

REPORT ON BOILERS.

No. 18222

Received at London Office 9 DEC 1941

Date of writing Report 8/12/41 When handed in at Local Office 8/12/41 Port of WEST HARTLEPOOL

No. in Reg. Book. Survey held at WEST HARTLEPOOL

Date, First Survey 14th JanuaryLast Survey 2nd December, 1941.

on the S.S. EMPIRE MARLOWE

(Number of Visits 56) Gross 6742.15 Tons Net 4841.71

Built at West Hartlepool By whom built Wm. Gray & Co. Ltd.

Yard No. 1122. When built 1941

Engines made at West Hartlepool By whom made Central Marine Engine Works. Engine No. 1122 When made 1941.

Boilers made at West Hartlepool By whom made Central Marine Engine Works. Boiler No. 1122 When made 1941.

Nominal Horse Power 505. Owners Ministry of War Transport Port belonging to West Hartlepool.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Messrs. Colvilles, Ltd. Glasgow.

(Letter for Record S.)

Total Heating Surface of Boilers 5920 sq. ft. Is forced draught fitted Yes. Coal or Oil fired Coal.

No. and Description of Boilers 2 Single ended multitubular Working Pressure 220 lbs.

Tested by hydraulic pressure to 380 lbs. Date of test 12-9-41 No. of Certificate 3942 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 66.6 sq. ft. No. and Description of safety valves to each boiler 2 Bockburn High Lift

Area of each set of valves per boiler { per Rule 7.875 sq. ft. as fitted 7.952 sq. ft. Pressure to which they are adjusted 220 lbs. Are they fitted with easing gear Yes.

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 24" Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating 24" Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 16-1 3/4" Length 12'-0" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 1 3/8" Are the shell plates welded or flanged No. Description of riveting: circ. seams { end D.R. LAP. inter.

long. seams T.R. Double butt straps Diameter of rivet holes in { circ. seams 1 9/16" x 1 3/8" long. seams 1 9/16" Pitch of rivets { 4.196" x 3.4" 10 1/16"

Percentage of strength of circ. end seams { plate 62.7960 rivets 47.944.7 Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 85.5 rivets 85.26 combined 88.13.

Thickness of butt straps { outer 1 1/4" inner 1 3/8" No. and Description of Furnaces in each Boiler Corrugated Dighton section.

Material Steel Tensile strength 26-30 tons. Smallest outside diameter 3'-5 1/2"

Length of plain part { top - bottom - Thickness of plates { crown 5/8" bottom 3/8" Description of longitudinal joint Welded.

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 1/32" Pitch of stays 21 1/2" x 20"

How are stays secured Double nuts.

Tube plates: Material { front Steel Tensile strength 26-30 tons Thickness 15/16" back Steel Tensile strength 26-30 tons Thickness 13/16"

Mean pitch of stay tubes in nests 9 3/4" Pitch across wide water spaces 14"

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder

at centre 10 1/2" x 1 3/4" 2-3/8" plate length as per Rule 3'-0 1/2" Distance apart 9 3/8" No. and pitch of stays

in each 3 @ 8 3/4" Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 25/32" Back 21/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 9 3/8" x 8 3/4" Back 8 1/2" x 8" Top 9 3/8" x 8 3/4" Are stays fitted with nuts or riveted over Nuts

Front plate at bottom: Material Steel Tensile strength 26-30 tons

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 53/64"

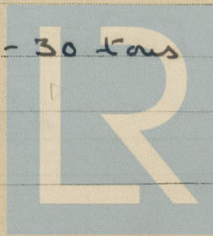
Pitch of stays at wide water space 13 1/2" x 8" Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel Tensile strength 28-32 tons

Diameter { At body of stay, or Over threads 3 3/4" x 3 1/2" No. of threads per inch 6

Screw stays: Material Steel Tensile strength 26-30 tons

Diameter { At turned off part, or Over threads 2 1/2", 1 3/8", 1 3/4" x 1 5/8" No. of threads per inch 9.



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Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, or Over threads 1 1/2 ✓

No. of threads per inch 9

Tubes: Material H.R.W.S. External diameter { Plain 3 ✓ Stay 3 ✓ Thickness { 8 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 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