

REPORT ON MACHINERY

No. 27147

SAT. 2 FEB. 1918

Received at London Office

When handed in at Local Office - 1 FEB. 1918 Port of SUNDERLAND

Survey held at SUNDERLAND Date, First Survey 27 Feb. 17 Last Survey 25 Jan. 18

Book. Fitting of Bolinder engines on the motor S.S. RFA "TEAKOL" (Number of Visits 34) Gross 1137 Tons Net 584

Surveyor J. J. J. Built at Sunderland By whom built Short Bros & Co. When built 1918

Engines made at Stockholm By whom made G. & C. Es. Bolinders Mch. when made 1918

Engines made at - By whom made - Verks. A.B. when made -

Indicated Horse Power Owners Lords Commissioners Admiralty Port belonging to London

Indicated Horse Power as per Section 28 183. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Engines Description of Engines twin two cycle reversible crude oil No. of Cylinders 4 each No. of Cranks 4 each

Cylinders 16 9/16" 16 1/2" Length of Stroke 18 1/2" Revs. per minute 160 Dia. of Screw shaft as per rule 8" Material of screw shaft steel

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

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

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive - If two

are fitted, is the shaft lapped or protected between the liners - Length of stern bush 12 1/2" dia. 26 1/2"

Tunnel shaft as per rule 7 1/2" Dia. of Crank shaft journals as per rule 7 1/2" Dia. of Crank pin 7 1/2" Size of Crank webs - Dia. of thrust shaft under

rule Dia. of screw 6 1/2" Pitch of Screw 6 1/2" No. of Blades 3 State whether moveable no Total surface 16 1/2"

Propellers 2 Diameter of ditto 3 15/16" Stroke 2 1/2" Can one be overhauled while the other is at work yes

Bilge pumps 2 Diameter of ditto 4 3/8" Stroke 5" Can one be overhauled while the other is at work yes

Donkey Engines 2 motor driven Sizes of Pumps Ballast 20 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 30 2" In Holds, &c. -

Bilge Injections sizes - Connected to condenser, or to circulating pump - Is a separate Donkey Suction fitted in Engine room & size yes 7"

Are 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

connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves

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 on line

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

Pipes are carried through the bunkers none How are they protected -

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

Examination of completion of fitting of Sea Connections 16-8-17 of Stern Tubes 16-8-17 Screw shaft and Propeller 28-8-17

Screw Shaft Tunnel watertight none Is it fitted with a watertight door yes worked from -

Boilers (Letter for record) Manufacturers of Steel

Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure 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

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

Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

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

Stages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

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

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

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

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

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

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

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

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

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

Working pressures by rules Girders to Chamber tops: Material Depth and

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

Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

End plates 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



