**BARE GALVANIZED STEEL**—*continued.*

## 34,000 lb. BASIS. (C.) 7/·064 in. (7/16 S.W.G.).

*Constants.*—Area, 0·02252 sq. in.; breaking-strength, 1,532 lb.; diameter, 0·192 in.; loading factor, 3·832; maximum tension in conductor, 766 lb.; weight, 0·07785 lb. per foot.

| Span. | Datum. | | Degrees Fahrenheit above Datum. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. | | 20. | | 40. | | 60. | | 80. | | 100. | |
| | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. |
| Ft. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. |
| 180 .. | 649 | 0 5¾ | 567 | 0 6¾ | 487 | 0 7¾ | 411 | 0 9¼ | 339 | 0 11¼ | 276 | 1 1¾ |
| 220 .. | 595 | 0 9½ | 516 | 0 11 | 441 | 1 0¾ | 372 | 1 3¼ | 310 | 1 6 | 259 | 1 10 |
| 260 .. | 535 | 1 2¾ | 462 | 1 5 | 394 | 1 8 | 336 | 1 11½ | 286 | 2 3½ | 246 | 2 8 |
| 300 .. | 472 | 1 10 | 408 | 2 2 | 351 | 2 6 | 305 | 2 10 | 266 | 3 3 | 236 | 3 9 |
| 340 .. | 413 | 2 9 | 361 | 3 1 | 317 | 3 7 | 281 | 4 0 | 252 | 4 6 | 228 | 4 11 |
| 380 .. | 364 | 3 10 | 324 | 4 4 | 291 | 4 10 | 264 | 5 4 | 242 | 5 10 | 223 | 6 4 |

## 34,000 lb. BASIS. (D.) 5/·080 in. (5/14 S.W.G.).

*Constants.*—Area, 0·02513 sq. in.; breaking-strength, 1,710 lb.; diameter, 0·216 in.; loading factor, 3·865; maximum tension in conductor, 855 lb.; weight, 0·08679 lb. per foot.

| Span. | Datum. | | Degrees Fahrenheit above Datum. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. | | 20. | | 40. | | 60. | | 80. | | 100. | |
| | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. |
| Ft. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. |
| 180 .. | 723 | 0 11¾ | 631 | 1 1¼ | 542 | 1 3½ | 456 | 1 6½ | 377 | 1 10½ | 307 | 2 3½ |
| 220 .. | 661 | 1 7 | 574 | 1 10 | 490 | 2 1½ | 413 | 2 6 | 344 | 3 1 | 288 | 3 8 |
| 260 .. | 593 | 2 5½ | 511 | 2 10 | 437 | 3 4 | 371 | 3 11 | 316 | 4 8 | 273 | 5 4 |
| 300 .. | 522 | 3 9 | 451 | 4 4 | 389 | 5 0 | 337 | 5 10 | 295 | 6 7 | 261 | 7 6 |
| 340 .. | 456 | 5 6 | 398 | 6 4 | 350 | 7 2 | 311 | 8 1 | 279 | 9 0 | 253 | 9 11 |
| 380 .. | 402 | 7 10 | 358 | 8 9 | 322 | 9 9 | 292 | 10 9 | 267 | 11 9 | 247 | 12 8 |

## 34,000 lb. BASIS. (E.) 7/·080 in. (7/14 S.W.G.).

*Constants.*—Area, 0·03519 sq. in.; breaking-strength, 2,392 lb.; diameter, 0·240 in.; loading factor, 3·124; maximum tension in conductor, 1,196 lb.; weight, 0·1216 lb. per foot.

| Span. | Datum. | | Degrees Fahrenheit above Datum. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. | | 20. | | 40. | | 60. | | 80. | | 100. | |
| | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. |
| Ft. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. |
| 180 .. | 1079 | 0 5½ | 950 | 0 6¼ | 823 | 0 7¼ | 750 | 0 8½ | 584 | 0 10½ | 478 | 1 0½ |
| 220 .. | 1023 | 0 8¾ | 898 | 0 9¾ | 776 | 0 11½ | 660 | 1 1½ | 554 | 1 4 | 462 | 1 7 |
| 260 .. | 961 | 1 0¾ | 840 | 1 2¾ | 726 | 1 5 | 621 | 1 8 | 528 | 1 11½ | 449 | 2 3½ |
| 300 .. | 892 | 1 6½ | 779 | 1 9 | 675 | 2 0½ | 582 | 2 4 | 503 | 2 9 | 438 | 3 1½ |
| 340 .. | 821 | 2 1½ | 719 | 2 5½ | 627 | 2 10 | 548 | 3 3 | 482 | 3 8 | 428 | 4 1 |
| 380 .. | 753 | 2 11 | 663 | 3 4 | 585 | 3 9 | 520 | 4 3 | 466 | 4 9 | 422 | 5 2½ |

## TABLE XII.—BARE GALVANIZED STEEL, 45,000 lb. BASIS.

**Wind, 18 lb.** per square foot of diametral plane.

*Constants.*—Coefficient of thermal expansion = $6{\cdot}8 \times 10^{-6}$ per degree Fahrenheit; maximum allowable stress = 45,000 lb. per square inch; modulus of elasticity = $28 \times 10^{6}$ lb. per square inch.

NOTE.—This table is for use with conductors having a breaking-strength not less than that stated for each size of conductor.

## 45,000 lb. BASIS. (A.) 1/·160 in. (8 S.W.G.).

*Constants.*—Area, 0·02011 sq. in.; breaking-strength, 1,810 lb.; diameter, 0·160 in.; loading factor, 3·652; maximum tension in conductor, 905 lb.; weight, 0·06834 lb. per foot.

| Span. | Datum. | | Degrees Fahrenheit above Datum. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. | | 20. | | 40. | | 60. | | 80. | | 100. | |
| | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. | Ten. | Sag. |
| Chains. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. | lb. | Ft. in. |
| 5 .. | 732 | 1 3¼ | 661 | 1 5 | 592 | 1 7 | 524 | 1 9 | 461 | 2 0 | 402 | 2 3½ |
| 6 .. | 664 | 2 0 | 596 | 2 3 | 533 | 2 6 | 472 | 2 10 | 418 | 3 3 | 369 | 3 7½ |
| 7 .. | 591 | 3 1 | 530 | 3 5 | 475 | 3 10 | 424 | 4 4 | 380 | 4 10 | 342 | 5 4 |
| 8 .. | 520 | 4 7 | 469 | 5 1 | 424 | 5 7 | 384 | 6 2½ | 350 | 6 10 | 321 | 7 5 |