



## SAG AND TENSION TABLE FOR HEAVY ICE LOADING AREAS

### TWO PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG |          | SAG UNDER<br>HEAVY LOADING |          | EXPECTED TENSION<br>UNDER HEAVY LOAD<br>(Lbs.) |
|-----------------------|----------------------------|---------------|----------|----------------------------|----------|--|
|                       |                            | (Feet)-       | (Inches) | (Feet)-                    | (Inches) |  |
| 50                    | 45                         | 0             | 5        | 1                          | 0        | 268  |
| 75                    | 45                         | 0             | 10       | 1                          | 10       | 328  |
| 100                   | 45                         | 1             | 6        | 2                          | 10       | 377  |
| 125                   | 60                         | 1             | 9        | 3                          | 8        | 446  |
| 150                   | 80                         | 1             | 11       | 4                          | 7        | 516  |
| 175                   | 80                         | 2             | 7        | 5                          | 9        | 560  |
| 200                   | 85                         | 3             | 2        | 6                          | 11       | 606  |
| 225                   | 90                         | 3             | 10       | 8                          | 2        | 651  |
| 250                   | 120                        | 3             | 6        | 9                          | 6        | 692  |
| 275                   | 175                        | 2             | 11       | 10                         | 9        | 740  |

### SIX PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG |          | SAG UNDER<br>HEAVY LOADING |          | EXPECTED TENSION<br>UNDER HEAVY LOAD<br>(Lbs.) |
|-----------------------|----------------------------|---------------|----------|----------------------------|----------|--|
|                       |                            | (Feet) -      | (Inches) | (Feet) -                   | (Inches) |  |
| 50                    | 60                         | 0             | 5        | 0                          | 12       | 285  |
| 75                    | 60                         | 0             | 11       | 1                          | 10       | 346  |
| 100                   | 80                         | 1             | 3        | 2                          | 8        | 422  |
| 125                   | 80                         | 1             | 11       | 3                          | 9        | 471  |
| 150                   | 90                         | 2             | 5        | 4                          | 10       | 528  |
| 175                   | 100                        | 3             | 0        | 6                          | 0        | 583  |
| 200                   | 110                        | 3             | 7        | 7                          | 2        | 637  |
| 225                   | 120                        | 4             | 1        | 8                          | 5        | 688  |
| 250                   | 160                        | 3             | 10       | 9                          | 8        | 737  |

NOTES: Heavy ice loading is defined under NESC Rules 250 and 251 as 0.5 inch radius thickness of ice and 4 PSF horizontal wind pressure at 0° F.

Stringing tensions are at 60° F.

## SAG AND TENSION TABLE FOR MEDIUM ICE LOADING AREAS

### TWO PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG<br>(Feet) - (Inches) |    | SAG UNDER<br>HEAVY LOADING<br>(Feet) - (Inches) |    | EXPECTED TENSION<br>UNDER MEDIUM LOAD<br>(Lbs.) |
|-----------------------|----------------------------|------------------------------------|----|---|----|---|
|                       |                            |                                    |    |   |    |   |
| 50                    | 45                         | 0                                  | 5  | 0   | 11 | 226   |
| 75                    | 45                         | 0                                  | 10 | 1   | 8  | 275   |
| 100                   | 45                         | 1                                  | 6  | 2   | 7  | 315   |
| 125                   | 60                         | 1                                  | 9  | 3   | 5  | 376   |
| 150                   | 80                         | 1                                  | 11 | 4   | 3  | 437   |
| 175                   | 80                         | 2                                  | 7  | 5   | 4  | 472   |
| 200                   | 85                         | 3                                  | 2  | 6   | 6  | 512   |
| 225                   | 90                         | 3                                  | 10 | 7   | 7  | 549   |
| 250                   | 100                        | 4                                  | 3  | 9   | 2  | 564   |
| 275                   | 100                        | 5                                  | 1  | 10  | 12 | 568   |
| 300                   | 150                        | 4                                  | 1  | 11  | 7  | 643   |
| 325                   | 150                        | 4                                  | 9  | 12  | 11 | 674   |
| 350                   | 150                        | 5                                  | 6  | 14  | 4  | 705   |

### SIX PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG<br>(Feet) - (Inches) |    | SAG UNDER<br>MEDIUM LOADING<br>(Feet) - (Inches) |    | EXPECTED TENSION<br>UNDER MEDIUM LOAD<br>(Lbs.) |
|-----------------------|----------------------------|------------------------------------|----|--|----|---|
|                       |                            |                                    |    |  |    |   |
| 50                    | 60                         | 0                                  | 5  | 0  | 11 | 241   |
| 75                    | 60                         | 0                                  | 11 | 1  | 9  | 290   |
| 100                   | 80                         | 1                                  | 3  | 2  | 6  | 356   |
| 125                   | 80                         | 1                                  | 11 | 3  | 6  | 396   |
| 150                   | 90                         | 2                                  | 5  | 4  | 6  | 444   |
| 175                   | 100                        | 3                                  | 0  | 5  | 7  | 491   |
| 200                   | 100                        | 3                                  | 11 | 6  | 10 | 522   |
| 225                   | 110                        | 4                                  | 6  | 7  | 11 | 566   |
| 250                   | 125                        | 4                                  | 11 | 9  | 6  | 587   |
| 275                   | 150                        | 4                                  | 11 | 10   | 5  | 644   |
| 300                   | 150                        | 5                                  | 10 | 11   | 10 | 675   |
| 325                   | 150                        | 6                                  | 10 | 13   | 4  | 703   |
| 350                   | 150                        | 8                                  | 0  | 14   | 11 | 730   |

NOTES: Medium ice loading is defined under NESC Rules 250 and 251 as 0.25 inch radius thickness of ice and 4 PSF horizontal wind pressure at 15° F.

Stringing tensions are at 60° F.

## SAG AND TENSION TABLE FOR LIGHT LOADING AREAS

### TWO PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG<br>(Feet) - (Inches) |    | SAG UNDER<br>LIGHT LOADING<br>(Feet) - (Inches) |    | EXPECTED TENSION<br>UNDER LIGHT LOAD<br>(Lbs.) |
|-----------------------|----------------------------|------------------------------------|----|---|----|--|
|                       |                            |                                    |    |   |    |  |
| 50                    | 45                         | 0                                  | 5  | 0   | 9  | 166  |
| 75                    | 45                         | 0                                  | 10 | 1   | 6  | 199  |
| 100                   | 45                         | 1                                  | 6  | 2   | 4  | 224  |
| 125                   | 60                         | 1                                  | 9  | 2   | 12 | 271  |
| 150                   | 80                         | 1                                  | 11 | 3   | 8  | 319  |
| 175                   | 80                         | 2                                  | 7  | 4   | 8  | 342  |
| 200                   | 85                         | 3                                  | 2  | 5   | 7  | 370  |
| 225                   | 90                         | 3                                  | 10 | 6   | 7  | 397  |
| 250                   | 100                        | 4                                  | 3  | 8   | 1  | 402  |
| 275                   | 100                        | 5                                  | 1  | 9   | 10 | 398  |
| 300                   | 150                        | 4                                  | 1  | 10  | 1  | 460  |
| 325                   | 150                        | 4                                  | 9  | 11  | 4  | 482  |
| 350                   | 150                        | 5                                  | 6  | 12  | 7  | 503  |

### SIX PAIR AERIAL SERVICE WIRE - .083" STEEL MESSENGER

| SPAN LENGTH<br>(Feet) | STRINGING<br>TENSION(Lbs.) | STRINGING SAG<br>(Feet) - (Inches) |    | SAG UNDER<br>LIGHT LOADING<br>(Feet) - (Inches) |    | EXPECTED TENSION<br>UNDER LIGHT LOAD<br>(Lbs.) |
|-----------------------|----------------------------|------------------------------------|----|---|----|--|
|                       |                            |                                    |    |   |    |  |
| 50                    | 60                         | 0                                  | 5  | 0   | 10 | 182  |
| 75                    | 60                         | 0                                  | 11 | 1   | 6  | 215  |
| 100                   | 80                         | 1                                  | 3  | 2   | 2  | 266  |
| 125                   | 80                         | 1                                  | 11 | 3   | 1  | 293  |
| 150                   | 90                         | 2                                  | 5  | 3   | 11 | 329  |
| 175                   | 100                        | 3                                  | 0  | 4   | 10 | 363  |
| 200                   | 100                        | 3                                  | 11 | 6   | 0  | 384  |
| 225                   | 110                        | 4                                  | 6  | 7   | 0  | 417  |
| 250                   | 125                        | 4                                  | 11 | 8   | 5  | 429  |
| 275                   | 150                        | 4                                  | 11 | 9   | 9  | 449  |
| 300                   | 150                        | 5                                  | 10 | 11  | 1  | 470  |
| 325                   | 150                        | 6                                  | 10 | 12  | 5  | 490  |
| 350                   | 150                        | 8                                  | 0  | 13  | 11 | 509  |

NOTES: Light loading is defined under NESC Rules 250 and 251 as 9 PSF horizontal wind pressure at 30° F. and no ice.

Stringing tensions are at 60° F.