Rpt. 4.

REPORT ON MACHINERY.

No. 30703

THU. 19 SEP. 1918.

Received at London Office

Date of writing Report 13-9-18 19 When handed in at Local Office 14/9/ 19 18 Port of Hull

No. in Reg. Book. Survey held at Hull Date, First Survey 14.2.18 Last Survey 13.9 — 1918

(Number of Visits 62)

on the steel patrol gunboat Kildare Tons Gross 525 Net 226

Master Built at Selby By whom built Cochrane & Sons Ltd When built 1918-9

Engines made at Hull By whom made Chas. D. Holmes & Co. Ltd A53 when made 1918-9

Boilers made at Hull By whom made Chas D. Holmes & Co. Ltd when made 1918-9

Registered Horse Power Owners British Admiralty Port belonging to

Nom. Horse Power as per Section 28 213 ✓ Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3

Dia. of Cylinders 16" – 26" – 44" Length of Stroke 26" Revs. per minute Dia. of Screw shaft as per rule 8.5 ✓ as fitted 8 3/4 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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 48 1/2"

Dia. of Tunnel shaft as per rule 7.95" as fitted 8 1/4" Dia. of Crank shaft journals as per rule 8.35" as fitted 8 1/2" Dia. of Crank pin 8 3/4" Size of Crank webs 13" × 5 1/4" Dia. of thrust shaft under collars 8 1/2" Dia. of screw 114" Pitch of Screw 8'-6" No. of Blades 4 State whether moveable no Total surface 36 sq ft

No. of Feed pumps 2 Weirs Diameter of ditto 7" Stroke 18" Can one be overhauled while the other is at work yes

No. of Bilge pumps one duplex Diameter of ditto 6" Stroke 6" Can one be overhauled while the other is at work

No. of Donkey Engines 2 + three 2" yds Sizes of Pumps G & F 7" 4 1/2" × 8" Bilge 6" 6" × 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Three 2" diam on 1/2 tc crank pit one 2" in each Boilers room, also one 2" yacto in each boiler room In Holds one 2" diam in each compartment- valves worked from deck

No. of Bilge Injections one sizes 6" Connected ~~to condenser, or~~ to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 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 Fowned suction How are they protected strong casings

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 ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons & Port Talbot

Total Heating Surface of Boilers 3664 Is Forced Draft fitted yes No. and Description of Boilers two single ended

Working Pressure 200lbs Tested by hydraulic pressure to 400lbs Date of test A 11-5-18 F 13-5-18 No. of Certificate A 3291 F 3292

Can each boiler be worked separately yes Area of fire grate in each boiler 57.5 sq ft No. and Description of Safety Valves to each boiler Two spring loaded Area of each valve 5.94 □" Pressure to which they are adjusted 205 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 156" Length 11'-6" Material of shell plates steel

Thickness 11/64" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

Long. seams T.R.D.B.1 Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2" ~~Lap of plates or~~ width of butt straps 18 5/8"

Percentages of strength of longitudinal joint rivets 91.8 plate 85.29 Working pressure of shell by rules 201 Size of manhole in shell 16" × 12" ✓

Size of compensating ring 7" × 1 11/64" No. and Description of Furnaces in each boiler 3 Deightons Material steel Outside diameter 41 5/8"

Length of plain part top ✓ bottom Thickness of plates crown 7 9/16" bottom Description of longitudinal joint welded No. of strengthening rings ✓

Working pressure of furnace by the rules 211 Combustion chamber plates: Material steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 11/16"

Pitch of stays to ditto: Sides 8 3/4" × 9" Back 8 3/4" × 8 1/2" Top 8 1/2" × 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 207

Material of stays steel Area at smallest part 2.4 □" Area supported by each stay 96.25 □" Working pressure by rules 224 End plates in steam space:

Material steel Thickness 1 3/32" Pitch of stays 17" × 16" How are stays secured S. & W. Working pressure by rules 206 Material of stays steel

Area at smallest part 6.33 □" Area supported by each stay 272 □" Working pressure by rules 242 Material of Front plates at bottom steel

Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 14 1/2" × 8 3/4" Working pressure of plate by rules 241

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" × 3 11/16" Material of tube plates steel Thickness: Front 1" Back 13/16" Mean pitch of stays 8 3/4"

Pitch across wide water spaces 13 1/4" Working pressures by rules 204 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8" × 1 3/4" Length as per rule 31 1/4" Distance apart 8 1/2" Number and pitch of stays in each Two 9"

Working pressure by rules 202 Steam dome: description of joint to shell ✓ % 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 ✓ 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 ✓

Number of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

W1537-0105

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

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, 3 junk ring bolts & nuts, 10 condenser tubes & 40 ferrules, one pair each main bearing, top & bottom end brasses one set segments piston rod & valve rod packings, two seats for main regulating valve, 6 cylinder & 6 valve chest studs, one set of cheaper valve springs, piston valve for reversing engine, 6 plain & 2 stay tubes, five bars for 3 furnaces, one set safety valve springs, one main & one auxiliary check valve, set of air valves for forced draft, one set of air, feed, & bilge, donkey pump valves packing rings for air pumps, pair main bearing, top & bottom end brasses for circulating pumps, also valve spindle & piston rings, packing rings for feed pumps, set of evaporator coils, pair main bearing, top & bottom end brasses for fan engine. also piston valve rod, set of piston rings, 4 ECC stay rod & a quantity of bolts & nuts & a few of various sizes.

The foregoing is a correct description,

for CHARLES D. HOLMES & CO. LTD.

A. Arthur Holmes

Manufacturer.

Dates of Survey while building — During progress of work in shops: 1918:- Feb 14. 18. 21. 27. Mar. 1. 6. 8. 11. 13. 16. 18. 20. 22. 23. 25. 26. 27. 28. Apr 3. 4. 5. 8. 10. 11. 12. 16. 19. 22. 24. 25

During erection on board vessel: 27. 30. May 3. 6. 10. 11. 13. 15. 23. 27. 31. Jun 3. 6. 7. 10. 12. 13. 14. 18. 19. 20. 21. 25. 27. Jul. 1. 9. 12. 17. Sep 9. 10. 11. 12. 13.

Total No. of visits 67.

Is the approved plan of main boiler forwarded herewith? Yes. Please return for auxiliary boiler

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 16-4-18 Slides 19-4-18 Covers 5-4-18 Pistons 24-4-18 Rods 16-4-18

Connecting rods 30-4-18 Crank shaft 25-4-18 Thrust shaft 30-4-18 Tunnel shafts 13-3-18 Screw shaft 18-3-18 Propeller 18-3-18

Stern tube 20-3-18 Steam pipes tested 10, 13, 19-6-18 Engine and boiler seatings 23-3-18 Engines holding down bolts 31-5-18

Completion of pumping arrangements 13-9-18 Boilers fixed 12-7-18 Engines tried under steam 13-9-18

Completion of fitting sea connections 26-3-18 Stern tube 23-3-18 Screw shaft and propeller 26-3-18

Main boiler safety valves adjusted 9-9-18 Thickness of adjusting washers For P 1/4 S 3/8 Aft-P 3/8 S 3/8

Material of Crank shaft steel Identification Mark on Do. 2117 FLS Material of Thrust shaft steel Identification Mark on Do. 2118 FLS

Material of Tunnel shafts steel Identification Marks on Do. 2104 FLS Material of Screw shafts steel Identification Marks on Do. 2106 FLS

Material of Steam Pipes Solid drawn steel Test pressure 400 lbs.

Is an installation fitted for burning oil fuel no Is the flash point of the oil to be used over 150°F. ✓

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

Is this machinery duplicate of a previous case yes If so, state name of vessel Kildalkey

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, specification & the rules of this Society the materials & workmanship are good the various parts have been tested as required by the specification & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion tested under full power as required by the Admiralty & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 215 lbs.

In my opinion the vessel is eligible for the record + L.M.C. 9.18.

Hull

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.)

It is submitted that this vessel is eligible for THE RECORD. + L M C 9.18. F.D.

A.R.K.

20-9-18

Frank L. Stinger

Engineer Surveyor to Lloyd's Register of Shipping.

					When applied for,
The amount of Entry Fee	...	£ 4	: 0	:	21/10/18
Special	... ...	£ 61	: 6	:	
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)		£	:	:	7.12.18

TUE. NOV. 19 1920

Committee's Minute FRI. 20 SEP 1918 20/9/18.

+ L M C 9.18

FRI. JAN. 27 1922

TUE SEP. 19 1922

Assigned

TUE. MAR. 13 1923

20.9.18

FRI DEC. 1 1922