REPORT ON MACHINERY.

100441

Port of Glasgow

No. 100444 Received at London Office 18

No. in Reg. Book. Survey held at Glasgow Date, first Survey 21st January Last Survey 24th June 1890.

(Number of Visits 11)

on the Simons' Dredger No 280. Tons { Gross / Net

Master Built at By whom built When built

Engines made at By whom made when made

Boilers made at Glasgow By whom made Lindsay Burnet & Co when made 1890

Registered Horse Power Owners Port belonging to

ENGINES, &c.—

Description of Engines No. of Cylinders

Diam. of Cylinders Length of Stroke Rev. per minute Point of Cut off, High Pressure Low Pressure

Diameter of Screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs

Diameter of screw Pitch of screw No. of blades state whether moveable total surface

No. of Feed pumps diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Bilge pumps diameter of ditto Stroke Can one be overhauled while the other is at work

Where do they pump from

No. of Donkey Engines Size of Pumps Where do they pump from

Are all the bilge suction pipes fitted with roses Are the roses always accessible Are the sluices on Engine room bulkheads always accessible

No of bilge injections and sizes Are they connected to condenser, or to circulating pump

How are the pumps worked

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

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers How are they protected

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

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight and fitted with a sluice door worked from

BOILERS, &c.—

No. of Boilers Two Description Cyl. Mult. Material Steel Letter (for record) (S).

Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 24th June 1890.

Description of superheating apparatus or steam chest —

Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately —

No. of square feet of fire grate surface in each boiler Description of safety valves No. to each boiler

Area of each valve Are they fitted with easing gear No. of safety valves to superheater area of each valve

Are they fitted with easing gear Smallest distance between boilers and bunkers or woodwork Diameter of boilers 12' 0"

Length of boilers 10' 3" description of riveting of shell long. seams D. butt strap 3 rows circum. seams Lap 2 rows Thickness of shell plates 1 1/16"

Diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 8 1/2" x 3 9/16 Lap of plating 10 7/8" x 6 1/4"

Per centage of strength of longitudinal joint 86.1 working pressure of shell by rules 164 lbs size of manholes in shell 12" x 16"

Size of compensating rings 6" x 6" x 1 1/16 No. of Furnaces in each boiler Two. Description of Furnaces Cyns Ribbed,

Outside diameter 40.18" length 7' 6" thickness of plates 19/32" description of joint Welded if rings are fitted —

Greatest length between rings — working pressure of furnace by the rules 217 lbs combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"

Pitch of stays to ditto, sides 7 3/4" x 7 3/4" back 7 3/4" x 7 3/4" top 7 3/4" x 7 3/4" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 188 lbs Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 163 lbs end plates in steam space, thickness 15/16" + 15/16"

Pitch of stays to ditto 17" x 17" how stays are secured D. nuts & doublers working pressure by rules 165 lbs. diameter of stays at smallest part 2 5/8" working pressure by rules 160 lbs. Front plates at bottom, thickness 13/16" Back plates, thickness 13/16"

Greatest pitch of stays 7 3/4" x 7 3/4" working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 3/4" x 4 3/4" thickness of tube plates, front 13/16" back 3/4" how stayed S. Tubes pitch of stays 9 1/2" x 9 1/2" width of water spaces 6" 6 1/4"

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 —

— Superheater or steam chest; how connected to boiler —

GLS160-0227

10,041 egls

DONKEY BOILER— *Description* .....

Made at ..... *by whom made* ..... *when made* ..... *where fixed* .....

Working pressure ..... *tested by hydraulic pressure to* ..... *No. of Certificate* ..... *fire grate area* ..... *description of safety valves* ..... *No. of safety valves* ..... *area of each* ..... *if fitted with easing gear* ..... *if steam from main boilers enter the donkey boiler* ..... *diameter of donkey boiler* ..... *length* ..... *description of riveting* .....

Thickness of shell plates ..... *diameter of rivet holes* ..... *whether punched or drilled* ..... *pitch of rivets* ..... *lap of plating* ..... *per centage of strength of joint* ..... *thickness of crown plates* ..... *stayed by* .....

Diameter of furnace, top ..... *bottom* ..... *length of furnace* ..... *thickness of plates* ..... *description of joint* .....

Thickness of furnace crown plates ..... *stayed by* ..... *working pressure of shell by rules* .....

Working pressure of furnace by rules ..... *diameter of uptake* ..... *thickness of plates* ..... *thickness of water tub.* .....

SPARE GEAR. *State the articles supplied :—* .....

The foregoing is a correct description,

..... *Manufacturer.*

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

The material of these Boilers is of good quality and workmanship. They have been constructed under Special Survey, in accordance with the Rules and Circulars of this Society.

They have stood a hydraulic test satisfactorily, as per Certificate.

No further Survey is required on these boilers, as they are to be fitted on board an unclassed vessel at Glasgow.

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

Special .. .. .. £ 6 : 6 : 0

Donkey Boiler Fee .. .. £ : :

Certificate (if required) .. £ : : 30/6/1890

To be sent as per margin.

(*Travelling Expenses, if any,* £.....)

FRI. NOV 9 1906

FRI. NOV 23 1906

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

Committee's Minute ..... FRI. 7 JUL 1905

Machinery Certificate Written. See Minute on Glasgow First Entry Book

TUES 5 MAY 1908

FRI. 13 MAR 1908

FRI. 1 MAY 1908

R. E. TAYLOR & SON, STEAM PRINTERS, 19 GOLD STREET, GOSWELL ROAD, LONDON, E.C.