

## REPORT ON MACHINERY.

Port of Hull

SAT. 11 JUN 1898

No. in Survey held at Hull Date, first Survey Aug 28/87 Last Survey May 25<sup>th</sup> 1898  
 Reg. Book. 3184 on the Steel Steam Trawler Plover (Number of Visits 30)  
 Master          Built at Hull By whom built Charles C. Lim When built 1898  
 Engines made at Hull By whom made Charles C. Lim when made 1898  
 Boilers made at Hull By whom made Charles C. Lim when made 1898  
 Registered Horse Power 55 Owners Pioneer & S C Lim Port belonging to Himley  
 Nom. Horse Power as per Section 28 57 Is Electric Light fitted No

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

Diameter of Cylinders 12' 20' 32' Length of Stroke 23' Revolutions per minute 125 Diameter of Screw shaft as per rule 6.62  
 Diameter of Tunnel shaft as per rule 5.99 Diameter of Crank shaft journals 6 1/2' Diameter of Crank pin 6 1/2' Size of Crank webs 7 1/2' x 4 1/4'  
 Diameter of screw 8' 2' Pitch of screw 8' 11' 0' No. of blades 4 State whether moveable - Total surface 24.69 sq ft  
 No. of Feed pumps One Diameter of ditto 2 1/2' Stroke 10' Can one be overhauled while the other is at work -  
 No. of Bilge pumps One Diameter of ditto 2 1/2' Stroke 10' Can one be overhauled while the other is at work -  
 No. of Donkey Engines One Sizes of Pumps 2 1/2' x 5' No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room One 2' In Holds, &c. One 2'

Section suction in the Engine room Bilge and hold and discharge on deck

No. of bilge injections One sizes 3/4' Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size 1/2' 1/2'  
 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 Yes  
 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 Below  
 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 Suction to Forward How are they protected Wood Cond  
 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 Jan 1898 Is the screw shaft tunnel watertight In tunnel  
 Is it fitted with a watertight door - worked from -

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 580 sq ft Is forced draft fitted No

No. and Description of Boilers One Cylindrical Working Pressure 300 lb Tested by hydraulic pressure to 400 lb  
 Date of test 24/2/98 Can each boiler be worked separately - Area of fire grate in each boiler 339 sq ft No. and Description of safety valves to  
 each boiler Two Spring loaded Area of each valve 3.14 sq ft Pressure to which they are adjusted 205 lb Are they fitted  
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 7' Mean diameter of boilers 11' 0'  
 Length 9' 6' Material of shell plates Steel Thickness 1' Description of riveting: circum. seams all on lap long. seams all with 3/4"  
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 16"  
 Per centages of strength of longitudinal joint 87.5% Working pressure of shell by rules 200 lb Size of manhole in shell 16" x 12"  
 Size of compensating ring 3/4" diam x 1' No. and Description of Furnaces in each boiler One Iron Material Steel Outside diameter 42"  
 Length of plain part top 1' bottom 1' Thickness of plates 9 1/8" Description of longitudinal joint Butt No. of strengthening rings One  
 Working pressure of furnace by the rules 210 lb Combustion chamber plates: Material Steel Thickness: Sides 10 1/8" Back 10 1/8" Top 10 1/8" Bottom 10 1/8"  
 Pitch of stays to ditto: Sides 0" Back 7 1/4" Top 7 1/4" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 211 lb  
 Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 8 1/4' x 7 1/4' Working pressure by rules 200 lb End plates in steam space:  
 Material Steel Thickness 1 1/2" Pitch of stays 15 1/4" How are stays secured all nut Working pressure by rules 206 lb Material of stays Steel  
 Diameter at smallest part 2 1/8" Area supported by each stay 15 1/4' x 15' Working pressure by rules 223 lb Material of Front plates at bottom Steel  
 Thickness 29 1/2" Material of Lower back plate Steel Thickness 10 1/8" Greatest pitch of stays 12' Working pressure of plate by rules 200 lb  
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 29 1/2" Back 13 1/8" Mean pitch of stays 9'  
 Pitch across wide water spaces 13 1/4" Working pressures by rules 204 lb Girders to Chamber tops: Material Iron Depth and  
 thickness of girder at centre 6' 2 1/2' Length as per rule 27 5/8' Distance apart 7 1/2' Number and pitch of Stays in each One 7 1/2'  
 Working pressure by rules 200 lb Superheater or Steam chest; how connected to boiler - 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 -



**DONKEY BOILER—** Description *In donkey boiler*

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 \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_

Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_

Description of riveting long. seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_

Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_

Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace 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 uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *The top end bolt. The bottom end bolt. Two main bearing bolts. One end coupling bolt. One set Dead Pump Valve one set Bilge Pump Valve. One set Check Valve. Safety Valve Spring etc.*

*The vessel efficient with mast and sail as a ketch.*

The foregoing is a correct description,  
 \_\_\_\_\_ Manufacturer.

*A. E. Seaton*

Dates of Survey while building { During progress of work in shops - 1897: Aug 28. Sep 15. 25. Oct 18. 22. 29. Nov 5. 26. Dec 3. 6. 13 / 1898: Jan 12. 20. 27. 30  
 { During erection on board vessel - Feb 5. 12. 16. 19. 24. Mar 7. 17. 22. Apr 2. 4. 18. 23 May 11. 16. 25 =  
 Total No. of visits 30

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

*The Machinery and Boiler of this Steam Ketch have been constructed under Official Survey and placed on board in accordance with the Society's Rules They are now in my opinion in safe working condition and the case is respectfully submitted for the Certification of L.M.C. 5.98.*

*This case is similar in all respects to the Lizzie Hull Report No 11702.*

*It is submitted that this vessel is eligible to have the notification of L.M.C. 5.98 recorded*

*Sho*  
*13/6/98*

The amount of Entry Fee. £ 1 : 0 :  
 Special .. £ 0 : 11 :  
 Donkey Boiler Fee .. £ - : - :  
 Travelling Expenses (if any) £ - : - :

When applied for, 3/6/98  
 When received, 18. 6. 98

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

Committee's Minute **TUES. 14 JUN 1898**  
 Assigned

*+ L.M.C. 5.98*