

REPORT ON BOILERS.

Appl. No. 12834

Port of *West Hartlepool*

Received at London *MON. 18 JUN 1906*

No. in Reg. Book. *14* Survey held at *West Hartlepool* Date, first Survey *17th Nov. 1905* Last Survey *21st Feb. 1906*
 (Number of Visits *4 1/2*)
 on the *Steam Trawler Lenny* Tons *1906*
 Master *Selby* Built at *Selby* By whom built *Cochran & Sons* When built *1906*
 Engines made at *Grimsby* By whom made *Jt Central Coal & S.S. Co* When made *1906*
 Boilers made at *West Hartlepool* By whom made *Central Marine Engine Works* when made *1906*
 Registered Horse Power *41* Owners _____ Port belonging to _____

Serial 2106

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *J Spence & Son*

(Letter for record *S*) Total Heating Surface of Boilers *13194 1/2* Is forced draft fitted *-* No. and Description of Boilers *One Cylindrical* Working Pressure *180 lb* Tested by hydraulic pressure to *360 lb* Date of test *21st Feb. 06.*

No. of Certificate *3039* Can each boiler be worked separately *✓* Area of fire grate in each boiler *34.74 sq ft* No. and Description of safety valves to each boiler *2 Spring loaded.* Area of each valve *3.98 sq in.* Pressure to which they are adjusted *185 lbs.*

Are they fitted with easing gear *✓* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*

Smallest distance between boilers or uptakes and bunkers or woodwork *9* Mean dia. of boilers *12:6* Length *10:0*

Material of shell plates *Steel* Thickness *1 1/2* Range of tensile strength *22:50* Are the shell plates welded or flanged *both*

Descrip. of riveting: cir. seams *-* long. seams *all complete* Diameter of rivet holes in long. seams *1 1/8* Pitch of rivets *7 1/8*

Lap of plates or width of butt straps *16 1/2* Per centages of strength of longitudinal joint rivets *86.0 %* Working pressure of shell by rules *186 lb* plate *85.7 %*

Size of manhole in shell *16" x 12"* Size of compensating ring *22" x 28" x 1 1/2"* No. and Description of Furnaces in each boiler *Two Stain* Material *Steel* Outside diameter *43"* Length of plain part top *70"* Thickness of plates crown *12/16* bottom *12/16*

Description of longitudinal joint *welded* No. of strengthening rings *-* Working pressure of furnace by the rules *180 lb* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/2* Back *2 1/2* Top *2 1/2* Bottom *1 1/2* Pitch of stays to ditto: Sides *9 1/2* Back *9 1/2* Top *9 1/2* Bottom *9 1/2* If stays are fitted with nuts or riveted heads *both* Working pressure by rules *180 lb* Material of stays *Steel* Diameter at smallest part *1 1/8* Area supported by each stay *9 1/2* Working pressure by rules *239 lb* End plates in steam space: Material *Steel* Thickness *1 1/8* Pitch of stays *17 1/2* How are stays secured *all nut* Working pressure by rules *182 lb* Material of stays *Steel* Diameter at smallest part *2 1/2* Area supported by each stay *17 1/2* Working pressure by rules *214 lb* Material of Front plates at bottom *Steel* Thickness *1* Material of Lower back plate *Steel* Thickness *1 1/2* Greatest pitch of stays *1 1/2* Working pressure of plate by rules *180 lb* Diameter of tubes *3 1/2* Pitch of tubes *4 1/2* Material of tube plates *Steel* Thickness: Front *1* Back *12/16* Mean pitch of stays *9* Pitch across wide water spaces *1 1/2* Working pressures by rules *189 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9" x 1 1/2"* Length as per rule *31 5/8* Distance apart *8 1/2* Number and pitch of Stays in each *two 9 1/2* Working pressure by rules *207 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 _____

VERTICAL DONKEY BOILER— No. _____ Description _____ Manufacturers of steel _____

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 _____ Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint Rivets _____ Working pressure of shell by rules _____ Thickness of shell crown plates _____ 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 _____ Working pressure of furnace by rules _____ Thickness of furnace crown _____

plates _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

FOR THE CENTRAL MARINE ENGINE WORKS, The foregoing is a correct description,

J. Spence & Son Manufacturer.

Dates of Survey while building: During progress of work in shops - - - *1905 Nov. 14, 1906 Dec. 1, 4, 7, 8, 11, 12, 14, 18, 19, 20, 21, 22, 29, 1906 Jan. 4, 5, 8, 9, 10, 12, 15, 16, 17, 22, 24, 28, 29, 30, 31, Feb. 1, 2, 6, 7, 8, 9, 12, 15, 19, 20*
 During erection on board vessel - - - _____
 Total No. of visits *4 1/2*

Is the approved plan of main boiler forwarded herewith *do*

Lloyd's Register Foundation

W1518-0179

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. *Workmanship good.*)

*The Main Machinery has been constructed under special
 survey in accordance with the approved Test Point tested by
 hydraulic pressure to 36 lbs and found tight and sound.*

*It has now been forwarded to Plymouth where it will
 be placed on board.*

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee...	£	:	:	When applied for.
Special ...	£	3	16	24. 2. 1906
Donkey Boiler Fee ...	£	:	:	When received.
Travelling Expenses (if any) £	£	:	:	13/3/06

James Jones
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUES. 19 JUN 1906

Assigned