REPORT ON MACHINERY.

192

WED 10 SEPT 1890

Port of Sunderland Received at London Office 18

Survey held at Sunderland Date, first Survey 14th April Last Survey 27th August 1890

(Number of Visits 18)

Tons Gross 2483.29 Net 1604.02

m the S.S. "Weybridge"

Built at Middlesbro' By whom built Raylton Dixon & Co When built 1890

ade at Sunderland By whom made John Dickinson when made 1890

d Horse Power 225 Owners J. Temperley & Co Port belonging to London.

" " 212

ES, &c.—

on of Engines Triple compound, three cranks (Triple expansion) No. of Cylinders 3

Cylinders 22" 35" & 59" Length of Stroke 39" Rev. per minute 60 Point of Cut off, High Pressure 1/2 stroke Low Pressure 1/2 stroke

of Screw shaft 11" Diam. of Tunnel shaft 10½" Diam. of Crank shaft journals 11" Diam. of Crank pin 11" size of Crank webs patent

r of screw 15'-3" Pitch of screw 16'-3" No. of blades 4 state whether moveable not total surface 64 ft

Feed pumps 2 diameter of ditto 3" Stroke 20" Can one be overhauled while the other is at work yes

Bilge pumps 2 diameter of ditto 4¼" Stroke 20" Can one be overhauled while the other is at work yes

do they pump from Tanks, wells, and bilges

Donkey Engines 2 Size of Pumps 6"×5" & 9"×10" Where do they pump from Sea, bilges, tanks & wells

ll the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible Yes

f bilge injections one and sizes 4" Are they connected to condenser, or to circulating pump circulating pumps

are the pumps worked by levers on after engine

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

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

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

t pipes are carried through the bunkers none How are they protected

all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes

the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes

en were stern tube, propeller, screw shaft, and all connections examined in dry dock new vessel

the screw shaft tunnel watertight — and fitted with a sluice door yes worked from top platform

ILERS, &c.—

. of Boilers 2 Description Ordinary marine type Material Steel Letter (for record) S

orking Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 23-4-90.

scription of superheating apparatus or steam chest none

n each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately no superheater

o. of square feet of fire grate surface in each boiler 45 ft Description of safety valves direct-spring No. to each boiler 2

rea of each valve 4·04 □ Are they fitted with easing gear yes No. of safety valves to superheater — area of each valve —

re they fitted with easing gear — Smallest distance between boilers and bunkers or woodwork 22" Diameter of boilers 13'-8"

ength of boilers 9'-4" description of riveting of shell long. seams treble riv^d dble butt straps circum. seams Treble in middle Double at ends ckness of shell plates 1 3/16"

iameter of rivet holes 1¼" whether punched or drilled drilled pitch of rivets 8½" Lap of plating 18⅛"

Per cent of strength of longitudinal joint 85.2 % working pressure of shell by rules 160 lbs size of manholes in shell 16"×12"

Size of compensating rings 8½"×1 3/16" No. of Furnaces in each boiler 3 Description of Furnaces Purves' patent

Outside diameter 3'-1" length 6 feet thickness of plates 15/32" description of joint welded if rings are fitted no

Greatest length between rings — working pressure of furnace by the rules 160 lbs combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"

Pitch of stays to ditto, sides 4 3/4"×4¼" back 4 3/4"×4¼" top 4 3/4"×4¼" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 162 lbs Diameter of stays at smallest part 1¼" working pressure of ditto by rules 163 lbs d plates in steam space, thickness 1 1/16"

Pitch of stays to ditto 16½"×15½" how stays are secured nuts working pressure by rules 165 lbs diameter of stays at smallest part 2 1/16" working pressure by rules 164 lbs Front plates at bottom, thickness ¾" Back plates, thickness 13/16"

Greatest pitch of stays 11¼" working pressure by rules 160 lbs Diameter of tubes 3¼" pitch of tubes 4½"×4½" thickness of tube plates, front ⅞" back ⅞" how stayed stay tubes pitch of stays 9"×9" width of water spaces 1'-6"

Diameter of Superheater or Steam chest — length — thickness of plates — description of longitudinal joint — diam. of rivet holes —

Pitch of rivets — working pressure of shell by rules — diameter of flue — thickness of plates — If stiffened with rings —

Distance between rings — working pressure by rules — end plates of superheater, or steam chest; thickness — how stayed —

Total heating surface 3250 ft Superheater or steam chest; how connected to boiler —

DONKEY BOILER— Description Ordinary marine type

Made at Stockton by whom made Riley Brothers when made 25.7.90 where fixed Stokehold

Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 1083 fire grate area 20 2/2 feet description of safety valves Spring No. of safety valves 2 area of each 7.07 Dias if fitted with easing gear Yes if steam from main boilers can enter the donkey boiler No diameter of donkey boiler 8'.6". length 7'.9". description of riveting Long: Lap Treble

Thickness of shell plates 17/32" diameter of rivet holes 13/16" whether punched or drilled Punched pitch of rivets 3 1/4" lap of plating 6".

per centage of strength of joint 45 thickness of top ~~crown~~ plates 5/8" stayed by 1 5/8" Stays pitch 13" x 13".

Diameter of furnace, ~~top~~ 30". bottom — length of furnace 5'.1 1/2", thickness of plates 3/8" description of joint Lap Single

Thickness of ~~furnace crown~~ Combustion Chr plates 15/32" stayed by 1 1/8" Screwed Stays pitch 8" x 8". working pressure of shell by rules 84

Working pressure of furnace by rules 80 lbs. diameter of uptake — thickness of front Back bottom plates 9/16" thickness of ~~water~~ Back tubes plate 9"

SPARE GEAR. State the articles supplied:— Top and bottom end connecting rod bolts two main bearing bolts. one set of coupling bolts. feed and bilge pump valves. bolts nuts & iron

The foregoing is a correct description,

FOR JOHN JACKSON

Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.

The main steam pipes have been tested by hydraulic pressure to 320 lbs/□. The machinery has been constructed under special survey the material and workmanship are good and efficient and the engines when tried under steam worked satisfactorily In my opinion the machinery of this vessel is in good order and safe working condition and eligible for the notification in the Register Book of + LMC. 8-90 when the following work is satisfactorily finished viz. Sections fitted to fore tanks and hold. sluices fitted to bulkheads and made accessible. and donkey boiler mountings fitted and tried under steam

The above mentioned work has been satisfactorily completed.

Wm K. Austin 8.9.90.

It is submitted that the vessel is eligible to have + LMC 8 90 recorded W.A. 11.9.90

The amount of Entry Fee .. £ 2 : : received by me,

Special .. .. .. £ 30 : 12 :

Donkey Boiler Fee .. .. £ : :

Certificate (if required) .. £ : : 9 9 1890

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute FRI 12 SEPT 1890

+ LMC 8/90

Jas R. Salmon

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

R. S. TAYLOR & SON, STEAM PRINTERS, 18 OLD STREET, GOSWELL ROAD, LONDON, E.C.