

REPORT ON MACHINERY

No. 41501
11 NOV. 1921

Received at London Office

Date of writing Report 12. 11. 1921 When handed in at Local Office 12. 11. 21 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 15th Nov 1919 Last Survey 4 Nov 1921
 Reg. Book. on the SS DAKARIAN (Number of Visits 50) Tons Gross 6436 Net 4065
 Master Built at Glasgow By whom built W. Henderson (No 505) When built 1921
 Engines made at Glasgow By whom made AOC (No 505) when made 1921
 Boilers made at AOC By whom made AOC (No 505) when made 1921
 Registered Horse Power 626 Owners Leyland Line Port belonging to Liverpool
 Nom. Horse Power as per Section 28 625 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders 4 No. of Cranks 4
 Dia. of Cylinders 23½"-34"-49"-70" Length of Stroke 51" Revs. per minute 40 Dia. of Screw shaft as per rule 14.58 as fitted 15" 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 — 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 *fits whole length* If two
 liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 5'-0"
 Dia. of Tunnel shaft as per rule 13.13 as fitted 13½" Dia. of Crank shaft journals as per rule 13.78 as fitted 14½" Dia. of Crank pin 4 7/8" Size of Crank webs 29" x 9 1/2" Dia. of thrust shaft under
 collars 14 1/2" Dia. of screw 17'-6" Pitch of Screw 17'-6" No. of Blades 4 State whether moveable Yes Total surface 86 ft
 No. of Feed pumps 2 Diameter of ditto 8" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 8" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps *4 small 8x10 1/2 x 2-4 15 allast 10x9x2 1* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room (2) 3 1/2" *Stokehold* (2) 3 1/2" In Holds, &c. *nos 1-2 holds, 1 deep tank, aft-deep tank,*
nos 4 & 5 holds (2) 3 1/2" in each, Tunnel lock (1) 3". Cross Bunkers 2 @ 3 1/2". Cofferdam 1 @ 3"
 No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump *Pump* Is a separate Donkey Suction fitted in Engine room & size *20 (2) 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 *none*
 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 *7d Suctions* How are they protected *Carried under ceilings*
 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 deck*

BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *A. B. Colville, Iron Works, Spencer & Sons Ltd*
 Total Heating Surface of Boilers *9790* Is Forced Draft fitted Yes No. and Description of Boilers 4 *Single ended*
 Working Pressure 215 *4* Tested by hydraulic pressure to 373 *4* Date of test 30.9.20 No. of Certificate 15509, 15531
 Can each boiler be worked separately Yes Area of fire grates in each boiler 59.9 *ft* No. and Description of Safety Valves to
 each boiler 2 *Spring loaded* Area of each valve 8.295 *ft* Pressure to which they are adjusted 220 *lb* Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15'-0" Length 11'-3 1/2" Material of shell plates *Steel*
 Thickness 1 7/8" Range of tensile strength 28/32 *tons* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *all Lap*
 long. seams *TRDBS* Diameter of rivet holes in long. seams 1 7/8" Pitch of rivets 9 3/4" Lap of plates or width of butt straps 1'-9 1/2"
 Per centages of strength of longitudinal joint rivets 86.0 plate 85.25 Working pressure of shell by rules 219 Size of manhole in shell 16" x 20"
 Size of compensating ring 2'-11 x 2'-7 x 1 7/8" No. and Description of Furnaces in each boiler 3 *Corrugated* Material *Steel* Outside diameter 4'-0 1/2"
 Length of plain part top — bottom — Thickness of plates crown 2 1/2" bottom 3 1/2" Description of longitudinal joint *weld* No. of strengthening rings —
 Working pressure of furnace by the rules 222 Combustion chamber plates: Material *Steel* Thickness: Sides 3/32" Back 3/32" Top 3/32" Bottom 7/8"
 Pitch of stays to ditto: Sides 7 3/4" x 8 1/2" Back 10" x 7 1/4" Top 7 3/4" x 8 1/2" If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules 224
 Material of stays *Steel* Area at smallest part 1.760" Area supported by each stay 65.8 Working pressure by rules 240 End plates in steam space:
 Material *Steel* Thickness 1 1/8" Pitch of stays 17 1/2" x 14 3/4" How are stays secured *Nuts* Working pressure by rules 217 Material of stays *Steel*
 Area at smallest part 5.410" Area supported by each stay 258 Working pressure by rules 218 Material of Front plates at bottom *Steel*
 Thickness 1 1/8" Material of Lower back plate *Steel* Thickness 7/8" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 225
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates *Steel* Thickness: Front 1 1/8" Back 7/8" Mean pitch of stays 9 1/4"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 242 Girders to Chamber tops: Material *Steel* Depth and
 thickness of girder at centre 8" x 16" (2) Length as per rule 2-5 5/2 Distance apart 8 1/4" Number and pitch of stays in each (3) 7 3/4"
 Working pressure by rules 233 Steam dome: description of joint to shell *None* % of strength of joint
 Diameter 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 *None* Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?



