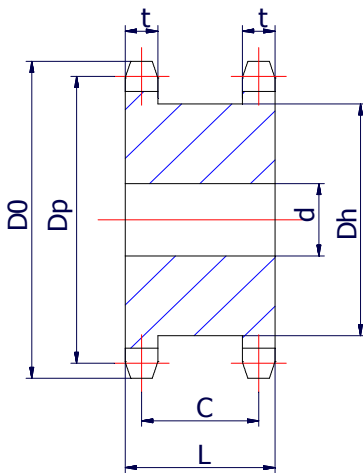
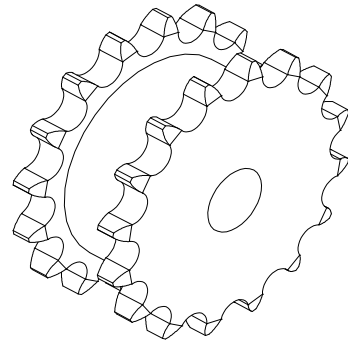


# SINGLE DOUBLE SPROCKETS

Material : S45C



Note:

1. Data in colored box imply teeth hardening
2. The "t" is tooth thickness of A type simple sprocket.
3. Sprockets other than those shown above are manufactured on request.
4. Bores, Keyways and set crews will be machined upon request.

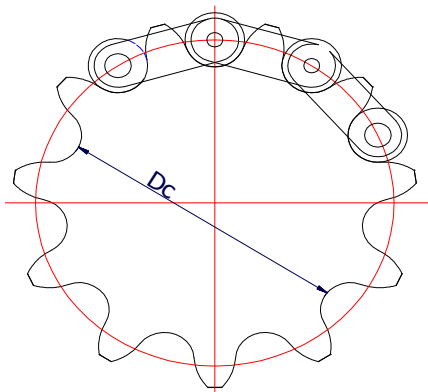
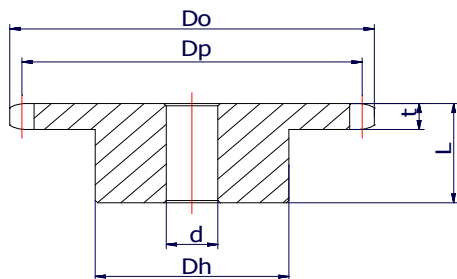
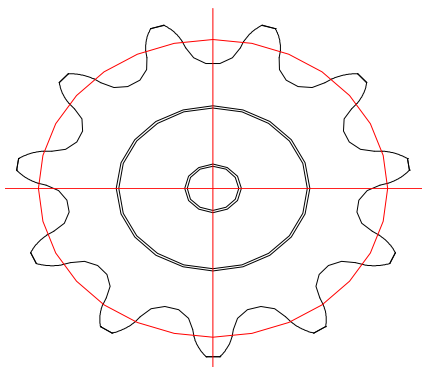
| No.   | No. of Teeth | Outside Dia. (Do) | Pitch Dia. (Dp) | Distance Between Row C | BORE (d) |      | Hub        |            | Approx Mass. (kg) |
|-------|--------------|-------------------|-----------------|------------------------|----------|------|------------|------------|-------------------|
|       |              |                   |                 |                        | Min.     | Max. | Diam. (Dh) | Length (L) |                   |
| 40SD  | 12           | 55                | 49.07           | 27.8                   | 14       | 17   | 34         | 35         | 0.33              |
|       | 13           | 59                | 53.07           |                        | 14       | 20   | 38         |            | 0.40              |
|       | 14           | 63                | 57.07           |                        | 14       | 24   | 42         |            | 0.49              |
|       | 15           | 67                | 61.08           |                        | 14       | 25   | 46         |            | 0.57              |
|       | 16           | 71                | 65.10           |                        | 14       | 28   | 50         |            | 0.66              |
|       | 17           | 76                | 69.12           |                        | 14       | 32   | 54         |            | 0.76              |
|       | 18           | 80                | 73.14           |                        | 14       | 35   | 59         |            | 0.89              |
|       | 19           | 84                | 77.16           |                        | 14       | 37   | 63         |            | 1.00              |
|       | 20           | 88                | 81.18           |                        | 15       | 40   | 67         |            | 1.14              |
|       | 21           | 92                | 85.21           |                        | 15       | 43   | 71         |            | 1.23              |
| 50SD  | 12           | 69                | 61.34           | 31.3                   | 15       | 24   | 43         | 40         | 0.63              |
|       | 13           | 74                | 66.34           |                        | 15       | 25   | 48         |            | 0.75              |
|       | 14           | 79                | 71.34           |                        | 15       | 30   | 53         |            | 0.90              |
|       | 15           | 84                | 76.35           |                        | 15       | 35   | 58         |            | 1.04              |
|       | 16           | 89                | 81.37           |                        | 15       | 37   | 63         |            | 1.22              |
|       | 17           | 94                | 86.39           |                        | 15       | 42   | 68         |            | 1.41              |
|       | 18           | 100               | 91.42           |                        | 15       | 44   | 73         |            | 1.61              |
|       | 19           | 105               | 96.45           |                        | 15       | 46   | 79         |            | 1.80              |
|       | 20           | 110               | 101.48          |                        | 15       | 50   | 84         |            | 1.95              |
|       | 21           | 115               | 106.51          |                        | 15       | 54   | 89         |            | 2.27              |
| 60SD  | 12           | 83                | 73.60           | 38.3                   | 15       | 28   | 51         | 50         | 1.14              |
|       | 13           | 89                | 79.60           |                        | 15       | 35   | 57         |            | 1.39              |
|       | 14           | 95                | 85.61           |                        | 17       | 37   | 64         |            | 1.63              |
|       | 15           | 101               | 91.63           |                        | 17       | 43   | 70         |            | 1.93              |
|       | 16           | 107               | 97.65           |                        | 17       | 46   | 76         |            | 2.20              |
|       | 17           | 113               | 103.67          |                        | 17       | 50   | 82         |            | 2.56              |
|       | 18           | 119               | 109.70          |                        | 17       | 53   | 88         |            | 2.90              |
|       | 19           | 126               | 115.74          |                        | 17       | 55   | 94         |            | 3.26              |
|       | 20           | 132               | 121.78          |                        | 17       | 58   | 100        |            | 3.70              |
|       | 21           | 138               | 127.82          |                        | 17       | 63   | 107        |            | 4.30              |
| 80SD  | 12           | 110               | 98.14           | 45.4                   | 21       | 42   | 69         | 60         | 2.52              |
|       | 13           | 118               | 106.14          |                        | 21       | 46   | 77         |            | 3.04              |
|       | 14           | 127               | 114.15          |                        | 21       | 50   | 85         |            | 3.60              |
|       | 15           | 135               | 122.17          |                        | 21       | 55   | 93         |            | 4.16              |
|       | 16           | 143               | 130.20          |                        | 21       | 58   | 102        |            | 4.89              |
|       | 17           | 151               | 138.23          |                        | 21       | 65   | 110        |            | 5.61              |
|       | 18           | 159               | 146.27          |                        | 21       | 68   | 118        |            | 6.36              |
|       | 19           | 167               | 154.32          |                        | 22       | 75   | 126        |            | 7.13              |
|       | 20           | 176               | 162.37          |                        | 22       | 82   | 134        |            | 8.03              |
|       | 21           | 184               | 170.42          |                        | 22       | 90   | 142        |            | 8.88              |
| 100SD | 12           | 138               | 122.67          | 52.4                   | 22       | 50   | 86         | 70         | 4.68              |
|       | 13           | 148               | 132.67          |                        | 22       | 52   | 96         |            | 5.10              |
|       | 14           | 158               | 142.68          |                        | 22       | 62   | 107        |            | 6.65              |
|       | 15           | 168               | 152.71          |                        | 22       | 68   | 117        |            | 7.83              |
|       | 16           | 179               | 162.75          |                        | 22       | 75   | 127        |            | 9.00              |
|       | 17           | 189               | 172.79          |                        | 22       | 85   | 127        |            | 10.30             |
|       | 18           | 199               | 182.84          |                        | 22       | 95   | 148        |            | 11.80             |
|       | 19           | 209               | 192.90          |                        | 26       | 100  | 158        |            | 13.20             |
|       | 20           | 220               | 202.96          |                        | 26       | 110  | 168        |            | 14.70             |
|       | 21           | 230               | 213.03          |                        | 26       | 120  | 170        |            | 16.40             |

**TYC** Standard A Type Single Double-Sprockets are designed for use with two single strand chains. The sprockets are made of carbon steel (S45C) and hardened teeth. The maximum bore diameters shown below are based on general operating conditions using standard keys and key tapping procedure. Actual bore diameter should be determined using common machine design considerations. The fit of key and keyway should be checked on the same basis as above.

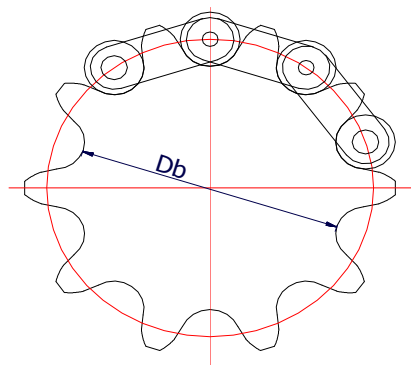
# Double-Pitch Roller Chain Sprockets R Type

## R-type Roller Chain Sprocket

The R-type roller chain sprockets are single-cut double pitch sprockets.



ODD number of teeth 11



Even number of teeth 10

Note:

- Bottom diameter for even number of teeth .  
Caliper diameter for ODD number of teeth .
- SHADED ZONE is hardened teeth stock sprockets .
- P:Chain Pitch. b1:Distance between inside links .  
Dr:Roller diameter.

**C2042 ( t = 7.2 ) P=25.4 b1=7.85 Dr=15.88**

| No. of Teeth | Outside Dia. (Do) | Pitch Dia. (Dp) | Caliper Dia Db or Dc | BORE (d) |      | Hub        |            | Approx Mass. (kg) |
|--------------|-------------------|-----------------|----------------------|----------|------|------------|------------|-------------------|
|              |                   |                 |                      | Min.     | Max. | Diam. (Dh) | Length (L) |                   |
| 10           | 93                | 82.20           | 66.32                | 20       | 35   | 56         | 40         | 0.85              |
| 11           | 102               | 90.16           | 73.36                | 20       | 35   | 56         | 40         | 0.91              |
| 12           | 110               | 98.14           | 82.26                | 20       | 35   | 56         | 40         | 0.97              |
| 13           | 118               | 106.14          | 89.48                | 20       | 35   | 56         | 40         | 1.05              |
| 14           | 127               | 114.15          | 98.27                | 20       | 35   | 56         | 40         | 1.12              |
| 15           | 135               | 122.17          | 105.62               | 20       | 42   | 65         | 40         | 1.43              |
| 16           | 143               | 130.20          | 114.32               | 20       | 42   | 65         | 40         | 1.52              |
| 18           | 159               | 146.27          | 130.39               | 20       | 42   | 65         | 40         | 1.72              |
| 20           | 176               | 162.37          | 146.49               | 20       | 46   | 70         | 45         | 2.21              |
| 24           | 208               | 194.60          | 178.72               | 25       | 50   | 75         | 50         | 2.97              |
| 25           | 216               | 202.66          | 186.38               | 25       | 50   | 75         | 50         | 3.12              |
| 26           | 224               | 210.72          | 194.84               | 25       | 50   | 75         | 50         | 3.26              |
| 28           | 241               | 226.86          | 210.98               | 25       | 50   | 75         | 50         | 3.58              |
| 30           | 257               | 243.00          | 227.12               | 25       | 50   | 75         | 50         | 3.91              |

**C2052 ( t = 8.7 ) P=31.75 b1=9.40 Dr=19.05**

|    |     |        |        |    |    |    |    |      |
|----|-----|--------|--------|----|----|----|----|------|
| 10 | 117 | 102.75 | 83.70  | 25 | 46 | 70 | 45 | 1.49 |
| 11 | 127 | 112.70 | 92.50  | 25 | 46 | 70 | 45 | 1.60 |
| 12 | 138 | 122.67 | 103.62 | 25 | 46 | 70 | 45 | 1.73 |
| 13 | 148 | 132.67 | 112.65 | 25 | 46 | 70 | 45 | 1.86 |
| 14 | 158 | 142.68 | 123.63 | 25 | 46 | 70 | 45 | 2.01 |
| 15 | 168 | 152.71 | 132.82 | 25 | 46 | 70 | 45 | 2.17 |
| 16 | 179 | 162.75 | 143.69 | 25 | 46 | 70 | 45 | 2.24 |
| 18 | 199 | 182.84 | 163.79 | 25 | 46 | 70 | 45 | 2.71 |
| 20 | 220 | 202.96 | 183.91 | 25 | 50 | 75 | 50 | 3.45 |
| 24 | 260 | 243.25 | 224.20 | 25 | 57 | 85 | 60 | 5.23 |
| 25 | 270 | 253.32 | 233.78 | 25 | 57 | 85 | 60 | 5.50 |
| 26 | 281 | 263.41 | 244.35 | 25 | 57 | 85 | 60 | 5.78 |
| 28 | 301 | 283.57 | 264.54 | 25 | 57 | 85 | 60 | 6.37 |
| 30 | 321 | 303.75 | 284.70 | 25 | 57 | 85 | 60 | 7.00 |

**C2062 ( t = 11.7 ) P=38.10 b1=12.57 Dr=22.23**

|    |     |        |        |    |    |    |    |       |
|----|-----|--------|--------|----|----|----|----|-------|
| 10 | 140 | 123.29 | 101.07 | 25 | 52 | 80 | 45 | 2.23  |
| 11 | 153 | 135.23 | 111.63 | 25 | 52 | 80 | 45 | 2.45  |
| 12 | 165 | 147.21 | 124.98 | 25 | 52 | 80 | 45 | 2.70  |
| 13 | 177 | 159.20 | 135.81 | 25 | 52 | 80 | 45 | 2.97  |
| 14 | 190 | 171.22 | 148.99 | 25 | 52 | 80 | 45 | 3.25  |
| 15 | 202 | 183.25 | 160.02 | 25 | 57 | 85 | 50 | 3.94  |
| 16 | 214 | 195.29 | 173.06 | 25 | 57 | 85 | 50 | 4.27  |
| 18 | 239 | 219.41 | 197.18 | 25 | 57 | 85 | 55 | 5.19  |
| 20 | 263 | 243.55 | 221.32 | 25 | 57 | 85 | 55 | 6.00  |
| 24 | 312 | 291.90 | 269.67 | 25 | 57 | 85 | 55 | 7.87  |
| 25 | 324 | 303.99 | 281.16 | 25 | 57 | 85 | 55 | 8.39  |
| 26 | 337 | 316.09 | 293.86 | 25 | 57 | 85 | 55 | 8.93  |
| 28 | 361 | 340.29 | 318.06 | 25 | 63 | 95 | 65 | 11.10 |
| 30 | 385 | 364.49 | 342.27 | 25 | 63 | 95 | 65 | 12.30 |

**C2082 ( t = 14.8 ) P=50.8 b1=15.75 Dr=28.58**

|    |     |        |        |    |    |     |    |       |
|----|-----|--------|--------|----|----|-----|----|-------|
| 10 | 187 | 164.39 | 135.81 | 25 | 63 | 95  | 65 | 4.90  |
| 11 | 203 | 180.31 | 149.90 | 25 | 63 | 95  | 65 | 5.48  |
| 12 | 220 | 196.28 | 167.70 | 25 | 63 | 95  | 65 | 6.02  |
| 13 | 237 | 212.27 | 182.14 | 25 | 63 | 95  | 65 | 6.61  |
| 14 | 253 | 228.29 | 199.72 | 25 | 63 | 95  | 65 | 7.25  |
| 15 | 269 | 244.33 | 214.42 | 25 | 63 | 95  | 65 | 7.93  |
| 16 | 286 | 260.39 | 231.81 | 25 | 63 | 95  | 65 | 8.66  |
| 18 | 319 | 292.55 | 263.97 | 25 | 72 | 105 | 75 | 11.50 |
| 20 | 351 | 324.74 | 296.16 | 25 | 72 | 105 | 75 | 13.30 |
| 24 | 416 | 389.19 | 360.61 | 25 | 72 | 105 | 75 | 17.50 |
| 25 | 433 | 405.32 | 375.94 | 25 | 72 | 105 | 75 | 18.60 |
| 26 | 449 | 421.45 | 392.87 | 25 | 72 | 105 | 75 | 19.80 |
| 28 | 481 | 453.72 | 425.14 | 25 | 78 | 115 | 85 | 23.90 |
| 30 | 514 | 485.99 | 457.41 | 25 | 78 | 115 | 85 | 26.70 |

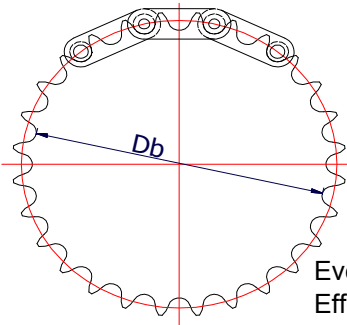
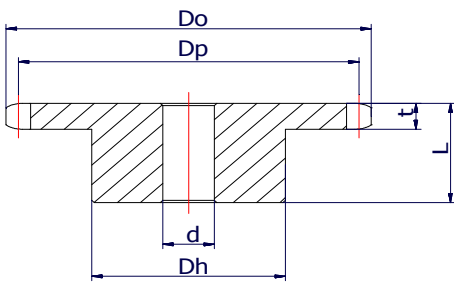
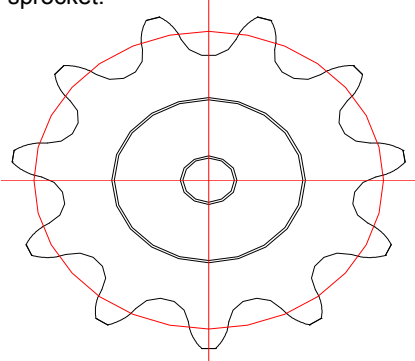
# Double-Pitch Roller Chain Sprockets S Type

## Double Pitch Roller Chain Sprockets

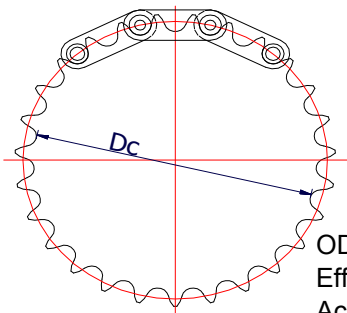
The type sprockets are double-cut double-pitch sprockets.

The number of teeth of the sprocket is determined so that the chain meshes with one of every two teeth of sprocket per turn of the sprocket. This number of teeth is termed "number of working teeth."

In case of ODD number of teeth, each tooth of the sprocket meshes with the chain per two turns of the sprocket, thus extending service life of the sprocket.



Even number of teeth  
Effective teeth 14  
Actual teeth 28



ODD number of teeth  
Effective teeth 13-1/2  
Actual teeth 27

Note:

1. Bottom diameter for even number of teeth .  
Caliper diameter for ODD number of teeth .
2. SHADED ZONE is hardened teeth stock sprockets .
3. P:Chain Pitch. b1:Distance between inside links .  
Dr:Roller diameter .

### C2040 ( t = 7.2 ) P=25.4 b1=7.85 Dr=7.95

| No. of Teeth | No. of Working teeth | Outside Dia. (Do) | Pitch Dia. (Dp) | Caliper Dia Db or Dc | BORE (d) |      | Hub        |            | Approx Mass. (kg) |
|--------------|----------------------|-------------------|-----------------|----------------------|----------|------|------------|------------|-------------------|
|              |                      |                   |                 |                      | Min.     | Max. | Diam. (Dh) | Length (L) |                   |
| 15           | 7 ½                  | 67                | 62.45           | 54.16                |          |      |            |            |                   |
| 17           | 8 ½                  | 76                | 70.31           | 62.06                |          |      |            |            |                   |
| 18           | 9                    | 80                | 74.26           | 66.31                |          |      |            |            |                   |
| 19           | 9 ½                  | 84                | 78.23           | 70.01                | 13       | 30   | 50         | 30         | 0.59              |
| 20           | 10                   | 88                | 82.20           | 74.25                | 13       | 35   | 56         | 40         | 0.90              |
| 21           | 10 ½                 | 92                | 86.17           | 77.98                | 13       | 35   | 56         | 40         | 0.93              |
| 22           | 11                   | 96                | 90.16           | 82.21                | 13       | 35   | 56         | 40         | 0.96              |
| 23           | 11 ½                 | 100               | 94.15           | 85.98                | 13       | 35   | 56         | 40         | 0.99              |
| 24           | 12                   | 104               | 98.14           | 90.19                | 13       | 35   | 56         | 40         | 1.02              |
| 25           | 12 ½                 | 108               | 102.14          | 93.98                | 13       | 35   | 56         | 40         | 1.06              |
| 26           | 13                   | 112               | 106.14          | 98.19                | 13       | 35   | 56         | 40         | 1.10              |
| 27           | 13 ½                 | 116               | 110.14          | 102                  | 13       | 35   | 56         | 40         | 1.13              |
| 28           | 14                   | 120               | 114.15          | 106.2                | 13       | 35   | 56         | 40         | 1.17              |
| 29           | 14 ½                 | 124               | 118.16          | 110.03               | 13       | 35   | 56         | 40         | 1.21              |

### C2050 ( t = 8.7 ) P=31.75 b1=9.40 Dr=10.16

|    |      |     |        |        |    |    |    |    |      |
|----|------|-----|--------|--------|----|----|----|----|------|
| 15 | 7 ½  | 84  | 78.06  | 67.47  |    |    |    |    |      |
| 17 | 8 ½  | 94  | 87.89  | 77.36  |    |    |    |    |      |
| 18 | 9    | 100 | 92.83  | 82.67  |    |    |    |    |      |
| 19 | 9 ½  | 105 | 97.78  | 87.29  | 13 | 42 | 65 | 40 | 1.29 |
| 20 | 10   | 110 | 102.75 | 92.59  | 20 | 46 | 70 | 45 | 1.56 |
| 21 | 10 ½ | 115 | 107.72 | 97.26  | 20 | 46 | 70 | 45 | 1.62 |
| 22 | 11   | 120 | 112.70 | 102.54 | 20 | 46 | 70 | 45 | 1.68 |
| 23 | 11 ½ | 125 | 117.68 | 107.25 | 20 | 46 | 70 | 45 | 1.74 |
| 24 | 12   | 130 | 122.67 | 112.51 | 20 | 46 | 70 | 45 | 1.80 |
| 25 | 12 ½ | 135 | 127.67 | 117.26 | 20 | 46 | 70 | 45 | 1.87 |
| 26 | 13   | 140 | 132.67 | 122.51 | 20 | 46 | 70 | 45 | 1.94 |
| 27 | 13 ½ | 145 | 137.67 | 127.28 | 20 | 46 | 70 | 45 | 2.01 |
| 28 | 14   | 150 | 142.68 | 132.52 | 20 | 46 | 70 | 45 | 2.09 |
| 29 | 14 ½ | 155 | 147.69 | 137.32 | 20 | 46 | 70 | 45 | 2.16 |

### C2060 ( t = 11.7 ) P=38.10 b1=12.57 Dr=11.91

|    |      |     |        |        |    |    |    |    |      |
|----|------|-----|--------|--------|----|----|----|----|------|
| 15 | 7 ½  | 101 | 93.67  | 81.25  |    |    |    |    |      |
| 17 | 8 ½  | 113 | 105.47 | 93.11  |    |    |    |    |      |
| 18 | 9    | 119 | 111.40 | 99.49  |    |    |    |    |      |
| 19 | 9 ½  | 126 | 117.34 | 105.03 | 20 | 46 | 70 | 40 | 1.76 |
| 20 | 10   | 132 | 123.30 | 111.39 | 20 | 52 | 80 | 45 | 2.31 |
| 21 | 10 ½ | 138 | 129.26 | 116.99 | 20 | 52 | 80 | 45 | 2.42 |
| 22 | 11   | 144 | 135.24 | 123.33 | 20 | 52 | 80 | 45 | 2.53 |
| 23 | 11 ½ | 150 | 141.22 | 128.98 | 20 | 52 | 80 | 45 | 2.65 |
| 24 | 12   | 156 | 147.21 | 135.30 | 20 | 52 | 80 | 45 | 2.78 |
| 25 | 12 ½ | 162 | 153.20 | 140.99 | 20 | 52 | 80 | 45 | 2.91 |
| 26 | 13   | 168 | 159.20 | 147.29 | 20 | 52 | 80 | 45 | 3.04 |
| 27 | 13 ½ | 174 | 165.21 | 153.02 | 20 | 52 | 80 | 45 | 3.18 |
| 28 | 14   | 181 | 171.22 | 159.31 | 20 | 57 | 85 | 45 | 3.50 |
| 29 | 14 ½ | 187 | 177.23 | 165.06 | 20 | 57 | 85 | 45 | 3.65 |

### C2080 ( t = 14.8 ) P=50.8 b1=15.75 Dr=15.88

|    |      |     |        |        |    |    |    |    |      |
|----|------|-----|--------|--------|----|----|----|----|------|
| 15 | 7 ½  | 135 | 124.90 | 108.33 |    |    |    |    |      |
| 17 | 8 ½  | 151 | 140.62 | 124.15 |    |    |    |    |      |
| 18 | 9    | 159 | 148.53 | 132.65 |    |    |    |    |      |
| 19 | 9 ½  | 167 | 156.45 | 140.04 | 25 | 60 | 90 | 50 | 3.77 |
| 20 | 10   | 176 | 164.39 | 148.51 | 25 | 60 | 90 | 60 | 4.46 |
| 21 | 10 ½ | 184 | 172.34 | 155.99 | 25 | 60 | 90 | 60 | 4.70 |
| 22 | 11   | 192 | 180.31 | 164.43 | 25 | 60 | 92 | 60 | 5.02 |
| 23 | 11 ½ | 200 | 188.29 | 171.97 | 25 | 60 | 92 | 60 | 5.28 |
| 24 | 12   | 208 | 196.28 | 180.40 | 25 | 60 | 92 | 60 | 5.56 |
| 25 | 12 ½ | 216 | 204.27 | 187.99 | 25 | 60 | 92 | 60 | 5.85 |
| 26 | 13   | 224 | 212.27 | 196.39 | 25 | 60 | 92 | 60 | 6.15 |
| 27 | 13 ½ | 233 | 220.28 | 204.03 | 25 | 60 | 92 | 60 | 6.46 |
| 28 | 14   | 241 | 228.30 | 212.42 | 25 | 60 | 92 | 60 | 6.78 |
| 29 | 14 ½ | 249 | 236.31 | 220.09 | 25 | 60 | 92 | 60 | 7.12 |