

## REPORT ON MACHINERY.

No. 26889

MON. NOV. 10. 1913

Received at London Office

Date of writing Report 20-10-13

When handed in at Local Office

21-10-13 Port of

Hull

No. in Survey held at  
Reg. Book.

Hull &amp; Gole

Date, First Survey 15-4-13, Last Survey 20-10-13 19

21 Tonnage on the

Steel screw Trawler Killdeer

(Number of Visits 39)

Gross 192  
Net 73.

Master

Built at Gole

By whom built Gole &amp; Bx Rapp Co

When built 1913-10

Engines made at

Hull

By whom made

Earle's Co Ltd

when made 1913-10

Boilers made at

Hull

By whom made

Earle's Co Ltd

when made 1913-10

Registered Horse Power

Owners Kelsall Ben &amp; Beuching

Port belonging to Hull

Nom. Horse Power as per Section 28

55

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

ENGINES, &amp;c.—Description of Engines Triple Expansion

No. of Cylinders Three

No. of Cranks 3

Dia. of Cylinders 12-21-33

Length of Stroke 21

Revs. per minute

Dia. of Screw shaft

as per rule 7.38

Material of

Is the screw shaft fitted with a continuous liner the whole length of the stern tube two liners 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 If two

liners are fitted, is the shaft lapped or protected between the liners not lapped, painted Length of stern bush 2'-11 1/2"

Dia. of Tunnel shaft as per rule 5.74 Dia. of Crank shaft journals as per rule 6.03 Dia. of Crank pin 6 1/2" Size of Crank webs 4' x 12 1/2" Dia. of thrust shaft under

collars 6 1/2" Dia. of screw 9'-6" Pitch of Screw 7'-0" No. of Blades 4 State whether moveable no Total surface 32 1/2

No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work

No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work

No. of Donkey Engines one dup 2 1/2" gals Sizes of Pumps 4 1/2" &amp; 2 3/4" x 4" dup No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room one 2" one ejector suction 2 1/2" In Holds, &amp;c. one 2" in fore hold, two 2" to tank

&amp; 2 1/2" gals connected to all spaces.

No. of Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room &amp; size 2 1/2" gals

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 How are they protected

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

Dates of examination of completion of fitting of Sea Connections 1-9-13 of Stern Tube 3-10-13 Screw shaft and Propeller 3-10-13

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &amp;c.—(Letter for record S Manufacturers of Steel

D. Colville &amp; Sons

Total Heating Surface of Boilers 900 1/2

Is Forced Draft fitted no

No. and Description of Boilers one single ended

Working Pressure 160 lbs

Tested by hydraulic pressure to 320

Date of test 1-10-13

No. of Certificate 2019

Can each boiler be worked separately

Area of fire grate in each boiler 24.5 1/2

No. and Description of Safety Valves to

each boiler two spring loaded

Area of each valve 3' 14"

Pressure to which they are adjusted 165 lbs

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork

abt 12"

Mean dia. of boilers 126"

Length 9'-6"

Material of shell plates

steel

Thickness 27/32

Range of tensile strength 28-32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams

double

long. seams D.P.D.B.L.

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 5-3/8"

Lap of plates or width of butt straps

11 1/2"

Per centages of strength of longitudinal joint

rivets 87.6

plate 80.2

Working pressure of shell by rules

161

Size of manhole in shell

12" x 16"

Size of compensating ring 8" x 27/32

No. and Description of Furnaces in each boiler

Two plain

Material S

Outside diameter 34"

Length of plain part top 76 1/2"

Thickness of plates

crown 22 1/32

Description of longitudinal joint

welded

No. of strengthening rings

7

Working pressure of furnace by the rules 177

Combustion chamber plates: Material

S

Thickness: Sides

5/8"

Back 2 1/32"

Top 3/8"

Bottom 5/8"

Pitch of stays to ditto: Sides 9" x 8 1/2"

Back 10" x 9"

Top 9" x 7 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

165

Material of stays S

Diameter at smallest part 1.76"

Area supported by each stay 76.5"

Working pressure by rules

164

End plates in steam space:

S

Material S

Thickness 7/8"

Pitch of stays 15" x 15"

How are stays secured

D. x x W.

Working pressure by rules

161

Material of stays S

Diameter at smallest part 4.22"

Area supported by each stay 22.5"

Working pressure by rules

195

Material of Front plates at bottom

S

Thickness 7/8"

Material of Lower back plate

S

Thickness 7/8"

Greatest pitch of stays

14" x 9"

Working pressure of plate by rules

191

Diameter of tubes 3"

Pitch of tubes 4 5/8" x 4 3/8"

Material of tube plates

S

Thickness: Front

7/8"

Back 13/16"

Mean pitch of stays

9"

Pitch across wide water spaces 14"

Working pressures by rules

160

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

7 1/4" x 1 1/2"

Length as per rule

27 1/32"

Distance apart

7 1/2"

Number and pitch of stays in each

Two 9"

Working pressure by rules 22.5

Superheater on Steam chest; how connected to boiler

no

Can the superheater be shut off and the boiler worked

separately

no

Diameter 28 3/4"

Length 30"

Thickness of shell plates

5/8"

Material S

Description of longitudinal joint

Lap in Diam. of rivet

holes 1"

Pitch of rivets

3 1/4"

Working pressure of shell by rules

370

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

5/8"

How stayed

disk

Working pressure of end plates 160

Area of safety valves to superheater

Are they fitted with easing gear

yes

W1491-0056

Lloyd's Register  
Foundation



# VERTICAL DONKEY BOILER—Manufacturers of Steel

81-01-02

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with casing gear	If steam from main boilers can enter the donkey boiler		Dia. of donkey boiler	Length	
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Gap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts, Two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge, air circulating pump valves, one main & one donkey check valve, two safety valve springs, one set of donkey pump valves & a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops: 1913. - Apr 15, May 5, 28, Jun 10, 26, Jul 4, 9, 14, 17, 21, 25, 26, 30, 31, Aug 1, 18, 19, 28, 29. During erection on board vessel: Sep 1, 3, 4, 8, 10, 12, 17, 20, 24, 25, 27, Oct 1, 3, 4, 7, 8, 9, 10, 11, 20.

Total No. of visits 29.

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " yes

Dates of Examination of principal parts: Cylinders 3-7-13, Slides 3-9-13, Covers 3-9-13, Pistons 3-9-13, Rods 3-9-13, Connecting rods 8-9-13, Crank shaft 25-7-13, Thrust shaft 9-7-13, Tunnel shafts ✓, Screw shaft 3-9-13, Propeller 3-9-13, Stern tube 21-7-13, Steam pipes tested 9-10-13, Engine and boiler seatings 3-10-13, Engines holding down bolts 10-10-13, Completion of pumping arrangements 11-10-13, Boilers fixed 10-10-13, Engines tried under steam 20-10-13, Main boiler safety valves adjusted 20-10-13, Thickness of adjusting washers 10 3/4 S 3/4 13.

Material of Crank shaft Steel Identification Mark on Do. 1023 FLS Material of Thrust shaft Steel Identification Mark on Do. 5566 PA  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1029 FLS  
Material of Steam Pipes Solid drawn copper Test pressure 400 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this society, the materials & workmanship are good, the boiler & steam pipes have been tested by hydraulic pressure as above & found sound & tight. The Machinery has been properly fitted & secured on board & on completion tried under steam & found satisfactory. The safety valves have been adjusted & tried for accumulation.

In my opinion the vessel is eligible for the record & L.M.C. 10.13.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.13.

*[Signature]*  
11/11/13

The amount of Entry Fee .. £ 1 : 0 :  
Special .. £ 2 : 5 :  
Donkey Boiler Fee .. £ : :  
Travelling Expenses (if any) £ : :

When applied for, 8/11/13

When received, 13-11-13

*[Signature]*

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI NOV 14 1913

Assigned

+ L.M.C. 10.13

MACHINERY CERTIFICATE  
WRITTEN.



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