

REPORT ON MACHINERY.

No. 30767

Received at London Office

Date of writing Report

When handed in at Local Office

29/10/18 Port of Hull

No. in Survey held at Hull

Date, First Survey 6.3.18

Last Survey 10.10.18 1918

on the steel Patrol Gunboat - Kildonan

(Number of Plates 58)

Tons Gross 525

Net 226

Builder Built at Selby

By whom built Cochrane & Sons Ltd

When built 1918-10

Engines made at Hull

By whom made Chas. J. Holmes & Co Ltd

when made 1918-10

Boilers made at Hull

By whom made Chas. J. Holmes & Co Ltd

when made 1918-10

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

No. of Cylinders 16-26-44 Length of Stroke 26" Revs. per minute

Dia. of Screw shaft as per rule 8.5" 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

Is 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

Dia. of Tunnel shaft as per rule 7.95" as fitted 8.5" Dia. of Crank shaft journals as per rule 8.35" as fitted 8.2"

Dia. of Crank pin 8.3/4" Size of Crank webs 5 1/2 x 13 Dia. of thrust shaft under

rollers 8.5" Dia. of screw 9-6" Pitch of Screw 8-6"

No. of Blades 4 State whether moveable no Total surface 36 sq ft

No. of Feed pumps 2 Wire Diameter of ditto 7" Stroke 18"

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 6" Stroke 6"

Can one be overhauled while the other is at work

No. of Donkey Engines 2 Sizes of Pumps 2 1/2" x 6" Bilge 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room three 2" dia. in each compartment, valves worked from deck

No. of Bilge Injections one size 6" dia 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 no

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 Forward 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 yes

Is it fitted with a watertight door worked from

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

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

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 28.5.18 No. of Certificate A 3296

Can each boiler be worked separately yes Area of fire grate in each boiler 51.5 sq ft No. and Description of Safety Valves to

each boiler two spring loaded Area of each valve 5.94 sq in 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" Material of shell plates steel

Thickness 1 1/4" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

long. seams J.R. & 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 1/2"

Per centages of strength of longitudinal joint rivets 91.8% plate 85.29% Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"

Size of compensating ring 7" x 1 1/4" No. and Description of Furnaces in each boiler 3 height Material steel Outside diameter 41 1/2"

Length of plain part top 7" bottom 7" Thickness of plates crown 7/16" Description of longitudinal joint welded No. of strengthening rings 1

Working pressure of furnace by the rules 211 Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"

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

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

Material steel Thickness 1 3/32" Pitch of stays 17" x 16" How are stays secured 2 x W Working pressure by rules 208 Material of stays steel

Area at smallest part 6.33 sq in Area supported by each stay 272 sq in 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" x 8 3/4" Working pressure of plate by rules 241

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 1/4" 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" x 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 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 yes Tested by Hydraulic Pressure to yes

Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes

Material of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

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 crimping, bolts & nuts, 3 pint rings bolts & nuts, 10 condenser tubes & 40 ferrules, one pair each main bearing & top & bottom end brasses, one set of segments piston rod valve rod packing, two seats for main regulating valve, 6 cylinder & 6 valve chest studs, one set of escape valve springs, piston valve for reversing engine, 6 plain & two stay tubes, fire bars for 3 furnaces, one set of safety valve springs, one main & one donkey check valve, set of valves for fresh draught, one set of air, feed, bilge & donkey pump valves, packing rings for air pump, pair main bearing, top & bottom end brasses for circulating pump also valve spindle & piston rings, packing rings for feed pumps, set of evaporator coils, pair of main bearing, top & bottom end brasses for fan engines also piston & valve rod, set of piston rings & eccentric strap rod & a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

for CHARLES D. HOLMES & CO. LTD.
600, Fleet Street, London, E.C. 4.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1918: Mar 6, 8, 11, 13, 16, 22, 23, 25, 27, 28. Apr. 3, 4, 8, 10, 12, 16, 19, 22, 24, 25, 30. During erection on board vessel -- May 3, 4, 6, 8, 10, 11, 13, 14, 16, 22, 24, 28, 29, 31. June 3, 6, 10, 13, 20, 25, 27. July 1, 9, 12. Total No. of visits 58.

Is the approved plan of main boiler forwarded herewith forwarded with A. J. Kildare

Dates of Examination of principal parts—Cylinders 3-5-18 Slides 3-5-18 Covers 19-4-18 Pistons 3-5-18 Rods 6-5-18
Connecting rods 10-5-18 Crank shaft 8-5-18 Thrust shaft 9-5-18 Tunnel shafts 25-3-18 Screw shaft 23-3-18 Propeller 23-3-18
Stern tube 23-3-18 Steam pipes tested 13-5-20-18 Engine and boiler seatings 26-3-18 Engines holding down bolts 10-6-18
Completion of pumping arrangements 26-9-18 Boilers fixed 28-8-18 Engines tried under steam 23-8-18 26-9-18
Completion of fitting sea connections 26-3-18 Stern tube 26-3-18 Screw shaft and propeller 26-3-18
Main boiler safety valves adjusted 25-9-18 Thickness of adjusting washers For P 7/8 S 3/4 A 1- P 3/4 S 1/2
Material of Crank shaft steel Identification Mark on Do. 2119 FLS Material of Thrust shaft steel Identification Mark on Do. 2120 FLS
Material of Tunnel shafts steel Identification Marks on Do. 2111 FLS Material of Screw shafts steel Identification Marks on Do. 2110 FLS
Material of Steam Pipes solid drawn steel Test pressure 600 lbs.

Is an installation fitted for burning oil fuel 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, Kildare.*

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 of good sound & good. The machinery has been properly fitted & secured on board the vessel & on completion tested under full power as required by the Admiralty for two hours & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 2 1/2 lbs. In my opinion the vessel is eligible for the record + L.M.C. 10-18*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10, 18 F.P.

J. H. 18
7-11-18

Frank J. Lingen
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 4 : 0 :
Special ... £ 61 : 6 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 4/11/18
When received, 7/12/18

Committee's Minute Assigned

FRI. 1 - NOV. 1918

FRI. MAY. 14 1920



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