

REPORT ON MACHINERY.

No. 32692

Received at London Office

Date of writing Report	19	When handed in at Local Office	19	Port of	Hull
No. in Survey held at Reg. Book.	Hull	Date, First Survey		Last Survey	19
on the	S.S. D.A.D.G 76	(Number of Visits)			
Master	Built at Hamburg	By whom built	Blohm & Voß	Tons	Gross 6038 Net 3576
Engines made at	Hamburg	By whom made	- do -	When built	1919
Boilers made at	- do -	By whom made	- do -	when made	1919
Registered Horse Power	502	Owners	David S.S. Co. Ltd.	when made	1919
Nom. Horse Power as per Section 28	834	Is Refrigerating Machinery fitted for cargo purposes		Port belonging to	London
		Is Electric Light fitted	yes		
ENGINES, &c. —Description of Engines <u>Quadruple expansion</u>					
Dia. of Cylinders	28 5/16 x 40 1/8 x 57 7/16 x 82 5/16	Length of Stroke	55 1/16	No. of Cylinders	4
Revs. per minute	16 1/2	Dia. of Screw shaft	as per rule 16 1/2 as fitted 16 1/16	No. of Cranks	4
Is the screw shaft fitted with a continuous liner the whole length of the stern tube	yes	Material of screw shaft			
Is the after end of the liner made water tight					
Is 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	✓
If two liners are fitted, is the shaft lapped or protected between the liners	✓				
Dia. of Tunnel shaft	as per rule 15 1/4 as fitted 15 5/32	Dia. of Crank shaft journals	as per rule 16 2/1 as fitted 16 3/1	Dia. of Crank pin	16 1/2
Length of stern bush	6'-0"	Size of Crank webs	5-1 x 29 1/2 x 10 5/8	Dia. of thrust shaft under collars	16 7/8
Dia. of screw	19-6	Pitch of Screw	17-9	No. of Blades	4
No. of Feed pumps	2	Diameter of ditto	4 23/32	Stroke	27-11
No. of Bilge pumps	2	Diameter of ditto	4 11/16	Stroke	27-11
No. of Donkey Engines	3	Sizes of Pumps		No. and size of Suctions connected to both Bilge and Donkey pumps	
In Engine Room	2 P & 2 S			In Holds, &c.	one 3 1/2 on port & starboard side of
No. of Bilge Injections	1 sizes 12	Connected to condenser, or to circulating pump	pump	Is a separate Donkey Suction fitted in Engine room & size	being 6"
Are all the bilge suction pipes fitted with roses	✓	Are the roses in Engine room always accessible	✓	Are the sluices on Engine room bulkheads always accessible	✓
Are all connections with the sea direct on the skin of the ship	yes	Are they Valves or Cocks	yes both	Are the Discharge Pipes above or below the deep water line	above
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates	yes	Are the Blow Off Cocks fitted with a spigot and brass covering plate	yes	What pipes are carried through the bunkers	for suction
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel	yes	How are they protected	wood casing	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 engine room top platform			
BOILERS, &c. —(Letter for record S) Manufacturers of Steel					
Total Heating Surface of Boilers	12874.0	Is Forced Draft fitted	yes	No. and Description of Boilers	4 S.E. ✓
Working Pressure	225 lbs.	Tested by hydraulic pressure to		Date of test	6-21-00
Can each boiler be worked separately	yes	Area of fire grate in each boiler	66-85 sq. ft.	No. of Certificate	
each boiler	2 spring loaded	Area of each valve	13-36	No. and Description of Safety Valves to	
Smallest distance between boilers or uptakes and bunkers or woodwork	38 mm	Pressure to which they are adjusted	INT 4840 mm	Are they fitted with easing gear	yes
Thickness	1-496	Range of tensile strength	41-47	Mean dia. of boilers	190-55
long. seams	A.R.D.B.S.	Diameter of rivet holes in long. seams	16-14	Length	146-85
Pitch of rivets	19-685	Lap of plates or width of butt straps	31-654	Material of shell plates	S
Per centages of strength of longitudinal joint	85%	Working pressure of shell by rules	15-9	Descrip. of riveting: cir. seams	DR.
Size of compensating ring	13-38 x 1-299	No. and Description of Furnaces in each boiler	3 corrugated	Size of manhole in shell	19-68 x 15-75
Length of plain part	top 17-5 mm bottom 3-689	Description of longitudinal joint	welded	Outside diameter	46-65
Working pressure of furnace by the rules	200 x 200	Combustion chamber plates: Material	S	No. of strengthening rings	18 mm
Pitch of stays to ditto: Sides	7-87	Back	7-87	Top	7-087
Material of stays	S	Area supported by each stay	200 sq. in.	Bottom	7-087
Material	S	Thickness	1-1	Working pressure by rules	18
Area at smallest part	4536	Area supported by each stay	400 x 380	Material of Front plates at bottom	S
Thickness	1-06	Greatest pitch of stays	7-87 x 13-5	Working pressure of plate by rules	21 mm
Diameter of tubes	3-126	Pitch of tubes	4-29 x 14-29	Material of tube plates	S
Pitch across wide water spaces	14-17	Working pressures by rules	892 mm	Girders to Chamber tops: Material	S
thickness of girder at centre	10-63 x 1-417	Length as per rule	35-12	Distance apart	7-87
Working pressure by rules		Steam dome: description of joint to shell		% of strength of joint	
Diameter		Thickness of shell plates		Material	
Pitch of rivets		Working pressure of shell by rules		Crown plates	
UPPERHEATER. Type		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		Is Easing Gear fitted	
Diameter of Safety Valve		Pressure to which each is adjusted			

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller
Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted Thickness of adjusting washers
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.
Material of Steam Pipes Test pressure

Is the flash point of the oil to be used over 150°F.

Is an installation fitted for burning oil fuel

Have the requirements of Section 49 of the Rules been complied with

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.)

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

Committee's Minute

Assigned

TUE MAR 28 1922

J. Colverson

P. Fitzgibbon

Engineer Surveyor to Lloyd's Register of Shipping.



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