

REPORT ON MACHINERY.

No. 9589

Date of writing Report 1917 When handed in at Local Office 17/1/1917 Port of Middlesbrough Received at London Office 18 JAN 1917

No. in Survey held at Stockton Reg. Book. Date, First Survey 17th Nov 1915 Last Survey 6th Jan 1917 on the Steel screw steamer ASHLEAF (Number of Volls 133 (S.S. No 505)

Master W. Phillips Built at Stockton By whom built Messrs Roper & Sons Tons { Gross 5768 Net 3436 Engines made at Stockton By whom made Messrs Blair & Co Ltd (No 1834) when made 1917 Boilers made at Stockton By whom made Messrs Blair & Co Ltd when made 1917 Registered Horse Power Owners Lane & Macandrew Ltd Port belonging to London

Nom. Horse Power as per Section 28 432 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Tri-compound No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25-42-68 Length of Stroke 48 Revs. per minute 65 Dia. of Screw shaft as per rule 14.33 as fitted 15.5 Material of screw shaft Ing 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 in one 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 tight fit If two liners are fitted, is the shaft lapped or protected between the liners

Dia. of Tunnel shaft as per rule 12.74 as fitted 13.5 Dia. of Crank shaft journals as per rule 13.38 as fitted 14 Dia. of Crank pin 14.5 Size of Crank web 27.5 x 9.5 Dia. of thrust shaft under collars 14.5 Dia. of screw 17-6 Pitch of Screw 17-6 No. of Blades 4 State whether moveable no Total surface 94 sq

No. of Feed pumps 2 Diameter of ditto 3.5 Stroke 34 Can one be overhauled while the other is at work yes No. of Bilge pumps 2 Diameter of ditto 4.5 Stroke 34 Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps Ballant 9x11x10 2 fls No. and size of Suctions connected to both Bilge and Donkey pumps in Engine Room 3 @ 3.5 Weir feed 7x9x24 single In Holds, &c. Oil cargo special pumping arrangements

No. of Bilge Injections 1 sizes 7 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes -4"

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 fired 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 below

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

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from Engines aft

OILERS, &c.—(Letter for record (S)) Manufacturers of Steel Messrs J. Spencer & Sons Ltd 2 main + one aux = 6608 + 1208 Total Heating Surface of Boilers 7808 Is Forced Draft fitted no No. and Description of Boilers 2 M + 1 aux single ended

Working Pressure 180 Tested by hydraulic pressure to 360 M. Boiler Date of test 10.3.16 No. of Certificate 5622

Can each boiler be worked separately yes Area of fire grate in each boiler oil fuel No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 9.62 Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boilers or superheaters and bunkers or woodwork 4-6 External Mean dia. of boilers 17-6 Length 11-6 Material of shell plates steel

Thickness 1.5 Range of tensile strength 29.5 - 33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2-R. lap

Long. seams 2-B-3 Riv Diameter of rivet holes in long. seams 1.7 Pitch of rivets 9.5 Lap of plates or width of butt straps 21 x 1.5

Per centages of strength of longitudinal joint rivets 99.5 plate 84.25 Working pressure of shell by rules 185 Size of manhole in shell 16 x 12

Size of compensating ring 7.5 x 1.5 No. and Description of Furnaces in each boiler 4 Morrison Material steel Outside diameter 42.5

Length of plain part top 17 bottom 32 Thickness of plates crown 17 bottom 32 Description of longitudinal joint Welded No. of strengthening rings

Working pressure of furnace by the rules 193 Combustion chamber plates: Material steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/16

Pitch of stays to ditto: Sides 9.5 x 9 Back 8.5 x 9.5 Top 10 x 8.5 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 185

Material of stays steel Area at smallest part 1.99 Area supported by each stay 87.75 Working pressure by rules 205 End plates in steam space: Material steel Thickness 1.5 Pitch of stays 21 x 1.23 How are stays secured nuts + washers Working pressure by rules 200 Material of stays steel

Area at smallest part 9.82 Area supported by each stay 55.2 Working pressure by rules 185 Material of Front plates at bottom steel

Thickness 1.5 Material of Lower back plate steel Thickness 1.5 Greatest pitch of stays 16.5 x 9.5 Working pressure of plate by rules 201

Diameter of tubes 3.5 Pitch of tubes 4.5 x 4.5 Material of tube plates steel Thickness: Front 1.5 Back 1.5 Mean pitch of stays 11.5

Pitch across wide water spaces 14.5 Working pressures by rules 191 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8.5 x 2 Length as per rule 33 Distance apart 10 Number and pitch of stays in each 3 @ 8.5

Working pressure by rules 189 Steam dome: description of joint to shell none % 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 none 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

Pressure to which each is adjusted Is Easing Gear fitted

