



# 900 SERIES MODEL 9299 CRAWLER CRANE WITH 77S BOOM

## LIFT RATINGS With 77S Tubular Chord Hammerhead Boom and "P-P" Counterweight (105,000 Lbs.) (47,628 kg)

### METRIC

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 70 feet            | 16             | 82.8               | —                     | 330000               | 77                  | 9              |
|                    | 20             | 79.5               | —                     | 242420               | 77                  | 7              |
|                    | 25             | 75.4               | —                     | 169940               | 75                  | 5              |
|                    | 30             | 71.1               | 111230                | 130100               | 74                  | 4              |
|                    | 35             | 66.7               | 90450                 | 104890               | 72                  | 3              |
|                    | 40             | 62.2               | 75870                 | 87500                | 70                  | 3              |
|                    | 50             | 52.4               | 56740                 | 65050                | 63                  | 2              |
|                    | 60             | 41.0               | 44730                 | 51160                | 53                  | 2              |
|                    | 70             | 25.6               | 36640                 | 41670                | 37                  | 2              |
| 80 feet            | 17             | 83.0               | —                     | 312290               | 87                  | 9              |
|                    | 20             | 80.8               | —                     | 242520               | 87                  | 7              |
|                    | 25             | 77.2               | —                     | 169920               | 86                  | 5              |
|                    | 30             | 73.5               | 111120                | 130030               | 84                  | 4              |
|                    | 35             | 69.8               | 90310                 | 104790               | 83                  | 3              |
|                    | 40             | 65.9               | 75720                 | 87380                | 81                  | 3              |
|                    | 50             | 57.8               | 56580                 | 64910                | 75                  | 2              |
|                    | 60             | 48.8               | 44570                 | 51020                | 68                  | 2              |
|                    | 70             | 38.2               | 36310                 | 41560                | 57                  | 2              |
| 90 feet            | 80             | 23.8               | 30240                 | 34660                | 39                  | 1              |
|                    | 19             | 82.5               | —                     | 264900               | 97                  | 8              |
|                    | 20             | 81.9               | —                     | 242570               | 97                  | 7              |
|                    | 25             | 78.7               | —                     | 169880               | 96                  | 5              |
|                    | 30             | 75.4               | 110980                | 129930               | 95                  | 4              |
|                    | 35             | 72.1               | 90160                 | 104660               | 93                  | 3              |
|                    | 40             | 68.7               | 75550                 | 87240                | 92                  | 3              |
|                    | 50             | 61.7               | 56400                 | 64750                | 87                  | 2              |
|                    | 60             | 54.2               | 44390                 | 50850                | 81                  | 2              |
| 100 feet           | 70             | 45.8               | 36130                 | 41390                | 72                  | 2              |
|                    | 80             | 35.9               | 30090                 | 34520                | 60                  | 1              |
|                    | 90             | 22.4               | 25460                 | 29280                | 41                  | 1              |
|                    | 20             | 82.7               | —                     | 242570               | 107                 | 7              |
|                    | 25             | 79.8               | —                     | 169780               | 106                 | 5              |
|                    | 30             | 76.9               | 110790                | 129780               | 105                 | 4              |
|                    | 35             | 73.9               | 89940                 | 104480               | 104                 | 3              |
|                    | 40             | 70.9               | 75320                 | 87040                | 102                 | 3              |
|                    | 50             | 64.8               | 56160                 | 64530                | 98                  | 2              |
| 110 feet           | 60             | 58.2               | 44140                 | 50620                | 93                  | 2              |
|                    | 70             | 51.2               | 35890                 | 41160                | 85                  | 2              |
|                    | 80             | 43.3               | 29860                 | 34300                | 76                  | 1              |
|                    | 90             | 34.0               | 25250                 | 29080                | 63                  | 1              |
|                    | 100            | 21.2               | 21590                 | 24950                | 43                  | 1              |
|                    | 21             | 82.8               | —                     | 223560               | 117                 | 7              |
|                    | 25             | 80.7               | 142780                | 169670               | 116                 | 5              |
|                    | 30             | 78.1               | 110600                | 129620               | 115                 | 4              |
|                    | 35             | 75.4               | 89730                 | 104290               | 114                 | 3              |
| 120 feet           | 40             | 72.7               | 75090                 | 86830                | 113                 | 3              |
|                    | 50             | 67.2               | 55910                 | 64290                | 109                 | 2              |
|                    | 60             | 61.4               | 43880                 | 50380                | 104                 | 2              |
|                    | 70             | 55.3               | 35630                 | 40910                | 98                  | 2              |
|                    | 80             | 48.6               | 29610                 | 34050                | 90                  | 1              |
|                    | 90             | 41.2               | 25010                 | 28840                | 80                  | 1              |
|                    | 100            | 32.3               | 21370                 | 24740                | 66                  | 1              |
|                    | 110            | 20.1               | 18400                 | 21410                | 45                  | 1              |
|                    | 22             | 82.9               | —                     | 207210               | 127                 | 6              |
| 120 feet           | 25             | 81.5               | 142660                | 169600               | 126                 | 5              |
|                    | 30             | 79.1               | 110450                | 129500               | 126                 | 4              |
|                    | 35             | 76.7               | 89560                 | 104150               | 124                 | 3              |
|                    | 40             | 74.2               | 74910                 | 86670                | 123                 | 3              |
|                    | 50             | 69.2               | 55710                 | 64110                | 120                 | 2              |
|                    | 60             | 64.0               | 43680                 | 50180                | 115                 | 2              |

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 21.3 meters         | 4.9             | 82.8               | —                     | 149690               | 23.5              | 9              |
|                     | 6.1             | 79.5               | —                     | 109960               | 23.5              | 7              |
|                     | 7.6             | 75.4               | —                     | 77080                | 22.9              | 5              |
|                     | 9.1             | 71.1               | 50450                 | 59010                | 22.6              | 4              |
|                     | 10.7            | 66.7               | 41030                 | 47580                | 21.9              | 3              |
|                     | 12.2            | 62.2               | 34410                 | 39690                | 21.3              | 3              |
|                     | 15.2            | 52.4               | 25740                 | 29510                | 19.2              | 2              |
|                     | 18.3            | 41.0               | 20290                 | 23210                | 16.2              | 2              |
|                     | 21.3            | 25.6               | 16620                 | 18900                | 11.3              | 2              |
| 24.4 meters         | 5.2             | 83.0               | —                     | 141650               | 26.5              | 9              |
|                     | 6.1             | 80.8               | —                     | 110010               | 26.5              | 7              |
|                     | 7.6             | 77.2               | —                     | 77080                | 26.2              | 5              |
|                     | 9.1             | 73.5               | 50400                 | 58980                | 25.6              | 4              |
|                     | 10.7            | 69.8               | 40960                 | 47530                | 25.3              | 3              |
|                     | 12.2            | 65.9               | 34350                 | 39640                | 24.7              | 3              |
|                     | 15.2            | 57.8               | 25660                 | 29440                | 22.9              | 2              |
|                     | 18.3            | 48.8               | 20220                 | 23140                | 20.7              | 2              |
|                     | 21.3            | 38.2               | 16470                 | 18850                | 17.4              | 2              |
| 27.4 meters         | 24.4            | 23.8               | 13720                 | 15720                | 11.9              | 1              |
|                     | 5.8             | 82.5               | —                     | 120160               | 29.6              | 8              |
|                     | 6.1             | 81.9               | —                     | 110030               | 29.6              | 7              |
|                     | 7.6             | 78.7               | —                     | 77060                | 29.3              | 5              |
|                     | 9.1             | 75.4               | 50340                 | 58940                | 29.0              | 4              |
|                     | 10.7            | 72.1               | 40900                 | 47470                | 28.3              | 3              |
|                     | 12.2            | 68.7               | 34270                 | 39570                | 28.0              | 3              |
|                     | 15.2            | 61.7               | 25580                 | 29370                | 26.5              | 2              |
|                     | 18.3            | 54.2               | 20140                 | 23070                | 24.7              | 2              |
| 30.5 meters         | 21.3            | 45.8               | 16390                 | 18770                | 21.9              | 2              |
|                     | 24.4            | 35.9               | 13650                 | 15660                | 18.3              | 1              |
|                     | 27.4            | 22.4               | 11550                 | 13280                | 12.5              | 1              |
|                     | 6.1             | 82.7               | —                     | 110030               | 32.6              | 7              |
|                     | 7.6             | 79.8               | —                     | 77010                | 32.3              | 5              |
|                     | 9.1             | 76.9               | 50250                 | 58870                | 32.0              | 4              |
|                     | 10.7            | 73.9               | 40800                 | 47390                | 31.7              | 3              |
|                     | 12.2            | 70.9               | 34170                 | 39480                | 31.1              | 3              |
|                     | 15.2            | 64.8               | 25470                 | 29270                | 29.9              | 2              |
| 33.5 meters         | 18.3            | 58.2               | 20020                 | 22960                | 28.3              | 2              |
|                     | 21.3            | 51.2               | 16280                 | 18670                | 25.9              | 2              |
|                     | 24.4            | 43.3               | 13540                 | 15560                | 23.2              | 1              |
|                     | 27.4            | 34.0               | 11450                 | 13190                | 19.2              | 1              |
|                     | 30.5            | 21.2               | 9790                  | 11320                | 13.1              | 1              |
|                     | 6.4             | 82.8               | —                     | 101410               | 35.7              | 7              |
|                     | 7.6             | 80.7               | 64770                 | 76960                | 35.4              | 5              |
|                     | 9.1             | 78.1               | 50170                 | 58800                | 35.1              | 4              |
|                     | 10.7            | 75.4               | 40700                 | 47310                | 34.7              | 3              |
| 36.6 meters         | 12.2            | 72.7               | 34060                 | 39390                | 34.4              | 3              |
|                     | 15.2            | 67.2               | 25360                 | 29160                | 33.2              | 2              |
|                     | 18.3            | 61.4               | 19900                 | 22850                | 31.7              | 2              |
|                     | 21.3            | 55.3               | 16160                 | 18560                | 29.9              | 2              |
|                     | 24.4            | 48.6               | 13430                 | 15450                | 27.4              | 1              |
|                     | 27.4            | 41.2               | 11340                 | 13080                | 24.4              | 1              |
|                     | 30.5            | 32.3               | 9690                  | 11220                | 20.1              | 1              |
|                     | 33.5            | 20.1               | 8350                  | 9710                 | 13.7              | 1              |
|                     | 6.7             | 82.9               | —                     | 93990                | 38.7              | 6              |
| 36.6 meters         | 7.6             | 81.5               | 64710                 | 76930                | 38.4              | 5              |
|                     | 9.1             | 79.1               | 50100                 | 58740                | 38.4              | 4              |
|                     | 10.7            | 76.7               | 40620                 | 47240                | 37.8              | 3              |
|                     | 12.2            | 74.2               | 33980                 | 39310                | 37.5              | 3              |
|                     | 15.2            | 69.2               | 25270                 | 29080                | 36.6              | 2              |
|                     | 18.3            | 64.0               | 19810                 | 22760                | 35.1              | 2              |

(Continued)

FORM NO. 9299-CR-2



# LIFT RATINGS (cont.)

With 77S Tubular Chord Hammerhead Boom

## METRIC

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 120 feet cont.     | 70             | 58.5               | 35430                 | 40720                | 110                 | 2              |
|                    | 80             | 52.7               | 29410                 | 33860                | 103                 | 1              |
|                    | 90             | 46.4               | 24810                 | 28650                | 94                  | 1              |
|                    | 100            | 39.3               | 21180                 | 24560                | 83                  | 1              |
|                    | 110            | 30.9               | 18240                 | 21250                | 69                  | 1              |
|                    | 120            | 19.2               | 15780                 | 18490                | 47                  | 1              |
| 130 feet           | 24             | 82.6               | 151140                | 180460               | 137                 | 5              |
|                    | 25             | 82.2               | 142470                | 169460               | 137                 | 5              |
|                    | 30             | 79.9               | 110230                | 129310               | 136                 | 4              |
|                    | 35             | 77.7               | 89310                 | 103930               | 135                 | 3              |
|                    | 40             | 75.4               | 74640                 | 86420                | 134                 | 3              |
|                    | 50             | 70.8               | 55430                 | 63840                | 131                 | 2              |
|                    | 60             | 66.1               | 43380                 | 49900                | 127                 | 2              |
|                    | 70             | 61.2               | 35130                 | 40430                | 122                 | 2              |
|                    | 80             | 56.0               | 29100                 | 33570                | 115                 | 1              |
|                    | 90             | 50.5               | 24510                 | 28360                | 108                 | 1              |
|                    | 100            | 44.5               | 20890                 | 24270                | 99                  | 1              |
|                    | 110            | 37.7               | 17950                 | 20970                | 87                  | 1              |
|                    | 120            | 29.6               | 15510                 | 18230                | 71                  | 1              |
|                    | 130            | 18.4               | 13440                 | 15920                | 48                  | 1              |
| 140 feet           | 25             | 82.7               | 142280                | 169310               | 147                 | 5              |
|                    | 30             | 80.7               | 110000                | 129120               | 146                 | 4              |
|                    | 35             | 78.6               | 89060                 | 103700               | 145                 | 3              |
|                    | 40             | 76.5               | 74380                 | 86180                | 144                 | 3              |
|                    | 50             | 72.3               | 55140                 | 63570                | 141                 | 2              |
|                    | 60             | 67.9               | 43090                 | 49620                | 137                 | 2              |
|                    | 70             | 63.4               | 34820                 | 40140                | 133                 | 2              |
|                    | 80             | 58.7               | 28800                 | 33270                | 127                 | 1              |
|                    | 90             | 53.8               | 24210                 | 28070                | 121                 | 1              |
|                    | 100            | 48.5               | 20590                 | 23980                | 112                 | 1              |
|                    | 110            | 42.8               | 17650                 | 20680                | 102                 | 1              |
|                    | 120            | 36.2               | 15230                 | 17950                | 90                  | 1              |
|                    | 130            | 28.5               | 13170                 | 15660                | 74                  | 1              |
|                    | 140            | 17.7               | 11400                 | 13680                | 50                  | 1              |
| 150 feet           | 26             | 82.8               | 134280                | 159340               | 157                 | 5              |
|                    | 30             | 81.3               | 109750                | 128910               | 156                 | 4              |
|                    | 35             | 79.4               | 88790                 | 103460               | 155                 | 3              |
|                    | 40             | 77.4               | 74090                 | 85910                | 154                 | 3              |
|                    | 50             | 73.5               | 54830                 | 63280                | 152                 | 2              |
|                    | 60             | 69.5               | 42770                 | 49310                | 148                 | 2              |
|                    | 70             | 65.3               | 34500                 | 39820                | 144                 | 2              |
|                    | 80             | 61.0               | 28470                 | 32950                | 139                 | 1              |
|                    | 90             | 56.6               | 23880                 | 27740                | 133                 | 1              |
|                    | 100            | 51.8               | 20260                 | 23660                | 125                 | 1              |
|                    | 110            | 46.8               | 17330                 | 20360                | 117                 | 1              |
|                    | 120            | 41.2               | 14900                 | 17640                | 106                 | 1              |
|                    | 130            | 35.0               | 12860                 | 15350                | 93                  | 1              |
|                    | 140            | 27.5               | 11110                 | 13400                | 76                  | 1              |
|                    | 150            | 17.1               | 9580                  | 11690                | 51                  | 1              |
| 160 feet           | 27             | 82.9               | 127030                | 150360               | 167                 | 5              |
|                    | 30             | 81.8               | 109510                | 128700               | 166                 | 4              |
|                    | 35             | 80.0               | 88520                 | 103220               | 165                 | 3              |
|                    | 40             | 78.2               | 73810                 | 85650                | 164                 | 3              |
|                    | 50             | 74.5               | 54530                 | 62990                | 162                 | 2              |
|                    | 60             | 70.8               | 42460                 | 49010                | 159                 | 2              |
|                    | 70             | 67.0               | 34180                 | 39510                | 155                 | 2              |
|                    | 80             | 63.0               | 28150                 | 32640                | 150                 | 1              |
|                    | 90             | 58.9               | 23550                 | 27430                | 145                 | 1              |
|                    | 100            | 54.6               | 19930                 | 23340                | 138                 | 1              |
|                    | 110            | 50.1               | 17000                 | 20040                | 130                 | 1              |
|                    | 120            | 45.2               | 14580                 | 17320                | 121                 | 1              |
|                    | 130            | 39.8               | 12540                 | 15040                | 110                 | 1              |
|                    | 140            | 33.8               | 10800                 | 13090                | 96                  | 1              |
|                    | 150            | 26.6               | 9290                  | 11400                | 79                  | 1              |
|                    | 160            | 16.5               | 7950                  | 9910                 | 53                  | 1              |
| 170 feet           | 28             | 83.0               | 120450                | 142260               | 176                 | 4              |
|                    | 30             | 82.3               | 109310                | 128520               | 176                 | 4              |
|                    | 35             | 80.6               | 88300                 | 103010               | 175                 | 3              |
|                    | 40             | 78.9               | 73570                 | 85420                | 175                 | 3              |
|                    | 50             | 75.5               | 54270                 | 62750                | 172                 | 2              |
|                    | 60             | 72.0               | 42190                 | 48750                | 169                 | 2              |
|                    | 70             | 68.4               | 33900                 | 39240                | 166                 | 2              |
|                    | 80             | 64.7               | 27870                 | 32360                | 161                 | 1              |
|                    | 90             | 60.9               | 23270                 | 27150                | 156                 | 1              |
|                    | 100            | 57.0               | 19650                 | 23060                | 150                 | 1              |
|                    | 110            | 52.8               | 16720                 | 19760                | 143                 | 1              |
|                    | 120            | 48.5               | 14300                 | 17050                | 135                 | 1              |
|                    | 130            | 43.8               | 12270                 | 14770                | 125                 | 1              |
|                    | 140            | 38.6               | 10530                 | 12820                | 113                 | 1              |
|                    | 150            | 32.8               | 9020                  | 11140                | 99                  | 1              |
|                    | 160            | 25.7               | 7700                  | 9670                 | 81                  | 1              |
|                    | 170            | 16.0               | 6520                  | 8360                 | 54                  | 1              |

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 36.6 meters cont.   | 21.3            | 58.5               | 16070                 | 18470                | 33.5              | 2              |
|                     | 24.4            | 52.7               | 13340                 | 15360                | 31.4              | 1              |
|                     | 27.4            | 46.4               | 11250                 | 13000                | 28.7              | 1              |
|                     | 30.5            | 39.3               | 9610                  | 11140                | 25.3              | 1              |
|                     | 33.5            | 30.9               | 8270                  | 9640                 | 21.0              | 1              |
|                     | 36.6            | 19.2               | 7160                  | 8390                 | 14.3              | 1              |
| 39.6 meters         | 7.3             | 82.6               | 68560                 | 81860                | 41.8              | 5              |
|                     | 7.6             | 82.2               | 64620                 | 76870                | 41.8              | 5              |
|                     | 9.1             | 79.9               | 50000                 | 58660                | 41.5              | 4              |
|                     | 10.7            | 77.7               | 40510                 | 47140                | 41.1              | 3              |
|                     | 12.2            | 75.4               | 33860                 | 39200                | 40.8              | 3              |
|                     | 15.2            | 70.8               | 25140                 | 28960                | 39.9              | 2              |
|                     | 18.3            | 66.1               | 19680                 | 22630                | 38.7              | 2              |
|                     | 21.3            | 61.2               | 15930                 | 18340                | 37.2              | 2              |
|                     | 24.4            | 56.0               | 13200                 | 15230                | 35.1              | 1              |
|                     | 27.4            | 50.5               | 11120                 | 12860                | 32.9              | 1              |
|                     | 30.5            | 44.5               | 9480                  | 11010                | 30.2              | 1              |
|                     | 33.5            | 37.7               | 8140                  | 9510                 | 26.5              | 1              |
|                     | 36.6            | 29.6               | 7040                  | 8270                 | 21.6              | 1              |
|                     | 39.6            | 18.4               | 6100                  | 7220                 | 14.6              | 1              |
| 42.7 meters         | 7.6             | 82.7               | 64540                 | 76800                | 44.8              | 5              |
|                     | 9.1             | 80.7               | 49900                 | 58570                | 44.5              | 4              |
|                     | 10.7            | 78.6               | 40400                 | 47040                | 44.2              | 3              |
|                     | 12.2            | 76.5               | 33740                 | 39090                | 43.9              | 3              |
|                     | 15.2            | 72.3               | 25010                 | 28840                | 43.0              | 2              |
|                     | 18.3            | 67.9               | 19550                 | 22510                | 41.8              | 2              |
|                     | 21.3            | 63.4               | 15790                 | 18210                | 40.5              | 2              |
|                     | 24.4            | 58.7               | 13060                 | 15090                | 38.7              | 1              |
|                     | 27.4            | 53.8               | 10980                 | 12730                | 36.9              | 1              |
|                     | 30.5            | 48.5               | 9340                  | 10880                | 34.1              | 1              |
|                     | 33.5            | 42.8               | 8010                  | 9380                 | 31.1              | 1              |
|                     | 36.6            | 36.2               | 6910                  | 8140                 | 27.4              | 1              |
|                     | 39.6            | 28.5               | 5970                  | 7100                 | 22.6              | 1              |
|                     | 42.7            | 17.7               | 5170                  | 6210                 | 15.2              | 1              |
| 45.7 meters         | 7.9             | 82.8               | 60910                 | 72280                | 47.9              | 5              |
|                     | 9.1             | 81.3               | 49780                 | 58470                | 47.5              | 4              |
|                     | 10.7            | 79.4               | 40280                 | 46930                | 47.2              | 3              |
|                     | 12.2            | 77.4               | 33610                 | 38970                | 46.9              | 3              |
|                     | 15.2            | 73.5               | 24870                 | 28700                | 46.3              | 2              |
|                     | 18.3            | 69.5               | 19400                 | 22370                | 45.1              | 2              |
|                     | 21.3            | 65.3               | 15650                 | 18060                | 43.9              | 2              |
|                     | 24.4            | 61.0               | 12910                 | 14950                | 42.4              | 1              |
|                     | 27.4            | 56.6               | 10830                 | 12580                | 40.5              | 1              |
|                     | 30.5            | 51.8               | 9190                  | 10730                | 38.1              | 1              |
|                     | 33.5            | 46.8               | 7860                  | 9240                 | 35.7              | 1              |
|                     | 36.6            | 41.2               | 6760                  | 8000                 | 32.3              | 1              |
|                     | 39.6            | 35.0               | 5830                  | 6960                 | 28.3              | 1              |
|                     | 42.7            | 27.5               | 5040                  | 6080                 | 23.2              | 1              |
|                     | 45.7            | 17.1               | 4350                  | 5300                 | 15.5              | 1              |
| 48.8 meters         | 8.2             | 82.9               | 57620                 | 68200                | 50.9              | 5              |
|                     | 9.1             | 81.8               | 49670                 | 58380                | 50.6              | 4              |
|                     | 10.7            | 80.0               | 40150                 | 46820                | 50.3              | 3              |
|                     | 12.2            | 78.2               | 33480                 | 38850                | 50.0              | 3              |
|                     | 15.2            | 74.5               | 24730                 | 28570                | 49.4              | 2              |
|                     | 18.3            | 70.8               | 19260                 | 22230                | 48.5              | 2              |
|                     | 21.3            | 67.0               | 15500                 | 17920                | 47.2              | 2              |
|                     | 24.4            | 63.0               | 12770                 | 14810                | 45.7              | 1              |
|                     | 27.4            | 58.9               | 10680                 | 12440                | 44.2              | 1              |
|                     | 30.5            | 54.6               | 9040                  | 10590                | 42.1              | 1              |
|                     | 33.5            | 50.1               | 7710                  | 9090                 | 39.6              | 1              |
|                     | 36.6            | 45.2               | 6610                  | 7860                 | 36.9              | 1              |
|                     | 39.6            | 39.8               | 5690                  | 6820                 | 33.5              | 1              |
|                     | 42.7            | 33.8               | 4900                  | 5940                 | 29.3              | 1              |
|                     | 45.7            | 26.6               | 4210                  | 5170                 | 24.1              | 1              |
|                     | 48.8            | 16.5               | 3610                  | 4500                 | 16.2              | 1              |
| 51.8 meters         | 8.5             | 83.0               | 54640                 | 64530                | 53.6              | 4              |
|                     | 9.1             | 82.3               | 49580                 | 58300                | 53.6              | 4              |
|                     | 10.7            | 80.6               | 40050                 | 46730                | 53.3              | 3              |
|                     | 12.2            | 78.9               | 33370                 | 38750                | 53.3              | 3              |
|                     | 15.2            | 75.5               | 24620                 | 28460                | 52.4              | 2              |
|                     | 18.3            | 72.0               | 19140                 | 22110                | 51.5              | 2              |
|                     | 21.3            | 68.4               | 15380                 | 17800                | 50.6              | 2              |
|                     | 24.4            | 64.7               | 12640                 | 14680                | 49.1              | 1              |
|                     | 27.4            | 60.9               | 10560                 | 12320                | 47.5              | 1              |
|                     | 30.5            | 57.0               | 8910                  | 10460                | 45.7              | 1              |
|                     | 33.5            | 52.8               | 7580                  | 8960                 | 43.6              | 1              |
|                     | 36.6            | 48.5               | 6490                  | 7730                 | 41.1              | 1              |
|                     | 39.6            | 43.8               | 5570                  | 6700                 | 38.1              | 1              |
|                     | 42.7            | 38.6               | 4780                  | 5820                 | 34.4              | 1              |
|                     | 45.7            | 32.8               | 4090                  | 5050                 | 30.2              | 1              |
|                     | 48.8            | 25.7               | 3490                  | 4390                 | 24.7              | 1              |
|                     | 51.8            | 16.0               | 2960                  | 3790                 | 16.5              | 1              |

(Continued)



# LIFT RATINGS (cont.)

With 77S Tubular Chord Hammerhead Boom

## METRIC

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 180 feet           | 30             | 82.7               | 109050                | 128300               | 186                 | 4              |
|                    | 35             | 81.1               | 88020                 | 102760               | 186                 | 3              |
|                    | 40             | 79.5               | 73270                 | 85150                | 185                 | 3              |
|                    | 50             | 76.3               | 53950                 | 62450                | 183                 | 2              |
|                    | 60             | 73.0               | 41860                 | 48430                | 180                 | 2              |
|                    | 70             | 69.6               | 33570                 | 38920                | 176                 | 2              |
|                    | 80             | 66.2               | 27530                 | 32030                | 172                 | 1              |
|                    | 90             | 62.7               | 22930                 | 26810                | 168                 | 1              |
|                    | 100            | 59.0               | 19300                 | 22720                | 162                 | 1              |
|                    | 110            | 55.2               | 16370                 | 19420                | 155                 | 1              |
|                    | 120            | 51.2               | 13960                 | 16710                | 148                 | 1              |
|                    | 130            | 47.0               | 11920                 | 14430                | 139                 | 1              |
|                    | 140            | 42.5               | 10190                 | 12490                | 129                 | 1              |
|                    | 150            | 37.5               | 8690                  | 10810                | 117                 | 1              |
|                    | 160            | 31.8               | 7370                  | 9350                 | 102                 | 1              |
|                    | 170            | 25.0               | 6210                  | 8050                 | 83                  | 1              |
|                    | 180            | 15.5               | 5150                  | 6880                 | 55                  | 1              |
| 190 feet           | 31             | 82.8               | 103900                | 122090               | 196                 | 4              |
|                    | 35             | 81.6               | 87750                 | 102510               | 196                 | 3              |
|                    | 40             | 80.1               | 72980                 | 84880                | 195                 | 3              |
|                    | 50             | 77.0               | 53640                 | 62150                | 193                 | 2              |
|                    | 60             | 73.9               | 41530                 | 48120                | 190                 | 2              |
|                    | 70             | 70.7               | 33240                 | 38600                | 187                 | 2              |
|                    | 80             | 67.5               | 27190                 | 31700                | 183                 | 1              |
|                    | 90             | 64.2               | 22590                 | 26480                | 179                 | 1              |
|                    | 100            | 60.8               | 18960                 | 22390                | 174                 | 1              |
|                    | 110            | 57.3               | 16030                 | 19090                | 167                 | 1              |
|                    | 120            | 53.6               | 13610                 | 16370                | 161                 | 1              |
|                    | 130            | 49.8               | 11580                 | 14090                | 153                 | 1              |
|                    | 140            | 45.7               | 9850                  | 12150                | 143                 | 1              |
|                    | 150            | 41.3               | 8350                  | 10480                | 133                 | 1              |
|                    | 160            | 36.4               | 7040                  | 9020                 | 120                 | 1              |
|                    | 170            | 30.9               | 5880                  | 7730                 | 105                 | 1              |
|                    | 180            | 24.3               | 4850                  | 6580                 | 85                  | 1              |
|                    | 190            | 15.1               | 3900                  | 5540                 | 57                  | 1              |
| 200 feet           | 32             | 82.9               | 99120                 | 116350               | 206                 | 4              |
|                    | 35             | 82.0               | 87460                 | 102250               | 206                 | 3              |
|                    | 40             | 80.6               | 72680                 | 84600                | 205                 | 3              |
|                    | 50             | 77.7               | 53320                 | 61840                | 203                 | 2              |
|                    | 60             | 74.7               | 41200                 | 47800                | 201                 | 2              |
|                    | 70             | 71.7               | 32890                 | 38260                | 198                 | 2              |
|                    | 80             | 68.7               | 26840                 | 31360                | 194                 | 1              |
|                    | 90             | 65.6               | 22230                 | 26130                | 190                 | 1              |
|                    | 100            | 62.4               | 18600                 | 22040                | 185                 | 1              |
|                    | 110            | 59.1               | 15670                 | 18730                | 179                 | 1              |
|                    | 120            | 55.7               | 13260                 | 16020                | 173                 | 1              |
|                    | 130            | 52.2               | 11220                 | 13740                | 165                 | 1              |
|                    | 140            | 48.4               | 9490                  | 11800                | 157                 | 1              |
|                    | 150            | 44.5               | 7990                  | 10130                | 148                 | 1              |
|                    | 160            | 40.2               | 6690                  | 8670                 | 136                 | 1              |
|                    | 170            | 35.5               | 5530                  | 7380                 | 123                 | 1              |
|                    | 180            | 30.1               | 4500                  | 6240                 | 108                 | 1              |
|                    | 190            | 23.7               | 3580                  | 5210                 | 87                  | 1              |
|                    | 200            | 14.7               | —                     | 4270                 | 58                  | 1              |
| 210 feet           | 33             | 83.0               | 94660                 | 111030               | 216                 | 3              |
|                    | 35             | 82.4               | 87180                 | 102000               | 216                 | 3              |
|                    | 40             | 81.0               | 72380                 | 84320                | 215                 | 3              |
|                    | 50             | 78.3               | 53000                 | 61540                | 213                 | 2              |
|                    | 60             | 75.5               | 40870                 | 47480                | 211                 | 2              |
|                    | 70             | 72.6               | 32550                 | 37930                | 208                 | 2              |
|                    | 80             | 69.8               | 26490                 | 31020                | 205                 | 1              |
|                    | 90             | 66.8               | 21880                 | 25790                | 201                 | 1              |
|                    | 100            | 63.8               | 18250                 | 21690                | 196                 | 1              |
|                    | 110            | 60.7               | 15320                 | 18390                | 191                 | 1              |
|                    | 120            | 57.6               | 12900                 | 15670                | 185                 | 1              |
|                    | 130            | 54.3               | 10870                 | 13390                | 178                 | 1              |
|                    | 140            | 50.8               | 9140                  | 11450                | 170                 | 1              |
|                    | 150            | 47.2               | 7640                  | 9780                 | 162                 | 1              |
|                    | 160            | 43.3               | 6340                  | 8320                 | 152                 | 1              |
|                    | 170            | 39.2               | 5190                  | 7040                 | 140                 | 1              |
|                    | 180            | 34.6               | 4160                  | 5900                 | 126                 | 1              |
|                    | 190            | 29.3               | 3240                  | 4880                 | 110                 | 1              |
|                    | 200            | 23.1               | —                     | 3950                 | 89                  | 1              |
|                    | 210            | 14.3               | —                     | 3100                 | 59                  | 1              |
| 220 feet           | 35             | 82.8               | 86930                 | 101770               | 226                 | 3              |
|                    | 40             | 81.4               | 72120                 | 84070                | 225                 | 3              |
|                    | 50             | 78.8               | 52720                 | 61260                | 224                 | 2              |
|                    | 60             | 76.1               | 40570                 | 47190                | 221                 | 2              |
|                    | 70             | 73.5               | 32250                 | 37630                | 219                 | 2              |
|                    | 80             | 70.7               | 26180                 | 30720                | 215                 | 1              |
|                    | 90             | 67.9               | 21570                 | 25490                | 212                 | 1              |
|                    | 100            | 65.1               | 17940                 | 21380                | 207                 | 1              |

| Boom Length (Meters) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|----------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 54.9 meters          | 8.9             | 82.7               | 49470                 | 58200                | 56.7              | 4              |
|                      | 10.4            | 81.1               | 39930                 | 46610                | 56.7              | 3              |
|                      | 11.9            | 79.5               | 33240                 | 38620                | 56.4              | 3              |
|                      | 13.4            | 76.3               | 24470                 | 28330                | 55.8              | 2              |
|                      | 14.9            | 73.0               | 18990                 | 21970                | 54.9              | 2              |
|                      | 16.4            | 69.6               | 15230                 | 17650                | 53.6              | 2              |
|                      | 17.9            | 66.2               | 12490                 | 14530                | 52.4              | 1              |
|                      | 19.4            | 62.7               | 10400                 | 12160                | 51.2              | 1              |
|                      | 20.9            | 59.0               | 8750                  | 10310                | 49.4              | 1              |
|                      | 22.4            | 55.2               | 7430                  | 8810                 | 47.2              | 1              |
|                      | 23.9            | 51.2               | 6330                  | 7580                 | 45.1              | 1              |
|                      | 25.4            | 47.0               | 5410                  | 6550                 | 42.4              | 1              |
|                      | 26.9            | 42.5               | 4620                  | 5670                 | 39.3              | 1              |
|                      | 28.4            | 37.5               | 3940                  | 4900                 | 35.7              | 1              |
|                      | 29.9            | 31.8               | 3340                  | 4240                 | 31.1              | 1              |
|                      | 31.4            | 25.0               | 2820                  | 3650                 | 25.3              | 1              |
|                      | 32.9            | 15.5               | 2340                  | 3120                 | 16.8              | 1              |
| 57.9 meters          | 9.4             | 82.8               | 47130                 | 55380                | 59.7              | 4              |
|                      | 10.9            | 81.6               | 39800                 | 46500                | 59.7              | 3              |
|                      | 12.4            | 80.1               | 33100                 | 38500                | 59.4              | 3              |
|                      | 13.9            | 77.0               | 24330                 | 28190                | 58.8              | 2              |
|                      | 15.4            | 73.9               | 18840                 | 21830                | 57.9              | 2              |
|                      | 16.9            | 70.7               | 15080                 | 17510                | 57.0              | 2              |
|                      | 18.4            | 67.5               | 12330                 | 14380                | 55.8              | 1              |
|                      | 19.9            | 64.2               | 10250                 | 12010                | 54.6              | 1              |
|                      | 21.4            | 60.8               | 8600                  | 10160                | 53.0              | 1              |
|                      | 22.9            | 57.3               | 7270                  | 8660                 | 50.9              | 1              |
|                      | 24.4            | 53.6               | 6170                  | 7430                 | 49.1              | 1              |
|                      | 25.9            | 49.8               | 5250                  | 6390                 | 46.6              | 1              |
|                      | 27.4            | 45.7               | 4470                  | 5510                 | 43.6              | 1              |
|                      | 28.9            | 41.3               | 3790                  | 4750                 | 40.5              | 1              |
|                      | 30.4            | 36.4               | 3190                  | 4090                 | 36.6              | 1              |
|                      | 31.9            | 30.9               | 2670                  | 3510                 | 32.0              | 1              |
|                      | 33.4            | 24.3               | 2200                  | 2980                 | 25.9              | 1              |
|                      | 34.9            | 15.1               | 1770                  | 2510                 | 17.4              | 1              |
| 61.0 meters          | 9.8             | 82.9               | 44960                 | 52780                | 62.8              | 4              |
|                      | 11.3            | 82.0               | 39670                 | 46380                | 62.8              | 3              |
|                      | 12.8            | 80.6               | 32970                 | 38370                | 62.5              | 3              |
|                      | 14.3            | 77.7               | 24190                 | 28050                | 61.9              | 2              |
|                      | 15.8            | 74.7               | 18690                 | 21680                | 61.3              | 2              |
|                      | 17.3            | 71.7               | 14920                 | 17350                | 60.4              | 2              |
|                      | 18.8            | 68.7               | 12170                 | 14220                | 59.1              | 1              |
|                      | 20.3            | 65.6               | 10080                 | 11850                | 57.9              | 1              |
|                      | 21.8            | 62.4               | 8440                  | 10000                | 56.4              | 1              |
|                      | 23.3            | 59.1               | 7110                  | 8500                 | 54.6              | 1              |
|                      | 24.8            | 55.7               | 6010                  | 7270                 | 52.7              | 1              |
|                      | 26.3            | 52.2               | 5090                  | 6230                 | 50.3              | 1              |
|                      | 27.8            | 48.4               | 4300                  | 5350                 | 47.9              | 1              |
|                      | 29.3            | 44.5               | 3620                  | 4590                 | 45.1              | 1              |
|                      | 30.8            | 40.2               | 3030                  | 3930                 | 41.5              | 1              |
|                      | 32.3            | 35.5               | 2510                  | 3350                 | 37.5              | 1              |
|                      | 33.8            | 30.1               | 2040                  | 2830                 | 32.9              | 1              |
|                      | 35.3            | 23.7               | 1620                  | 2360                 | 26.5              | 1              |
|                      | 36.8            | 14.7               | —                     | 1940                 | 17.7              | 1              |
| 64.0 meters          | 10.1            | 83.0               | 42940                 | 50360                | 65.8              | 3              |
|                      | 11.6            | 82.4               | 39540                 | 46270                | 65.8              | 3              |
|                      | 13.1            | 81.0               | 32830                 | 38250                | 65.5              | 3              |
|                      | 14.6            | 78.3               | 24040                 | 27910                | 64.9              | 2              |
|                      | 16.1            | 75.5               | 18540                 | 21540                | 64.3              | 2              |
|                      | 17.6            | 72.6               | 14760                 | 17210                | 63.4              | 2              |
|                      | 19.1            | 69.8               | 12020                 | 14070                | 62.5              | 1              |
|                      | 20.6            | 66.8               | 9920                  | 11700                | 61.3              | 1              |
|                      | 22.1            | 63.8               | 8280                  | 9840                 | 59.7              | 1              |
|                      | 23.6            | 60.7               | 6950                  | 8340                 | 58.2              | 1              |
|                      | 25.1            | 57.6               | 5850                  | 7110                 | 56.4              | 1              |
|                      | 26.6            | 54.3               | 4930                  | 6070                 | 54.3              | 1              |
|                      | 28.1            | 50.8               | 4150                  | 5190                 | 51.8              | 1              |
|                      | 29.6            | 47.2               | 3470                  | 4440                 | 49.4              | 1              |
|                      | 31.1            | 43.3               | 2880                  | 3770                 | 46.3              | 1              |
|                      | 32.6            | 39.2               | 2350                  | 3190                 | 42.7              | 1              |
|                      | 34.1            | 34.6               | 1890                  | 2680                 | 38.4              | 1              |
|                      | 35.6            | 29.3               | 1470                  | 2210                 | 33.5              | 1              |
|                      | 37.1            | 23.1               | —                     | 1790                 | 27.1              | 1              |
|                      | 38.6            | 14.3               | —                     | 1410                 | 18.0              | 1              |
| 67.1 meters          | 10.7            | 82.8               | 39430                 | 46160                | 68.9              | 3              |
|                      | 12.2            | 81.4               | 32710                 | 38130                | 68.6              | 3              |
|                      | 13.7            | 78.8               | 23910                 | 27790                | 68.3              | 2              |
|                      | 15.2            | 76.1               | 18400                 | 21410                | 67.4              | 2              |
|                      | 16.7            | 73.5               | 14630                 | 17070                | 66.8              | 2              |
|                      | 18.2            | 70.7               | 11880                 | 13930                | 65.5              | 1              |
|                      | 19.7            | 67.9               | 9780                  | 11560                | 64.6              | 1              |
|                      | 21.2            | 65.1               | 8140                  | 9700                 | 63.1              | 1              |

(Continued)



# LIFT RATINGS (cont.)

With 77S Tubular Chord Hammerhead Boom

## METRIC

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 220 feet           | 110            | 62.2               | 15010                 | 18070                | 202                 | 1              |
|                    | 120            | 59.2               | 12580                 | 15350                | 197                 | 1              |
|                    | 130            | 56.1               | 10550                 | 13070                | 190                 | 1              |
|                    | 140            | 52.9               | 8820                  | 11130                | 183                 | 1              |
|                    | 150            | 49.6               | 7330                  | 9460                 | 175                 | 1              |
|                    | 160            | 46.0               | 6020                  | 8010                 | 166                 | 1              |
|                    | 170            | 42.3               | 4870                  | 6730                 | 155                 | 1              |
|                    | 180            | 38.2               | 3850                  | 5590                 | 143                 | 1              |
|                    | 190            | 33.7               | —                     | 4570                 | 129                 | 1              |
|                    | 200            | 28.6               | —                     | 3660                 | 113                 | 1              |
| 230 feet           | 36             | 82.8               | 83270                 | 94300                | 236                 | 3              |
|                    | 40             | 81.8               | 71810                 | 83790                | 235                 | 3              |
|                    | 50             | 79.3               | 52390                 | 60960                | 234                 | 2              |
|                    | 60             | 76.8               | 40230                 | 46860                | 232                 | 2              |
|                    | 70             | 74.2               | 31900                 | 37300                | 229                 | 2              |
|                    | 80             | 71.6               | 25830                 | 30380                | 226                 | 1              |
|                    | 90             | 68.9               | 21210                 | 25130                | 222                 | 1              |
|                    | 100            | 66.2               | 17580                 | 21030                | 218                 | 1              |
|                    | 110            | 63.5               | 14640                 | 17720                | 213                 | 1              |
|                    | 120            | 60.7               | 12220                 | 14990                | 208                 | 1              |
|                    | 130            | 57.8               | 10190                 | 12710                | 202                 | 1              |
|                    | 140            | 54.8               | 8450                  | 10770                | 195                 | 1              |
|                    | 150            | 51.7               | 6960                  | 9100                 | 188                 | 1              |
|                    | 160            | 48.4               | 5660                  | 7650                 | 179                 | 1              |
|                    | 170            | 45.0               | 4510                  | 6370                 | 170                 | 1              |
|                    | 180            | 41.3               | 3490                  | 5230                 | 159                 | 1              |
|                    | 190            | 37.3               | —                     | 4220                 | 147                 | 1              |
|                    | 200            | 33.0               | —                     | 3300                 | 132                 | 1              |
| 240 feet           | 37             | 82.9               | 7840                  | 86290                | 246                 | 3              |
|                    | 40             | 82.2               | 71510                 | 83510                | 246                 | 3              |
|                    | 50             | 79.7               | 52070                 | 60650                | 244                 | 2              |
|                    | 60             | 77.3               | 39900                 | 46540                | 242                 | 2              |
|                    | 70             | 74.9               | 31560                 | 36960                | 239                 | 1              |
|                    | 80             | 72.4               | 25480                 | 30040                | 236                 | 1              |
|                    | 90             | 69.9               | 20860                 | 24790                | 233                 | 1              |
|                    | 100            | 67.3               | 17220                 | 20680                | 229                 | 1              |
|                    | 110            | 64.7               | 14280                 | 17370                | 225                 | 1              |
|                    | 120            | 62.0               | 11860                 | 14640                | 220                 | 1              |
|                    | 130            | 59.3               | 9830                  | 12360                | 214                 | 1              |
|                    | 140            | 56.4               | 8090                  | 10420                | 208                 | 1              |
|                    | 150            | 53.5               | 6600                  | 8750                 | 201                 | 1              |
|                    | 160            | 50.5               | 5300                  | 7290                 | 193                 | 1              |
|                    | 170            | 47.3               | 4150                  | 6010                 | 184                 | 1              |
|                    | 180            | 44.0               | 3130                  | 4880                 | 174                 | 1              |
|                    | 190            | 40.4               | —                     | 3860                 | 163                 | 1              |

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 67.1 meters         | 33.5            | 62.2               | 6810                  | 8200                 | 61.6              | 1              |
|                     | 36.6            | 59.2               | 5710                  | 6960                 | 60.0              | 1              |
|                     | 39.6            | 56.1               | 4790                  | 5930                 | 57.9              | 1              |
|                     | 42.7            | 52.9               | 4000                  | 5050                 | 55.8              | 1              |
|                     | 45.7            | 49.6               | 3320                  | 4290                 | 53.3              | 1              |
|                     | 48.8            | 46.0               | 2730                  | 3630                 | 50.6              | 1              |
|                     | 51.8            | 42.3               | 2210                  | 3050                 | 47.2              | 1              |
|                     | 54.9            | 38.2               | 1750                  | 2540                 | 43.6              | 1              |
|                     | 57.9            | 33.7               | —                     | 2070                 | 39.3              | 1              |
|                     | 61.0            | 28.6               | —                     | 1660                 | 34.4              | 1              |
| 70.1 meters         | 11.0            | 82.8               | 37770                 | 42770                | 71.9              | 3              |
|                     | 12.2            | 81.8               | 32570                 | 38010                | 71.6              | 3              |
|                     | 15.2            | 79.3               | 23760                 | 27650                | 71.3              | 2              |
|                     | 18.3            | 76.8               | 18250                 | 21260                | 70.7              | 2              |
|                     | 21.3            | 74.2               | 14470                 | 16920                | 69.8              | 2              |
|                     | 24.4            | 71.6               | 11720                 | 13780                | 68.9              | 1              |
|                     | 27.4            | 68.9               | 9620                  | 11400                | 67.7              | 1              |
|                     | 30.5            | 66.2               | 7970                  | 9540                 | 66.4              | 1              |
|                     | 33.5            | 63.5               | 6640                  | 8040                 | 64.9              | 1              |
|                     | 36.6            | 60.7               | 5540                  | 6800                 | 63.4              | 1              |
|                     | 39.6            | 57.8               | 4620                  | 5770                 | 61.6              | 1              |
|                     | 42.7            | 54.8               | 3830                  | 4890                 | 59.4              | 1              |
|                     | 45.7            | 51.7               | 3160                  | 4130                 | 57.3              | 1              |
|                     | 48.8            | 48.4               | 2570                  | 3470                 | 54.6              | 1              |
|                     | 51.8            | 45.0               | 2050                  | 2890                 | 51.8              | 1              |
|                     | 54.9            | 41.3               | 1580                  | 2370                 | 48.5              | 1              |
|                     | 57.9            | 37.3               | —                     | 1910                 | 44.8              | 1              |
|                     | 61.0            | 33.0               | —                     | 1500                 | 40.2              | 1              |
| 73.2 meters         | 11.3            | 82.9               | 36220                 | 39140                | 75.0              | 3              |
|                     | 12.2            | 82.2               | 32440                 | 37880                | 75.0              | 3              |
|                     | 15.2            | 79.7               | 23620                 | 27510                | 74.4              | 2              |
|                     | 18.3            | 77.3               | 18100                 | 21110                | 73.8              | 2              |
|                     | 21.3            | 74.9               | 14320                 | 16770                | 72.8              | 1              |
|                     | 24.4            | 72.4               | 11560                 | 13630                | 71.9              | 1              |
|                     | 27.4            | 69.9               | 9460                  | 11240                | 71.0              | 1              |
|                     | 30.5            | 67.3               | 7810                  | 9380                 | 69.8              | 1              |
|                     | 33.5            | 64.7               | 6480                  | 7880                 | 68.6              | 1              |
|                     | 36.6            | 62.0               | 5380                  | 6640                 | 67.1              | 1              |
|                     | 39.6            | 59.3               | 4460                  | 5610                 | 65.2              | 1              |
|                     | 42.7            | 56.4               | 3670                  | 4730                 | 63.4              | 1              |
|                     | 45.7            | 53.5               | 2990                  | 3970                 | 61.3              | 1              |
|                     | 48.8            | 50.5               | 2400                  | 3310                 | 58.8              | 1              |
|                     | 51.8            | 47.3               | 1880                  | 2730                 | 56.1              | 1              |
|                     | 54.9            | 44.0               | 1420                  | 2210                 | 53.0              | 1              |
|                     | 57.9            | 40.4               | —                     | 1750                 | 49.7              | 1              |

# LIFT RATINGS With 77S Tubular Chord Tapered

Tip Boom and "P-P" Counterweight (105,000 Lbs.) (47,628 kg)

## METRIC

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 100                | 21             | 80.8               | —                     | 222580               | 105                 | 6              |
|                    | 25             | 78.5               | —                     | 171840               | 105                 | 5              |
|                    | 30             | 75.6               | —                     | 132100               | 104                 | 4              |
|                    | 35             | 72.6               | —                     | 106980               | 102                 | 3              |
|                    | 40             | 69.6               | 77980                 | 89650                | 100                 | 3              |
|                    | 50             | 63.3               | 58950                 | 67290                | 96                  | 2              |
|                    | 60             | 56.7               | 47030                 | 53490                | 90                  | 2              |
|                    | 70             | 49.5               | 38850                 | 44110                | 83                  | 2              |
|                    | 80             | 41.5               | 32880                 | 37310                | 73                  | 2              |
|                    | 90             | 31.9               | 28320                 | 32140                | 60                  | 1              |
|                    | 100            | 18.3               | 24720                 | 28070                | 38                  | 1              |
| 110                | 23             | 80.6               | —                     | 194950               | 115                 | 6              |
|                    | 25             | 79.6               | —                     | 171710               | 115                 | 5              |
|                    | 30             | 76.9               | —                     | 131940               | 114                 | 4              |
|                    | 35             | 74.2               | 92270                 | 106780               | 113                 | 3              |
|                    | 40             | 71.5               | 77740                 | 89440                | 111                 | 3              |
|                    | 50             | 65.9               | 58700                 | 67060                | 107                 | 2              |
|                    | 60             | 60.0               | 46780                 | 53250                | 102                 | 2              |
|                    | 70             | 53.8               | 38590                 | 43860                | 96                  | 2              |
|                    | 80             | 47.1               | 32620                 | 37060                | 87                  | 1              |
|                    | 90             | 39.5               | 28070                 | 31900                | 77                  | 1              |
|                    | 100            | 30.3               | 24480                 | 27850                | 62                  | 1              |
|                    | 110            | 17.5               | 21560                 | 24560                | 40                  | 1              |

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 30.5                | 6.4             | 80.8               | —                     | 101080               | 32.0              | 6              |
|                     | 7.6             | 78.5               | —                     | 77950                | 32.0              | 5              |
|                     | 9.1             | 75.6               | —                     | 59920                | 31.7              | 4              |
|                     | 10.7            | 72.6               | —                     | 48530                | 31.1              | 3              |
|                     | 12.2            | 69.6               | 35370                 | 40670                | 30.5              | 3              |
|                     | 15.2            | 63.3               | 26740                 | 30520                | 29.3              | 2              |
|                     | 18.3            | 56.7               | 21330                 | 24260                | 27.4              | 2              |
|                     | 21.3            | 49.5               | 17620                 | 20010                | 25.3              | 2              |
|                     | 24.4            | 41.5               | 14910                 | 16920                | 22.3              | 2              |
|                     | 27.4            | 31.9               | 12850                 | 14580                | 18.3              | 1              |
|                     | 30.5            | 18.3               | 11210                 | 12730                | 11.6              | 1              |
| 33.5                | 7.0             | 80.6               | —                     | 88430                | 35.1              | 6              |
|                     | 7.6             | 79.6               | —                     | 77890                | 35.1              | 5              |
|                     | 9.1             | 76.9               | —                     | 59850                | 34.7              | 4              |
|                     | 10.7            | 74.2               | 41850                 | 48440                | 34.4              | 3              |
|                     | 12.2            | 71.5               | 35260                 | 40570                | 33.8              | 3              |
|                     | 15.2            | 65.9               | 26630                 | 30420                | 32.6              | 2              |
|                     | 18.3            | 60.0               | 21220                 | 24150                | 31.1              | 2              |
|                     | 21.3            | 53.8               | 17500                 | 19890                | 29.3              | 2              |
|                     | 24.4            | 47.1               | 14800                 | 16810                | 26.5              | 1              |
|                     | 27.4            | 39.5               | 12730                 | 14470                | 23.5              | 1              |
|                     | 30.5            | 30.3               | 11100                 | 12630                | 18.9              | 1              |
|                     | 33.5            | 17.5               | 9780                  | 11140                | 12.2              | 1              |

(Continued)



# LIFT RATINGS (cont.)

With 77S Tubular Chord Tapered Tip Boom

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 120 feet           | 24             | 80.9               | —                     | 182480               | 125                 | 5              |
|                    | 25             | 80.4               | —                     | 171570               | 125                 | 5              |
|                    | 30             | 78.0               | —                     | 131750               | 124                 | 4              |
|                    | 35             | 75.6               | 92040                 | 106580               | 123                 | 3              |
|                    | 40             | 73.1               | 77500                 | 89220                | 122                 | 3              |
|                    | 50             | 68.0               | 58450                 | 66830                | 118                 | 2              |
|                    | 60             | 62.8               | 46510                 | 53000                | 113                 | 2              |
|                    | 70             | 57.2               | 38330                 | 43610                | 108                 | 2              |
|                    | 80             | 51.4               | 32360                 | 36810                | 100                 | 1              |
|                    | 90             | 44.9               | 27810                 | 31650                | 92                  | 1              |
|                    | 100            | 37.7               | 24230                 | 27600                | 80                  | 1              |
|                    | 110            | 29.0               | 21320                 | 24330                | 65                  | 1              |
|                    | 120            | 16.7               | 18900                 | 21620                | 41                  | 1              |
| 130 feet           | 26             | 80.7               | —                     | 161670               | 135                 | 5              |
|                    | 30             | 78.9               | —                     | 131540               | 134                 | 4              |
|                    | 35             | 76.7               | 91770                 | 106340               | 133                 | 3              |
|                    | 40             | 74.4               | 77220                 | 88960                | 132                 | 3              |
|                    | 50             | 69.8               | 58160                 | 66550                | 129                 | 2              |
|                    | 60             | 65.0               | 46220                 | 52720                | 125                 | 2              |
|                    | 70             | 60.0               | 38030                 | 43320                | 119                 | 2              |
|                    | 80             | 54.8               | 32060                 | 36510                | 113                 | 1              |
|                    | 90             | 49.2               | 27510                 | 31360                | 105                 | 1              |
|                    | 100            | 43.1               | 23930                 | 27310                | 96                  | 1              |
|                    | 110            | 36.2               | 21020                 | 24040                | 83                  | 1              |
|                    | 120            | 27.9               | 18620                 | 21340                | 68                  | 1              |
|                    | 130            | 16.0               | 16590                 | 19070                | 43                  | 1              |
| 140 feet           | 27             | 81.0               | —                     | 152760               | 145                 | 5              |
|                    | 30             | 79.7               | 112270                | 131320               | 145                 | 4              |
|                    | 35             | 77.7               | 91500                 | 106100               | 144                 | 3              |
|                    | 40             | 75.5               | 76940                 | 88700                | 142                 | 3              |
|                    | 50             | 71.3               | 57870                 | 66280                | 139                 | 2              |
|                    | 60             | 66.9               | 45920                 | 52430                | 136                 | 2              |
|                    | 70             | 62.4               | 37730                 | 43030                | 131                 | 2              |
|                    | 80             | 57.6               | 31760                 | 36220                | 125                 | 1              |
|                    | 90             | 52.6               | 27210                 | 31060                | 118                 | 1              |
|                    | 100            | 47.3               | 23630                 | 27010                | 110                 | 1              |
|                    | 110            | 41.4               | 20730                 | 23750                | 99                  | 1              |
|                    | 120            | 34.8               | 18330                 | 21050                | 87                  | 1              |
|                    | 130            | 26.8               | 16310                 | 18790                | 70                  | 1              |
|                    | 140            | 15.5               | 14580                 | 16850                | 44                  | 1              |
| 150 feet           | 29             | 80.8               | 117330                | 137620               | 155                 | 4              |
|                    | 30             | 80.4               | 112070                | 131140               | 155                 | 4              |
|                    | 35             | 78.5               | 91280                 | 105900               | 154                 | 3              |
|                    | 40             | 76.5               | 76710                 | 88490                | 153                 | 3              |
|                    | 50             | 72.6               | 57620                 | 66040                | 150                 | 2              |
|                    | 60             | 68.5               | 45670                 | 52190                | 146                 | 2              |
|                    | 70             | 64.3               | 37470                 | 42780                | 142                 | 2              |
|                    | 80             | 60.0               | 31500                 | 35970                | 137                 | 1              |
|                    | 90             | 55.5               | 26950                 | 30810                | 130                 | 1              |
|                    | 100            | 50.7               | 23370                 | 26760                | 123                 | 1              |
|                    | 110            | 45.6               | 20470                 | 23500                | 114                 | 1              |
|                    | 120            | 40.0               | 18080                 | 20810                | 103                 | 1              |
|                    | 130            | 33.6               | 16070                 | 18550                | 90                  | 1              |
|                    | 140            | 25.9               | 14350                 | 16630                | 72                  | 1              |
|                    | 150            | 14.9               | 12850                 | 14950                | 45                  | 1              |
| 160 feet           | 31             | 80.7               | 106950                | 124980               | 165                 | 4              |
|                    | 35             | 79.2               | 90990                 | 105630               | 164                 | 3              |
|                    | 40             | 77.4               | 76410                 | 88210                | 163                 | 3              |
|                    | 50             | 73.7               | 57310                 | 65740                | 160                 | 2              |
|                    | 60             | 69.9               | 45340                 | 51880                | 157                 | 2              |
|                    | 70             | 66.1               | 37140                 | 42460                | 153                 | 2              |
|                    | 80             | 62.1               | 31170                 | 35650                | 148                 | 1              |
|                    | 90             | 57.9               | 26620                 | 30490                | 142                 | 1              |
|                    | 100            | 53.6               | 23040                 | 26440                | 136                 | 1              |
|                    | 110            | 49.0               | 20140                 | 23170                | 128                 | 1              |
|                    | 120            | 44.1               | 17750                 | 20480                | 118                 | 1              |
|                    | 130            | 38.7               | 15740                 | 18230                | 107                 | 1              |
|                    | 140            | 32.5               | 14020                 | 16310                | 93                  | 1              |
|                    | 150            | 25.1               | 12540                 | 14650                | 75                  | 1              |
|                    | 160            | 14.5               | 11230                 | 13190                | 47                  | 1              |
| 170 feet           | 32             | 80.9               | 102210                | 119290               | 175                 | 4              |
|                    | 35             | 79.9               | 90700                 | 105370               | 174                 | 3              |
|                    | 40             | 78.1               | 76110                 | 87930                | 173                 | 3              |
|                    | 50             | 74.7               | 56990                 | 65440                | 171                 | 2              |
|                    | 60             | 71.1               | 45020                 | 51570                | 168                 | 2              |
|                    | 70             | 67.5               | 36820                 | 42150                | 164                 | 2              |
|                    | 80             | 63.8               | 30840                 | 35330                | 159                 | 1              |
|                    | 90             | 60.0               | 26290                 | 30160                | 154                 | 1              |
|                    | 100            | 56.1               | 22710                 | 26110                | 148                 | 1              |
|                    | 110            | 51.9               | 19810                 | 22850                | 141                 | 1              |
|                    | 120            | 47.5               | 17420                 | 20160                | 132                 | 1              |
|                    | 130            | 42.7               | 15410                 | 17910                | 122                 | 1              |

## METRIC

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 36.6 meters         | 7.3             | 80.9               | —                     | 82770                | 38.1              | 5              |
|                     | 7.6             | 80.4               | —                     | 77820                | 38.1              | 5              |
|                     | 9.1             | 78.0               | —                     | 59760                | 37.8              | 4              |
|                     | 10.7            | 75.6               | 41750                 | 48340                | 37.5              | 3              |
|                     | 12.2            | 73.1               | 35150                 | 40470                | 37.2              | 3              |
|                     | 15.2            | 68.0               | 26510                 | 30310                | 36.0              | 2              |
|                     | 18.3            | 62.8               | 21100                 | 24040                | 34.4              | 2              |
|                     | 21.3            | 57.2               | 17390                 | 19780                | 32.9              | 2              |
|                     | 24.4            | 51.4               | 14680                 | 16700                | 30.5              | 1              |
|                     | 27.4            | 44.9               | 12610                 | 14360                | 28.0              | 1              |
|                     | 30.5            | 37.7               | 10990                 | 12520                | 24.4              | 1              |
|                     | 33.5            | 29.0               | 9670                  | 11040                | 19.8              | 1              |
|                     | 36.6            | 16.7               | 8570                  | 9810                 | 12.5              | 1              |
| 39.6 meters         | 7.9             | 80.7               | —                     | 73330                | 41.1              | 5              |
|                     | 9.1             | 78.9               | 51040                 | 59670                | 40.8              | 4              |
|                     | 10.7            | 76.7               | 41630                 | 48240                | 40.5              | 3              |
|                     | 12.2            | 74.4               | 35030                 | 40350                | 40.2              | 3              |
|                     | 15.2            | 69.8               | 26380                 | 30190                | 38.3              | 2              |
|                     | 18.3            | 65.0               | 20970                 | 23910                | 36.1              | 2              |
|                     | 21.3            | 60.0               | 17250                 | 19650                | 33.3              | 2              |
|                     | 24.4            | 54.8               | 14540                 | 16560                | 34.4              | 1              |
|                     | 27.4            | 49.2               | 12480                 | 14220                | 32.0              | 1              |
|                     | 30.5            | 43.1               | 10850                 | 12390                | 29.3              | 1              |
|                     | 33.5            | 36.2               | 9530                  | 10900                | 25.3              | 1              |
|                     | 36.6            | 27.9               | 8450                  | 9680                 | 20.7              | 1              |
|                     | 39.6            | 16.0               | 7530                  | 8650                 | 13.1              | 1              |
| 42.7 meters         | 8.2             | 81.0               | —                     | 69290                | 44.2              | 5              |
|                     | 9.1             | 79.7               | 50930                 | 59570                | 44.2              | 4              |
|                     | 10.7            | 77.7               | 41500                 | 48130                | 43.9              | 3              |
|                     | 12.2            | 75.5               | 34900                 | 40230                | 43.3              | 3              |
|                     | 15.2            | 71.3               | 26250                 | 30060                | 42.4              | 2              |
|                     | 18.3            | 66.9               | 20830                 | 23780                | 41.5              | 2              |
|                     | 21.3            | 62.4               | 17110                 | 19520                | 39.9              | 2              |
|                     | 24.4            | 57.6               | 14410                 | 16430                | 38.1              | 1              |
|                     | 27.4            | 52.6               | 12340                 | 14090                | 36.0              | 1              |
|                     | 30.5            | 47.3               | 10720                 | 12250                | 33.5              | 1              |
|                     | 33.5            | 41.4               | 9400                  | 10770                | 30.2              | 1              |
|                     | 36.6            | 34.8               | 8310                  | 9520                 | 26.5              | 1              |
|                     | 39.6            | 26.8               | 7400                  | 8520                 | 21.3              | 1              |
|                     | 42.7            | 15.5               | 6610                  | 7940                 | 13.4              | 1              |
| 45.7 meters         | 8.8             | 80.8               | 53220                 | 62420                | 47.2              | 4              |
|                     | 9.1             | 80.4               | 50830                 | 59480                | 47.2              | 4              |
|                     | 10.7            | 78.5               | 41400                 | 48040                | 46.9              | 3              |
|                     | 12.2            | 76.5               | 34800                 | 40140                | 46.6              | 3              |
|                     | 15.2            | 72.6               | 26140                 | 30060                | 45.7              | 2              |
|                     | 18.3            | 68.5               | 20720                 | 23670                | 44.5              | 2              |
|                     | 21.3            | 64.3               | 17000                 | 19410                | 43.3              | 2              |
|                     | 24.4            | 60.0               | 14290                 | 16220                | 41.8              | 1              |
|                     | 27.4            | 55.5               | 12220                 | 13880                | 39.6              | 1              |
|                     | 30.5            | 50.7               | 10600                 | 12140                | 37.5              | 1              |
|                     | 33.5            | 45.6               | 9290                  | 10860                | 34.7              | 1              |
|                     | 36.6            | 40.0               | 8200                  | 9440                 | 31.4              | 1              |
|                     | 39.6            | 33.6               | 7290                  | 8410                 | 27.4              | 1              |
|                     | 42.7            | 25.9               | 6510                  | 7540                 | 21.9              | 1              |
|                     | 45.7            | 14.9               | 5830                  | 6780                 | 13.7              | 1              |
| 48.8 meters         | 9.4             | 80.7               | 48510                 | 56890                | 50.3              | 4              |
|                     | 10.7            | 79.2               | 41270                 | 47910                | 50.0              | 3              |
|                     | 12.2            | 77.4               | 34660                 | 40010                | 49.7              | 3              |
|                     | 15.2            | 73.7               | 26000                 | 29620                | 48.8              | 2              |
|                     | 18.3            | 69.9               | 20570                 | 23530                | 47.9              | 2              |
|                     | 21.3            | 66.1               | 16850                 | 19250                | 46.6              | 2              |
|                     | 24.4            | 62.1               | 14140                 | 16170                | 45.1              | 1              |
|                     | 27.4            | 57.9               | 12070                 | 13830                | 43.3              | 1              |
|                     | 30.5            | 53.6               | 10450                 | 11990                | 41.5              | 1              |
|                     | 33.5            | 49.0               | 9140                  | 10510                | 39.0              | 1              |
|                     | 36.6            | 44.1               | 8050                  | 9290                 | 36.0              | 1              |
|                     | 39.6            | 38.7               | 7140                  | 8270                 | 32.6              | 1              |
|                     | 42.7            | 32.5               | 6360                  | 7400                 | 28.3              | 1              |
|                     | 45.7            | 25.1               | 5690                  | 6650                 | 22.9              | 1              |
|                     | 48.8            | 14.5               | 5090                  | 5980                 | 14.3              | 1              |
| 51.8 meters         | 9.8             | 80.9               | 46360                 | 54110                | 53.3              | 4              |
|                     | 10.7            | 79.9               | 41140                 | 47800                | 53.0              | 3              |
|                     | 12.2            | 78.1               | 34520                 | 39890                | 52.7              | 3              |
|                     | 15.2            | 74.7               | 25850                 | 29680                | 52.1              | 2              |
|                     | 18.3            | 71.1               | 20420                 | 23390                | 51.2              | 2              |
|                     | 21.3            | 67.5               | 16700                 | 19120                | 50.0              | 2              |
|                     | 24.4            | 63.8               | 13990                 | 16030                | 48.5              | 1              |
|                     | 27.4            | 60.0               | 11930                 | 13680                | 46.9              | 1              |
|                     | 30.5            | 56.1               | 10300                 | 11840                | 45.1              | 1              |
|                     | 33.5            | 51.9               | 8990                  | 10360                | 43.0              | 1              |
|                     | 36.6            | 47.5               | 7900                  | 9140                 | 40.2              | 1              |
|                     | 39.6            | 42.7               | 6990                  | 8120                 | 37.2              | 1              |

(Continued)



# LIFT RATINGS (cont.)

With 77S Tubular Chord Tapered Tip Boom

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 170 feet cont.     | 140            | 37.5               | 13700                 | 15990                | 110                 | 1              |
|                    | 150            | 31.5               | 12220                 | 14330                | 96                  | 1              |
|                    | 160            | 24.3               | 10920                 | 12890                | 77                  | 1              |
|                    | 170            | 14.0               | 9770                  | 11600                | 48                  | 1              |
|                    |                |                    |                       |                      |                     |                |
| 180 feet           | 34             | 80.7               | 93950                 | 109380               | 184                 | 3              |
|                    | 35             | 80.4               | 90400                 | 105090               | 184                 | 3              |
|                    | 40             | 78.8               | 75790                 | 87630                | 183                 | 3              |
|                    | 50             | 75.5               | 56660                 | 65130                | 181                 | 2              |
|                    | 60             | 72.2               | 44680                 | 51240                | 178                 | 2              |
|                    | 70             | 68.9               | 36470                 | 41810                | 175                 | 2              |
|                    | 80             | 65.4               | 30490                 | 34990                | 170                 | 1              |
|                    | 90             | 61.8               | 25940                 | 29820                | 165                 | 1              |
|                    | 100            | 58.2               | 22360                 | 25770                | 160                 | 1              |
|                    | 110            | 54.3               | 19460                 | 22500                | 153                 | 1              |
|                    | 120            | 50.3               | 17070                 | 19820                | 145                 | 1              |
|                    | 130            | 46.0               | 15060                 | 17560                | 136                 | 1              |
|                    | 140            | 41.4               | 13350                 | 15650                | 126                 | 1              |
|                    | 150            | 36.4               | 11870                 | 13990                | 113                 | 1              |
|                    | 160            | 30.6               | 10580                 | 12550                | 98                  | 1              |
|                    | 170            | 23.6               | 9440                  | 11280                | 79                  | 1              |
|                    | 180            | 13.6               | 8410                  | 10140                | 49                  | 1              |
|                    |                |                    |                       |                      |                     |                |
| 190 feet           | 35             | 80.9               | 90090                 | 104810               | 194                 | 3              |
|                    | 40             | 79.4               | 75480                 | 87340                | 194                 | 3              |
|                    | 50             | 76.3               | 56330                 | 64820                | 191                 | 2              |
|                    | 60             | 73.2               | 44350                 | 50920                | 189                 | 2              |
|                    | 70             | 70.0               | 36130                 | 41480                | 185                 | 2              |
|                    | 80             | 66.8               | 30150                 | 34650                | 181                 | 1              |
|                    | 90             | 63.4               | 25590                 | 29480                | 177                 | 1              |
|                    | 100            | 60.0               | 22010                 | 25430                | 171                 | 1              |
|                    | 110            | 56.5               | 19110                 | 22160                | 165                 | 1              |
|                    | 120            | 52.8               | 16720                 | 19470                | 158                 | 1              |
|                    | 130            | 48.9               | 14720                 | 17220                | 150                 | 1              |
|                    | 140            | 44.7               | 13010                 | 15310                | 141                 | 1              |
|                    | 150            | 40.3               | 11530                 | 13650                | 130                 | 1              |
|                    | 160            | 35.4               | 10240                 | 12220                | 117                 | 1              |
|                    | 170            | 29.8               | 9100                  | 10950                | 101                 | 1              |
|                    | 180            | 23.0               | 8090                  | 9820                 | 81                  | 1              |
|                    | 190            | 13.3               | 7170                  | 8800                 | 50                  | 1              |
|                    |                |                    |                       |                      |                     |                |
| 200 feet           | 37             | 80.8               | 83400                 | 96850                | 204                 | 3              |
|                    | 40             | 79.9               | 75200                 | 87080                | 204                 | 3              |
|                    | 50             | 77.0               | 56040                 | 64540                | 202                 | 2              |
|                    | 60             | 74.1               | 44050                 | 50630                | 199                 | 2              |
|                    | 70             | 71.1               | 35830                 | 41190                | 196                 | 2              |
|                    | 80             | 68.0               | 29840                 | 34350                | 192                 | 1              |
|                    | 90             | 64.9               | 25290                 | 29180                | 188                 | 1              |
|                    | 100            | 61.7               | 21700                 | 25130                | 183                 | 1              |
|                    | 110            | 58.4               | 18810                 | 21860                | 177                 | 1              |
|                    | 120            | 54.9               | 16420                 | 19170                | 170                 | 1              |
|                    | 130            | 51.3               | 14410                 | 16920                | 163                 | 1              |
|                    | 140            | 47.6               | 12700                 | 15000                | 154                 | 1              |
|                    | 150            | 43.6               | 11220                 | 13350                | 145                 | 1              |
|                    | 160            | 39.2               | 9940                  | 11920                | 133                 | 1              |
|                    | 170            | 34.4               | 8800                  | 10650                | 120                 | 1              |
|                    | 180            | 29.0               | 7790                  | 9530                 | 104                 | 1              |
|                    | 190            | 22.4               | 6890                  | 8520                 | 83                  | 1              |
|                    | 200            | 12.9               | 6060                  | 7610                 | 51                  | 1              |
|                    |                |                    |                       |                      |                     |                |
| 210 feet           | 38             | 81.0               | 80170                 | 93080                | 214                 | 3              |
|                    | 40             | 80.4               | 74880                 | 86770                | 214                 | 3              |
|                    | 50             | 77.6               | 55700                 | 64210                | 212                 | 2              |
|                    | 60             | 74.8               | 43700                 | 50290                | 209                 | 2              |
|                    | 70             | 72.0               | 35480                 | 40840                | 206                 | 2              |
|                    | 80             | 69.1               | 29490                 | 34010                | 203                 | 1              |
|                    | 90             | 66.1               | 24930                 | 28830                | 199                 | 1              |
|                    | 100            | 63.1               | 21340                 | 24770                | 194                 | 1              |
|                    | 110            | 60.0               | 18440                 | 21500                | 189                 | 1              |
|                    | 120            | 56.8               | 16050                 | 18810                | 183                 | 1              |
|                    | 130            | 53.5               | 14050                 | 16560                | 176                 | 1              |
|                    | 140            | 50.0               | 12340                 | 14650                | 168                 | 1              |
|                    | 150            | 46.4               | 10860                 | 13000                | 159                 | 1              |
|                    | 160            | 42.5               | 9580                  | 11560                | 149                 | 1              |
|                    | 170            | 38.2               | 8440                  | 10300                | 137                 | 1              |
|                    | 180            | 33.6               | 7440                  | 9180                 | 123                 | 1              |
|                    | 190            | 28.3               | 6540                  | 8170                 | 106                 | 1              |
|                    | 200            | 21.8               | 5720                  | 7270                 | 85                  | 1              |
|                    | 210            | 12.6               | 4980                  | 6440                 | 53                  | 1              |
|                    |                |                    |                       |                      |                     |                |
| 220 feet           | 40             | 80.9               | 74560                 | 86470                | 224                 | 3              |
|                    | 50             | 78.2               | 55370                 | 63890                | 222                 | 2              |
|                    | 60             | 75.5               | 43360                 | 49960                | 220                 | 2              |
|                    | 70             | 72.8               | 35130                 | 40500                | 217                 | 2              |

## METRIC

| Boom Length (Meters) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|----------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 51.8 meters cont.    | 42.7            | 37.5               | 6210                  | 7250                 | 33.5              | 1              |
|                      | 45.7            | 31.5               | 5540                  | 6500                 | 29.3              | 1              |
|                      | 48.8            | 24.3               | 4950                  | 5850                 | 23.5              | 1              |
|                      | 51.8            | 14.0               | 4430                  | 5260                 | 14.6              | 1              |
|                      |                 |                    |                       |                      |                   |                |
| 54.9 meters          | 10.4            | 80.7               | 42620                 | 49610                | 56.1              | 3              |
|                      | 10.7            | 80.4               | 41010                 | 47670                | 56.1              | 3              |
|                      | 12.2            | 78.8               | 34380                 | 39750                | 55.8              | 3              |
|                      | 15.2            | 75.5               | 25700                 | 29540                | 55.2              | 2              |
|                      | 18.3            | 72.2               | 20270                 | 23240                | 54.3              | 2              |
|                      | 21.3            | 68.9               | 16540                 | 18970                | 53.3              | 2              |
|                      | 24.4            | 65.4               | 13830                 | 15870                | 51.8              | 1              |
|                      | 27.4            | 61.8               | 11770                 | 13530                | 50.3              | 1              |
|                      | 30.5            | 58.2               | 10140                 | 11690                | 48.8              | 1              |
|                      | 33.5            | 54.3               | 8830                  | 10210                | 46.6              | 1              |
|                      | 36.6            | 50.3               | 7740                  | 8990                 | 44.2              | 1              |
|                      | 39.6            | 46.0               | 6830                  | 7970                 | 41.5              | 1              |
|                      | 42.7            | 41.4               | 6060                  | 7100                 | 38.4              | 1              |
|                      | 45.7            | 36.4               | 5380                  | 6350                 | 34.4              | 1              |
|                      | 48.8            | 30.6               | 4800                  | 5690                 | 29.9              | 1              |
|                      | 51.8            | 23.6               | 4280                  | 5120                 | 24.1              | 1              |
|                      | 54.9            | 13.6               | 3810                  | 4600                 | 14.9              | 1              |
|                      |                 |                    |                       |                      |                   |                |
| 57.9 meters          | 10.7            | 80.9               | 40860                 | 47540                | 59.1              | 3              |
|                      | 12.2            | 79.4               | 34240                 | 39620                | 59.1              | 3              |
|                      | 15.2            | 76.3               | 25550                 | 29400                | 58.2              | 2              |
|                      | 18.3            | 73.2               | 20120                 | 23100                | 57.6              | 2              |
|                      | 21.3            | 70.0               | 16390                 | 18820                | 56.4              | 2              |
|                      | 24.4            | 66.8               | 13680                 | 15720                | 55.2              | 1              |
|                      | 27.4            | 63.4               | 11610                 | 13370                | 53.9              | 1              |
|                      | 30.5            | 60.0               | 9980                  | 11540                | 52.1              | 1              |
|                      | 33.5            | 56.5               | 8670                  | 10050                | 50.3              | 1              |
|                      | 36.6            | 52.8               | 7580                  | 8830                 | 48.2              | 1              |
|                      | 39.6            | 48.9               | 6680                  | 7810                 | 45.7              | 1              |
|                      | 42.7            | 44.7               | 5900                  | 6940                 | 43.0              | 1              |
|                      | 45.7            | 40.3               | 5230                  | 6190                 | 39.6              | 1              |
|                      | 48.8            | 35.4               | 4640                  | 5540                 | 35.7              | 1              |
|                      | 51.8            | 29.8               | 4130                  | 4970                 | 30.8              | 1              |
|                      | 54.9            | 23.0               | 3670                  | 4450                 | 24.7              | 1              |
|                      | 57.9            | 13.3               | 3250                  | 3990                 | 15.2              | 1              |
|                      |                 |                    |                       |                      |                   |                |
| 61.0 meters          | 11.3            | 80.8               | 37830                 | 43930                | 62.2              | 3              |
|                      | 12.2            | 79.9               | 34110                 | 39500                | 62.2              | 3              |
|                      | 15.2            | 77.0               | 25420                 | 29280                | 61.6              | 2              |
|                      | 18.3            | 74.1               | 19980                 | 22970                | 60.7              | 2              |
|                      | 21.3            | 71.1               | 16250                 | 18680                | 59.7              | 2              |
|                      | 24.4            | 68.0               | 13540                 | 15580                | 58.5              | 1              |
|                      | 27.4            | 64.9               | 11470                 | 13240                | 57.3              | 1              |
|                      | 30.5            | 61.7               | 9840                  | 11400                | 55.8              | 1              |
|                      | 33.5            | 58.4               | 8530                  | 9920                 | 53.9              | 1              |
|                      | 36.6            | 54.9               | 7450                  | 8700                 | 51.8              | 1              |
|                      | 39.6            | 51.3               | 6540                  | 7670                 | 49.7              | 1              |
|                      | 42.7            | 47.6               | 5760                  | 6800                 | 46.9              | 1              |
|                      | 45.7            | 43.6               | 5090                  | 6060                 | 44.2              | 1              |
|                      | 48.8            | 39.2               | 4510                  | 5410                 | 40.5              | 1              |
|                      | 51.8            | 34.4               | 3990                  | 4830                 | 36.6              | 1              |
|                      | 54.9            | 29.0               | 3530                  | 4320                 | 31.7              | 1              |
|                      | 57.9            | 22.4               | 3130                  | 3860                 | 25.3              | 1              |
|                      | 61.0            | 12.9               | 2750                  | 3450                 | 15.5              | 1              |
|                      |                 |                    |                       |                      |                   |                |
| 64.0 meters          | 11.6            | 81.0               | 36370                 | 42220                | 65.2              | 3              |
|                      | 12.2            | 80.4               | 33970                 | 39360                | 65.2              | 3              |
|                      | 15.2            | 77.6               | 25270                 | 29130                | 64.6              | 2              |
|                      | 18.3            | 74.8               | 19820                 | 22810                | 63.7              | 2              |
|                      | 21.3            | 72.0               | 16090                 | 18530                | 62.8              | 2              |
|                      | 24.4            | 69.1               | 13380                 | 15430                | 61.9              | 1              |
|                      | 27.4            | 66.1               | 11310                 | 13080                | 60.7              | 1              |
|                      | 30.5            | 63.1               | 9680                  | 11240                | 59.1              | 1              |
|                      | 33.5            | 60.0               | 8360                  | 9750                 | 57.6              | 1              |
|                      | 36.6            | 56.8               | 7280                  | 8530                 | 55.8              | 1              |
|                      | 39.6            | 53.5               | 6370                  | 7510                 | 53.6              | 1              |
|                      | 42.7            | 50.0               | 5600                  | 6650                 | 51.2              | 1              |
|                      | 45.7            | 46.4               | 4930                  | 5900                 | 48.5              | 1              |
|                      | 48.8            | 42.5               | 4350                  | 5240                 | 45.4              | 1              |
|                      | 51.8            | 38.2               | 3830                  | 4670                 | 41.8              | 1              |
|                      | 54.9            | 33.6               | 3370                  | 4160                 | 37.5              | 1              |
|                      | 57.9            | 28.3               | 2970                  | 3710                 | 32.3              | 1              |
|                      | 61.0            | 21.8               | 2590                  | 3300                 | 25.9              | 1              |
|                      | 64.0            | 12.6               | 2260                  | 2920                 | 16.2              | 1              |
|                      |                 |                    |                       |                      |                   |                |
| 6.71 meters          | 12.2            | 80.9               | 33820                 | 39220                | 68.3              | 3              |
|                      | 15.2            | 78.2               | 25120                 | 28980                | 67.7              | 2              |
|                      | 18.3            | 75.5               | 19670                 | 22660                | 67.1              | 2              |
|                      | 21.3            | 72.8               | 15930                 | 18370                | 66.1              | 2              |

(Continued)



# LIFT RATINGS (cont.)

With 77S Tubular Chord Tapered Tip Boom

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 220 feet cont.     | 80             | 70.1               | 29130                 | 33660                | 214                 | 1              |
|                    | 90             | 67.3               | 24570                 | 28480                | 210                 | 1              |
|                    | 100            | 64.4               | 20990                 | 24420                | 205                 | 1              |
|                    | 110            | 61.5               | 18090                 | 21150                | 200                 | 1              |
|                    | 120            | 58.5               | 15700                 | 18460                | 194                 | 1              |
|                    | 130            | 55.4               | 13690                 | 16210                | 188                 | 1              |
|                    | 140            | 52.2               | 11980                 | 14290                | 181                 | 1              |
|                    | 150            | 48.8               | 10510                 | 12640                | 172                 | 1              |
|                    | 160            | 45.2               | 9220                  | 11210                | 163                 | 1              |
|                    | 170            | 41.4               | 8090                  | 9940                 | 152                 | 1              |
|                    | 180            | 37.3               | 7090                  | 8830                 | 140                 | 1              |
|                    | 190            | 32.8               | 6190                  | 7830                 | 126                 | 1              |
|                    | 200            | 27.6               | 5380                  | 6920                 | 109                 | 1              |
|                    | 210            | 21.3               | 4640                  | 6110                 | 87                  | 1              |
|                    | 220            | 12.3               | 3960                  | 5350                 | 54                  | 1              |
| 230 feet           | 42             | 80.8               | 69520                 | 80590                | 234                 | 3              |
|                    | 50             | 78.7               | 55020                 | 63560                | 232                 | 2              |
|                    | 60             | 76.2               | 43000                 | 49620                | 230                 | 2              |
|                    | 70             | 73.6               | 34770                 | 40150                | 227                 | 2              |
|                    | 80             | 71.0               | 28770                 | 33310                | 224                 | 1              |
|                    | 90             | 68.3               | 24210                 | 28120                | 221                 | 1              |
|                    | 100            | 65.6               | 20620                 | 24060                | 216                 | 1              |
|                    | 110            | 62.9               | 17720                 | 20790                | 211                 | 1              |
|                    | 120            | 60.0               | 15330                 | 18100                | 206                 | 1              |
|                    | 130            | 57.1               | 13320                 | 15840                | 200                 | 1              |
|                    | 140            | 54.1               | 11610                 | 13930                | 193                 | 1              |
|                    | 150            | 50.9               | 10140                 | 12280                | 185                 | 1              |
|                    | 160            | 47.7               | 8850                  | 10840                | 177                 | 1              |
|                    | 170            | 44.2               | 7720                  | 9580                 | 167                 | 1              |
|                    | 180            | 40.5               | 6720                  | 8460                 | 156                 | 1              |
|                    | 190            | 36.5               | 5820                  | 7460                 | 144                 | 1              |
|                    | 200            | 32.1               | 5010                  | 6560                 | 129                 | 1              |
|                    | 210            | 27.0               | 4280                  | 5750                 | 111                 | 1              |
|                    | 220            | 20.9               | 3610                  | 5010                 | 89                  | 1              |
|                    | 230            | 12.0               | 2990                  | 4320                 | 55                  | 1              |
| 240 feet           | 43             | 80.9               | 67030                 | 77720                | 244                 | 3              |
|                    | 50             | 79.2               | 54680                 | 63240                | 243                 | 2              |
|                    | 60             | 76.8               | 42650                 | 49280                | 240                 | 2              |
|                    | 70             | 74.3               | 34410                 | 39810                | 238                 | 2              |
|                    | 80             | 71.8               | 28410                 | 32960                | 235                 | 1              |
|                    | 90             | 69.3               | 23840                 | 27770                | 231                 | 1              |
|                    | 100            | 66.7               | 20250                 | 23700                | 227                 | 1              |
|                    | 110            | 64.1               | 17350                 | 20430                | 223                 | 1              |
|                    | 120            | 61.4               | 14960                 | 17730                | 217                 | 1              |
|                    | 130            | 58.6               | 12950                 | 15480                | 212                 | 1              |
|                    | 140            | 55.8               | 11240                 | 13560                | 205                 | 1              |
|                    | 150            | 52.8               | 9770                  | 11910                | 198                 | 1              |
|                    | 160            | 49.8               | 8480                  | 10480                | 190                 | 1              |
|                    | 170            | 46.6               | 7350                  | 9220                 | 181                 | 1              |
|                    | 180            | 43.2               | 6350                  | 8100                 | 171                 | 1              |
|                    | 190            | 39.6               | 5460                  | 7100                 | 160                 | 1              |
|                    | 200            | 35.7               | 4650                  | 6200                 | 147                 | 1              |
|                    | 210            | 31.4               | 3920                  | 5390                 | 132                 | 1              |
|                    | 220            | 26.4               | 3250                  | 4650                 | 114                 | 1              |
|                    | 230            | 20.4               | 2640                  | 3970                 | 90                  | 1              |
|                    | 240            | 11.8               | —                     | 3340                 | 56                  | 1              |
| 250 feet           | 45             | 80.8               | 62740                 | 72730                | 254                 | 2              |
|                    | 50             | 79.6               | 54370                 | 62930                | 253                 | 2              |
|                    | 60             | 77.3               | 42330                 | 48970                | 251                 | 2              |
|                    | 70             | 74.9               | 34090                 | 39490                | 248                 | 1              |
|                    | 80             | 72.6               | 28080                 | 32630                | 245                 | 1              |
|                    | 90             | 70.1               | 23510                 | 27440                | 242                 | 1              |
|                    | 100            | 67.7               | 19920                 | 23370                | 238                 | 1              |
|                    | 110            | 65.2               | 17020                 | 20100                | 234                 | 1              |
|                    | 120            | 62.6               | 14630                 | 17400                | 229                 | 1              |
|                    | 130            | 60.0               | 12620                 | 15150                | 223                 | 1              |
|                    | 140            | 57.3               | 10910                 | 13230                | 217                 | 1              |
|                    | 150            | 54.6               | 9430                  | 11580                | 210                 | 1              |
|                    | 160            | 51.7               | 8150                  | 10150                | 203                 | 1              |
|                    | 170            | 48.7               | 7020                  | 8890                 | 195                 | 1              |
|                    | 180            | 45.6               | 6020                  | 7770                 | 185                 | 1              |
|                    | 190            | 42.3               | 5130                  | 6770                 | 175                 | 1              |
|                    | 200            | 38.8               | 4320                  | 5880                 | 163                 | 1              |
|                    | 210            | 34.9               | 3590                  | 5070                 | 150                 | 1              |
|                    | 220            | 30.7               | 2930                  | 4330                 | 134                 | 1              |
|                    | 230            | 25.9               | —                     | 3650                 | 116                 | 1              |
|                    | 240            | 20.0               | —                     | 3030                 | 92                  | 1              |
| 260 feet           | 46             | 80.9               | 60550                 | 70240                | 264                 | 2              |
|                    | 50             | 80.0               | 54020                 | 62600                | 263                 | 2              |
|                    | 60             | 77.8               | 41980                 | 48620                | 261                 | 2              |
|                    | 70             | 75.5               | 33720                 | 39140                | 259                 | 2              |

## METRIC

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 67.1 meters cont.   | 24.4            | 70.1               | 13210                 | 15270                | 65.2              | 1              |
|                     | 27.4            | 67.3               | 11140                 | 12920                | 64.0              | 1              |
|                     | 30.5            | 64.4               | 9520                  | 11080                | 62.5              | 1              |
|                     | 33.5            | 61.5               | 8210                  | 9590                 | 61.0              | 1              |
|                     | 36.6            | 58.5               | 7120                  | 8370                 | 59.1              | 1              |
|                     | 39.6            | 55.4               | 6210                  | 7350                 | 57.3              | 1              |
|                     | 42.7            | 52.2               | 5430                  | 6480                 | 55.2              | 1              |
|                     | 45.7            | 48.8               | 4770                  | 5730                 | 52.4              | 1              |
|                     | 48.8            | 45.2               | 4180                  | 5080                 | 49.7              | 1              |
|                     | 51.8            | 41.4               | 3670                  | 4510                 | 46.3              | 1              |
|                     | 54.9            | 37.3               | 3220                  | 4010                 | 42.7              | 1              |
|                     | 57.9            | 32.8               | 2810                  | 3550                 | 38.4              | 1              |
|                     | 61.0            | 27.6               | 2440                  | 3140                 | 33.2              | 1              |
|                     | 64.0            | 21.3               | 2100                  | 2770                 | 26.5              | 1              |
|                     | 67.1            | 12.3               | 1800                  | 2430                 | 16.5              | 1              |
| 70.1 meters         | 12.8            | 80.8               | 31530                 | 36560                | 71.3              | 3              |
|                     | 15.2            | 78.7               | 24960                 | 28830                | 70.7              | 2              |
|                     | 18.3            | 76.2               | 19500                 | 22510                | 70.1              | 2              |
|                     | 21.3            | 73.6               | 15770                 | 18210                | 69.2              | 2              |
|                     | 24.4            | 71.0               | 13050                 | 15110                | 68.3              | 1              |
|                     | 27.4            | 68.3               | 10980                 | 12760                | 67.4              | 1              |
|                     | 30.5            | 65.6               | 9350                  | 10910                | 65.8              | 1              |
|                     | 33.5            | 62.9               | 8040                  | 9430                 | 64.3              | 1              |
|                     | 36.6            | 60.0               | 6950                  | 8210                 | 62.8              | 1              |
|                     | 39.6            | 57.1               | 6040                  | 7190                 | 61.0              | 1              |
|                     | 42.7            | 54.1               | 5270                  | 6320                 | 58.8              | 1              |
|                     | 45.7            | 50.9               | 4600                  | 5570                 | 56.4              | 1              |
|                     | 48.8            | 47.7               | 4010                  | 4920                 | 53.9              | 1              |
|                     | 51.8            | 44.2               | 3500                  | 4350                 | 50.9              | 1              |
|                     | 54.9            | 40.5               | 3050                  | 3840                 | 47.5              | 1              |
|                     | 57.9            | 36.5               | 2640                  | 3380                 | 43.9              | 1              |
|                     | 61.0            | 32.1               | 2270                  | 2980                 | 39.3              | 1              |
|                     | 64.0            | 27.0               | 1940                  | 2610                 | 33.8              | 1              |
|                     | 67.1            | 20.9               | 1640                  | 2270                 | 27.1              | 1              |
|                     | 70.1            | 12.0               | 1360                  | 1960                 | 16.8              | 1              |
| 73.2 meters         | 13.1            | 80.9               | 30400                 | 35250                | 74.4              | 3              |
|                     | 15.2            | 79.2               | 24800                 | 28690                | 74.1              | 2              |
|                     | 18.3            | 76.8               | 19350                 | 22350                | 73.2              | 2              |
|                     | 21.3            | 74.3               | 15610                 | 18060                | 72.5              | 2              |
|                     | 24.4            | 71.8               | 12890                 | 14950                | 71.6              | 1              |
|                     | 27.4            | 69.3               | 10810                 | 12600                | 70.4              | 1              |
|                     | 30.5            | 66.7               | 9190                  | 10750                | 69.2              | 1              |
|                     | 33.5            | 64.1               | 7870                  | 9270                 | 68.0              | 1              |
|                     | 36.6            | 61.4               | 6790                  | 8040                 | 66.1              | 1              |
|                     | 39.6            | 58.6               | 5870                  | 7020                 | 64.6              | 1              |
|                     | 42.7            | 55.8               | 5100                  | 6150                 | 62.5              | 1              |
|                     | 45.7            | 52.8               | 4430                  | 5400                 | 60.4              | 1              |
|                     | 48.8            | 49.8               | 3850                  | 4750                 | 57.9              | 1              |
|                     | 51.8            | 46.6               | 3330                  | 4180                 | 55.2              | 1              |
|                     | 54.9            | 43.2               | 2880                  | 3670                 | 52.1              | 1              |
|                     | 57.9            | 39.6               | 2480                  | 3220                 | 48.8              | 1              |
|                     | 61.0            | 35.7               | 2110                  | 2810                 | 44.8              | 1              |
|                     | 64.0            | 31.4               | 1780                  | 2440                 | 40.2              | 1              |
|                     | 67.1            | 26.4               | 1470                  | 2110                 | 34.7              | 1              |
|                     | 70.1            | 20.4               | 1200                  | 1800                 | 27.4              | 1              |
|                     | 73.2            | 11.8               | —                     | 1520                 | 17.1              | 1              |
| 76.2 meters         | 13.7            | 80.8               | 28460                 | 32990                | 77.4              | 2              |
|                     | 15.2            | 79.6               | 24660                 | 28550                | 77.1              | 2              |
|                     | 18.3            | 77.3               | 19200                 | 22210                | 76.5              | 2              |
|                     | 21.3            | 74.9               | 15460                 | 17910                | 75.6              | 2              |
|                     | 24.4            | 72.6               | 12740                 | 14800                | 74.7              | 1              |
|                     | 27.4            | 70.1               | 10660                 | 12450                | 73.8              | 1              |
|                     | 30.5            | 67.7               | 9040                  | 10600                | 72.5              | 1              |
|                     | 33.5            | 65.2               | 7720                  | 9120                 | 71.3              | 1              |
|                     | 36.6            | 62.6               | 6640                  | 7890                 | 69.8              | 1              |
|                     | 39.6            | 60.0               | 5720                  | 6870                 | 68.0              | 1              |
|                     | 42.7            | 57.3               | 4950                  | 6000                 | 66.1              | 1              |
|                     | 45.7            | 54.6               | 4280                  | 5250                 | 64.0              | 1              |
|                     | 48.8            | 51.7               | 3700                  | 4600                 | 61.9              | 1              |
|                     | 51.8            | 48.7               | 3180                  | 4030                 | 59.4              | 1              |
|                     | 54.9            | 45.6               | 2730                  | 3520                 | 56.4              | 1              |
|                     | 57.9            | 42.3               | 2330                  | 3070                 | 53.3              | 1              |
|                     | 61.0            | 38.8               | 1960                  | 2670                 | 49.7              | 1              |
|                     | 64.0            | 34.9               | 1630                  | 2300                 | 45.7              | 1              |
|                     | 67.1            | 30.7               | 1330                  | 1960                 | 40.8              | 1              |
|                     | 70.1            | 25.9               | —                     | 1660                 | 35.4              | 1              |
|                     | 73.2            | 20.0               | —                     | 1370                 | 28.0              | 1              |
| 79.2 meters         | 14.0            | 80.9               | 27470                 | 31860                | 80.5              | 2              |
|                     | 15.2            | 80.0               | 24500                 | 28400                | 80.2              | 2              |
|                     | 18.3            | 77.8               | 19040                 | 22050                | 79.6              | 2              |
|                     | 21.3            | 75.5               | 15300                 | 17750                | 78.9              | 2              |

(Continued)

# LIFT RATINGS (cont.)

With 77S Tubular Chord Tapered Tip Boom

| Boom Length (Feet) | Radius In Feet | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | Ft. From Boom Point | Min. Load Line |
|--------------------|----------------|--------------------|-----------------------|----------------------|---------------------|----------------|
| 260 feet cont.     | 80             | 73.2               | 27720                 | 32280                | 256                 | 1              |
|                    | 90             | 70.9               | 23140                 | 27080                | 252                 | 1              |
|                    | 100            | 68.6               | 19550                 | 23010                | 249                 | 1              |
|                    | 110            | 66.2               | 16650                 | 19730                | 245                 | 1              |
|                    | 120            | 63.8               | 14250                 | 17040                | 240                 | 1              |
|                    | 130            | 61.3               | 12240                 | 14780                | 235                 | 1              |
|                    | 140            | 58.7               | 10530                 | 12860                | 229                 | 1              |
|                    | 150            | 56.1               | 9060                  | 11210                | 223                 | 1              |
|                    | 160            | 53.4               | 7770                  | 9770                 | 216                 | 1              |
|                    | 170            | 50.6               | 6650                  | 8510                 | 208                 | 1              |
|                    | 180            | 47.7               | 5640                  | 7400                 | 199                 | 1              |
|                    | 190            | 44.7               | 4750                  | 6400                 | 190                 | 1              |
|                    | 200            | 41.4               | 3950                  | 5510                 | 179                 | 1              |
|                    | 210            | 38.0               | 3220                  | 4700                 | 167                 | 1              |
|                    | 220            | 34.2               | 2560                  | 3960                 | 153                 | 1              |
|                    | 230            | 30.1               | —                     | 3290                 | 137                 | 1              |
|                    | 240            | 25.4               | —                     | 2670                 | 118                 | 1              |
| 270 feet           | 48             | 80.8               | 56790                 | 64920                | 273                 | 2              |
|                    | 50             | 80.4               | 53680                 | 62270                | 273                 | 2              |
|                    | 60             | 78.3               | 41620                 | 48280                | 271                 | 2              |
|                    | 70             | 76.1               | 33370                 | 38790                | 269                 | 2              |
|                    | 80             | 73.9               | 27350                 | 31920                | 266                 | 1              |
|                    | 90             | 71.7               | 22780                 | 26720                | 263                 | 1              |
|                    | 100            | 69.4               | 19180                 | 22650                | 260                 | 1              |
|                    | 110            | 67.1               | 16280                 | 19370                | 256                 | 1              |
|                    | 120            | 64.8               | 13880                 | 16670                | 251                 | 1              |
|                    | 130            | 62.4               | 11870                 | 14410                | 246                 | 1              |
|                    | 140            | 60.0               | 10160                 | 12490                | 241                 | 1              |
|                    | 150            | 57.5               | 8690                  | 10840                | 235                 | 1              |
|                    | 160            | 55.0               | 7400                  | 9410                 | 228                 | 1              |
|                    | 170            | 52.3               | 6270                  | 8150                 | 221                 | 1              |
|                    | 180            | 49.6               | 5270                  | 7030                 | 212                 | 1              |
|                    | 190            | 46.8               | 4380                  | 6030                 | 203                 | 1              |
|                    | 200            | 43.8               | 3580                  | 5140                 | 194                 | 1              |
|                    | 210            | 40.6               | 2850                  | 4330                 | 183                 | 1              |
|                    | 220            | 37.2               | —                     | 3600                 | 170                 | 1              |
|                    | 230            | 33.6               | —                     | 2920                 | 156                 | 1              |
| 280 feet           | 49             | 81.0               | 54850                 | 59730                | 283                 | 2              |
|                    | 50             | 80.8               | 53330                 | 59730                | 283                 | 2              |
|                    | 60             | 78.7               | 41260                 | 47930                | 281                 | 2              |
|                    | 70             | 76.6               | 33000                 | 38430                | 279                 | 2              |
|                    | 80             | 74.5               | 26980                 | 31560                | 277                 | 1              |
|                    | 90             | 72.3               | 22400                 | 26350                | 274                 | 1              |
|                    | 100            | 70.2               | 18800                 | 22280                | 270                 | 1              |
|                    | 110            | 68.0               | 15900                 | 19000                | 266                 | 1              |
|                    | 120            | 65.8               | 13500                 | 16300                | 262                 | 1              |
|                    | 130            | 63.5               | 11490                 | 14040                | 257                 | 1              |
|                    | 140            | 61.2               | 9780                  | 12120                | 252                 | 1              |
|                    | 150            | 58.8               | 8310                  | 10470                | 246                 | 1              |
|                    | 160            | 56.4               | 7020                  | 9030                 | 240                 | 1              |
|                    | 170            | 53.9               | 5890                  | 7770                 | 233                 | 1              |
|                    | 180            | 51.3               | 4890                  | 6650                 | 225                 | 1              |
|                    | 190            | 48.7               | 4000                  | 5650                 | 217                 | 1              |
|                    | 200            | 45.9               | 3190                  | 4760                 | 208                 | 1              |
|                    | 210            | 43.0               | —                     | 3950                 | 198                 | 1              |
|                    | 220            | 39.9               | —                     | 3220                 | 186                 | 1              |
| 290 feet           | 51             | 80.9               | 51530                 | 55070                | 293                 | 2              |
|                    | 60             | 79.1               | 40910                 | 47590                | 292                 | 2              |
|                    | 70             | 77.1               | 32640                 | 38080                | 289                 | 2              |
|                    | 80             | 75.0               | 26610                 | 31200                | 287                 | 2              |
|                    | 90             | 73.0               | 22030                 | 25990                | 284                 | 1              |
|                    | 100            | 70.9               | 18430                 | 21910                | 281                 | 1              |
|                    | 110            | 68.8               | 15520                 | 18630                | 277                 | 1              |
|                    | 120            | 66.7               | 13130                 | 15930                | 273                 | 1              |
|                    | 130            | 64.5               | 11120                 | 13670                | 268                 | 1              |
|                    | 140            | 62.3               | 9400                  | 11740                | 263                 | 1              |
|                    | 150            | 60.0               | 7930                  | 10090                | 258                 | 1              |
|                    | 160            | 57.7               | 6640                  | 8660                 | 252                 | 1              |
|                    | 170            | 55.3               | 5510                  | 7390                 | 245                 | 1              |
|                    | 180            | 52.9               | 4510                  | 6280                 | 238                 | 1              |
|                    | 190            | 50.4               | 3620                  | 5280                 | 230                 | 1              |
|                    | 200            | 47.8               | 2820                  | 4390                 | 221                 | 1              |
|                    | 210            | 45.0               | —                     | 3580                 | 212                 | 1              |
|                    | 220            | 42.2               | —                     | 2850                 | 201                 | 1              |

## METRIC

| Boom Length (Meter) | Radius In Meter | Boom Angle Degrees | Side Frames Retracted | Side Frames Extended | M From Boom Point | Min. Load Line |
|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|----------------|
| 79.2 meters cont.   | 24.4            | 73.2               | 12570                 | 14640                | 78.0              | 1              |
|                     | 27.4            | 70.9               | 10500                 | 12280                | 76.8              | 1              |
|                     | 30.5            | 68.6               | 8870                  | 10440                | 75.9              | 1              |
|                     | 33.5            | 66.2               | 7550                  | 8950                 | 74.7              | 1              |
|                     | 36.6            | 63.8               | 6460                  | 7730                 | 73.2              | 1              |
|                     | 39.6            | 61.3               | 5550                  | 6700                 | 71.6              | 1              |
|                     | 42.7            | 58.7               | 4780                  | 5830                 | 69.8              | 1              |
|                     | 45.7            | 56.1               | 4110                  | 5080                 | 68.0              | 1              |
|                     | 48.8            | 53.4               | 3520                  | 4430                 | 65.8              | 1              |
|                     | 51.8            | 50.6               | 3020                  | 3860                 | 63.4              | 1              |
|                     | 54.9            | 47.7               | 2560                  | 3360                 | 60.7              | 1              |
|                     | 57.9            | 44.7               | 2150                  | 2900                 | 57.9              | 1              |
|                     | 61.0            | 41.4               | 1790                  | 2500                 | 54.6              | 1              |
|                     | 64.0            | 38.0               | 1460                  | 2130                 | 50.9              | 1              |
|                     | 67.1            | 34.2               | 1160                  | 1800                 | 46.6              | 1              |
|                     | 70.1            | 30.1               | —                     | 1490                 | 41.8              | 1              |
|                     | 73.2            | 25.4               | —                     | 1210                 | 36.0              | 1              |
| 82.3 meters         | 14.6            | 80.8               | 25760                 | 29450                | 83.2              | 2              |
|                     | 15.2            | 80.4               | 24350                 | 28250                | 83.2              | 2              |
|                     | 18.3            | 78.3               | 18880                 | 21900                | 82.6              | 2              |
|                     | 21.3            | 76.1               | 15140                 | 17600                | 82.0              | 2              |
|                     | 24.4            | 73.9               | 12410                 | 14480                | 81.1              | 1              |
|                     | 27.4            | 71.7               | 10330                 | 12120                | 80.2              | 1              |
|                     | 30.5            | 69.4               | 8700                  | 10270                | 79.2              | 1              |
|                     | 33.5            | 67.1               | 7380                  | 8790                 | 78.0              | 1              |
|                     | 36.6            | 64.8               | 6300                  | 7560                 | 76.5              | 1              |
|                     | 39.6            | 62.4               | 5380                  | 6540                 | 75.0              | 1              |
|                     | 42.7            | 60.0               | 4610                  | 5670                 | 73.5              | 1              |
|                     | 45.7            | 57.5               | 3940                  | 4920                 | 71.6              | 1              |
|                     | 48.8            | 55.0               | 3360                  | 4270                 | 69.5              | 1              |
|                     | 51.8            | 52.3               | 2840                  | 3700                 | 67.4              | 1              |
|                     | 54.9            | 49.6               | 2390                  | 3190                 | 64.6              | 1              |
|                     | 57.9            | 46.8               | 1990                  | 2740                 | 61.9              | 1              |
|                     | 61.0            | 43.8               | 1620                  | 2330                 | 59.1              | 1              |
|                     | 64.0            | 40.6               | 1290                  | 1960                 | 55.8              | 1              |
|                     | 67.1            | 37.2               | —                     | 1630                 | 51.8              | 1              |
|                     | 70.1            | 33.6               | —                     | 1320                 | 47.5              | 1              |
| 85.3 meters         | 14.9            | 81.0               | 24880                 | 27090                | 86.3              | 2              |
|                     | 15.2            | 80.8               | 24190                 | 27090                | 86.3              | 2              |
|                     | 18.3            | 78.7               | 18720                 | 21740                | 85.6              | 2              |
|                     | 21.3            | 76.6               | 14970                 | 17430                | 85.0              | 2              |
|                     | 24.4            | 74.5               | 12240                 | 14320                | 84.4              | 1              |
|                     | 27.4            | 72.3               | 10160                 | 11950                | 83.5              | 1              |
|                     | 30.5            | 70.2               | 8530                  | 10110                | 82.3              | 1              |
|                     | 33.5            | 68.0               | 7210                  | 8620                 | 81.1              | 1              |
|                     | 36.6            | 65.8               | 6120                  | 7390                 | 79.9              | 1              |
|                     | 39.6            | 63.5               | 5210                  | 6370                 | 78.3              | 1              |
|                     | 42.7            | 61.2               | 4440                  | 5500                 | 76.8              | 1              |
|                     | 45.7            | 58.8               | 3770                  | 4750                 | 75.0              | 1              |
|                     | 48.8            | 56.4               | 3180                  | 4100                 | 73.2              | 1              |
|                     | 51.8            | 53.9               | 2670                  | 3520                 | 71.0              | 1              |
|                     | 54.9            | 51.3               | 2220                  | 3020                 | 68.6              | 1              |
|                     | 57.9            | 48.7               | 1810                  | 2560                 | 66.1              | 1              |
|                     | 61.0            | 45.9               | 1450                  | 2160                 | 63.4              | 1              |
|                     | 64.0            | 43.0               | —                     | 1790                 | 60.4              | 1              |
|                     | 67.1            | 39.9               | —                     | 1460                 | 56.7              | 1              |
| 88.4 meters         | 15.5            | 80.9               | 23370                 | 24980                | 89.3              | 2              |
|                     | 18.3            | 79.1               | 18560                 | 21590                | 89.0              | 2              |
|                     | 21.3            | 77.1               | 14810                 | 17270                | 88.1              | 2              |
|                     | 24.4            | 75.0               | 12070                 | 14150                | 87.5              | 1              |
|                     | 27.4            | 73.0               | 9990                  | 11790                | 86.6              | 1              |
|                     | 30.5            | 70.9               | 8360                  | 9940                 | 85.6              | 1              |
|                     | 33.5            | 68.8               | 7040                  | 8450                 | 84.4              | 1              |
|                     | 36.6            | 66.7               | 5960                  | 7230                 | 83.2              | 1              |
|                     | 39.6            | 64.5               | 5040                  | 6200                 | 81.7              | 1              |
|                     | 42.7            | 62.3               | 4260                  | 5330                 | 80.2              | 1              |
|                     | 45.7            | 60.0               | 3600                  | 4580                 | 78.6              | 1              |
|                     | 48.8            | 57.7               | 3010                  | 3930                 | 76.8              | 1              |
|                     | 51.8            | 55.3               | 2500                  | 3350                 | 74.7              | 1              |
|                     | 54.9            | 52.9               | 2050                  | 2850                 | 72.5              | 1              |
|                     | 57.9            | 50.4               | 1640                  | 2400                 | 70.1              | 1              |
|                     | 61.0            | 47.8               | 1280                  | 1990                 | 67.4              | 1              |
|                     | 64.0            | 45.0               | —                     | 1620                 | 64.6              | 1              |
|                     | 67.1            | 42.2               | —                     | 1290                 | 61.3              | 1              |

(Continued)



# CRANE RATING DATA

Load ratings are in pounds and do not exceed 75% of the load which would cause tipping with crane standing level on firm uniformly supporting surface. Safeloads depend on ground conditions, boom lengths, radius of operation, and proper handling, all of which must be taken into consideration by user.

"Radius in feet" is the horizontal distance at crane base level from center of rotation to a vertical line through the center of gravity of the suspended load.

Lifting is approved only in those areas for which ratings are shown in the rating chart. Blocks, slings, buckets, and other load carrying devices are considered part of the load. Retractable A-frame must be in fully raised position for all ratings. Ratings in shaded areas are limited by strength of material, or factors other than stability.

Main load line is 1-1/8 inch (28 cm) diameter with a minimum breaking strength of 130,000 pounds (58,968 kg). Boom suspension line is 7/8 inch (22 cm) diameter with a minimum breaking strength of 79,600 pounds (36,106 kg). Boom suspension pendants are 1-3/8 inch (35 cm) diameter with a minimum breaking strength of 208,000 pounds (94,348 kg).

Boom and jib erection is over the end of the machine with idler tumblers blocked and with "Lift Rating" counterweight.

Model 9299 may be used for duty cycle service with a 60,000 pound (27,216 kg) counterweight. Maximum clamshell boom is 140 feet (42.7 m) and maximum dragline or magnet boom is 100 feet (30.5 m). Maximum clamshell rating is 28,000 pounds (12,700 kg); maximum dragline rating is 27,000 pounds (12,247 kg) and maximum magnet rating is 24,000 pounds (10,886 kg). **Designed and rated to comply with ANSI Code B30.5.**

## LOAD HOISTING DATA METRIC

| Maximum Lifting Capacity In Pounds | Minimum Pts. of Line | Maximum Hoisting Distance* |                          |
|------------------------------------|----------------------|----------------------------|--------------------------|
|                                    |                      | Main — R.H. CLL Ft.        | Auxiliary — L.H. CLL Ft. |
| 330,000                            | 9                    | 93                         | 47                       |
| 297,130                            | 8                    | 104                        | 52                       |
| 259,990                            | 7                    | 119                        | 60                       |
| 222,850                            | 6                    | 139                        | 70                       |
| 185,710                            | 5                    | 167                        | 84                       |
| 148,560                            | 4                    | 209                        | 105                      |
| 111,420                            | 3                    | 279                        | 141                      |
| 74,280                             | 2                    | 419                        | 211                      |
| 37,140                             | 1                    | 839                        | 423                      |

\*Based on 1-1/8 in. (28 cm) dia. rope — both drums.

| Maximum Lifting Capacity In Kg | Minimum Pts. of Line | Maximum Hoisting Distance* |                        |
|--------------------------------|----------------------|----------------------------|------------------------|
|                                |                      | Main — R.H. CLL m          | Auxiliary — L.H. CLL m |
| 149,688                        | 9                    | 28                         | 14                     |
| 134,778                        | 8                    | 32                         | 16                     |
| 117,931                        | 7                    | 36                         | 18                     |
| 101,084                        | 6                    | 42                         | 21                     |
| 84,238                         | 5                    | 51                         | 26                     |
| 67,386                         | 4                    | 64                         | 32                     |
| 50,546                         | 3                    | 85                         | 43                     |
| 33,693                         | 2                    | 128                        | 64                     |
| 16,846                         | 1                    | 256                        | 128                    |

\*Based on 1-1/8 in. (28 cm) dia. rope — both drums.

## BOOM AND JIB ERECTION METRIC

| Boom Length      | Maximum Jib Length |         |        |          |
|------------------|--------------------|---------|--------|----------|
|                  | No. 9              | No. 9HL | No. 15 | No. 16HL |
| 290' Tapered Tip | 0'                 | 0'      | 0'     | 0'       |
| 280' Tapered Tip | 30'                | 50'     | 30'    | 40'      |
| 270' Tapered Tip | 50'                | 80'     | 50'    | 70'      |
| 260' Tapered Tip | 50'                | 80'     | 50'    | 100'     |
| 240' Hammerhead  | 40'                | 70'     | 40'    | 50'      |
| 230' Hammerhead  | 50'                | 80'     | 50'    | 90'      |

| Boom Length        | Maximum Jib Length |         |        |          |
|--------------------|--------------------|---------|--------|----------|
|                    | No. 9              | No. 9HL | No. 15 | No. 16HL |
| 88.4 m Tapered Tip | 0 m                | 0 m     | 0 m    | 0 m      |
| 85.3 m Tapered Tip | 9.1 m              | 15.2 m  | 9.1 m  | 12.2 m   |
| 82.3 m Tapered Tip | 15.2 m             | 24.4 m  | 15.2 m | 21.3 m   |
| 79.2 m Tapered Tip | 15.2 m             | 24.4 m  | 15.2 m | 30.5 m   |
| 73.2 m Hammerhead  | 12.2 m             | 21.3 m  | 12.2 m | 15.2 m   |
| 70.1 m Hammerhead  | 15.2 m             | 24.4 m  | 15.2 m | 27.4 m   |

## 77S TAPERED TIP BOOM COMPOSITION

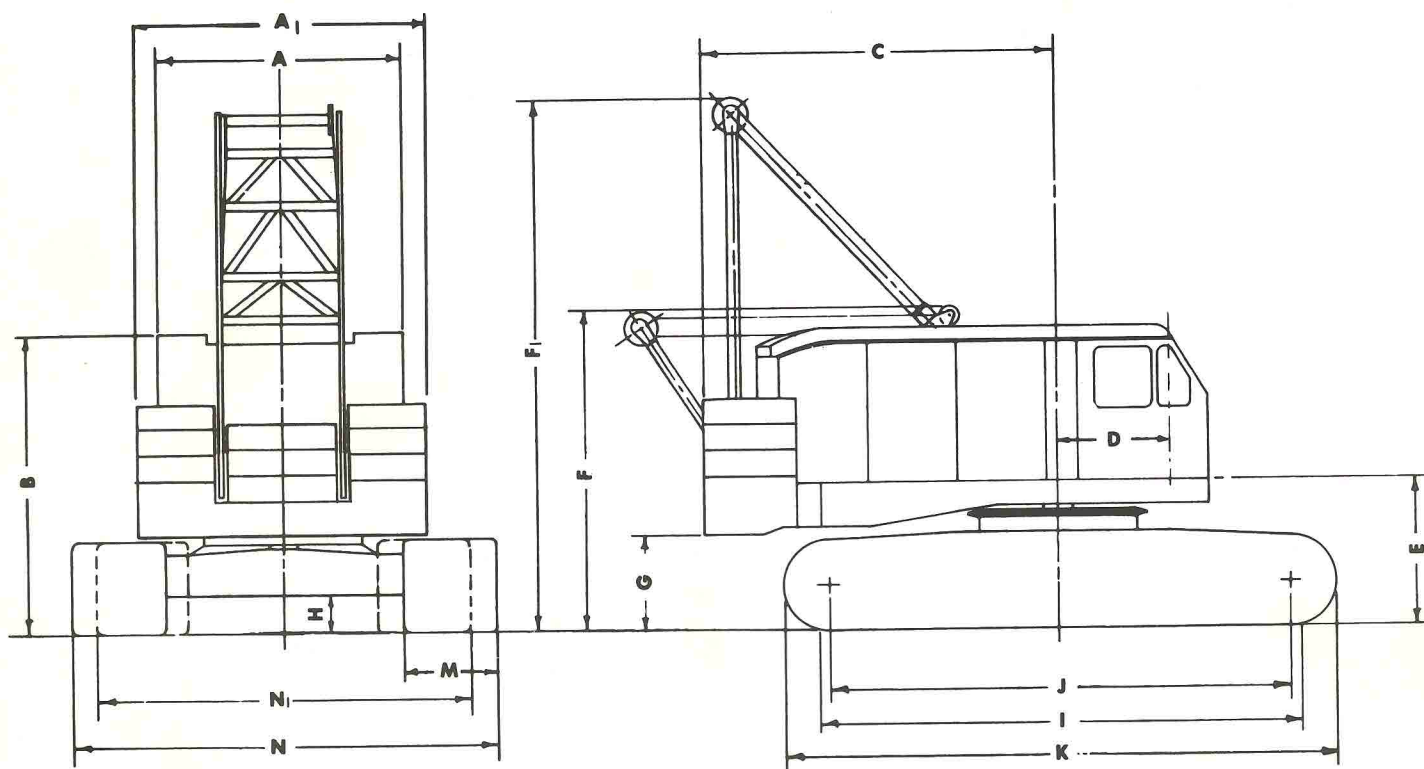
| Boom Length |      | 30 Ft. (9.1 m) | 10 Ft. (3.04 m) | 20 Ft. (6.1 m) | 50 Ft. (15.2 m) | 40 Ft. (12.2 m) | 30 Ft. (9.1 m) |
|-------------|------|----------------|-----------------|----------------|-----------------|-----------------|----------------|
| Ft.         | M    | 77S Inner      | 77S Center      | 77S Center     | 77S Center      | 77S Outer Base  | 77S Outer      |
|             |      |                |                 |                |                 |                 |                |
| 100         | 30.5 | 1              | —               | —              | —               | 1               | 1              |
| 110         | 33.5 | 1              | 1               | —              | —               | 1               | 1              |
| 120         | 36.6 | 1              | —               | 1              | —               | 1               | 1              |
| 130         | 39.6 | 1              | 1               | 1              | —               | 1               | 1              |
| 140         | 42.7 | 1              | —               | 2              | —               | 1               | 1              |
| 150         | 45.7 | 1              | —               | —              | 1               | 1               | 1              |
| 160         | 48.8 | 1              | 1               | —              | 1               | 1               | 1              |
| 170         | 51.8 | 1              | —               | 1              | 1               | 1               | 1              |
| 180         | 54.9 | 1              | 1               | 1              | 1               | 1               | 1              |
| 190         | 57.9 | 1              | —               | 2              | 1               | 1               | 1              |
| 200         | 61   | 1              | —               | —              | 2               | 1               | 1              |
| 210         | 64   | 1              | 1               | —              | 2               | 1               | 1              |
| 220         | 67.1 | 1              | —               | 1              | 2               | 1               | 1              |
| 230         | 70.1 | 1              | 1               | 1              | 2               | 1               | 1              |
| 240         | 73.2 | 1              | —               | 2              | 2               | 1               | 1              |
| 250         | 76.2 | 1              | —               | —              | 3               | 1               | 1              |
| 260         | 79.2 | 1              | 1               | —              | 3               | 1               | 1              |
| 270         | 82.3 | 1              | —               | 1              | 3               | 1               | 1              |
| 280         | 85.3 | 1              | 1               | 1              | 3               | 1               | 1              |
| 290         | 88.4 | 1              | —               | 2              | 3               | 1               | 1              |

## 77S HAMMERHEAD BOOM COMPOSITION

| Boom Length |      | 30 Ft. (9.1 m) | 10 Ft. (3.04 m) | 20 Ft. (6.1 m) | 50 Ft. (15.2 m) | 40 Ft. (12.2 m) | Hammerhead Tip |
|-------------|------|----------------|-----------------|----------------|-----------------|-----------------|----------------|
| Ft.         | M    | 77S Inner      | 77S Center      | 77S Center     | 77S Center      | 77S Outer Base  |                |
|             |      |                |                 |                |                 |                 |                |
| 70          | 21.3 | 1              | —               | —              | —               | 1               | 1              |
| 80          | 24.4 | 1              | 1               | —              | —               | 1               | 1              |
| 90          | 27.4 | 1              | —               | 1              | —               | 1               | 1              |
| 100         | 30.5 | 1              | 1               | 1              | —               | 1               | 1              |
| 110         | 33.5 | 1              | —               | 2              | —               | 1               | 1              |
| 120         | 36.6 | 1              | —               | —              | 1               | 1               | 1              |
| 130         | 39.6 | 1              | 1               | —              | 1               | 1               | 1              |
| 140         | 42.7 | 1              | —               | 1              | 1               | 1               | 1              |
| 150         | 45.7 | 1              | 1               | 1              | 1               | 1               | 1              |
| 160         | 48.8 | 1              | —               | 2              | 1               | 1               | 1              |
| 170         | 51.8 | 1              | —               | —              | 2               | 1               | 1              |
| 180         | 54.9 | 1              | 1               | —              | 2               | 1               | 1              |
| 190         | 57.9 | 1              | —               | 1              | 2               | 1               | 1              |
| 200         | 61   | 1              | 1               | 1              | 2               | 1               | 1              |
| 210         | 64   | 1              | —               | 2              | 2               | 1               | 1              |
| 220         | 67.1 | 1              | —               | —              | 3               | 1               | 1              |
| 230         | 70.1 | 1              | 1               | —              | 3               | 1               | 1              |
| 240         | 73.2 | 1              | —               | 1              | 3               | 1               | 1              |



# AMERICAN MODEL 9299 CRAWLER CRANE



## GENERAL DIMENSIONS

|                                              | Ft.       | M     |                                                | Ft.        | M     |
|----------------------------------------------|-----------|-------|------------------------------------------------|------------|-------|
| A. Width of cab                              | 11'0"     | 3.45  | H. Minimum ground clearance under              |            |       |
| A <sub>1</sub> . Width over counterweight    | 13'2"     | 4.11  | crawler base                                   | 1'9"       | .53   |
| B. Height over cab                           | 13'7-1/8" | 4.14  | I. Crawler bearing length                      | 22'1-1/2"  | 6.74  |
| C. Tailswing                                 | 17'0"     | 43.18 | J. Center to center crawler                    |            |       |
| D. Center of pivot to center of              |           |       | tumblers                                       | 20'9-1/2"  | 6.34  |
| boom foot                                    | 5'0-3/4"  | 1.54  | K. Overall length of crawlers                  | 24'10-1/2" | 1.11  |
| E. Ground to center boom foot                | 6'9-1/8"  | 2.06  | M. Width of tread shoes                        | 44"        | 13.41 |
| F. Height over A-frame, Lowered              | 14'6-3/4" | 4.43  | N. Overall width over crawlers —               |            |       |
| F <sub>1</sub> . Height over A-frame, Raised | 24'6-1/8" | 7.47  | Extended                                       | 18'9"      | 5.71  |
| G. Ground to bottom of                       |           |       | N <sub>1</sub> . Overall width over crawlers — |            |       |
| counterweight                                | 4'4-3/8"  | 1.32  | Retracted                                      | 16'3"      | 4.95  |

## PERFORMANCE

|                    |                 |          |
|--------------------|-----------------|----------|
| TRAVEL SPEED       | 0.8 MPH         | 1.29 KPH |
| SWING SPEED        | 2.28 RPM        | 2.28 RPM |
| SINGLE LINE SPEED: |                 |          |
| Crane, Clam        | 165 FPM         | 50.1 MPM |
| Dragline           | 145 FPM         | 44.2 MPM |
| Magnet, Drag-Hoist | 200 FPM         | 61.0 MPM |
| Third Drum         | 192 FPM         | 58.5 MPM |
| or                 | 142 FPM         | 43.3 MPM |
| LINE PULL:         |                 |          |
| Crane, Clam        | 40,000 lbs. SLP | 18144 kg |
| Dragline           | 45,000 lbs. SLP | 20412 kg |
| Magnet, Drag-Hoist | 33,000 lbs. SLP | 14968 kg |
| Third Drum         | 15,000 lbs. SLP | 6804 kg  |
| or                 | 21,000 lbs. SLP | 9525 kg  |

Performance figures are based on machine equipped with standard engine.

## WEIGHTS

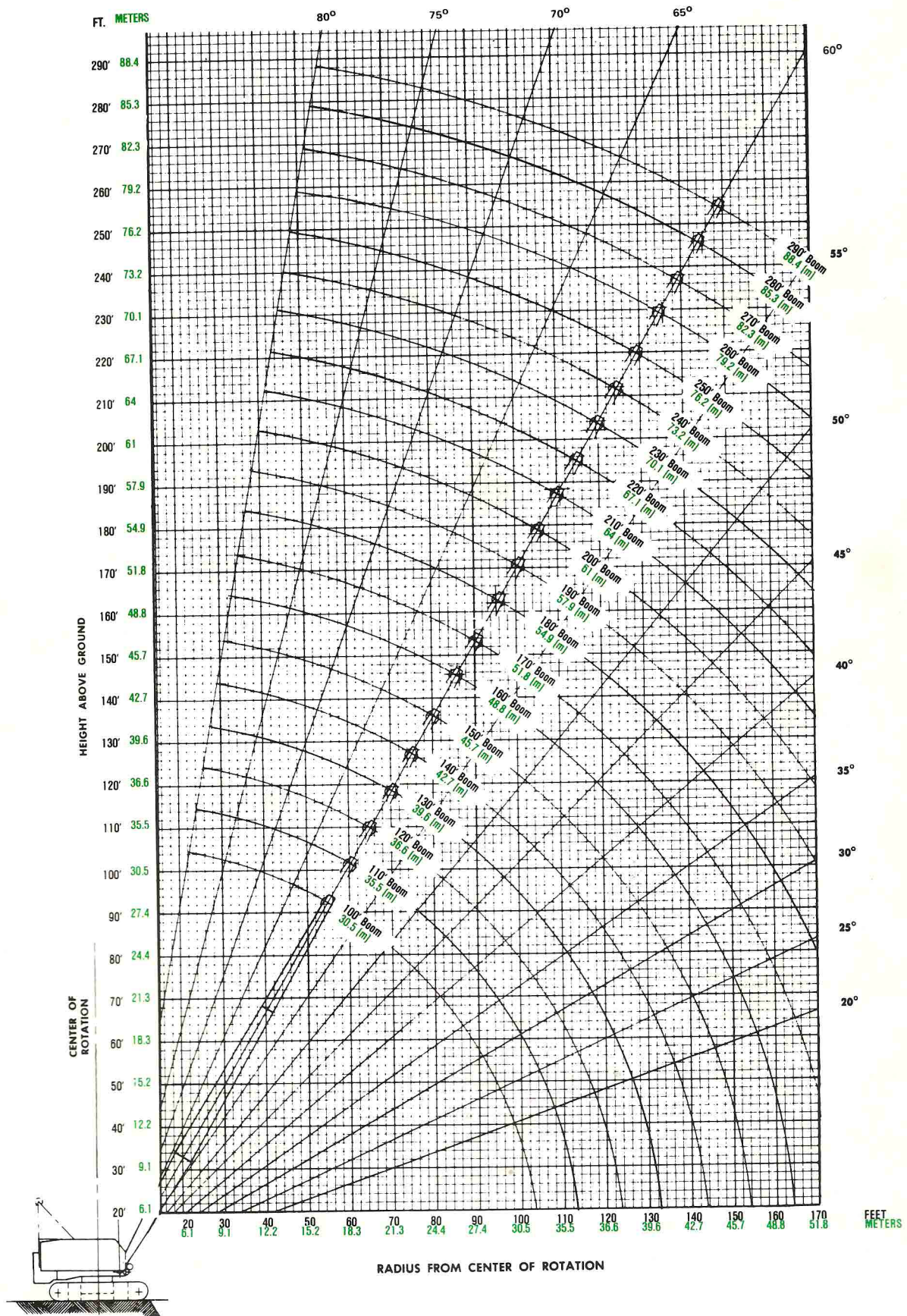
|                                          | Lbs.    | Kg.    |
|------------------------------------------|---------|--------|
| Lifting crane with basic 70 ft. (21.3 m) |         |        |
| 77S crane boom and 44"                   |         |        |
| (13.4 m) shoes                           | 314,250 | 142543 |
| Components removable for shipment:       |         |        |
| Counterweight                            | 105,000 | 47628  |
| Boom outer and hammerhead                | 7,870   | 3569   |
| Boom inner                               | 2,540   | 1152   |
| Telescopic boom stops                    | 300     | 136    |
| Outer bail assembly                      | 2,450   | 1111   |
| A-frame                                  | 3,900   | 1769   |
| Side frames, 44" (13.4 m) shoes (2)      | 71,000  | 32205  |
| Crawler axles (4)                        | 11,680  | 5298   |
| Torque tubes (2)                         | 920     | 417    |
| Carbody                                  | 24,200  | 10977  |

## GROUND PRESSURES

Lifting Crane (equipped as above) ... 13.45 PSI .09 kg/cm<sup>2</sup>



# BOOM ANGLE DIAGRAM



**AMERICAN MODEL 9299 CRAWLER CRANE  
WORKING RANGES**