

# Wire Rope Specifications

| Preformed Galvanized Aircraft Cable 7 x 19 |                         |                           |
|--|-------------------------|---------------------------|
| Size Diameter in Inches                    | Weight per 100' in lbs. | Breaking Strength in lbs. |
| 1/8"                                       | 2.9 lbs.                | 2,000 lbs.                |
| 3/16"                                      | 6.5 lbs.                | 4,200 lbs.                |
| 1/4"                                       | 11.0 lbs.               | 7,000 lbs.                |
| 5/16"                                      | 17.3 lbs.               | 9,800 lbs.                |
| 3/8"                                       | 24.3 lbs.               | 14,400 lbs.               |

| Steel I.W.R.C. 6 x 37   |                         |                           |
|-------------------------|-------------------------|---------------------------|
| Size Diameter in Inches | Weight per 100' in lbs. | Breaking Strength in lbs. |
| 7/16"                   | 33 lbs.                 | 20,400 lbs.               |
| 1/2"                    | 43 lbs.                 | 26,600 lbs.               |
| 9/16"                   | 54 lbs.                 | 33,600 lbs.               |
| 5/8"                    | 67 lbs.                 | 41,200 lbs.               |
| 3/4"                    | 96 lbs.                 | 58,800 lbs.               |
| 7/8"                    | 131 lbs.                | 79,600 lbs.               |
| 1"                      | 170 lbs.                | 103,400 lbs.              |
| 1-1/8"                  | 216 lbs.                | 130,000 lbs.              |
| 1-1/4"                  | 266 lbs.                | 159,800 lbs.              |
| 1-3/8"                  | 322 lbs.                | 192,000 lbs.              |
| 1-1/2"                  | 384 lbs.                | 228,000 lbs.              |
| 1-5/8"                  | 450 lbs.                | 264,000 lbs.              |
| 1-3/4"                  | 522 lbs.                | 306,000 lbs.              |
| 1-7/8"                  | 600 lbs.                | 348,000 lbs.              |
| 2"                      | 682 lbs.                | 396,000 lbs.              |

## Decimal and Metric

### Equivalent of Common Fractions of an Inch

|      | Dec.  | mm      |       | Dec.    | mm     |
|------|-------|---------|-------|---------|--------|
|      | 1/64  | .015625 | 33/64 | .515625 | 13.097 |
|      | 1/32  | .03125  | 17/32 | .53125  | 13.494 |
|      | 3/64  | .046875 | 32/64 | .546875 | 13.891 |
| 1/16 | 5/64  | .0625   | 9/16  | .5625   | 14.288 |
|      | 7/64  | .078125 | 16/16 | .578125 | 14.684 |
|      | 9/64  | .09375  | 19/32 | .59375  | 15.081 |
|      | 11/64 | .109375 | 32/32 | .609375 | 15.478 |
|      | 13/64 | .1250   | 5/8   | .6250   | 15.875 |
|      | 15/64 | .140625 | 8/8   | .640625 | 16.272 |
|      | 17/64 | .15625  | 21/32 | .65625  | 16.669 |
|      | 19/64 | .171875 | 32/32 | .671875 | 17.066 |
|      | 21/64 | .1875   | 11/11 | .6875   | 17.462 |
|      | 23/64 | .203125 | 16/16 | .703125 | 17.859 |
|      | 25/64 | .21875  | 23/32 | .71875  | 18.256 |
|      | 27/64 | .234375 | 32/32 | .734375 | 18.653 |
|      | 29/64 | .2500   | 3/4   | .7500   | 19.050 |
|      | 31/64 | .265625 | 4/4   | .765625 | 19.447 |
|      | 33/64 | .28125  | 25/32 | .78125  | 19.844 |
|      | 35/64 | .296875 | 32/32 | .796875 | 20.241 |
|      | 37/64 | .3125   | 13/13 | .8125   | 20.638 |
|      | 39/64 | .328125 | 16/16 | .828125 | 21.034 |
|      | 41/64 | .34375  | 27/32 | .84375  | 21.431 |
|      | 43/64 | .359375 | 32/32 | .859375 | 21.828 |
|      | 45/64 | .3750   | 7/7   | .8750   | 22.225 |
|      | 47/64 | .390625 | 8/8   | .890625 | 22.622 |
|      | 49/64 | .40625  | 29/32 | .90625  | 23.019 |
|      | 51/64 | .421875 | 32/32 | .921875 | 23.416 |
|      | 53/64 | .4375   | 15/15 | .9375   | 23.812 |
|      | 55/64 | .453125 | 16/16 | .953125 | 24.209 |
|      | 57/64 | .46875  | 31/32 | .96875  | 24.606 |
|      | 59/64 | .484375 | 32/32 | .984375 | 25.003 |
|      | 61/64 | .5000   | 1/1   | 1.000   | 25.400 |

1 mm = .03937"                      1" = 25.4 mm

## Grades - Slope & Grade Resistance

| Grade<br>(Percent per 100<br>Horizontal Feet) | Slope<br>(Degrees and Minutes<br>per 100 Horizontal Feet) | Grade Resistance<br>(Lbs. Pull per Ton to<br>Overcome Grade Resistance) |
|---|---|---|
| 1   | 0-34  | 20  |
| 2   | 1-9   | 40  |
| 3   | 1-43  | 60  |
| 4   | 2-17  | 80  |
| 5   | 2-52  | 100   |
| 6   | 3-26  | 120   |
| 7   | 4-0   | 140   |
| 8   | 4-34  | 160   |
| 9   | 5-9   | 180   |
| 10  | 5-43  | 199   |
| 11  | 6-17  | 219   |
| 12  | 6-51  | 238   |
| 13  | 7-24  | 258   |
| 14  | 7-58  | 277   |
| 15  | 8-32  | 296   |
| 16  | 9-39  | 315   |
| 17  | 9-5   | 334   |
| 18  | 10-12   | 353   |
| 19  | 10-45   | 373   |
| 20  | 11-19   | 392   |
| 25  | 14-2  | 485   |
| 30  | 15-17   | 575   |
| 35  | 16-42   | 660   |
| 40  | 21-48   | 743   |
| 45  | 24-14   | 822   |
| 50  | 26-34   | 895   |
| 55  | 28-49   | 965   |
| 60  | 30-58   | 1025  |
| 65  | 33-1  | 1085  |
| 70  | 34-59   | 1145  |
| 75  | 36-52   | 1196  |
| 80  | 38-40   | 1248  |
| 85  | 40-22   | 1295  |
| 90  | 41-59   | 1338  |
| 95  | 43-32   | 1376  |
| 100   | 45-0  | 1402  |