia. of boilers 4-9 Length 11-0 Material of shell plates Steel
 Thickness 5/8 Range of tensile strength 60000 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. LAP.
 long. seams T.R. D.B.S. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 ~~Top of plates on~~ width of butt straps 23 9/16
 Per centages of strength of longitudinal joint rivets 94.7 Working pressure of shell by rules 230 lbs Size of manhole in shell 16x12
 plate 54.37 No. and Description of Furnaces in each boiler 3 Manson Material Steel Outside diameter 45 1/16
 Length of plain part 10 Thickness of plates crown 3/32 Description of longitudinal joint Welded No. of strengthening rings 15 1/16
 Working pressure of furnace by the rules 238 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 5/16
 Pitch of stays to ditto: Sides 7x8 Back 7 1/4 x 7 3/4 Top 7x8 3/16 If stays are fitted with nuts or riveted heads R. Heads Working pressure by rules 215 lbs
 Material of stays W. Iron Area at smallest part 4.90 Area supported by each stay 58.10 Working pressure by rules 27 lbs End plates in steam space: Steel
 Material Steel Thickness 1/4 Pitch of stays 16 1/2 x 17 1/2 How are stays secured D. Nut Working pressure by rules 221 lbs Material of stays Steel
 Area at smallest part 8.290 Area supported by each stay 286 Working pressure by rules 252 Material of Front plates at bottom Steel
 Thickness 3/16 Material of Lower back plate Steel Thickness 3/16 Greatest pitch of stays 16x7 Working pressure of plate by rules 218 lbs
 Diameter of tubes 3 Pitch of tubes 4 1/2 x 4 Material of tube plates Steel Thickness: Front 3/16 Back 3/16 Mean pitch of stays 12 3/4 x 8
 Pitch across wide water spaces 13 Working pressures by rules 283 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 11 x 1 1/2 Length as per rule 34 Distance apart 8 3/16 Number and pitch of stays in each 4 7
 Working pressure by rules 286 Steam dome: description of joint to shell NOT FITTED % of strength of joint Yes
 Diameter Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes
 Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes
 SUPERHEATER. Type Yes Date of Approval of Plan NOW REMOVED Tested by Hydraulic Pressure to 2030
 Date of Test Yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes

W1130-0152



IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— One spare spindle for main engine, 1 spare set of bottom end blocks. 1 spare set of top end blocks (4). 1 spare eccentric strap. 1 spare impeller shaft. 1 spare valve skirt for feed pumps (Independent). 2 spare main bearing bolts and nuts. 12 spare coupling bolts and nuts. 1 spare set of top end bolts and nuts. 1 spare ring for L.P. piston. 1 spare set of rings for M.P. piston. 1 spare ring for M.P. piston valve. 1 spare propeller blade - 6 spare studs. 10-boiler tubes (plain). 3 staytubes. 20 condenser tubes & 150 air heater tubes. 300 spare condenser ferrules. 1 spare set of bilge pump valves. 1 spare set for air pumps. 12 spare valves for feed and auxiliary pumps. 1 spare set of rings (water end) for feed pump. Assorted bolts & nuts of various sizes. 12 spare burners & 12 spare burner cones for main. The foregoing is a correct description, Flats & rounds of various sizes.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } Dates whilst on dry dock and afloat. { During erection on board vessel - - - } June 14, 19, 27. July 1, 3, 5, 8, 9, 11, 15, 17, 18, 22, 23, 24, 31, Aug, 2, 6, 7, 8, 10, 12, 13 24. Total No. of visits. Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 6.8.40 Slides 6.8.40 Covers 6.8.40 Pistons 6.8.40 Rods 6.8.40 Connecting rods 6.8.40 Crank shaft 8.8.40 Thrust shaft 11.7.40 Tunnel shafts 8.7.40 Screw shaft 27.6.40 Propeller 27.6.40 Stern tube 27.6.40 Steam pipes tested 15.7.40 Engine and boiler seatings 11.7.40 Engines holding down bolts 11.7.40 Completion of pumping arrangements See 9.7.40 Boilers fixed See 23.7.40 Engines tried under steam 13.8.40 Completion of fitting sea connections See 1.7.40 Stern tube 27.6.40 Screw shaft and propeller 11.7.40 Main boiler safety valves adjusted 10.12.19/40. Thickness of adjusting washers See Locking nuts. Material of Crank shaft See Identification Mark on Do. F. 334. Material of Thrust shaft See Identification Mark on Do. ✓ Material of Tunnel shafts See Identification Marks on Do. ✓ Material of Screw shafts See Identification Marks on Do. ✓ Material of Steam Pipes Lap welded steel Test pressure 630 lbs per 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The boilers and engines of this vessel are) of good construction and workmanship. Shell plating, furnaces, end plates and combustion chamber plates drilled and spacing of stays compared with the approved plan and found in order. The boilers were tested by hydraulic pressure to 315 Lbs. per square inch and found good and tight. The boilers and engines are efficiently secured in place. Main and auxiliary steam piping tested to 630 Lbs. per square inch and found good and tight. The crank shaft has been rebuilt - all journals renewed. All pumps and auxiliary machinery examined. These engines and boilers were built under the rules and inspection of the American Bureau of Shipping. The main boilers, main engines, all auxiliary machinery, electric light installation, steam steering gear and windlass tested under steam and found in good order. The fuel oil installation examined and found to comply with section 49 of the Rules. In my opinion, the case merits the favorable consideration of the Committee for a record of L.M.C. 8.40 and propeller shaft seen 6.40 in the Register Book. Fitted for oil fuel F.P. above 150°F.

Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

C. Hudson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK SEP 25 1940

Assigned L.M.C. 8.40 T.S.C.L. 6.40



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