Halo by Crane

The structure consists of 180 joints at the ends of 90 bars with 450 cord segments holding it together. Built in fall 2020 by Gerald de Jong in Rotterdam. See pretenst.com.

Bars: (J1,J2)=L1:L2 [lengths L1=tube, L2=total, in mm]

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(0,1)=631:505 (2,3)=631:505 (4,5)=631:505
(6,7)=572:455 (8,9)=572:455 (10,11)=572:455
(12,13)=526:416 (14,15)=526:416 (16,17)=526:416
(18,19)=484:380 (20,21)=483:380 (22,23)=483:380
(24,25)=452:353 (26,27)=452:353 (28,29)=450:351
(30,31)=451:350 (32,33)=448:347 (34,35)=473:367
(36,37)=454:350(38,39)=461:355(40,41)=455:351
(42,43)=370:284 (44,45)=384:294 (46,47)=383:294
(48,49)=383:291 (50,51)=371:282 (52,53)=387:295
(54,55)=340:257 (56,57)=355:269 (58,59)=340:257
(60,61)=338:254 (62,63)=341:256 (64,65)=356:268
(66,67)=320:239 (68,69)=324:242 (70,71)=310:232
(72,73)=310:230 (74,75)=322:239 (76,77)=323:240
(78,79)=302:223 (80,81)=289:213 (82,83)=288:212
(84,85)=289:212 (86,87)=302:222 (88,89)=287:210
(90,91)=275:200 (92,93)=262:191 (94,95)=271:197
(96,97)=273:197 (98,99)=273:198 (100,101)=262:189
(102,103)=244:175 (104,105)=244:175 (106,107)=255:183
(108,109)=256:182 (110,111)=243:173 (112,113)=244:174
(114,115)=222:157 (116,117)=230:163 (118,119)=233:165
(120,121)=232:163 (122,123)=221:156 (124,125)=232:163
(126,127)=206:144 (128,129)=216:151 (130,131)=206:144
(132,133)=205:142 (134,135)=207:143 (136,137)=217:150
(138,139)=195:134 (140,141)=197:136 (142,143)=187:129
(144,145)=187:128 (146,147)=196:134 (148,149)=196:134
(150,151)=184:125 (152,153)=174:118 (154,155)=173:118
(156,157)=174:118 (158,159)=184:124 (160,161)=173:116
(162,163)=166:111 (164,165)=158:106 (166,167)=165:110
(168,169)=166:110 (170,171)=165:110 (172,173)=158:105
(174,175)=148:97 (176,177)=147:97 (178,179)=157:103
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Cords: (J1,J2)=L [L=length]

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(0,2)=432 (2,4)=432 (4,0)=432 (0,5)=435 (2,1)=435 (4,3)=435
(6.9)=402(8.11)=402(10.7)=402(1.6)=256(6.3)=263(6.2)=426
(1,7)=409 (3,8)=256 (8,5)=263 (8,4)=426 (3,9)=409 (5,10)=256
(10,1)=263 (10,0)=426 (5,11)=409 (12,17)=369 (14,13)=369 (16,15)=369
(7,12)=241 (12,9)=237 (12,6)=389 (9,13)=377 (9,14)=241 (14,11)=237
(14.8)=389 (11.15)=377 (11.16)=241(16.7)=237 (16.10)=389 (7.17)=377
(18,21)=340 (20,23)=340 (22,19)=340 (13,18)=218 (18,15)=222 (18,14)=358
(13,19)=346 (15,20)=218 (20,17)=222 (20,16)=358 (15,21)=346 (17,22)=218
(22,13)=222(22,12)=358(17,23)=346(24,29)=314(26,25)=314(28,27)=314
(19,24)=203 (24,21)=201 (24,18)=328 (21,25)=321 (21,26)=204 (26,23)=201
(26,20)=329 (23,27)=321 (23,28)=204 (28,19)=201 (28,22)=329 (19,29)=321
(30,33)=284 (32,35)=286 (34,31)=281 (41,39)=285 (39,37)=278 (37,41)=262
(40,39)=282(36,33)=278(36,30)=277(38,35)=285(38,32)=281(35,39)=284
(35,40)=288(40,31)=286(40,34)=286(25,30)=187(30,27)=185(30,26)=327
(25,31)=298 (27,32)=186 (32,29)=186 (32,28)=328 (27,33)=296 (29,34)=190
(34,25)=184 (34,24)=327 (29,35)=302 (42,47)=266 (44,43)=271 (46,45)=257
(41,42)=181 (42,31)=168 (42,40)=290 (31,43)=298 (31,44)=178 (44,36)=164
(44,30)=291 (36,45)=296 (36,46)=176 (46,41)=170 (46,37)=281 (41,47)=246
(48,53)=257 (50,49)=267 (52,51)=269 (37,48)=177 (48,33)=170 (48,36)=280
(33,49)=255 (33,50)=180 (50,38)=167 (50,32)=290 (38,51)=298 (38,52)=179
(52,37)=163 (52,39)=293 (37,53)=284 (54,57)=242 (56,59)=239 (58,55)=248
(43,54)=157 (54,45)=161 (54,44)=256 (43,55)=251 (45,56)=155 (56,47)=157
(56,46)=254 (45,57)=231 (47,58)=155 (58,43)=159 (58,42)=261 (47,59)=253
(60,63)=248 (62,65)=241 (64,61)=240 (49,60)=155 (60,51)=160 (60,50)=262
(49,61)=253 (51,62)=157 (62,53)=161 (62,52)=255 (51,63)=250 (53,64)=155
(64,49)=157 (64,48)=255 (53,65)=234 (66,71)=227 (68,67)=219 (70,69)=226
(55,66)=145 (66,57)=142 (66,54)=238 (57,67)=230 (57,68)=145 (68,59)=145
(68,56)=231 (59,69)=219 (59,70)=147 (70,55)=144 (70,58)=238 (55,71)=233
(72,77)=227 (74,73)=226 (76,75)=218 (61,72)=147 (72,63)=144 (72,60)=239
(63,73)=233 (63,74)=145 (74,65)=142 (74,62)=237 (65,75)=228 (65,76)=146
(76.61)=145 (76.64)=231 (61.77)=223 (78.81)=202 (80.83)=210 (82.79)=204
(67.78)=132 (78.69)=132 (78.68)=214 (67.79)=199 (69.80)=131 (80.71)=134
(80,70)=221 (69,81)=214 (71,82)=133 (82,67)=136 (82,66)=215 (71,83)=213
(84.87)=203 (86.89)=203 (88.85)=210 (73.84)=134 (84.75)=136 (84.74)=214
(73.85)=212(75.86)=131(86.77)=132(86.76)=215(75.87)=202(77.88)=131
(88.73)=134 (88.72)=221 (77.89)=214 (90.95)=185 (92.91)=192 (94.93)=192
(79.90)=123 (90.81)=123 (90.78)=196 (81.91)=183 (81.92)=125 (92.83)=122
(92.80)=201 (83.93)=198 (83.94)=123 (94.79)=120 (94.82)=201 (79.95)=194
(96,101)=191 (98,97)=185 (100,99)=192 (85,96)=122 (96,87)=120 (96,84)=201
(87,97)=194 (87,98)=123 (98,89)=123 (98,86)=196 (89,99)=186 (89,100)=124
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(100,85)=122 (100,88)=202 (85,101)=198 (102,105)=178 (104,107)=173 (106,103)=171(91,102)=111 (102,93)=114 (102,92)=187 (91,103)=181 (93,104)=113 (104,95)=115(104,94)=182 (93,105)=180 (95,106)=112 (106,91)=112 (106,90)=181 (95,107)=167(108,111)=172 (110,113)=178 (112,109)=172 (97,108)=111 (108,99)=112 (108,98)=182(97,109)=169 (99,110)=111 (110,101)=114 (110,100)=188 (99,111)=182 (101,112)=113(112,97)=115 (112,96)=181 (101,113)=179 (114,119)=162 (116,115)=162 (118,117)=156(103,114)=105 (114,105)=103 (114,102)=170 (105,115)=168 (105,116)=104 (116,107)=102(116,104)=170 (107,117)=164 (107,118)=104 (118,103)=104 (118,106)=165 (103,119)=155(120,125)=156 (122,121)=163 (124,123)=162 (109,120)=104 (120,111)=104 (120,108)=165(111,121)=157 (111,122)=105 (122,113)=103 (122,110)=171 (113,123)=168 (113,124)=104(124,109)=101 (124,112)=170 (109,125)=164 (126,129)=147 (128,131)=145 (130,127)=151(115,126)=96 (126,117)=97 (126,116)=154 (115,127)=153 (117,128)=95 (128,119)=95(128,118)=154 (117,129)=141 (119,130)=94 (130,115)=96 (130,114)=158 (119,131)=153(132,135)=151 (134,137)=146 (136,133)=146 (121,132)=94 (132,123)=96 (132,122)=159(121,133)=154 (123,134)=96 (134,125)=97 (134,124)=153 (123,135)=152 (125,136)=94(136,121)=95 (136,120)=154 (125,137)=142 (138,143)=138 (140,139)=132 (142,141)=137(127,138)=88 (138,129)=86 (138,126)=144 (129,139)=139 (129,140)=88 (140,131)=88(140,128)=140 (131,141)=131 (131,142)=89 (142,127)=87 (142,130)=145 (127,143)=142(144,149)=138 (146,145)=137 (148,147)=132 (133,144)=89 (144,135)=87 (144,132)=145(135,145)=142 (135,146)=88 (146,137)=86 (146,134)=144 (137,147)=139 (137,148)=88(148,133)=88 (148,136)=140 (133,149)=133 (150,153)=123 (152,155)=128 (154,151)=124(139,150)=80 (150,141)=80 (150,140)=130 (139,151)=118 (141,152)=79 (152,143)=81(152,142)=135 (141,153)=130 (143,154)=81 (154,139)=82 (154,138)=130 (143,155)=129(156,159)=123 (158,161)=123 (160,157)=128 (145,156)=81 (156,147)=82 (156,146)=129(145,157)=129 (147,158)=80 (158,149)=80 (158,148)=131 (147,159)=119 (149,160)=79(160,145)=81 (160,144)=135 (149,161)=130 (162,167)=111 (164,163)=116 (166,165)=117(151,162)=74 (162,153)=75 (162,150)=118 (153,163)=109 (153,164)=76 (164,155)=74(164,152)=122 (155,165)=121 (155,166)=74 (166,151)=73 (166,154)=122 (151,167)=118(168,173)=117 (170,169)=111 (172,171)=117 (157,168)=74 (168,159)=72 (168,156)=122(159,169)=117 (159,170)=75 (170,161)=75 (170,158)=118 (161,171)=112 (161,172)=75(172,157)=74 (172,160)=123 (157,173)=121 (174,177)=111 (176,179)=105 (178,175)=105(163,174)=67 (174,165)=69 (174,164)=115 (163,175)=111 (165,176)=69 (176,167)=70(176,166)=109 (165,177)=111 (167,178)=68 (178,163)=68 (178,162)=110 (167,179)=99(169,179)=67 (179,171)=68 (179,170)=111 (169,178)=100 (171,177)=67 (177,173)=69(177,172)=115 (171,176)=111 (173,175)=69 (175,169)=70 (175,168)=109 (173,174)=110