

REPORT ON MACHINERY.

No. 6162

FRI. 16 III. 1909

Received at London Office

Date of writing Report 11th July 1909. When handed in at Local Office

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 5 Nov. 1908 Last Survey 10th July 1909

Reg. Book. on the Steel S.S. Duiveland

(Number of Visits 22)

Gross 1296.65

Net 769.58

When built 1909

Master A. de J. Built at Rotterdam By whom built NV Werf v/h Ruyke & Co.

Engines made at Flushing By whom made Koninklijke Maatschappij - when made 1909

Boilers made at Flushing By whom made de Schelde when made 1909.

Registered Horse Power Owners Scheepvaart & Stinkolen Maats. Port belonging to Rotterdam

Nom. Horse Power as per Section 28 150

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes.

ENGINES, &c.—Description of Engines

Inverted Triple

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 17 1/2", 28" & 45" Length of Stroke 36" Revs. per minute 80 Dia. of Screw shaft as per rule 10 3/16" Material of steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight

in the propeller boss yes If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes. If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 42"

Dia. of Tunnel shaft as per rule 9 1/16" Dia. of Crank shaft journals as per rule 9 1/2" Dia. of Crank pin 10" Size of Crank webs 6 3/8" x 4 3/8" Dia. of thrust shaft under

collars 9 3/4" Dia. of screw 12'-6" Pitch of Screw 14' No. of Blades 4 State whether moveable no Total surface 51.2 sq. ft.

No. of Feed pumps 2 Diameter of ditto 3" Stroke 15 3/8" Can one be overhauled while the other is at work yes.

No. of Bilge pumps 2 Diameter of ditto 5" Stroke 15 3/8" Can one be overhauled while the other is at work yes.

No. of Donkey Engines 1 7/8, 1 Blt. Sizes of Pumps 7 1/2" x 4 1/2" x 6" B10" x 10" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Centre in well 2 1/2", each wing 2 1/2", tunnel 2 1/2" In Holds, &c. One 2 1/2" suction in each wing in forehold and in afterhold.

No. of Bilge Injections 1 sizes 4 1/2" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size yes 3"

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 none

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 above.

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 none How are they protected

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.

Dates of examination of completion of fitting of Sea Connections 5 June of Stern Tube 5 June Screw shaft and Propeller 5 June 09.

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from main deck height.

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Phoenix Act. yes: Hoerder Verein

Total Heating Surface of Boilers 2558 Is Forced Draft fitted no No. and Description of Boilers Two single ended.

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 8 April 09 No. of Certificate 263.

Can each boiler be worked separately yes. Area of fire grate in each boiler 39 sq. ft No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 5.94 sq. in Pressure to which they are adjusted 180 lbs Are they fitted with easing gear yes.

Smallest distance between boilers or uptakes and bunkers or woodwork over 12" Mean dia. of boilers 12'-15 1/16" Length 10'-1 1/2" Material of shell plates steel

Thickness 1 1/32" Range of tensile strength 28-32 % Are the shell plates welded or flanged at Descrip. of riveting: cir. seams lap 2 x riv.

long. seams dbl butt 5 x 2 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 1/16" Lap of plates or width of butt straps 16 5/8"

Per centages of strength of longitudinal joint rivets 90.9 plate 84 Working pressure of shell by rules 184 lbs Size of manhole in shell 12" x 16"

Size of compensating ring flanged. No. and Description of Furnaces in each boiler 2 Morion's Material steel Outside diameter 4 ft

Length of plain part top 19 1/32" Thickness of plates crown 19 1/32" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 184 Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 7/8"

Pitch of stays to ditto: Sides 8" x 8" Back 8" x 7 3/4" Top 8" x 8" If stays are fitted with nuts or riveted heads riveted Working pressure by rules 189 lbs

Material of stays steel Diameter at smallest part 1.478 Area supported by each stay 64 sq. in Working pressure by rules 184 End plates in steam space:

Material steel Thickness 15/16" Pitch of stays 14" x 16" How are stays secured and nuts Working pressure by rules 181 lb Material of stays steel

Diameter at smallest part 5.41 Area supported by each stay 272 sq. in Working pressure by rules 207 Material of Front plates at bottom steel

Thickness 15/16" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays 13" x 8" Working pressure of plate by rules 180

Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" Material of tube plates steel Thickness: Front 15/16" Back 3/4" Mean pitch of stays 8 3/4"

Pitch across wide water spaces 13 3/4" Working pressures by rules 190 lbs Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 8" x 13 1/4" Length as per rule 32" Distance apart 8" Number and pitch of stays in each 3-8"

Working pressure by rules 194 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—

Manufacturers of Steel

No. *11* Description *Vertical Donkey Boiler*
 Made at *Amsterdam* By whom made *Van der Meer* When made *1909* Where fixed *On board*
 Working pressure *15 lbs.* tested by hydraulic pressure to *25 lbs.* Date of test *14/22/25/30 June* No. of Certificate *14* Fire grate area *14* Description of Safety *Valves*
 Valves *2* No. of Safety Valves *2* Area of each *14* Pressure to which they are adjusted *15 lbs.* Date of adjustment *14/22/25/30 June*
 If fitted with easing gear *No* If steam from main boilers can enter the donkey boiler *No* Dia. of donkey boiler *14* Length *14*
 Material of shell plates *Steel* Thickness *1/4* Range of tensile strength *25* Descrip. of riveting long. seams *1/4*
 Dia. of rivet holes *1/4* Whether punched or drilled *No* Pitch of rivets *1/4* Lap of plating *1/4* Per centage of strength of joint *100*
 Working pressure of shell by rules *15* Thickness of shell crown plates *1/4* Radius of do. *1/4* No. of stays to do. *14* Dia. of stays *1/4*
 Diameter of furnace Top *14* Bottom *14* Length of furnace *14* Thickness of furnace plates *1/4* Description of joint *1/4*
 Working pressure of furnace by rules *15* Thickness of furnace crown plates *1/4* Stayed by *1/4*
 Diameter of uptake *14* Thickness of uptake plates *1/4* Thickness of water tubes *1/4* Dates of survey *14/22/25/30 June*

SPARE GEAR. State the articles supplied:— 2 bolts & nuts for bottom ends; 2 for top ends; 2 main bearing bolts; 1 set of coupling bolts; 1 set of feed & bilge pump valves; 1 set of springs for each piston; a quantity of assorted bolt & nuts; Iron of various sizes; 1 stern shaft; 1 propeller; 1 feed p. plunger; 1 air- & 1 circ. p. rod; 1 eccentric strap complete; 1 set of crank pin bushes; 1 set of air p. valves; 12 condenser tubes & 25 ferrules; 6 punking bolts; 6 studs & nuts for cylinder & slide valve covers; 4 boiler check valves; 12 boiler tubes.

The foregoing is a correct description,

Koninklijke Maatschappij „DE SCHELDE“

Manufacturer.

Dates of Survey while building *14/22/25/30 June; 6, 9 and 10 July*
 During progress of work in shops *14/22/25/30 June; 6, 9 and 10 July*
 During erection on board vessel *14/22/25/30 June; 6, 9 and 10 July*
 Total No. of visits *14*

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

per C. p. port *Yes*

Dates of Examination of principal parts—Cylinders *5/11 - 8/3* Slides *5/11 - 8/4* Covers *5/11 - 28/4* Pistons *19/1 - 28/4* Rods *5/11 - 7/4*
 Connecting rods *5/11 - 7/4* Crank shaft *Made* Thrust shaft *in* Tunnel shafts *Ger* Screw shaft *many* Propeller *28/5 - 4/6*
 Stern tube *7/4 - 21/5* Steam pipes tested *25 June* Engine and boiler seatings *14, 22/6* Engines holding down bolts *14, 22/6*
 Completion of pumping arrangements *22/30 June* Boilers fixed *22 June* Engines tried under steam *6th of July*
 Main boiler safety valves adjusted *6 July* Thickness of adjusting washers *1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2, 2 1/4, 2 1/2, 3, 3 1/4, 3 1/2, 4, 4 1/4, 4 1/2, 5, 5 1/4, 5 1/2, 6, 6 1/4, 6 1/2, 7, 7 1/4, 7 1/2, 8, 8 1/4, 8 1/2, 9, 9 1/4, 9 1/2, 10, 10 1/4, 10 1/2, 11, 11 1/4, 11 1/2, 12, 12 1/4, 12 1/2, 13, 13 1/4, 13 1/2, 14, 14 1/4, 14 1/2, 15, 15 1/4, 15 1/2, 16, 16 1/4, 16 1/2, 17, 17 1/4, 17 1/2, 18, 18 1/4, 18 1/2, 19, 19 1/4, 19 1/2, 20, 20 1/4, 20 1/2, 21, 21 1/4, 21 1/2, 22, 22 1/4, 22 1/2, 23, 23 1/4, 23 1/2, 24, 24 1/4, 24 1/2, 25, 25 1/4, 25 1/2, 26, 26 1/4, 26 1/2, 27, 27 1/4, 27 1/2, 28, 28 1/4, 28 1/2, 29, 29 1/4, 29 1/2, 30, 30 1/4, 30 1/2, 31, 31 1/4, 31 1/2, 32, 32 1/4, 32 1/2, 33, 33 1/4, 33 1/2, 34, 34 1/4, 34 1/2, 35, 35 1/4, 35 1/2, 36, 36 1/4, 36 1/2, 37, 37 1/4, 37 1/2, 38, 38 1/4, 38 1/2, 39, 39 1/4, 39 1/2, 40, 40 1/4, 40 1/2, 41, 41 1/4, 41 1/2, 42, 42 1/4, 42 1/2, 43, 43 1/4, 43 1/2, 44, 44 1/4, 44 1/2, 45, 45 1/4, 45 1/2, 46, 46 1/4, 46 1/2, 47, 47 1/4, 47 1/2, 48, 48 1/4, 48 1/2, 49, 49 1/4, 49 1/2, 50, 50 1/4, 50 1/2, 51, 51 1/4, 51 1/2, 52, 52 1/4, 52 1/2, 53, 53 1/4, 53 1/2, 54, 54 1/4, 54 1/2, 55, 55 1/4, 55 1/2, 56, 56 1/4, 56 1/2, 57, 57 1/4, 57 1/2, 58, 58 1/4, 58 1/2, 59, 59 1/4, 59 1/2, 60, 60 1/4, 60 1/2, 61, 61 1/4, 61 1/2, 62, 62 1/4, 62 1/2, 63, 63 1/4, 63 1/2, 64, 64 1/4, 64 1/2, 65, 65 1/4, 65 1/2, 66, 66 1/4, 66 1/2, 67, 67 1/4, 67 1/2, 68, 68 1/4, 68 1/2, 69, 69 1/4, 69 1/2, 70, 70 1/4, 70 1/2, 71, 71 1/4, 71 1/2, 72, 72 1/4, 72 1/2, 73, 73 1/4, 73 1/2, 74, 74 1/4, 74 1/2, 75, 75 1/4, 75 1/2, 76, 76 1/4, 76 1/2, 77, 77 1/4, 77 1/2, 78, 78 1/4, 78 1/2, 79, 79 1/4, 79 1/2, 80, 80 1/4, 80 1/2, 81, 81 1/4, 81 1/2, 82, 82 1/4, 82 1/2, 83, 83 1/4, 83 1/2, 84, 84 1/4, 84 1/2, 85, 85 1/4, 85 1/2, 86, 86 1/4, 86 1/2, 87, 87 1/4, 87 1/2, 88, 88 1/4, 88 1/2, 89, 89 1/4, 89 1/2, 90, 90 1/4, 90 1/2, 91, 91 1/4, 91 1/2, 92, 92 1/4, 92 1/2, 93, 93 1/4, 93 1/2, 94, 94 1/4, 94 1/2, 95, 95 1/4, 95 1/2, 96, 96 1/4, 96 1/2, 97, 97 1/4, 97 1/2, 98, 98 1/4, 98 1/2, 99, 99 1/4, 99 1/2, 100, 100 1/4, 100 1/2, 101, 101 1/4, 101 1/2, 102, 102 1/4, 102 1/2, 103, 103 1/4, 103 1/2, 104, 104 1/4, 104 1/2, 105, 105 1/4, 105 1/2, 106, 106 1/4, 106 1/2, 107, 107 1/4, 107 1/2, 108, 108 1/4, 108 1/2, 109, 109 1/4, 109 1/2, 110, 110 1/4, 110 1/2, 111, 111 1/4, 111 1/2, 112, 112 1/4, 112 1/2, 113, 113 1/4, 113 1/2, 114, 114 1/4, 114 1/2, 115, 115 1/4, 115 1/2, 116, 116 1/4, 116 1/2, 117, 117 1/4, 117 1/2, 118, 118 1/4, 118 1/2, 119, 119 1/4, 119 1/2, 120, 120 1/4, 120 1/2, 121, 121 1/4, 121 1/2, 122, 122 1/4, 122 1/2, 123, 123 1/4, 123 1/2, 124, 124 1/4, 124 1/2, 125, 125 1/4, 125 1/2, 126, 126 1/4, 126 1/2, 127, 127 1/4, 127 1/2, 128, 128 1/4, 128 1/2, 129, 129 1/4, 129 1/2, 130, 130 1/4, 130 1/2, 131, 131 1/4, 131 1/2, 132, 132 1/4, 132 1/2, 133, 133 1/4, 133 1/2, 134, 134 1/4, 134 1/2, 135, 135 1/4, 135 1/2, 136, 136 1/4, 136 1/2, 137, 137 1/4, 137 1/2, 138, 138 1/4, 138 1/2, 139, 139 1/4, 139 1/2, 140, 140 1/4, 140 1/2, 141, 141 1/4, 141 1/2, 142, 142 1/4, 142 1/2, 143, 143 1/4, 143 1/2, 144, 144 1/4, 144 1/2, 145, 145 1/4, 145 1/2, 146, 146 1/4, 146 1/2, 147, 147 1/4, 147 1/2, 148, 148 1/4, 148 1/2, 149, 149 1/4, 149 1/2, 150, 150 1/4, 150 1/2, 151, 151 1/4, 151 1/2, 152, 152 1/4, 152 1/2, 153, 153 1/4, 153 1/2, 154, 154 1/4, 154 1/2, 155, 155 1/4, 155 1/2, 156, 156 1/4, 156 1/2, 157, 157 1/4, 157 1/2, 158, 158 1/4, 158 1/2, 159, 159 1/4, 159 1/2, 160, 160 1/4, 160 1/2, 161, 161 1/4, 161 1/2, 162, 162 1/4, 162 1/2, 163, 163 1/4, 163 1/2, 164, 164 1/4, 164 1/2, 165, 165 1/4, 165 1/2, 166, 166 1/4, 166 1/2, 167, 167 1/4, 167 1/2, 168, 168 1/4, 168 1/2, 169, 169 1/4, 169 1/2, 170, 170 1/4, 170 1/2, 171, 171 1/4, 171 1/2, 172, 172 1/4, 172 1/2, 173, 173 1/4, 173 1/2, 174, 174 1/4, 174 1/2, 175, 175 1/4, 175 1/2, 176, 176 1/4, 176 1/2, 177, 177 1/4, 177 1/2, 178, 178 1/4, 178 1/2, 179, 179 1/4, 179 1/2, 180, 180 1/4, 180 1/2, 181, 181 1/4, 181 1/2, 182, 182 1/4, 182 1/2, 183, 183 1/4, 183 1/2, 184, 184 1/4, 184 1/2, 185, 185 1/4, 185 1/2, 186, 186 1/4, 186 1/2, 187, 187 1/4, 187 1/2, 188, 188 1/4, 188 1/2, 189, 189 1/4, 189 1/2, 190, 190 1/4, 190 1/2, 191, 191 1/4, 191 1/2, 192, 192 1/4, 192 1/2, 193, 193 1/4, 193 1/2, 194, 194 1/4, 194 1/2, 195, 195 1/4, 195 1/2, 196, 196 1/4, 196 1/2, 197, 197 1/4, 197 1/2, 198, 198 1/4, 198 1/2, 199, 199 1/4, 199 1/2, 200, 200 1/4, 200 1/2, 201, 201 1/4, 201 1/2, 202, 202 1/4, 202 1/2, 203, 203 1/4, 203 1/2, 204, 204 1/4, 204 1/2, 205, 205 1/4, 205 1/2, 206, 206 1/4, 206 1/2, 207, 207 1/4, 207 1/2, 208, 208 1/4, 208 1/2, 209, 209 1/4, 209 1/2, 210, 210 1/4, 210 1/2, 211, 211 1/4, 211 1/2, 212, 212 1/4, 212 1/2, 213, 213 1/4, 213 1/2, 214, 214 1/4, 214 1/2, 215, 215 1/4, 215 1/2, 216, 216 1/4, 216 1/2, 217, 217 1/4, 217 1/2, 218, 218 1/4, 218 1/2, 219, 219 1/4, 219 1/2, 220, 220 1/4, 220 1/2, 221, 221 1/4, 221 1/2, 222, 222 1/4, 222 1/2, 223, 223 1/4, 223 1/2, 224, 224 1/4, 224 1/2, 225, 225 1/4, 225 1/2, 226, 226 1/4, 226 1/2, 227, 227 1/4, 227 1/2, 228, 228 1/4, 228 1/2, 229, 229 1/4, 229 1/2, 230, 230 1/4, 230 1/2, 231, 231 1/4, 231 1/2, 232, 232 1/4, 232 1/2, 233, 233 1/4, 233 1/2, 234, 234 1/4, 234 1/2, 235, 235 1/4, 235 1/2, 236, 236 1/4, 236 1/2, 237, 237 1/4, 237 1/2, 238, 238 1/4, 238 1/2, 239, 239 1/4, 239 1/2, 240, 240 1/4, 240 1/2, 241, 241 1/4, 241 1/2, 242, 242 1/4, 242 1/2, 243, 243 1/4, 243 1/2, 244, 244 1/4, 244 1/2, 245, 245 1/4, 245 1/2, 246, 246 1/4, 246 1/2, 247, 247 1/4, 247 1/2, 248, 248 1/4, 248 1/2, 249, 249 1/4, 249 1/2, 250, 250 1/4, 250 1/2, 251, 251 1/4, 251 1/2, 252, 252 1/4, 252 1/2, 253, 253 1/4, 253 1/2, 254, 254 1/4, 254 1/2, 255, 255 1/4, 255 1/2, 256, 256 1/4, 256 1/2, 257, 257 1/4, 257 1/2, 258, 258 1/4, 258 1/2, 259, 259 1/4, 259 1/2, 260, 260 1/4, 260 1/2, 261, 261 1/4, 261 1/2, 262, 262 1/4, 262 1/2, 263, 263 1/4, 263 1/2, 264, 264 1/4, 264 1/2, 265, 265 1/4, 265 1/2, 266, 266 1/4, 266 1/2, 267, 267 1/4, 267 1/2, 268, 268 1/4, 268 1/2, 269, 269 1/4, 269 1/2, 270, 270 1/4, 270 1/2, 271, 271 1/4, 271 1/2, 272, 272 1/4, 272 1/2, 273, 273 1/4, 273 1/2, 274, 274 1/4, 274 1/2, 275, 275 1/4, 275 1/2, 276, 276 1/4, 276 1/2, 277, 277 1/4, 277 1/2, 278, 278 1/4, 278 1/2, 279, 279 1/4, 279 1/2, 280, 280 1/4, 280 1/2, 281, 281 1/4, 281 1/2, 282, 282 1/4, 282 1/2, 283, 283 1/4, 283 1/2, 284, 284 1/4, 284 1/2, 285, 285 1/4, 285 1/2, 286, 286 1/4, 286 1/2, 287, 287 1/4, 287 1/2, 288, 288 1/4, 288 1/2, 289, 289 1/4, 289 1/2, 290, 290 1/4, 290 1/2, 291, 291 1/4, 291 1/2, 292, 292 1/4, 292 1/2, 293, 293 1/4, 293 1/2, 294, 294 1/4, 294 1/2, 295, 295 1/4, 295 1/2, 296, 296 1/4, 296 1/2, 297, 297 1/4, 297 1/2, 298, 298 1/4, 298 1/2, 299, 299 1/4, 299 1/2, 300, 300 1/4, 300 1/2, 301, 301 1/4, 301 1/2, 302, 302 1/4, 302 1/2, 303, 303 1/4, 303 1/2, 304, 304 1/4, 304 1/2, 305, 305 1/4, 305 1/2, 306, 306 1/4, 306 1/2, 307, 307 1/4, 307 1/2, 308, 308 1/4, 308 1/2, 309, 309 1/4, 309 1/2, 310, 310 1/4, 310 1/2, 311, 311 1/4, 311 1/2, 312, 312 1/4, 312 1/2, 313, 313 1/4, 313 1/2, 314, 314 1/4, 314 1/2, 315, 315 1/4, 315 1/2, 316, 316 1/4, 316 1/2, 317, 317 1/4, 317 1/2, 318, 318 1/4, 318 1/2, 319, 319 1/4, 319 1/2, 320, 320 1/4, 320 1/2, 321, 321 1/4, 321 1/2, 322, 322 1/4, 322 1/2, 323, 323 1/4, 323 1/2, 324, 324 1/4, 324 1/2, 325, 325 1/4, 325 1/2, 326, 326 1/4, 326 1/2, 327, 327 1/4, 327 1/2, 328, 328 1/4, 328 1/2, 329, 329 1/4, 329 1/2, 330, 330 1/4, 330 1/2, 331, 331 1/4, 331 1/2, 332, 332 1/4, 332 1/2, 333, 333 1/4, 333 1/2, 334, 334 1/4, 334 1/2, 335, 335 1/4, 335 1/2, 336, 336 1/4, 336 1/2, 337, 337 1/4, 337 1/2, 338, 338 1/4, 338 1/2, 339, 339 1/4, 339 1/2, 340, 340 1/4, 340 1/2, 341, 341 1/4, 341 1/2, 342, 342 1/4, 342 1/2, 343, 343 1/4, 343 1/2, 344, 344 1/4, 344 1/2, 345, 345 1/4, 345 1/2, 346, 346 1/4, 346 1/2, 347, 347 1/4, 347 1/2, 348, 348 1/4, 348 1/2, 349, 349 1/4, 349 1/2, 350, 350 1/4, 350 1/2, 351, 351 1/4, 351 1/2, 352, 352 1/4, 352 1/2, 353, 353 1/4, 353 1/2, 354, 354 1/4, 354 1/2, 355, 355 1/4, 355 1/2, 356, 356 1/4, 356 1/2, 357, 357 1/4, 357 1/2, 358, 358 1/4, 358 1/2, 359, 359 1/4, 359 1/2, 360, 360 1/4, 360 1/2, 361, 361 1/4, 361 1/2, 362, 362 1/4, 362 1/2, 363, 363 1/4, 363 1/2, 364, 364 1/4, 364 1/2, 365, 365 1/4, 365 1/2, 366, 366 1/4, 366 1/2, 367, 367 1/4, 367 1/2, 368, 368 1/4, 368 1/2, 369, 369 1/4, 369 1/2, 370, 370 1/4, 370 1/2, 371, 371 1/4, 371 1/2, 372, 372 1/4, 372 1/2, 373, 373 1/4, 373 1/2, 374, 374 1/4, 374 1/2, 375, 375 1/4, 375 1/2, 376, 376 1/4, 376 1/2, 377, 377 1/4, 377 1/2, 378, 378 1/4, 378 1/2, 379, 379 1/4, 379 1/2, 380, 380 1/4, 380 1/2, 381, 381 1/4, 381 1/2, 382, 382 1/4, 382 1/2, 383, 383 1/4, 383 1/2, 384, 384 1/4, 384 1/2, 385, 385 1/4, 385 1/2, 386, 386 1/4, 386 1/2, 387, 387 1/4, 387 1/2, 388, 388 1/4, 388 1/2, 389, 389 1/4, 389 1/2, 390, 390 1/4, 390 1/2, 391, 391 1/4, 391 1/2, 392, 392 1/4, 392 1/2, 393, 393 1/4, 393 1/2, 394, 394 1/4, 394 1/2, 395, 395 1/4, 395 1/2, 396, 396 1/4, 396 1/2, 397, 397 1/4, 397 1/2, 398, 398 1/4, 398 1/2, 399, 399 1/4, 399 1/2, 400, 400 1/4, 400 1/2, 401, 401 1/4, 401 1/2, 402, 402 1/4, 402 1/2, 403, 403 1/4, 403 1/2, 404, 404 1/4, 404 1/2, 405, 405 1/4, 405 1/2, 406, 406 1/4, 406 1/2, 407, 407 1/4, 407 1/2, 408, 408 1/4, 408 1/2, 409, 409 1/4, 409 1/2, 410, 410 1/4, 410 1/2, 411, 411 1/4, 411 1/2, 412, 412 1/4, 412 1/2, 413, 413 1/4, 413 1/2, 414, 414 1/4, 414 1/2, 415, 415 1/4, 415 1/2, 416, 416 1/4, 416 1/2, 417, 417 1/4, 417 1/2, 418, 418 1/4, 418 1/2, 419, 419 1/4, 419 1/2, 420, 420 1/4, 420 1/2, 421, 421 1/4, 421 1/2, 422, 422 1/4, 422 1/2, 423, 423 1/4, 423 1/2, 424, 424 1/4, 424 1/2, 425, 425 1/4, 425 1/2, 426, 426 1/4, 426 1/2, 427, 427 1/4, 427 1/2, 428, 428 1/4, 428 1/2, 429, 429 1/4, 429 1/2, 430, 430 1/4, 430 1/2, 431, 431 1/4, 431 1/2, 432, 432 1/4, 432 1/2, 433, 433 1/4, 433 1/2, 434, 434 1/4, 434 1/2, 435, 435 1/4, 435 1/2, 436, 436 1/4, 436 1/2, 437, 437 1/4, 437 1/2, 438, 438 1/4, 438 1/2, 439, 439 1/4, 439 1/2, 440, 440 1/4, 440 1/2, 441, 441 1/4, 441 1/2, 442, 442 1/4, 442 1/2, 443, 443 1/4, 443 1/2, 444, 444 1/4, 444 1/2, 445, 445 1/4, 445 1/2, 446, 446 1/4, 446 1/2, 447, 447 1/4, 447 1/2, 448, 448 1/4, 448 1/2, 449, 449 1/4, 449 1/2, 450, 450 1/4, 450 1/2, 451, 451 1/4, 451 1/2, 452, 452 1/4, 452 1/2, 453, 453 1/4, 453 1/2, 454, 454 1/4, 454 1/2, 455, 455 1/4, 455 1/2, 456, 456 1/4, 456 1/2, 457, 457 1/4, 457 1/2, 458, 458 1/4, 458 1/2, 459, 459 1/4, 459 1/2, 460, 460 1/4, 460 1/2, 461, 461 1/4, 461 1/2, 462, 462 1/4, 462 1/2, 463, 463 1/4, 463 1/2, 464, 464 1/4, 464 1/2, 465, 465 1/4, 465 1/2, 466, 466 1/4, 466 1/2, 467, 467 1/4, 467 1/2, 468, 468 1/4, 468 1/2, 469, 469 1/4, 469 1/2, 470, 470 1/4, 470 1/2, 471, 471 1/4, 471 1/2, 472, 472 1/4, 472 1/2, 473, 473 1/4, 473 1/2, 474, 474 1/4, 474 1/2, 475, 475 1/4, 475 1/2, 476, 476 1/4, 476 1/2, 477, 477 1/4, 477 1*