



## CRANE SPECIFICATION

# LINMAC FE420

### COMPREHENSIVE LIFTING SOLUTIONS

We look forward to providing a full heavy lift engineering and crane solution for your next project. Our heavy lift engineers and on site personnel are experienced in managing and organising highly de-manding lift requirements.

Contact us to discuss your lifting requirements and a free quote.

#### BRISBANE (HQ)

07 3907 5800  
37 Paringa Rd, Murarrie, QLD, 4172

#### ROMA

07 4622 5522  
8 Wormwell Drive, Roma QLD 4455

#### BALLINA

02 6686 7748  
5 Convair Ave, Ballina, NSW, 2478

#### SUNSHINE COAST

0409 595 618  
562 Maroochydore Rd, Kunda Park, QLD, 4556

#### GLADSTONE

07 4972 9326  
7 Red Cover Rd, Gladstone, QLD, 4680

#### TOWNSVILLE

07 4779 4088  
16 Mackley St, Garbutt QLD 4814

#### ROCKHAMPTON

07 4939 1095  
371 Leichhardt St, Rockhampton QLD, 4700

#### MACKAY

07 4952 6998  
135 Diesel Drive, Paget QLD 4740

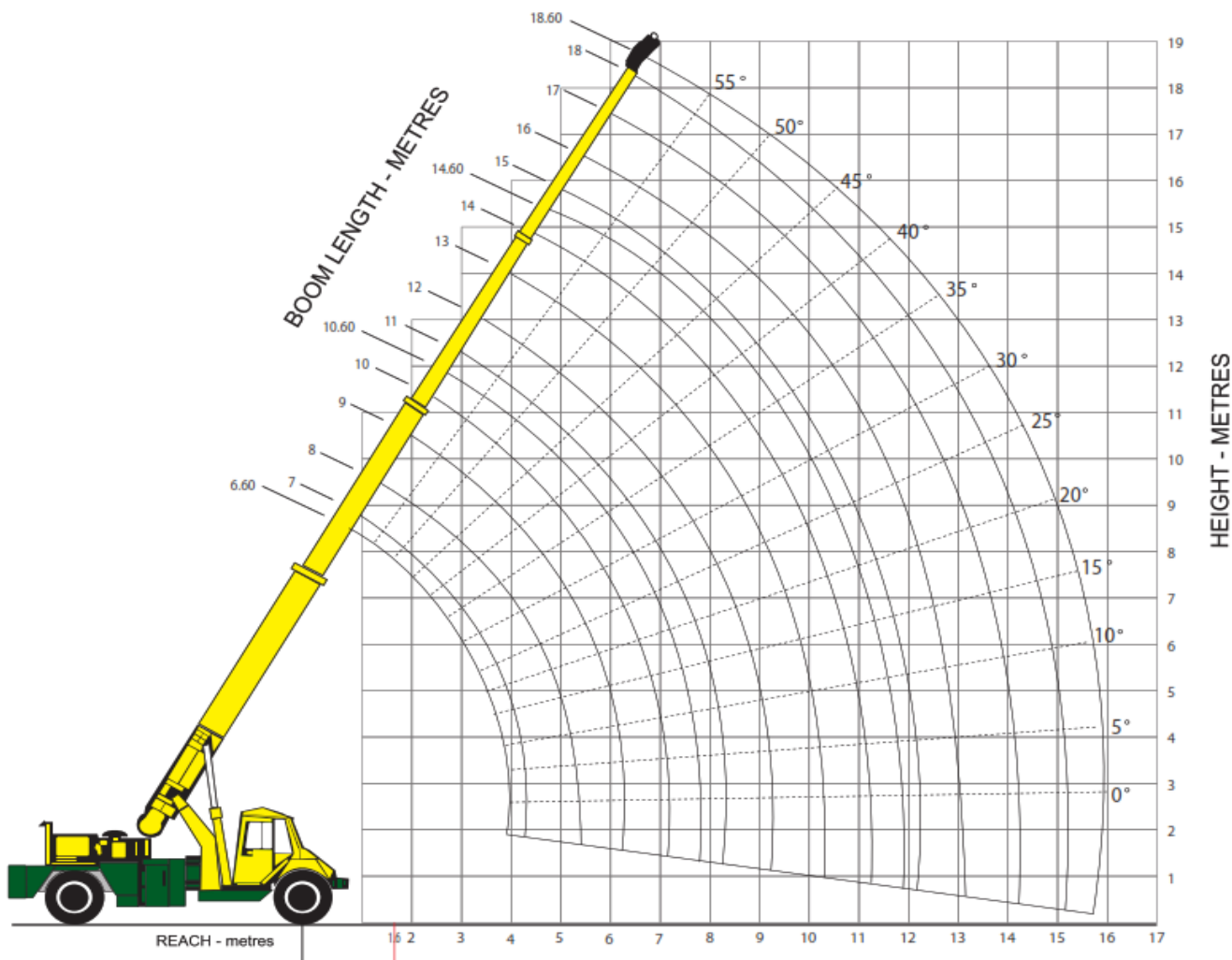
#### GOLD COAST

07 5593 4688  
9 Kimberley Rd, Burleigh Heads, QLD, 4220



## Mobile Crane Important Notes

1. Axle lock outs must be engaged before any lifting takes place
2. This load rating chart applies to crane used on a firm level surface. Using largest boom section possible for each lift. Operation outside limits of reach or angle shown on chart is not permitted
3. When mobilising a load careful operation practice says that the load should be kept as close to the ground and the to the front of the crane as possible, at speeds not exceeding 3 km/h
4. Hoist rope compensator operates on boom 2 only
5. Rope fitted is  $\varnothing 16$  mm 6 x 25 IWRC
6. Full power boom operating mode  
Out - Boom 2 extends to full length then booms 3 & 4 extend in equal amounts  
  
In - Booms 3 & 4 retract in equal amounts then boom 2 retracts
7. Hook block Capacity  
4 falls = 16000kg on top layer of drum
8. Tyre inflation should be 690 kPa for lifting purposes



## LIFTING FROM MAIN BOOM (ON WINCH):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 0.0   | deg   |       |       |       |       |       |       |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12    | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |       |      |      |      |      |      |      |      |      |
| 2                  | 15.00 | 15.00 | 15.00 | 15.00 |       |       |       |       |      |      |      |      |      |      |      |      |
| 2.5                | 13.44 | 13.44 | 13.44 | 13.44 | 13.44 | 13.44 |       |       |      |      |      |      |      |      |      |      |
| 3                  | 11.80 | 11.80 | 11.80 | 11.80 | 11.80 | 11.80 | 11.80 |       |      |      |      |      |      |      |      |      |
| 3.5                | 10.17 | 10.17 | 10.17 | 10.17 | 10.17 | 10.17 | 10.17 | 10.17 |      |      |      |      |      |      |      |      |
| 4                  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 7.63  | 7.63  | 7.63  | 7.63  | 7.63  | 7.63  | 7.63 | 7.63 |      |      |      |      |      |      |
| 5                  |       |       | 6.60  | 6.60  | 6.60  | 6.60  | 6.60  | 6.60  | 6.60 | 6.60 | 6.60 | 6.60 |      |      |      |      |
| 5.5                |       |       | x     | 5.99  | 5.99  | 5.99  | 5.99  | 5.99  | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 |      |      |      |
| 6                  |       |       |       | 5.37  | 5.37  | 5.37  | 5.37  | 5.37  | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 |      |      |
| 6.5                |       |       |       | x     | 4.97  | 4.97  | 4.97  | 4.97  | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 |
| 7                  |       |       |       |       | 4.57  | 4.57  | 4.57  | 4.57  | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 |
| 7.5                |       |       |       |       | x     | 4.16  | 4.16  | 4.16  | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 |
| 8                  |       |       |       |       |       | 3.74  | 3.74  | 3.74  | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 |
| 8.5                |       |       |       |       |       |       | x     | 3.50  | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 9                  |       |       |       |       |       |       |       | 3.24  | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 |
| 9.5                |       |       |       |       |       |       |       | x     | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 |
| 10                 |       |       |       |       |       |       |       |       | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 |
| 10.5               |       |       |       |       |       |       |       |       | x    | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 |
| 11                 |       |       |       |       |       |       |       |       |      | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 |
| 11.5               |       |       |       |       |       |       |       |       |      | x    | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 12                 |       |       |       |       |       |       |       |       |      |      | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 |
| 12.5               |       |       |       |       |       |       |       |       |      |      |      | x    | 2.07 | 2.07 | 2.07 | 2.07 |
| 13                 |       |       |       |       |       |       |       |       |      |      |      |      | 1.91 | 1.91 | 1.91 | 1.91 |
| 13.5               |       |       |       |       |       |       |       |       |      |      |      |      |      | x    | 1.86 | 1.86 |
| 14                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      | 1.81 | 1.81 |
| 14.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.77 |
| 15                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.73 |
| 15.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.62 |
|                    |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.51 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 0.0   | deg   |       |       |       |       |       |       |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12    | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |       |      |      |      |      |      |      |      |      |
| 2                  | 16.00 | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |
| 2.5                | 15.12 | 15.12 | 15.12 | 15.12 | 15.12 | 15.12 |       |       |      |      |      |      |      |      |      |      |
| 3                  | 13.28 | 13.28 | 13.28 | 13.28 | 13.28 | 13.28 | 13.28 |       |      |      |      |      |      |      |      |      |
| 3.5                | 11.44 | 11.44 | 11.44 | 11.44 | 11.44 | 11.44 | 11.44 | 11.44 |      |      |      |      |      |      |      |      |
| 4                  | 9.72  | 9.72  | 9.72  | 9.72  | 9.72  | 9.72  | 9.72  | 9.72  | 9.72 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 8.58  | 8.58  | 8.58  | 8.58  | 8.58  | 8.58  | 8.58 | 8.58 |      |      |      |      |      |      |
| 5                  |       |       | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43 | 7.43 | 7.43 | 7.43 |      |      |      |      |
| 5.5                |       |       | x     | 6.73  | 6.73  | 6.73  | 6.73  | 6.73  | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 |      |      |
| 6                  |       |       |       | 6.04  | 6.04  | 6.04  | 6.04  | 6.04  | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 |      |
| 6.5                |       |       |       | x     | 5.59  | 5.59  | 5.59  | 5.59  | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 |
| 7                  |       |       |       |       | 5.14  | 5.14  | 5.14  | 5.14  | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 |
| 7.5                |       |       |       |       | x     | 4.68  | 4.68  | 4.68  | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 |
| 8                  |       |       |       |       |       | 4.21  | 4.21  | 4.21  | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 |
| 8.5                |       |       |       |       |       |       | x     | 3.94  | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 |
| 9                  |       |       |       |       |       |       |       | 3.65  | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 |
| 9.5                |       |       |       |       |       |       |       | x     | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 |
| 10                 |       |       |       |       |       |       |       |       | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 |
| 10.5               |       |       |       |       |       |       |       |       | x    | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 |
| 11                 |       |       |       |       |       |       |       |       |      | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 |
| 11.5               |       |       |       |       |       |       |       |       |      | x    | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 |
| 12                 |       |       |       |       |       |       |       |       |      |      | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 |
| 12.5               |       |       |       |       |       |       |       |       |      |      |      | x    | 2.33 | 2.33 | 2.33 | 2.33 |
| 13                 |       |       |       |       |       |       |       |       |      |      |      |      | 2.15 | 2.15 | 2.15 | 2.15 |
| 13.5               |       |       |       |       |       |       |       |       |      |      |      |      |      | x    | 2.10 | 2.10 |
| 14                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      | 2.04 | 2.04 |
| 14.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.99 |
| 15                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.94 |
| 15.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.82 |
|                    |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.70 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 10    | deg   |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |      |
| 2                  | 15.00 | 15.00 | 15.00 | 15.00 |       |       |       |      |      |      |      |      |      |      |      |      |
| 2.5                | 13.16 | 13.16 | 13.16 | 13.16 | 13.16 | 13.16 |       |      |      |      |      |      |      |      |      |      |
| 3                  | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 |      |      |      |      |      |      |      |      |      |
| 3.5                | 9.83  | 9.83  | 9.83  | 9.83  | 9.83  | 9.83  | 9.83  | 9.83 |      |      |      |      |      |      |      |      |
| 4                  | 8.36  | 8.36  | 8.36  | 8.36  | 8.36  | 8.36  | 8.36  | 8.36 | 8.36 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 7.37  | 7.37  | 7.37  | 7.37  | 7.37  | 7.37 | 7.37 | 7.37 |      |      |      |      |      |      |
| 5                  |       |       | 6.40  | 6.40  | 6.40  | 6.40  | 6.40  | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 |      |      |      |      |
| 5.5                |       |       | x     | 5.81  | 5.81  | 5.81  | 5.81  | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 |      |      |      |
| 6                  |       |       |       | 5.23  | 5.23  | 5.23  | 5.23  | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 |      |      |
| 6.5                |       |       |       | x     | 4.83  | 4.83  | 4.83  | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 |
| 7                  |       |       |       |       | 4.43  | 4.43  | 4.43  | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 |
| 7.5                |       |       |       |       | x     | 4.04  | 4.04  | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 |
| 8                  |       |       |       |       |       | 3.66  | 3.66  | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 |
| 8.5                |       |       |       |       |       |       | x     | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| 9                  |       |       |       |       |       |       |       | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| 9.5                |       |       |       |       |       |       |       | x    | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 |
| 10                 |       |       |       |       |       |       |       |      | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 |
| 10.5               |       |       |       |       |       |       |       |      | x    | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 |
| 11                 |       |       |       |       |       |       |       |      |      | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 |
| 11.5               |       |       |       |       |       |       |       |      |      | x    | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 |
| 12                 |       |       |       |       |       |       |       |      |      |      | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| 12.5               |       |       |       |       |       |       |       |      |      |      |      | x    | 2.03 | 2.03 | 2.03 | 2.03 |
| 13                 |       |       |       |       |       |       |       |      |      |      |      |      | 1.89 | 1.89 | 1.89 | 1.89 |
| 13.5               |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.84 | 1.84 |
| 14                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.79 | 1.79 |
| 14.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    | 1.73 |
| 15                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.67 |
| 15.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.49 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

**Articulation:**

**10 deg**

| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12    | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |       |      |      |      |      |      |      |      |      |
| 2                  | 16.00 | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |
| 2.5                | 14.80 | 14.80 | 14.80 | 14.80 | 14.80 | 14.80 |       |       |      |      |      |      |      |      |      |      |
| 3                  | 12.83 | 12.83 | 12.83 | 12.83 | 12.83 | 12.83 | 12.83 |       |      |      |      |      |      |      |      |      |
| 3.5                | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 |      |      |      |      |      |      |      |      |
| 4                  | 9.40  | 9.40  | 9.40  | 9.40  | 9.40  | 9.40  | 9.40  | 9.40  | 9.40 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 8.29  | 8.29  | 8.29  | 8.29  | 8.29  | 8.29  | 8.29 | 8.29 |      |      |      |      |      |      |
| 5                  |       |       | 7.20  | 7.20  | 7.20  | 7.20  | 7.20  | 7.20  | 7.20 | 7.20 | 7.20 | 7.20 |      |      |      |      |
| 5.5                |       |       | x     | 6.54  | 6.54  | 6.54  | 6.54  | 6.54  | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 |      |      |      |
| 6                  |       |       |       | 5.88  | 5.88  | 5.88  | 5.88  | 5.88  | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 |      |      |
| 6.5                |       |       |       | x     | 5.43  | 5.43  | 5.43  | 5.43  | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 |
| 7                  |       |       |       |       | 4.98  | 4.98  | 4.98  | 4.98  | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 |
| 7.5                |       |       |       |       | x     | 4.55  | 4.55  | 4.55  | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 |
| 8                  |       |       |       |       |       | 4.11  | 4.11  | 4.11  | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 |
| 8.5                |       |       |       |       |       |       | x     | 3.83  | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 |
| 9                  |       |       |       |       |       |       |       | 3.55  | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 |
| 9.5                |       |       |       |       |       |       |       | x     | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 |
| 10                 |       |       |       |       |       |       |       |       | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 |
| 10.5               |       |       |       |       |       |       |       |       | x    | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| 11                 |       |       |       |       |       |       |       |       |      | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 |
| 11.5               |       |       |       |       |       |       |       |       |      | x    | 2.61 | 2.61 | 2.61 | 2.61 | 2.61 | 2.61 |
| 12                 |       |       |       |       |       |       |       |       |      |      | 2.44 | 2.44 | 2.44 | 2.44 | 2.44 | 2.44 |
| 12.5               |       |       |       |       |       |       |       |       |      |      |      | x    | 2.28 | 2.28 | 2.28 | 2.28 |
| 13                 |       |       |       |       |       |       |       |       |      |      |      |      | 2.12 | 2.12 | 2.12 | 2.12 |
| 13.5               |       |       |       |       |       |       |       |       |      |      |      |      |      | x    | 2.07 | 2.07 |
| 14                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      | 2.01 | 2.01 |
| 14.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.94 |
| 15                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.88 |
| 15.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.78 |
|                    |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.67 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 20    | deg   |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |      |
| 2                  | 15.00 | 15.00 | 15.00 | 15.00 |       |       |       |      |      |      |      |      |      |      |      |      |
| 2.5                | 12.87 | 12.87 | 12.87 | 12.87 | 12.87 | 12.87 |       |      |      |      |      |      |      |      |      |      |
| 3                  | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 9.49  | 9.49  | 9.49  | 9.49  | 9.49  | 9.49  | 9.49  | 9.49 |      |      |      |      |      |      |      |      |
| 4                  | 8.07  | 8.07  | 8.07  | 8.07  | 8.07  | 8.07  | 8.07  | 8.07 | 8.07 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 7.11  | 7.11  | 7.11  | 7.11  | 7.11  | 7.11 | 7.11 | 7.11 |      |      |      |      |      |      |
| 5                  |       |       | 6.20  | 6.20  | 6.20  | 6.20  | 6.20  | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 |      |      |      |      |
| 5.5                |       |       | x     | 5.64  | 5.64  | 5.64  | 5.64  | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 |      |      |      |
| 6                  |       |       |       | 5.09  | 5.09  | 5.09  | 5.09  | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 |      |
| 6.5                |       |       |       | x     | 4.69  | 4.69  | 4.69  | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 |
| 7                  |       |       |       |       | 4.29  | 4.29  | 4.29  | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 |
| 7.5                |       |       |       |       | x     | 3.93  | 3.93  | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 |
| 8                  |       |       |       |       |       | 3.57  | 3.57  | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 |
| 8.5                |       |       |       |       |       |       | x     | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| 9                  |       |       |       |       |       |       |       | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 |
| 9.5                |       |       |       |       |       |       |       | x    | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 |
| 10                 |       |       |       |       |       |       |       |      | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 |
| 10.5               |       |       |       |       |       |       |       |      | x    | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 |
| 11                 |       |       |       |       |       |       |       |      |      | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 |
| 11.5               |       |       |       |       |       |       |       |      |      | x    | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 |
| 12                 |       |       |       |       |       |       |       |      |      |      | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 |
| 12.5               |       |       |       |       |       |       |       |      |      |      |      | x    | 1.99 | 1.99 | 1.99 | 1.99 |
| 13                 |       |       |       |       |       |       |       |      |      |      |      |      | 1.86 | 1.86 | 1.86 | 1.86 |
| 13.5               |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.81 | 1.81 |
| 14                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.76 | 1.76 |
| 14.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    | 1.69 |
| 15                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.61 |
| 15.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.54 |
|                    |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.46 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

**Articulation:**

**20 deg**

| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12    | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |       |      |      |      |      |      |      |      |      |
| 2                  | 16.00 | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |
| 2.5                | 14.48 | 14.48 | 14.48 | 14.48 | 14.48 | 14.48 |       |       |      |      |      |      |      |      |      |      |
| 3                  | 12.38 | 12.38 | 12.38 | 12.38 | 12.38 | 12.38 | 12.38 |       |      |      |      |      |      |      |      |      |
| 3.5                | 10.67 | 10.67 | 10.67 | 10.67 | 10.67 | 10.67 | 10.67 | 10.67 |      |      |      |      |      |      |      |      |
| 4                  | 9.08  | 9.08  | 9.08  | 9.08  | 9.08  | 9.08  | 9.08  | 9.08  | 9.08 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | 8.00 | 8.00 |      |      |      |      |      |      |
| 5                  |       |       | 6.98  | 6.98  | 6.98  | 6.98  | 6.98  | 6.98  | 6.98 | 6.98 | 6.98 | 6.98 |      |      |      |      |
| 5.5                |       |       | x     | 6.35  | 6.35  | 6.35  | 6.35  | 6.35  | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 |      |      |      |
| 6                  |       |       |       | 5.72  | 5.72  | 5.72  | 5.72  | 5.72  | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 |      |      |
| 6.5                |       |       |       | x     | 5.27  | 5.27  | 5.27  | 5.27  | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 |
| 7                  |       |       |       |       | 4.82  | 4.82  | 4.82  | 4.82  | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 |
| 7.5                |       |       |       |       | x     | 4.42  | 4.42  | 4.42  | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 |
| 8                  |       |       |       |       |       | 4.02  | 4.02  | 4.02  | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 |
| 8.5                |       |       |       |       |       |       | x     | 3.71  | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 |
| 9                  |       |       |       |       |       |       |       | 3.46  | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 |
| 9.5                |       |       |       |       |       |       |       | x     | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| 10                 |       |       |       |       |       |       |       |       | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| 10.5               |       |       |       |       |       |       |       |       | x    | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 |
| 11                 |       |       |       |       |       |       |       |       |      | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 |
| 11.5               |       |       |       |       |       |       |       |       |      | x    | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 |
| 12                 |       |       |       |       |       |       |       |       |      |      | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 12.5               |       |       |       |       |       |       |       |       |      |      |      | x    | 2.23 | 2.23 | 2.23 | 2.23 |
| 13                 |       |       |       |       |       |       |       |       |      |      |      |      | 2.09 | 2.09 | 2.09 | 2.09 |
| 13.5               |       |       |       |       |       |       |       |       |      |      |      |      |      | x    | 2.03 | 2.03 |
| 14                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      | 1.98 | 1.98 |
| 14.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.90 |
| 15                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.82 |
| 15.5               |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.73 |
|                    |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.64 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 30    | deg   |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |      |
| 2                  | 15.00 | 15.00 | 15.00 | 15.00 |       |       |       |      |      |      |      |      |      |      |      |      |
| 2.5                | 12.59 | 12.59 | 12.59 | 12.59 | 12.59 | 12.59 |       |      |      |      |      |      |      |      |      |      |
| 3                  | 10.60 | 10.60 | 10.60 | 10.60 | 10.60 | 10.60 | 10.60 |      |      |      |      |      |      |      |      |      |
| 3.5                | 9.14  | 9.14  | 9.14  | 9.14  | 9.14  | 9.14  | 9.14  | 9.14 |      |      |      |      |      |      |      |      |
| 4                  | 7.79  | 7.79  | 7.79  | 7.79  | 7.79  | 7.79  | 7.79  | 7.79 | 7.79 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 6.86  | 6.86  | 6.86  | 6.86  | 6.86  | 6.86 | 6.86 | 6.86 |      |      |      |      |      |      |
| 5                  |       |       | 6.00  | 6.00  | 6.00  | 6.00  | 6.00  | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |      |      |      |      |
| 5.5                |       |       | x     | 5.47  | 5.47  | 5.47  | 5.47  | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 |      |      |      |
| 6                  |       |       |       | 4.94  | 4.94  | 4.94  | 4.94  | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 |      |      |
| 6.5                |       |       |       | x     | 4.54  | 4.54  | 4.54  | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 |
| 7                  |       |       |       |       | 4.14  | 4.14  | 4.14  | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 |
| 7.5                |       |       |       |       | x     | 3.81  | 3.81  | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 |
| 8                  |       |       |       |       |       | 3.49  | 3.49  | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 |
| 8.5                |       |       |       |       |       |       | x     | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| 9                  |       |       |       |       |       |       |       | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| 9.5                |       |       |       |       |       |       |       | x    | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 |
| 10                 |       |       |       |       |       |       |       |      | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 |
| 10.5               |       |       |       |       |       |       |       |      | x    | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 |
| 11                 |       |       |       |       |       |       |       |      |      | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 |
| 11.5               |       |       |       |       |       |       |       |      |      | x    | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 |
| 12                 |       |       |       |       |       |       |       |      |      |      | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 |
| 12.5               |       |       |       |       |       |       |       |      |      |      |      | x    | 1.94 | 1.94 | 1.94 | 1.94 |
| 13                 |       |       |       |       |       |       |       |      |      |      |      |      | 1.83 | 1.83 | 1.83 | 1.83 |
| 13.5               |       |       |       |       |       |       |       |      |      |      |      |      | x    | 1.78 | 1.78 | 1.78 |
| 14                 |       |       |       |       |       |       |       |      |      |      |      |      |      | 1.73 | 1.73 | 1.73 |
| 14.5               |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.64 | 1.64 |
| 15                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.56 | 1.56 |
| 15.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    | 1.49 |
| 16                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.43 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 30 deg |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      |
|--------------------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6    | 7     | 8     | 9     | 10    | 10.6  | 11    | 12    | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00  | 16.00 | 16.00 |       |       |       |       |       |      |      |      |      |      |      |      |      |
| 2                  | 16.00  | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |
| 2.5                | 14.16  | 14.16 | 14.16 | 14.16 | 14.16 | 14.16 |       |       |      |      |      |      |      |      |      |      |
| 3                  | 11.93  | 11.93 | 11.93 | 11.93 | 11.93 | 11.93 | 11.93 |       |      |      |      |      |      |      |      |      |
| 3.5                | 10.29  | 10.29 | 10.29 | 10.29 | 10.29 | 10.29 | 10.29 | 10.29 |      |      |      |      |      |      |      |      |
| 4                  | 8.76   | 8.76  | 8.76  | 8.76  | 8.76  | 8.76  | 8.76  | 8.76  | 8.76 |      |      |      |      |      |      |      |
| 4.5                |        | x     | 7.71  | 7.71  | 7.71  | 7.71  | 7.71  | 7.71  | 7.71 | 7.71 |      |      |      |      |      |      |
| 5                  |        |       | 6.75  | 6.75  | 6.75  | 6.75  | 6.75  | 6.75  | 6.75 | 6.75 | 6.75 | 6.75 |      |      |      |      |
| 5.5                |        |       | x     | 6.16  | 6.16  | 6.16  | 6.16  | 6.16  | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 |      |      |      |
| 6                  |        |       |       | 5.56  | 5.56  | 5.56  | 5.56  | 5.56  | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 |      |      |
| 6.5                |        |       |       | x     | 5.11  | 5.11  | 5.11  | 5.11  | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 |
| 7                  |        |       |       |       | 4.66  | 4.66  | 4.66  | 4.66  | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 |
| 7.5                |        |       |       |       | x     | 4.29  | 4.29  | 4.29  | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 |
| 8                  |        |       |       |       |       | 3.92  | 3.92  | 3.92  | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 |
| 8.5                |        |       |       |       |       |       | x     | 3.60  | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 9                  |        |       |       |       |       |       |       | 3.36  | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 |
| 9.5                |        |       |       |       |       |       |       | x     | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| 10                 |        |       |       |       |       |       |       |       | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| 10.5               |        |       |       |       |       |       |       |       | x    | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 |
| 11                 |        |       |       |       |       |       |       |       |      | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 |
| 11.5               |        |       |       |       |       |       |       |       |      | x    | 2.48 | 2.48 | 2.48 | 2.48 | 2.48 | 2.48 |
| 12                 |        |       |       |       |       |       |       |       |      |      | 2.31 | 2.31 | 2.31 | 2.31 | 2.31 | 2.31 |
| 12.5               |        |       |       |       |       |       |       |       |      |      |      | x    | 2.19 | 2.19 | 2.19 | 2.19 |
| 13                 |        |       |       |       |       |       |       |       |      |      |      |      | 2.06 | 2.06 | 2.06 | 2.06 |
| 13.5               |        |       |       |       |       |       |       |       |      |      |      |      |      | x    | 2.00 | 2.00 |
| 14                 |        |       |       |       |       |       |       |       |      |      |      |      |      |      | 1.94 | 1.94 |
| 14.5               |        |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.85 |
| 15                 |        |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.75 |
| 15.5               |        |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    |
| 16                 |        |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.68 |
|                    |        |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.61 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

| Articulation:      | 40    | deg   |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |      |
| 2                  | 15.00 | 15.00 | 15.00 | 15.00 |       |       |       |      |      |      |      |      |      |      |      |      |
| 2.5                | 12.30 | 12.30 | 12.30 | 12.30 | 12.30 | 12.30 |       |      |      |      |      |      |      |      |      |      |
| 3                  | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.80  | 8.80  | 8.80  | 8.80  | 8.80  | 8.80  | 8.80  | 8.80 |      |      |      |      |      |      |      |      |
| 4                  | 7.50  | 7.50  | 7.50  | 7.50  | 7.50  | 7.50  | 7.50  | 7.50 | 7.50 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 6.60  | 6.60  | 6.60  | 6.60  | 6.60  | 6.60 | 6.60 | 6.60 |      |      |      |      |      |      |
| 5                  |       |       | 5.80  | 5.80  | 5.80  | 5.80  | 5.80  | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 |      |      |      |      |
| 5.5                |       |       | x     | 5.30  | 5.30  | 5.30  | 5.30  | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 |      |      |      |
| 6                  |       |       |       | 4.80  | 4.80  | 4.80  | 4.80  | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 |      |      |
| 6.5                |       |       |       | x     | 4.40  | 4.40  | 4.40  | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 |
| 7                  |       |       |       |       | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 7.5                |       |       |       |       | x     | 3.70  | 3.70  | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 |
| 8                  |       |       |       |       |       | 3.40  | 3.40  | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| 8.5                |       |       |       |       |       |       | x     | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 |
| 9                  |       |       |       |       |       |       |       | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 |
| 9.5                |       |       |       |       |       |       |       | x    | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |
| 10                 |       |       |       |       |       |       |       |      | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 |
| 10.5               |       |       |       |       |       |       |       |      | x    | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 |
| 11                 |       |       |       |       |       |       |       |      |      | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| 11.5               |       |       |       |       |       |       |       |      |      | x    | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 |
| 12                 |       |       |       |       |       |       |       |      |      |      | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 12.5               |       |       |       |       |       |       |       |      |      |      |      | x    | 1.90 | 1.90 | 1.90 | 1.90 |
| 13                 |       |       |       |       |       |       |       |      |      |      |      |      | 1.80 | 1.80 | 1.80 | 1.80 |
| 13.5               |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.75 | 1.75 |
| 14                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.70 | 1.70 |
| 14.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    | 1.60 |
| 15                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.50 |
| 15.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.40 |

## LIFTING FROM MAIN BOOM (ON WINCH):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg of original OEM charts

**Articulation:**

**40 deg**

| Boom Len<br>Radius | 6.6   | 7     | 8     | 9     | 10    | 10.6  | 11    | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.6                | 16.00 | 16.00 | 16.00 |       |       |       |       |      |      |      |      |      |      |      |      |      |
| 2                  | 16.00 | 16.00 | 16.00 | 16.00 |       |       |       |      |      |      |      |      |      |      |      |      |
| 2.5                | 13.84 | 13.84 | 13.84 | 13.84 | 13.84 | 13.84 |       |      |      |      |      |      |      |      |      |      |
| 3                  | 11.48 | 11.48 | 11.48 | 11.48 | 11.48 | 11.48 | 11.48 |      |      |      |      |      |      |      |      |      |
| 3.5                | 9.90  | 9.90  | 9.90  | 9.90  | 9.90  | 9.90  | 9.90  | 9.90 |      |      |      |      |      |      |      |      |
| 4                  | 8.44  | 8.44  | 8.44  | 8.44  | 8.44  | 8.44  | 8.44  | 8.44 | 8.44 |      |      |      |      |      |      |      |
| 4.5                |       | x     | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43 | 7.43 | 7.43 |      |      |      |      |      |      |
| 5                  |       |       | 6.53  | 6.53  | 6.53  | 6.53  | 6.53  | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 |      |      |      |      |
| 5.5                |       |       | x     | 5.96  | 5.96  | 5.96  | 5.96  | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 |      |      |
| 6                  |       |       |       | 5.40  | 5.40  | 5.40  | 5.40  | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 |      |
| 6.5                |       |       |       | x     | 4.95  | 4.95  | 4.95  | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 |
| 7                  |       |       |       |       | 4.50  | 4.50  | 4.50  | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 |
| 7.5                |       |       |       |       | x     | 4.16  | 4.16  | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 |
| 8                  |       |       |       |       |       | 3.83  | 3.83  | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 |
| 8.5                |       |       |       |       |       |       | x     | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 |
| 9                  |       |       |       |       |       |       |       | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 |
| 9.5                |       |       |       |       |       |       |       | x    | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 |
| 10                 |       |       |       |       |       |       |       |      | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 |
| 10.5               |       |       |       |       |       |       |       |      | x    | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 |
| 11                 |       |       |       |       |       |       |       |      |      | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 |
| 11.5               |       |       |       |       |       |       |       |      |      | x    | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 |
| 12                 |       |       |       |       |       |       |       |      |      |      | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| 12.5               |       |       |       |       |       |       |       |      |      |      |      | x    | 2.14 | 2.14 | 2.14 | 2.14 |
| 13                 |       |       |       |       |       |       |       |      |      |      |      |      | 2.03 | 2.03 | 2.03 | 2.03 |
| 13.5               |       |       |       |       |       |       |       |      |      |      |      |      |      | x    | 1.97 | 1.97 |
| 14                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      | 1.91 | 1.91 |
| 14.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      | x    | 1.80 |
| 15                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.69 |
| 15.5               |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | x    |
| 16                 |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      | 1.58 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

| Articulation:      | 0.0 deg |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6     | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 8.00    | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00    | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.07    | 8.07 | 8.07 | 8.07 | 8.07 | 8.07 | 8.07 | 8.07 | 8.07 |      |      |      |      |      |      |      |
| 4.5                |         | x    | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 |      |      |      |      |      |      |
| 5                  |         |      | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 |      |      |      |      |
| 5.5                |         |      | x    | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 | 5.99 |      |      |      |
| 6                  |         |      |      | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 |      |      |
| 6.5                |         |      |      | x    | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 |
| 7                  |         |      |      |      | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 | 4.57 |
| 7.5                |         |      |      |      | x    | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 |
| 8                  |         |      |      |      |      | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 | 3.74 |
| 8.5                |         |      |      |      |      |      | x    | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 9                  |         |      |      |      |      |      |      | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 |
| 9.5                |         |      |      |      |      |      |      | x    | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 |
| 10                 |         |      |      |      |      |      |      |      | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 | 2.83 |
| 10.5               |         |      |      |      |      |      |      |      | x    | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 |
| 11                 |         |      |      |      |      |      |      |      |      | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 |
| 11.5               |         |      |      |      |      |      |      |      |      | x    | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 12                 |         |      |      |      |      |      |      |      |      |      | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 |
| 12.5               |         |      |      |      |      |      |      |      |      |      |      | x    | 2.07 | 2.07 | 2.07 | 2.07 |
| 13                 |         |      |      |      |      |      |      |      |      |      |      |      | 1.91 | 1.91 | 1.91 | 1.91 |
| 13.5               |         |      |      |      |      |      |      |      |      |      |      |      | x    | 1.86 | 1.86 | 1.86 |
| 14                 |         |      |      |      |      |      |      |      |      |      |      |      |      | 1.81 | 1.81 | 1.81 |
| 14.5               |         |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.77 | 1.77 |
| 15                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.73 | 1.73 |
| 15.5               |         |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.62 |
| 16                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.51 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

| Articulation:      | 0.0 deg |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6     | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 8.00    | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00    | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.00    | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |
| 4.5                |         | x    | 8.08 | 8.08 | 8.08 | 8.08 | 8.08 | 8.08 | 8.08 | 8.08 |      |      |      |      |      |      |
| 5                  |         |      | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 |      |      |      |      |
| 5.5                |         |      | x    | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 |      |      |      |
| 6                  |         |      |      | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 | 6.04 |      |      |
| 6.5                |         |      |      | x    | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 |
| 7                  |         |      |      |      | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 | 5.14 |
| 7.5                |         |      |      |      | x    | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 | 4.68 |
| 8                  |         |      |      |      |      | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 | 4.21 |
| 8.5                |         |      |      |      |      |      | x    | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 | 3.94 |
| 9                  |         |      |      |      |      |      |      | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 | 3.65 |
| 9.5                |         |      |      |      |      |      |      | x    | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 | 3.42 |
| 10                 |         |      |      |      |      |      |      |      | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 | 3.18 |
| 10.5               |         |      |      |      |      |      |      |      | x    | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 | 3.01 |
| 11                 |         |      |      |      |      |      |      |      |      | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 |
| 11.5               |         |      |      |      |      |      |      |      |      | x    | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 |
| 12                 |         |      |      |      |      |      |      |      |      |      | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 |
| 12.5               |         |      |      |      |      |      |      |      |      |      |      | x    | 2.33 | 2.33 | 2.33 | 2.33 |
| 13                 |         |      |      |      |      |      |      |      |      |      |      |      | 2.15 | 2.15 | 2.15 | 2.15 |
| 13.5               |         |      |      |      |      |      |      |      |      |      |      |      |      | x    | 2.10 | 2.10 |
| 14                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      | 2.04 | 2.04 |
| 14.5               |         |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.99 |
| 15                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.94 |
| 15.5               |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.82 |
|                    |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.70 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**10 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 |      |      |      |      |      |      |
| 5                  |      |      | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 | 6.40 |      |      |      |      |
| 5.5                |      |      | x    | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 |      |      |      |
| 6                  |      |      |      | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 | 5.23 |      |      |
| 6.5                |      |      |      | x    | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 |
| 7                  |      |      |      |      | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 |
| 7.5                |      |      |      |      | x    | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 | 4.04 |
| 8                  |      |      |      |      |      | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 | 3.66 |
| 8.5                |      |      |      |      |      |      | x    | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| 9                  |      |      |      |      |      |      |      | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| 9.5                |      |      |      |      |      |      |      | x    | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 |
| 10                 |      |      |      |      |      |      |      |      | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 | 2.47 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 2.03 | 2.03 | 2.03 | 2.03 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 1.89 | 1.89 | 1.89 | 1.89 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.84 | 1.84 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.79 | 1.79 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.73 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.67 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.49 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**10 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 7.92 | 7.92 | 7.92 | 7.92 | 7.92 | 7.92 | 7.92 | 7.92 |      |      |      |      |      |      |
| 5                  |      |      | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 |      |      |      |      |
| 5.5                |      |      | x    | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 | 6.54 |      |      |      |
| 6                  |      |      |      | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 | 5.88 |      |      |
| 6.5                |      |      |      | x    | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 | 5.43 |
| 7                  |      |      |      |      | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 | 4.98 |
| 7.5                |      |      |      |      | x    | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 |
| 8                  |      |      |      |      |      | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 |
| 8.5                |      |      |      |      |      |      | x    | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 |
| 9                  |      |      |      |      |      |      |      | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 |
| 9.5                |      |      |      |      |      |      |      | x    | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 |
| 10                 |      |      |      |      |      |      |      |      | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 | 3.12 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 | 2.78 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.61 | 2.61 | 2.61 | 2.61 | 2.61 | 2.61 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.44 | 2.44 | 2.44 | 2.44 | 2.44 | 2.44 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 2.28 | 2.28 | 2.28 | 2.28 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 2.12 | 2.12 | 2.12 | 2.12 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 2.07 | 2.07 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2.01 | 2.01 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.94 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.88 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.78 |
|                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.67 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**20 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 7.79 | 7.79 | 7.79 | 7.79 | 7.79 | 7.79 | 7.79 | 7.79 | 7.79 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 7.11 | 7.11 | 7.11 | 7.11 | 7.11 | 7.11 | 7.11 | 7.11 |      |      |      |      |      |      |
| 5                  |      |      | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 | 6.20 |      |      |      |      |
| 5.5                |      |      | x    | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 | 5.64 |      |      |      |
| 6                  |      |      |      | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 | 5.09 |      |
| 6.5                |      |      |      | x    | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 | 4.69 |
| 7                  |      |      |      |      | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 |
| 7.5                |      |      |      |      | x    | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 | 3.93 |
| 8                  |      |      |      |      |      | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 | 3.57 |
| 8.5                |      |      |      |      |      |      | x    | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| 9                  |      |      |      |      |      |      |      | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 | 3.07 |
| 9.5                |      |      |      |      |      |      |      | x    | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 |
| 10                 |      |      |      |      |      |      |      |      | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 1.99 | 1.99 | 1.99 | 1.99 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 1.86 | 1.86 | 1.86 | 1.86 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.81 | 1.81 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.76 | 1.76 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.69 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.61 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.46 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**20 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 7.75 | 7.75 | 7.75 | 7.75 | 7.75 | 7.75 | 7.75 | 7.75 |      |      |      |      |      |      |
| 5                  |      |      | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 |      |      |      |      |
| 5.5                |      |      | x    | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 |      |      |      |
| 6                  |      |      |      | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 |      |      |
| 6.5                |      |      |      | x    | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 | 5.27 |
| 7                  |      |      |      |      | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 |
| 7.5                |      |      |      |      | x    | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 |
| 8                  |      |      |      |      |      | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 | 4.02 |
| 8.5                |      |      |      |      |      |      | x    | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 | 3.71 |
| 9                  |      |      |      |      |      |      |      | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 | 3.46 |
| 9.5                |      |      |      |      |      |      |      | x    | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| 10                 |      |      |      |      |      |      |      |      | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 | 2.88 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 2.23 | 2.23 | 2.23 | 2.23 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 2.09 | 2.09 | 2.09 | 2.09 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 2.03 | 2.03 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.98 | 1.98 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.90 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.82 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.73 |
|                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.64 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**30 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 7.64 | 7.64 | 7.64 | 7.64 | 7.64 | 7.64 | 7.64 | 7.64 | 7.64 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 |      |      |      |      |      |      |
| 5                  |      |      | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |      |      |      |      |
| 5.5                |      |      | x    | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 |      |      |      |
| 6                  |      |      |      | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 |      |      |
| 6.5                |      |      |      | x    | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 |
| 7                  |      |      |      |      | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 | 4.14 |
| 7.5                |      |      |      |      | x    | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 | 3.81 |
| 8                  |      |      |      |      |      | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 |
| 8.5                |      |      |      |      |      |      | x    | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| 9                  |      |      |      |      |      |      |      | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| 9.5                |      |      |      |      |      |      |      | x    | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 |
| 10                 |      |      |      |      |      |      |      |      | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 | 2.36 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 1.94 | 1.94 | 1.94 | 1.94 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 1.83 | 1.83 | 1.83 | 1.83 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.78 | 1.78 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.73 | 1.73 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.64 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.56 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.49 |
|                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.43 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

| Articulation:      | 30 deg |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6    | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 8.00   | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00   | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |
| 4.5                |        | x    | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 |      |      |      |      |      |      |
| 5                  |        |      | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 |      |      |      |      |
| 5.5                |        |      | x    | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 |      |      |      |
| 6                  |        |      |      | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 | 5.56 |      |      |
| 6.5                |        |      |      | x    | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 | 5.11 |
| 7                  |        |      |      |      | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 |
| 7.5                |        |      |      |      | x    | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 |
| 8                  |        |      |      |      |      | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 | 3.92 |
| 8.5                |        |      |      |      |      |      | x    | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 9                  |        |      |      |      |      |      |      | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 |
| 9.5                |        |      |      |      |      |      |      | x    | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| 10                 |        |      |      |      |      |      |      |      | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| 10.5               |        |      |      |      |      |      |      |      | x    | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 |
| 11                 |        |      |      |      |      |      |      |      |      | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 |
| 11.5               |        |      |      |      |      |      |      |      |      | x    | 2.48 | 2.48 | 2.48 | 2.48 | 2.48 | 2.48 |
| 12                 |        |      |      |      |      |      |      |      |      |      | 2.31 | 2.31 | 2.31 | 2.31 | 2.31 | 2.31 |
| 12.5               |        |      |      |      |      |      |      |      |      |      |      | x    | 2.19 | 2.19 | 2.19 | 2.19 |
| 13                 |        |      |      |      |      |      |      |      |      |      |      |      | 2.06 | 2.06 | 2.06 | 2.06 |
| 13.5               |        |      |      |      |      |      |      |      |      |      |      |      |      | x    | 2.00 | 2.00 |
| 14                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.94 | 1.94 |
| 14.5               |        |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.85 |
| 15                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.75 |
| 15.5               |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.68 |
|                    |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.61 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 66.7% Chart

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

**Articulation:**

**40 deg**

| Boom Len<br>Radius | 6.6  | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.6                | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 |      |      |      |      |      |      |      |
| 4.5                |      | x    | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 |      |      |      |      |      |      |
| 5                  |      |      | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 |      |      |      |      |
| 5.5                |      |      | x    | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 |      |      |      |
| 6                  |      |      |      | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 |      |      |
| 6.5                |      |      |      | x    | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 | 4.40 |
| 7                  |      |      |      |      | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 7.5                |      |      |      |      | x    | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 | 3.70 |
| 8                  |      |      |      |      |      | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| 8.5                |      |      |      |      |      |      | x    | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 |
| 9                  |      |      |      |      |      |      |      | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 |
| 9.5                |      |      |      |      |      |      |      | x    | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |
| 10                 |      |      |      |      |      |      |      |      | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 |
| 10.5               |      |      |      |      |      |      |      |      | x    | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 |
| 11                 |      |      |      |      |      |      |      |      |      | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| 11.5               |      |      |      |      |      |      |      |      |      | x    | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 |
| 12                 |      |      |      |      |      |      |      |      |      |      | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 12.5               |      |      |      |      |      |      |      |      |      |      |      | x    | 1.90 | 1.90 | 1.90 | 1.90 |
| 13                 |      |      |      |      |      |      |      |      |      |      |      |      | 1.80 | 1.80 | 1.80 | 1.80 |
| 13.5               |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.75 | 1.75 |
| 14                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.70 | 1.70 |
| 14.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.60 |
| 15                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.50 |
| 15.5               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.40 |

## LIFTING FROM RHINO LUG (8t CAPACITY):

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

The articulation charts below are calculated based off a linear interpolation between the 5deg and 40deg OEM charts

| Articulation:      | 40 deg |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Boom Len<br>Radius | 6.6    | 7    | 8    | 9    | 10   | 10.6 | 11   | 12   | 13   | 14   | 14.6 | 15   | 16   | 17   | 18   | 18.6 |
| 1.6                | 8.00   | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2                  | 8.00   | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 2.5                | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |      |
| 3                  | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |      |
| 3.5                | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |      |
| 4                  | 8.00   | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |      |      |      |      |      |      |      |
| 4.5                |        | x    | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 |      |      |      |      |      |      |
| 5                  |        |      | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 | 6.53 |      |      |      |      |
| 5.5                |        |      | x    | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 | 5.96 |      |      |      |
| 6                  |        |      |      | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 |      |      |
| 6.5                |        |      |      | x    | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 | 4.95 |
| 7                  |        |      |      |      | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 |
| 7.5                |        |      |      |      | x    | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 |
| 8                  |        |      |      |      |      | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 | 3.83 |
| 8.5                |        |      |      |      |      |      | x    | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 |
| 9                  |        |      |      |      |      |      |      | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 |
| 9.5                |        |      |      |      |      |      |      | x    | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 |
| 10                 |        |      |      |      |      |      |      |      | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 |
| 10.5               |        |      |      |      |      |      |      |      | x    | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 |
| 11                 |        |      |      |      |      |      |      |      |      | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 |
| 11.5               |        |      |      |      |      |      |      |      |      | x    | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 |
| 12                 |        |      |      |      |      |      |      |      |      |      | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| 12.5               |        |      |      |      |      |      |      |      |      |      |      | x    | 2.14 | 2.14 | 2.14 | 2.14 |
| 13                 |        |      |      |      |      |      |      |      |      |      |      |      | 2.03 | 2.03 | 2.03 | 2.03 |
| 13.5               |        |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.97 | 1.97 |
| 14                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.91 | 1.91 |
| 14.5               |        |      |      |      |      |      |      |      |      |      |      |      |      |      | x    | 1.80 |
| 15                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.69 |
| 15.5               |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | x    |
| 16                 |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.58 |

## LIFTING FROM WINCH - FLY JIB:

### 66.7% Chart

Articulation: 40 deg

| Boom angle<br>[deg] | SWL<br>[t] | Max. Radius |
|---------------------|------------|-------------|
| 60                  | 1.30       | 8.4         |
| 50                  | 1.15       | 11.3        |
| 40                  | 0.97       | 14.1        |
| 30                  | 0.85       | 16.2        |
| 20                  | 0.79       | 17.8        |
| 10                  | 0.75       | 18.8        |
| 0                   | 0.75       | 19.1        |
| -8                  | 0.75       | 19.0        |

### 75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied

Articulation: 40 deg

| Boom angle<br>[deg] | SWL<br>[t] | Max. Radius |
|---------------------|------------|-------------|
| 60                  | 1.46       | 8.4         |
| 50                  | 1.29       | 11.3        |
| 40                  | 1.09       | 14.1        |
| 30                  | 0.95       | 16.2        |
| 20                  | 0.88       | 17.8        |
| 10                  | 0.84       | 18.8        |
| 0                   | 0.84       | 19.1        |
| -8                  | 0.84       | 19.0        |



FIELD Engineers Pty Ltd  
MACKAY – BRISBANE – GLADSTONE  
+61 7 4952 1303  
www.fieldengineers.com.au

**Client:**  
**Project:**  
**Title**

Matherson Crane Hire  
Variable Slew Position Chart  
Calculation

**Document:** 00581-001-C001A  
**Date:** 2/02/2021  
**Author:** DV  
**Approved:** JG

## **LIFTING FROM BOOM LUGS:**

### **66.7% Chart**

**Articulation:** 5 deg (MAX)

| Boom Length<br>Radius | <u>BOOM 1 LUG</u> | <u>BOOM 2 LUG</u> |
|-----------------------|-------------------|-------------------|
| <1.3                  | 20.00             |                   |
| 1.3                   | 18.00             |                   |
| 1.6                   | 15.00             |                   |
| 2                     | 12.30             |                   |
| 2.66                  | 10.90             | 10.90             |
| 3                     |                   | 8.00              |
| 4                     |                   | 8.00              |

### **75% Chart - Calculated using the 66.7% chart with a 12.5% factor applied**

**Articulation:** 5 deg (MAX)

| Boom Length<br>Radius | <u>BOOM 1 LUG</u> | <u>BOOM 2 LUG</u> |
|-----------------------|-------------------|-------------------|
| <1.3                  | 20.00             |                   |
| 1.3                   | 20.00             |                   |
| 1.6                   | 16.88             |                   |
| 2                     | 13.84             |                   |
| 2.66                  | 12.26             | 12.26             |
| 3                     |                   | 9.00              |
| 4                     |                   | 9.00              |