

REPORT ON MACHINERY.

No. 17036

Port of N Mull

Received at London Office 14th AUG 1905

No. in Survey held at N Mull Date, first Survey April 25th Last Survey July 14th 1905
 Reg. Book. Supp on the Screw Trawler "Arran" (Number of Visits 21)
 Master do Built at N Mull By whom built Charles S. B. & Co. G. L. Tons 176 Gross 60 Net
 Engines made at N Mull By whom made Charles S. B. & Co. G. L. when made 1905
 Boilers made at do By whom made do when made 1905
 Registered Horse Power _____ Owners N Mull Steam Fishing & Ice Co. L. Port belonging to N Mull
 Nom. Horse Power as per Section 28 464 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 10", 17", 28" Length of Stroke 22" Revs. per minute 112 Dia. of Screw shaft as per rule 6.66 Material of Iron
 as fitted 7 1/4" screw shaft
 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 ✓ 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 ✓ Length of stern bush 2.8 1/2"
 Dia. of Tunnel shaft as per rule 5.57 Dia. of Crank shaft journals as per rule 5.84 Dia. of Crank pin 6 1/4" Size of Crank webs 12 1/2 x 3 1/2" Dia. of thrust shaft under
 as fitted 6" as fitted 6 1/4" collars 6 1/4" Dia. of screw 8-9 Pitch of screw 8-0 root, 9-6 tip No. of blades 4 State whether moveable No Total surface 24 sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines 2 Sizes of Pumps 6 x 3 x 6" 5 x 5 x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2" dia. In Holds, &c. One 2" dia.
Ejector suction from Eng. bilge, hold, & ballast tanks, & discharge on deck.
 No. of bilge injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump Cond. Is a separate donkey suction fitted in Engine room & size 3" Ejector
 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 ✓
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launch Is the screw shaft tunnel watertight None
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record (S)) Total Heating Surface of Boilers 750 sq. ft. Is forced draft fitted No
 No. and Description of Boilers One S.E. Cyl. Mult. Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs
 Date of test 28.6.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 25 1/2 sq. ft. No. and Description of safety valves to
 each boiler Two direct spring Area of each valve 3.14" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7 1/2" Mean dia. of boilers 10.6" Length 9.3" Material of shell plates Steel
 Thickness 1" Range of tensile strength 28-32 Are they welded or flanged ✓ Descrip. of riveting: cir. seams SR Lap long. seams SR S Rivets
 Diameter of rivet holes in long. seams 1 1/6" Pitch of rivets 7 1/4" Lap of plates or width of butt straps 16"
 Per centages of strength of longitudinal joint rivets 91.3 Working pressure of shell by rules 207 lbs Size of manhole in shell 16" x 12"
 plate 85.3
 Size of compensating ring 3.4 x 2.6 x 1" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 35.53"
 Length of plain part top 5.6 1/2" bottom 5.2" Thickness of plates crown 4.9" bottom 6.4" Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 229 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 5/8" Top 5/8" Bottom 1/16"
 Pitch of stays to ditto: Sides 8 1/2 x 7" Back 7 1/2 x 7 1/2" Top 8 1/2 x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 230 lbs
 Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 50.7" Working pressure by rules 233 lbs End plates in steam space:
 Material Steel Thickness 15/16" Pitch of stays 4 1/4 x 14" How are stays secured to nuts on W. Working pressure by rules 208 lbs Material of stays Steel
Area at smallest part 5.18" Area supported by each stay 199.5" Working pressure by rules 259 lbs Material of Front plates at bottom Steel
 Thickness 15/16" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 15 1/2 x 12 1/2" Working pressure of plate by rules 210 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2 x 4 5/8" Material of tube plates Steel Thickness: Front 15/16" Back 7/8" Mean pitch of stays 9 3/4 x 9 1/4"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 202 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 1/2 x 1 3/4" Length as per rule 2.6 1/8" Distance apart 7" Number and pitch of Stays in each 22 8 1/4"
 Working pressure by rules 212 lbs Superheater or Steam chest; how connected to boiler None 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 ✓

Is a Report also sent on the Hull of the ship



