

# REPORT ON MACHINERY.

Hull 20.004

No. 70543

Received at London Office

MUN. 30 MAR 1908

Date of writing Report 19 When handed in at Local Office 19 Port of London Hull, Apr 27, 08

No. in Survey held at Luton Date, First Survey Dec 3 Last Survey Mar 19 1908

Reg. Book. 48 Supp. on the Engins No 1693 for S/S Kinsman (Number of Visits 8)

Master Brewley Built at Brewley By whom built Cox & Dutton & Lummel 1881 When built 1908

Engines made at Luton By whom made Vauhall - West Hydraulic Eng Co when made 1908

Boilers made at Stockton By whom made Blair & Co when made 1908

Registered Horse Power 71 Owners Thos Gray & Co Ltd Port belonging to Hull

Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Direct. Imp. - Surface Condensing No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 17" x 36" Length of Stroke 24" Revs. per minute 120 Dia. of Screw shaft 7.82" Material of screw shaft Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight in the propeller boss ✓

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 No liners ✓ Length of stern bush 2'-9"

Dia. of Tunnel shaft 6.96" Dia. of Crank shaft journals 7.31" Dia. of Crank pin 7 1/2" Size of Crank webs 13" x 5 1/4" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 8'-0" Pitch of Screw 12'-9" No. of Blades 4 State whether moveable No Total surface 24 sq ft

No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Donkey Engines One Sizes of Pumps 5" x 3" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 2" In Holds, &c. One 2" to fore hold, One 2" to aft hold, One 2 1/2" to aft peak tank

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump 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 None 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 20<sup>th</sup> Mar. 08 of Stern Tube 20-3-08 Screw shaft and Propeller 20-3-08

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.**—(Letter for record                     ) Manufacturers of Steel                     

Total Heating Surface of Boilers 1306 sq ft Is Forced Draft fitted                      No. and Description of Boilers                     

Working Pressure 130 lbs Tested by hydraulic pressure to                      Date of test                      No. of Certificate                     

Can each boiler be worked separately ✓ Area of fire grate in each boiler                      No. and Description of Safety Valves to each boiler                     

Area of each valve                      Pressure to which they are adjusted                      Are they fitted with easing gear                     

Smallest distance between boilers or uptakes and bunkers or woodwork                      Mean dia. of boilers                      Length                      Material of shell plates                     

Thickness 3/4" Range of tensile strength                      Are the shell plates welded or flanged                      Descrip. of riveting: cir. seams                     

long. seams                      Diameter of rivet holes in long. seams                      Pitch of rivets                      Lap of plates or width of butt straps                     

Per centages of strength of longitudinal joint                      Working pressure of shell by rules                      Size of manhole in shell                     

Size of compensating ring                      No. and Description of Furnaces in each boiler                      Material                      Outside diameter                     

Length of plain part                      Thickness of plates                      Description of longitudinal joint                      No. of strengthening rings                     

Working pressure of furnace by the rules                      Combustion chamber plates: Material                      Thickness: Sides                      Back                      Top                      Bottom                     

Pitch of stays to ditto: Sides                      Back                      Top                      If stays are fitted with nuts or riveted heads                      Working pressure by rules                     

Material of stays                      Diameter at smallest part                      Area supported by each stay                      Working pressure by rules                      End plates in steam space:                     

Material                      Thickness                      Pitch of stays                      How are stays secured                      Working pressure by rules                      Material of stays                     

Diameter at smallest part                      Area supported by each stay                      Working pressure by rules                      Material of Front plates at bottom                     

Thickness                      Material of Lower back plate                      Thickness                      Greatest pitch of stays                      Working pressure of plate by rules                     

Diameter of tubes                      Pitch of tubes                      Material of tube plates                      Thickness: Front                      Back                      Mean pitch of stays                     

Pitch across wide water spaces                      Working pressures by rules                      Girders to Chamber tops: Material                      Depth and thickness of girder at centre                      Length as per rule                      Distance apart                      Number and pitch of stays in each                     

Working pressure by rules                      Superheater or Steam chest; how connected to boiler                      Can the superheater be shut off and the boiler worked separately                      Diameter                      Length                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                      Pitch of rivets                      Working pressure of shell by rules                      Diameter of flue                      Material of flue plates                      Thickness                     

If stiffened with rings                      Distance between rings                      Working pressure by rules                      End plates: Thickness                      How stayed                     

Working pressure of end plates                      Area of safety valves to superheater                      Are they fitted with easing gear                     

If not, state whether, and when, one will be sent



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