

REPORT ON MACHINERY.

No. 29526

Received at London Office 11 SEP. 1916

Report of writing Report 4-9-16 When handed in at Local Office 9-9-16 Port of Hull

Survey held at Hull Date, First Survey 19-8-15 Last Survey 1-9-16 1916

eg. Book. OH on the Steel screw tugger Faraday (Number of Volls 47) Tons Gross 322
Net 131

Master Tilby Built at Tilby By whom built Cochran & Sons Ltd When built 1916-9

Engines made at Hull By whom made C. D. Holmes & Co Ltd when made 1916-9

Boilers made at Hull By whom made C. D. Holmes & Co Ltd when made 1916-9

Registered Horse Power 7 & 1/2 Owners F & J. Ross Ltd Port belonging to Hull

nom. Horse Power as per Section 28 85 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

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

Dia. of Cylinders 13"-23"-37" Length of Stroke 26" Revs. per minute as per rule 7.58 Material of Iron
as fitted 8 1/4" screw shaft

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

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

ers are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 35 1/2"

Dia. of Tunnel shaft as per rule 7.04" Dia. of Crank shaft journals as per rule 7.39" Dia. of Crank pin 7 1/2" Size of Crank webs 2 1/2" x 1 1/2" Dia. of thrust shaft under

bars 7 1/2" Dia. of screw 9-7 1/2" Pitch of Screw 11-0" No. of Blades 4 State whether moveable no Total surface 33 1/2"

No. of Feed pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work yes 60.5 GHP.

No. of Bilge pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work yes

No. of Donkey Engines one 3" ejecta Sizes of Pumps 6, 3 1/2" x 6" Flywheel No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two 12" dia In Holds, &c. one 2" dia in each compartment

All suction also connected to 3" ejecta

No. of Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 3" ejecta

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

How are they protected strong wooden casing

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

the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel D. Colville & Sons

Total Heating Surface of Boilers 1387 1/2 Is Forced Draft fitted no No. and Description of Boilers one single ended

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 1-8-16 No. of Certificate 3153

in each boiler be worked separately yes Area of fire grate in each boiler 47.8 1/2 No. and Description of Safety Valves to

each boiler Two springs loaded Area of each valve 4.9 1/2 Pressure to which they are adjusted 205 Are they fitted with easing gear yes

Smallest distance between boilers on uptakes and bunkers on woodwork 7" lagged Mean dia. of boilers 165" Length 10-6" Material of shell plates steel

Thickness 1 15/64" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

g. seams J.R.D.B. Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 8 1/16" Lap of plates or width of butt straps 17 1/2"

Percentage of strength of longitudinal joint 87.4 Working pressure of shell by rules 201 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 7" x 1 15/64" No. and Description of Furnaces in each boiler Three plain Material steel Outside diameter 40"

Length of plain part top 77 3/4" Thickness of plates 13 1/16" Description of longitudinal joint welded No. of strengthening rings yes

Working pressure of furnace by the rules 207 Combustion chamber plates: Material steel Thickness: Sides 23/32" Back 23/32" Top 3/4" Bottom 23/32"

Pitch of stays to ditto: Sides 10" x 8 1/2" Back 9 3/8" x 8 3/4" Top 11" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 200

Material of stays steel Area at smallest part 2.07 Area supported by each stay 93.5 Working pressure by rules 200 End plates in steam space:

Material steel Thickness 1 1/32" Pitch of stays 9 1/2" x 18" How are stays secured 8. 7. x 10 Working pressure by rules 200 Material of stays steel

Area at smallest part 7.5 Area supported by each stay 351 Working pressure by rules 222 Material of Front plates at bottom steel

Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 16 1/2" x 13 1/2" Working pressure of plate by rules 205

Diameter of tubes 3 1/2" Pitch of tubes 4 1/8" Material of tube plates steel Thickness: Front 1" Back 3/8" Mean pitch of stays 9 3/4"

Pitch across wide water spaces 13 3/4" Working pressures by rules 203 lbs Girders to Chamber tops: Material steel Depth and

Thickness of girder at centre 11 3/8" x 13 1/4" Length as per rule 37.22 Distance apart 11" Number and pitch of stays in each Three 8 1/2"

Working pressure by rules 204 Steam dome: description of joint to shell yes % of strength of joint 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 2019

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

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

