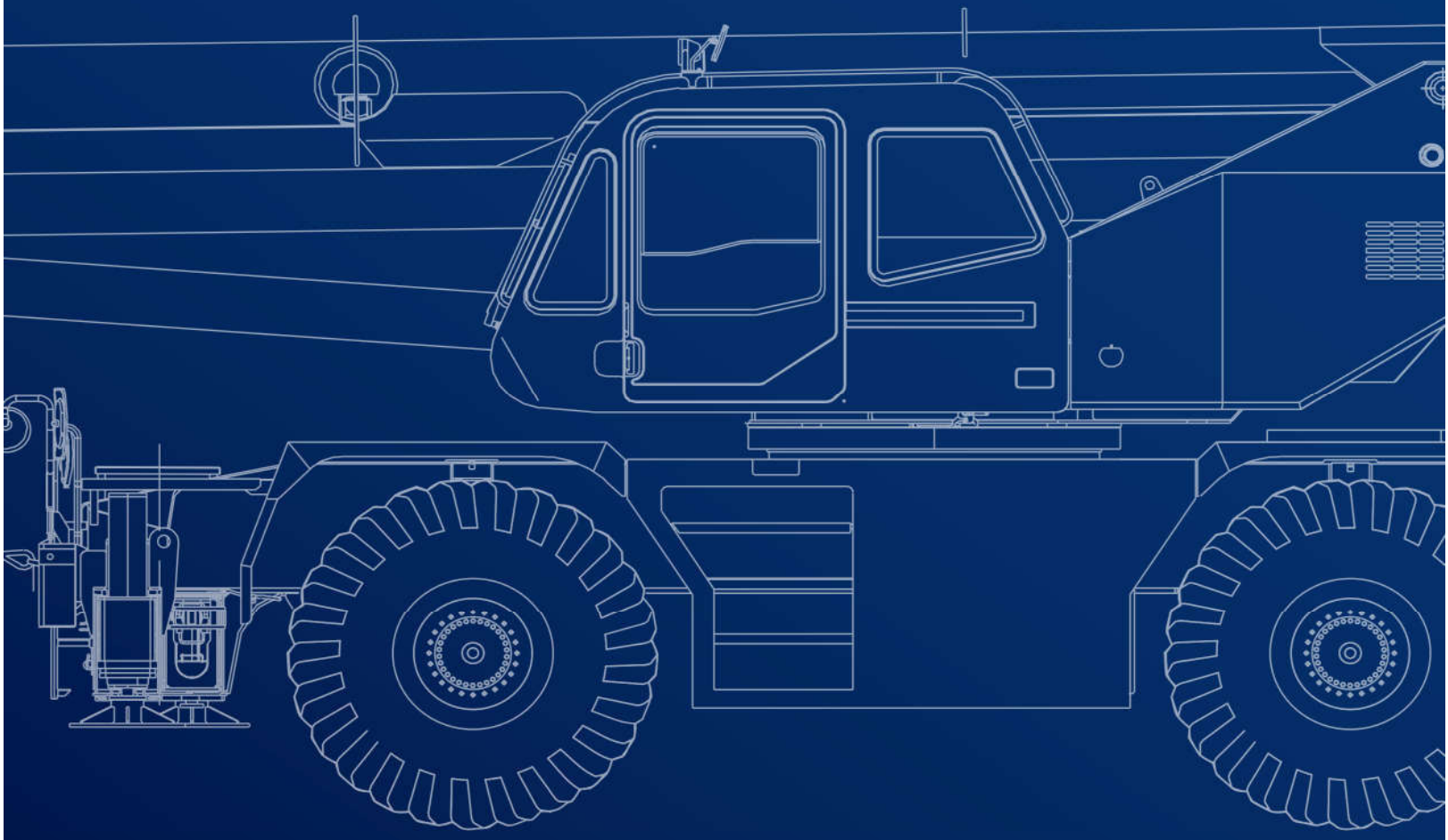
TADANO

TECHNICAL DATA | IMPERIAL

# GR-550XL

## 55 US TON MAX. CRANE CAPACITY

GUAY



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# Key


Counterweight


Lifting capacities on outriggers · 360°


Radius


Main boom


Main boom length


Folding swing-away jib


Tires

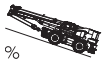

Hook block


Hook ball



Hoist


Travel speed



Gradeability


Working speeds


Rope


Base jib


Top jib


Boom telescoping


Boom elevation


Slewing



Max. line pull


Rope diameter


Rope length


Hook block


Number of lines


Number of sheaves in hook block


Line pulls available



Possible load of hook block



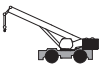
Weight of hook block


Distance head sheave axle – hook ground



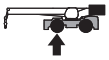
Max. outrigger load


Length of stroke (support cylinders)

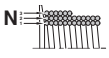

Base machine



Gross vehicle weight


Weight on front axle


Weight on rear axle



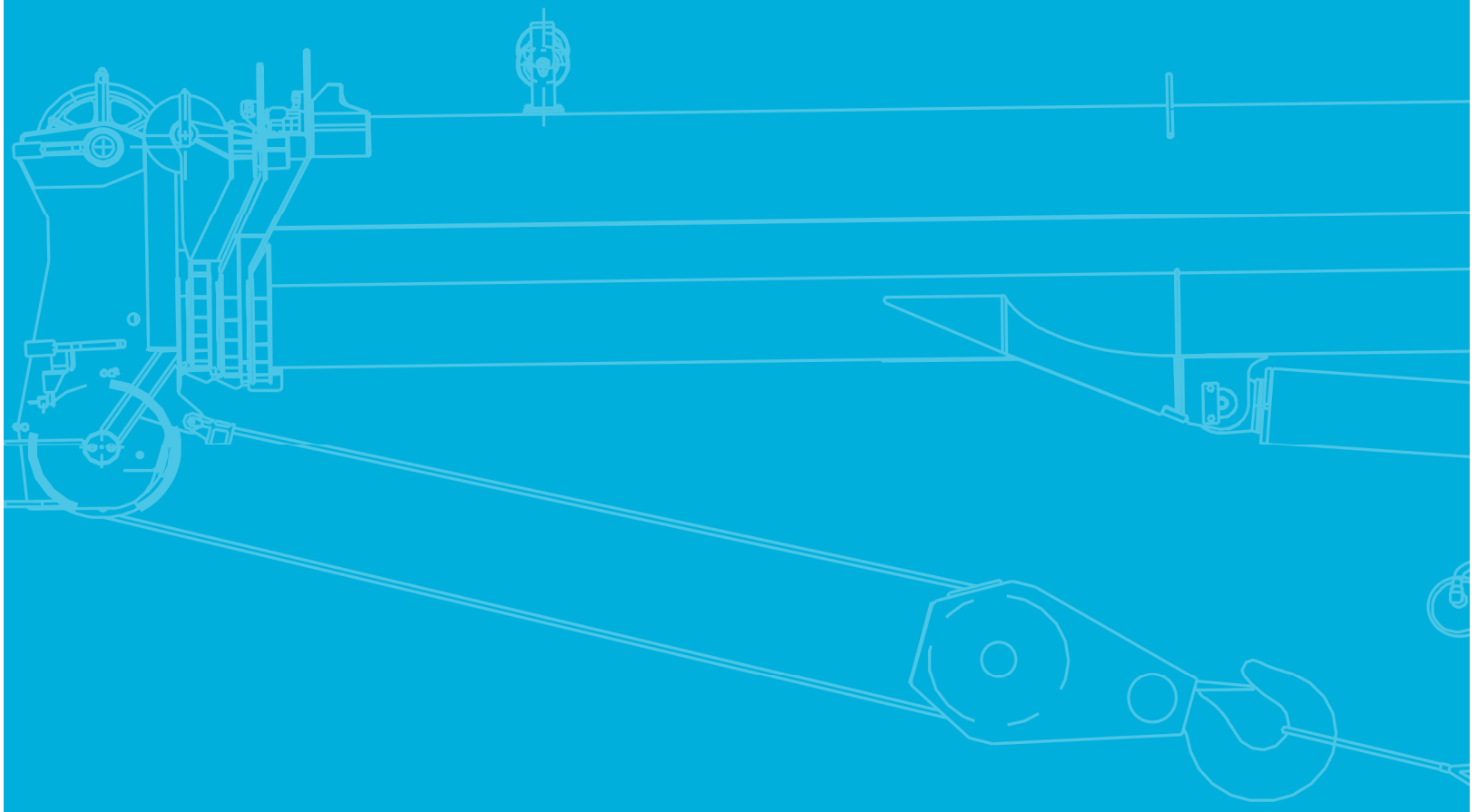
Wire rope layer



Total wire rope

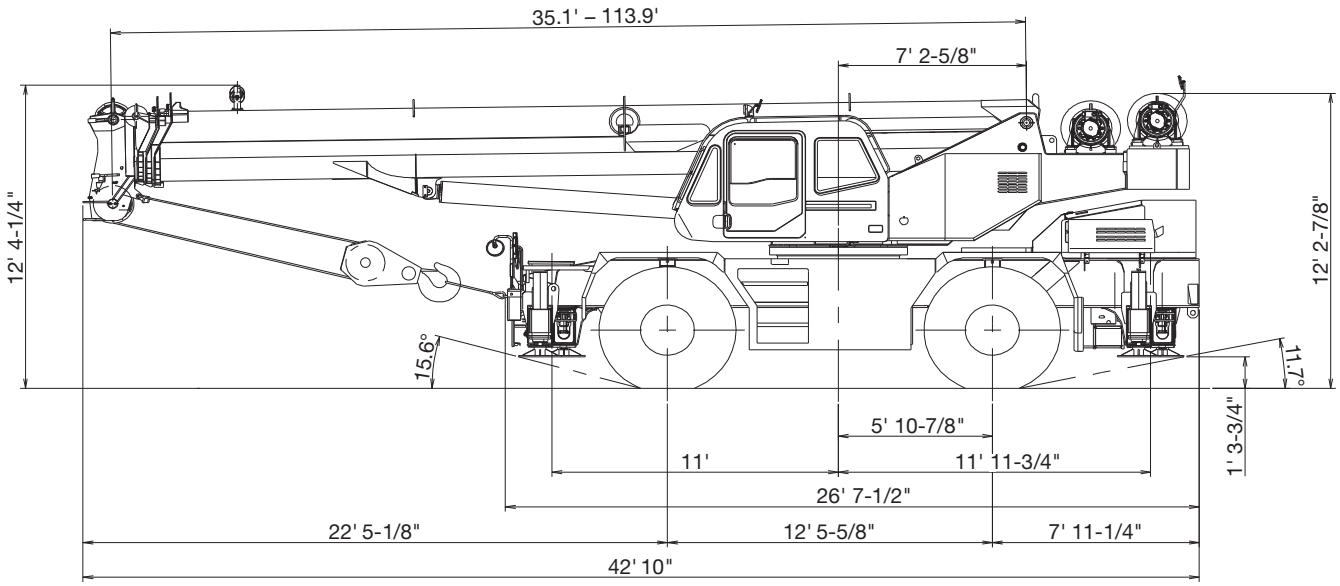
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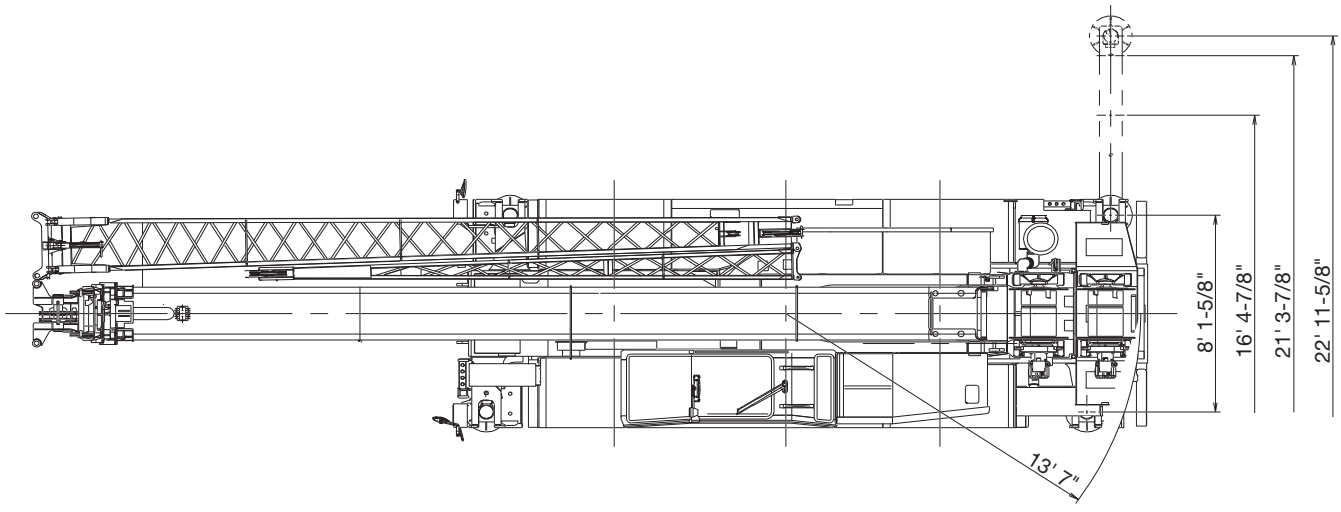
# SPECIFICATIONS



# Specifications

## Vehicle dimensions

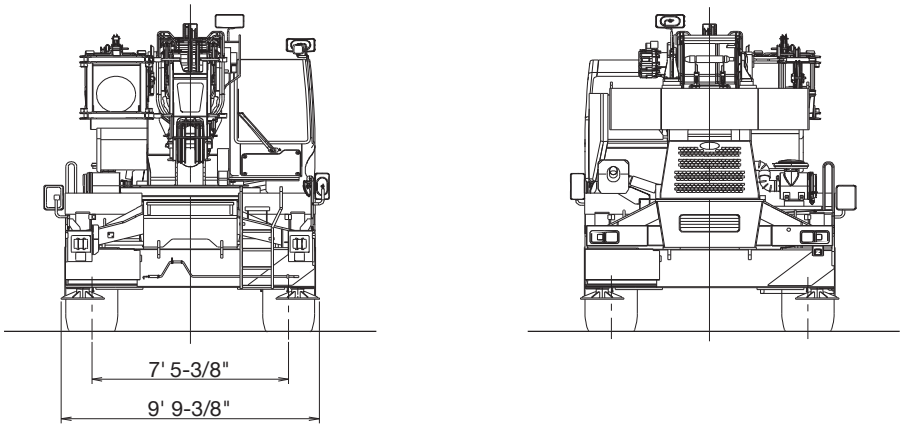



Dimension is with boom angle at -0.8 degree.

# Specifications

## Vehicle dimensions




## General dimensions

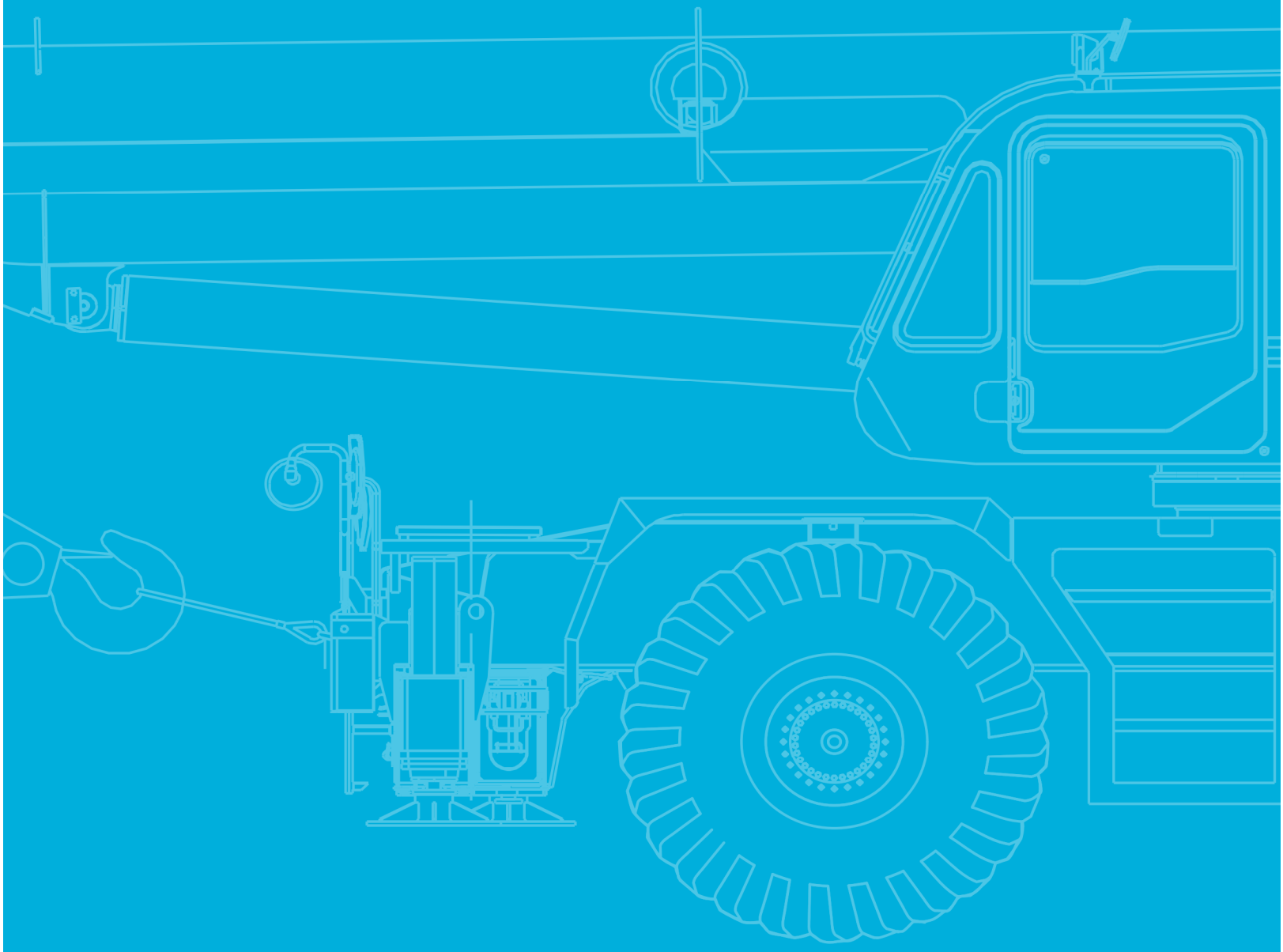
| | |
|---|---|
| Overall length | approx. 42‘ 10“ |
| Overall width | approx. 9‘ 9-3/8“ |
| Overall height | approx. 12‘ 4-1/4“ |
| Turning radius: 4 wheel steer* | 22‘ |
| Turning radius: 2 wheel steer* | 38‘ 5“ |
| Tail swing of counterweight* | 13‘ 7“ |

* 23.5-25 tires

# Notes

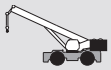
GUAY

# TECHNICAL DATA FOR OFF-ROAD DRIVING

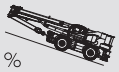


# Off-road driving

## Axle weight distribution chart

| | GVW | | |
|---|---|---|---|
|  | 74,850 lb | 38,500 lb | 36,350 lb |
| **Remove:** | | | |
|  6.2 ton | -330 lb | -460 lb | 130 lb |
|  55 ton | -1,180 lb | -2,160 lb | 980 lb |
|  Top jib | -500 lb | -630 lb | 130 lb |
|  Base jib | -1,380 lb | -2,510 lb | 1,130 lb |
| Auxiliary lifting sheave | -110 lb | -300 lb | 190 lb |

## Speeds and gradeability

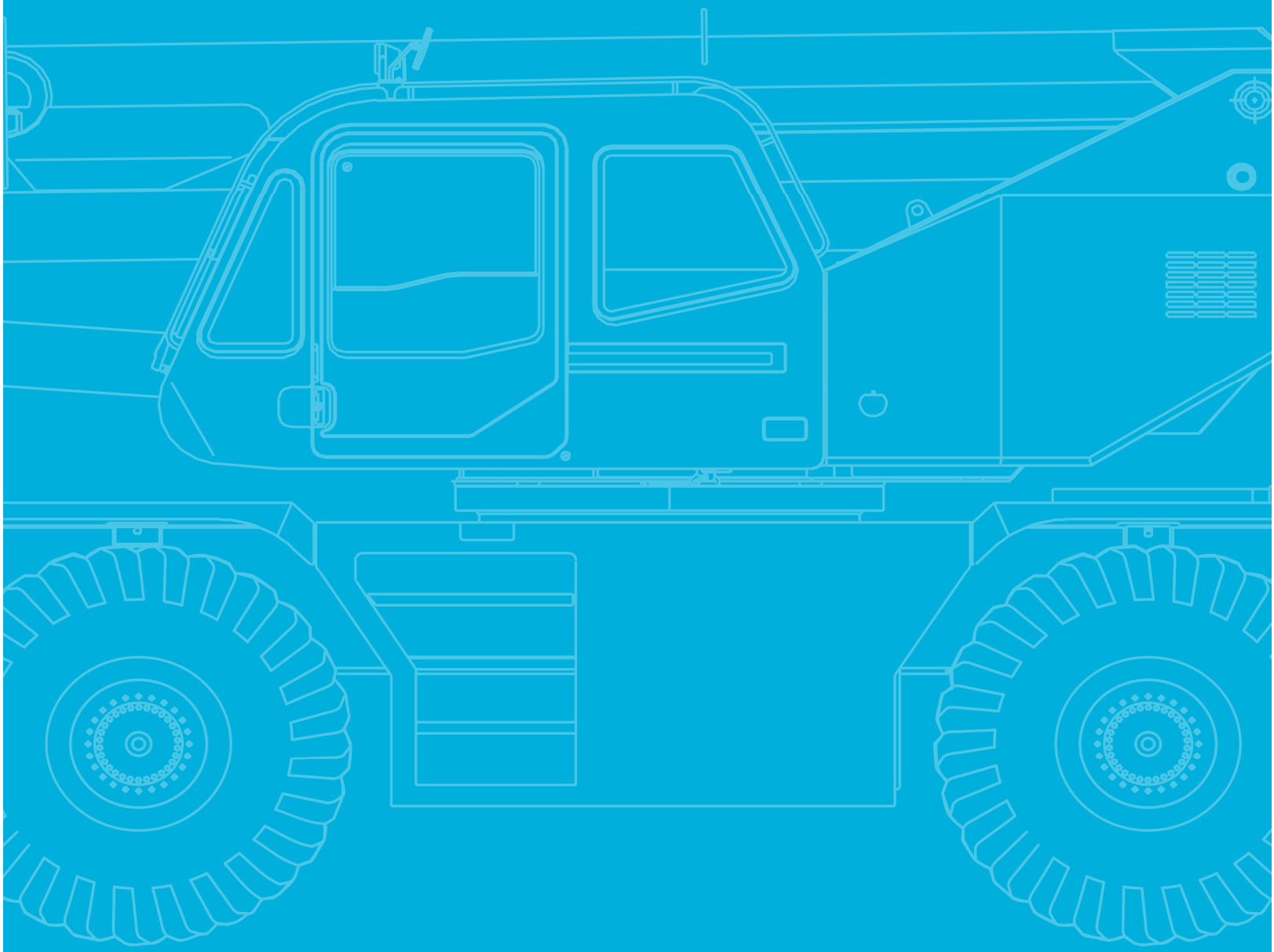
|  | 23.5-25 (OR) |
|---|---|
|  % | 69 %<br>at stall<br><br>57 %<br>Machine should be operated within the limit of engine design (30˚: Cummins B6.7) |
|  | 31 mph |

## Steering

| | |
|---|---|
|  | 4 wheel steer |
|  | 2 wheel steer |

GUAY

# TECHNICAL DATA FOR OPERATION



# Operation

| Main boom | | | |
|---|---|---|---|
|  | approx. 72 s (35.1 ft – 113.9 ft) |  | -0.8° – 81°<br>approx. 27 s (20° – 60°) |

| Slewing | |
|---|---|
|  | 2.7 $min^{-1}$ |

| Hoist |  |  |  |
|---|---|---|---|
| 1 | 16,500 lb | 3/4“ | 633‘ |
| 2 | 16,500 lb | 3/4“ | 361‘ |

# Operation

## Line speeds and pulls

### Main or auxiliary hoist - 14‘-1/4“ drum

| N | [1] | [2] |
|---|---|---|
| 1 | 331 ft/min. | 16,500 lb |
| 2 | 361 ft/min. | 15,200 lb |
| 3 | 390 ft/min. | 13,800 lb |
| 4 | 420 ft/min. | 12,700 lb |
| 5 | 450 ft/min. | 11,900 lb |
| 6 | 479 ft/min. | 11,000 lb |
| 7 [3] | 509 ft/min. | 10,300 lb |

Maximum permissible line pull may be affected by wire rope strength. Maximum lifting capacity per line (main + aux.): 12,300 lb.

1) Line speeds based only on hook block, not loaded.
2) Developed by machinery with each layer of wire rope, but not based on rope strength or other limitation in machinery or equipment.
3) Seventh layer of wire rope are not recommended for hoisting operations.

## Drum wire rope capacities

### Main and auxiliary drum grooved lagging 3/4“ wire rope

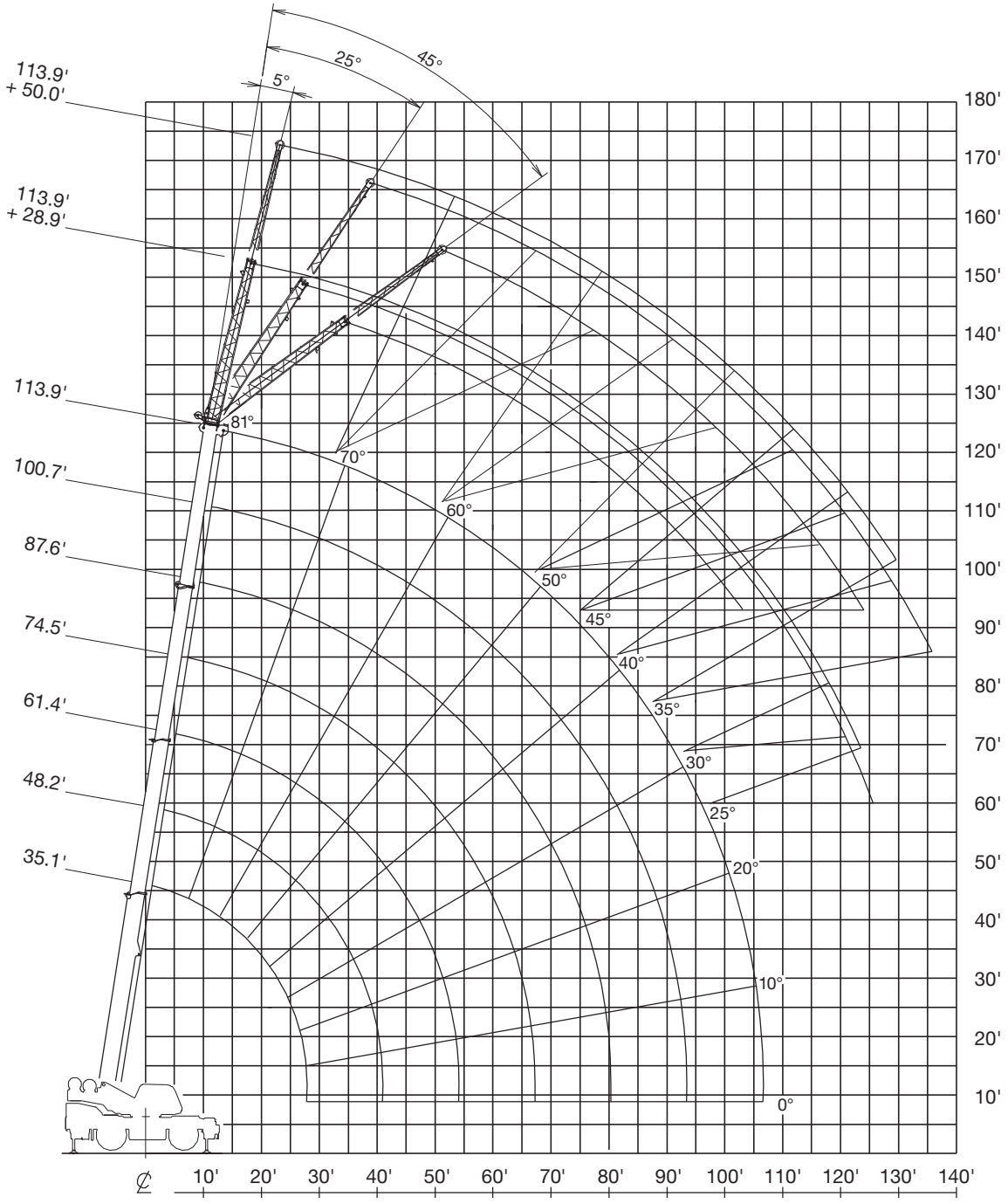
| N | | Σ |
|---|---|---|
| 1 | 112.2 ft | 112.2 ft |
| 2 | 122.3 ft | 234.5 ft |
| 3 | 132.2 ft | 366.8 ft |
| 4 | 142.3 ft | 509.1 ft |
| 5 | 152.2 ft | 661.4 ft |
| 6 | 162.4 ft | 823.8 ft |
| 7 | 172.5 ft | 996.4 ft |

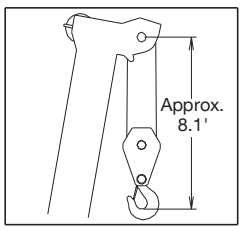
## Drum dimensions

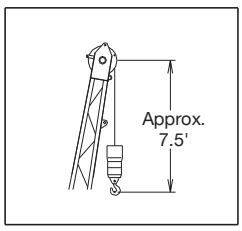
| | |
|---|---|
| Root diameter | 14-1/4“ |
| Length | 23-5/8“ |
| Flange diameter | 25-7/8“ |

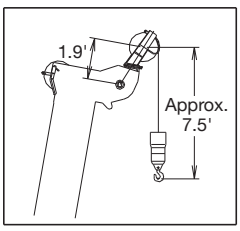
# Operation

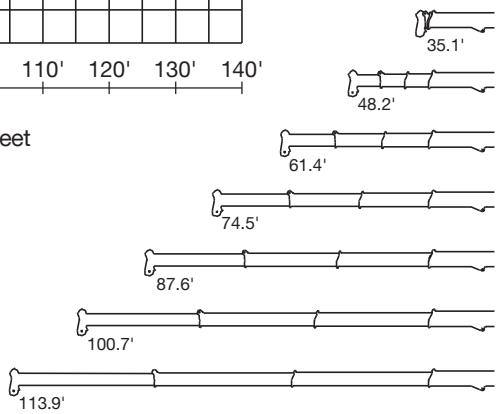
MB




NOTE: Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

# Operation



## Fully extended – 360°

| | 22‘ 11-5/8“ spread | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 360° | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 35.1‘[1] | | 35.1‘ | | 48.2‘[1] | | 48.2‘ | | 61.4‘[1] | | 61.4‘ | | 74.5‘[1] | | 74.5‘ | | 87.6‘[1] | | 87.6‘ | | 100.7‘[1] | | 100.7‘ | | 113.9‘[1] | | 113.9‘ | |
| ft | 1,000 lb | | | | | | | | | | | | | | | | | | | | | | | | | ft |
| 8 | 70° | 110,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 10 | 66° | 100,600 | 73° | 46,700 | 77° | 46,700 | 80° | 44,300 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| 12 | 63° | 87,900 | 70° | 46,700 | 75° | 46,700 | 78° | 44,300 | 81° | 41,200 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| 15 | 56° | 73,400 | 67° | 46,700 | 72° | 46,700 | 76° | 44,300 | 79° | 40,300 | 81° | 33,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| 20 | 44° | 54,400 | 60° | 46,700 | 67° | 46,700 | 72° | 42,100 | 76° | 35,800 | 78° | 30,500 | 80° | 25,100 | - | - | - | - | - | - | - | - | - | - | - | 20 |
| 25 | 27° | 38,500 | 52° | 43,000 | 62° | 43,000 | 68° | 39,500 | 72° | 31,700 | 75° | 27,300 | 78° | 23,900 | - | - | - | - | - | - | - | - | - | - | - | 25 |
| 30 | - | - | 44° | 33,800 | 56° | 35,000 | 64° | 35,500 | 69° | 28,700 | 72° | 25,000 | 75° | 21,600 | - | - | - | - | - | - | - | - | - | - | - | 30 |
| 35 | - | - | 33° | 25,600 | 50° | 26,600 | 59° | 27,000 | 65° | 25,300 | 69° | 23,000 | 72° | 19,900 | - | - | - | - | - | - | - | - | - | - | - | 35 |
| 40 | - | - | 16° | 20,400 | 44° | 21,100 | 54° | 21,500 | 61° | 21,200 | 66° | 20,500 | 70° | 19,000 | - | - | - | - | - | - | - | - | - | - | - | 40 |
| 45 | - | - | - | - | 36° | 17,100 | 49° | 17,300 | 57° | 17,500 | 63° | 17,400 | 67° | 17,100 | - | - | - | - | - | - | - | - | - | - | - | 45 |
| 50 | - | - | - | - | 25° | 14,100 | 43° | 14,300 | 53° | 14,500 | 59° | 14,400 | 64° | 14,500 | - | - | - | - | - | - | - | - | - | - | - | 50 |
| 55 | - | - | - | - | - | - | 37° | 12,000 | 48° | 12,200 | 56° | 12,100 | 61° | 12,200 | - | - | - | - | - | - | - | - | - | - | - | 55 |
| 60 | - | - | - | - | - | - | 29° | 10,200 | 43° | 10,300 | 52° | 10,300 | 58° | 10,350 | - | - | - | - | - | - | - | - | - | - | - | 60 |
| 65 | - | - | - | - | - | - | 18° | 8,700 | 38° | 8,750 | 48° | 8,850 | 54° | 8,850 | - | - | - | - | - | - | - | - | - | - | - | 65 |
| 70 | - | - | - | - | - | - | - | - | 32° | 7,550 | 44° | 7,600 | 51° | 7,650 | - | - | - | - | - | - | - | - | - | - | - | 70 |
| 75 | - | - | - | - | - | - | - | - | 24° | 6,550 | 39° | 6,600 | 47° | 6,650 | - | - | - | - | - | - | - | - | - | - | - | 75 |
| 80 | - | - | - | - | - | - | - | - | 9° | 5,700 | 34° | 5,700 | 44° | 5,750 | - | - | - | - | - | - | - | - | - | - | - | 80 |
| 85 | - | - | - | - | - | - | - | - | - | - | 27° | 4,950 | 39° | 5,000 | - | - | - | - | - | - | - | - | - | - | - | 85 |
| 90 | - | - | - | - | - | - | - | - | - | - | 19° | 4,350 | 35° | 4,350 | - | - | - | - | - | - | - | - | - | - | - | 90 |
| 95 | - | - | - | - | - | - | - | - | - | - | - | - | 30° | 3,750 | - | - | - | - | - | - | - | - | - | - | - | 95 |
| 100 | - | - | - | - | - | - | - | - | - | - | - | - | 23° | 3,250 | - | - | - | - | - | - | - | - | - | - | - | 100 |
| 105 | - | - | - | - | - | - | - | - | - | - | - | - | 13° | 2,350 | - | - | - | - | - | - | - | - | - | - | - | 105 |
| [2] | 0° | | 0° | | 0° | | 0° | | 0° | | 0° | | 0° | | | | | | | | | | | | [2] | |
| | 35.1‘ | | 48.2‘ | | 61.4‘ | | 74.5‘ | | 87.6‘ | | 100.7‘ | | 113.9‘ | | | | | | | | | | | | | |
| | 27.8‘ | | 41‘ | | 54.1‘ | | 67.3‘ | | 80.2‘ | | 92.7‘ | | 105.4‘ | | | | | | | | | | | | | |
| [1] 0° | 16,500 lb | | 10,600 lb | | 7,000 lb | | 4,800 lb | | 3,300 lb | | 2,200 lb | | 1,400 lb | | | | | | | | | | | | [1] 0° | |

1) Loaded boom angle (°)

2) Minimum boom angle (°) for indicated length (no load)

NOTE:
The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

| 35.1‘ | 35.1‘ to 61.4‘ | 61.4‘ to 113.9‘ | Single top jib |
|---|---|---|---|
| 10 | 6 | 4 | 1 |

# Operation



## Mid extended – 360°

| | 21‘ 3-7/8“ spread | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 360° | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 35.1‘[1] | | 35.1‘ | | 48.2‘[1] | | 48.2‘ | | 61.4‘[1] | | 61.4‘ | | 74.5‘[1] | | 74.5‘ | | 87.6‘[1] | | 87.6‘ | | 100.7‘[1] | | 100.7‘ | | 113.9‘[1] | | 113.9‘ | |
| ft | 1,000 lb | | | | | | | | | | | | | | | | | | | | | | | | | ft |
| 8 | 70° | 110,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 10 | 66° | 100,600 | 73° | 46,700 | 77° | 46,700 | 80° | 44,300 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| 12 | 63° | 87,900 | 70° | 46,700 | 75° | 46,700 | 78° | 44,300 | 81° | 41,200 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| 15 | 56° | 73,400 | 67° | 46,700 | 72° | 46,700 | 76° | 44,300 | 79° | 40,300 | 81° | 33,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| 20 | 44° | 54,400 | 60° | 46,700 | 67° | 46,700 | 72° | 42,100 | 76° | 35,800 | 78° | 30,500 | 80° | 25,100 | - | - | - | - | - | - | - | - | - | - | - | 20 |
| 25 | 27° | 38,500 | 52° | 40,600 | 62° | 41,300 | 68° | 39,500 | 72° | 31,700 | 75° | 27,300 | 78° | 23,900 | - | - | - | - | - | - | - | - | - | - | - | 25 |
| 30 | - | - | 44° | 28,300 | 56° | 29,000 | 64° | 29,500 | 69° | 28,700 | 72° | 25,000 | 75° | 21,600 | - | - | - | - | - | - | - | - | - | - | - | 30 |
| 35 | - | - | 33° | 21,000 | 50° | 21,600 | 59° | 22,100 | 65° | 22,400 | 69° | 22,500 | 72° | 19,900 | - | - | - | - | - | - | - | - | - | - | - | 35 |
| 40 | - | - | 16° | 16,300 | 43° | 17,000 | 54° | 17,300 | 61° | 17,500 | 66° | 17,600 | 70° | 17,700 | - | - | - | - | - | - | - | - | - | - | - | 40 |
| 45 | - | - | - | - | 35° | 13,700 | 49° | 14,000 | 57° | 14,100 | 62° | 14,300 | 67° | 14,200 | - | - | - | - | - | - | - | - | - | - | - | 45 |
| 50 | - | - | - | - | 25° | 11,100 | 43° | 11,500 | 53° | 11,700 | 59° | 11,800 | 64° | 11,700 | - | - | - | - | - | - | - | - | - | - | - | 50 |
| 55 | - | - | - | - | - | - | 37° | 9,500 | 48° | 9,700 | 55° | 9,900 | 60° | 9,800 | - | - | - | - | - | - | - | - | - | - | - | 55 |
| 60 | - | - | - | - | - | - | 29° | 8,000 | 43° | 8,200 | 52° | 8,300 | 57° | 8,200 | - | - | - | - | - | - | - | - | - | - | - | 60 |
| 65 | - | - | - | - | - | - | 18° | 6,500 | 38° | 7,000 | 48° | 7,000 | 54° | 7,000 | - | - | - | - | - | - | - | - | - | - | - | 65 |
| 70 | - | - | - | - | - | - | - | - | 32° | 5,900 | 43° | 5,900 | 50° | 6,000 | - | - | - | - | - | - | - | - | - | - | - | 70 |
| 75 | - | - | - | - | - | - | - | - | 24° | 5,000 | 39° | 5,000 | 47° | 5,100 | - | - | - | - | - | - | - | - | - | - | - | 75 |
| 80 | - | - | - | - | - | - | - | - | 9° | 4,000 | 33° | 4,300 | 43° | 4,400 | - | - | - | - | - | - | - | - | - | - | - | 80 |
| 85 | - | - | - | - | - | - | - | - | - | - | 27° | 3,700 | 39° | 3,700 | - | - | - | - | - | - | - | - | - | - | - | 85 |
| 90 | - | - | - | - | - | - | - | - | - | - | 19° | 2,900 | 35° | 3,100 | - | - | - | - | - | - | - | - | - | - | - | 90 |
| 95 | - | - | - | - | - | - | - | - | - | - | - | - | 29° | 2,700 | - | - | - | - | - | - | - | - | - | - | - | 95 |
| 100 | - | - | - | - | - | - | - | - | - | - | - | - | 23° | 2,200 | - | - | - | - | - | - | - | - | - | - | - | 100 |
| 105 | - | - | - | - | - | - | - | - | - | - | - | - | 12° | 1,650 | - | - | - | - | - | - | - | - | - | - | - | 105 |
| [2] | 0° | | 0° | | 0° | | 0° | | 0° | | 0° | | 0° | | | | | | | | | | | | [2] | |
| | 35.1‘ | | 48.2‘ | | 61.4‘ | | 74.5‘ | | 87.6‘ | | 100.7‘ | | 113.9‘ | | | | | | | | | | | | | |
| | 27.8‘ | | 41‘ | | 54.1‘ | | 67.3‘ | | 80.2‘ | | 92.7‘ | | 105.4‘ | | | | | | | | | | | | | |
| [1] 0° | 16,500 lb | | 10,600 lb | | 7,000 lb | | 4,800 lb | | 3,300 lb | | 2,200 lb | | 1,400 lb | | | | | | | | | | | | [1] 0° | |

1) Loaded boom angle (°)

2) Minimum boom angle (°) for indicated length (no load)

NOTE:
The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

| 35.1‘ | 35.1‘ to 61.4‘ | 61.4‘ to 113.9‘ | Single top jib |
|---|---|---|---|
| 10 | 6 | 4 | 1 |

# Operation



## Mid extended – 360°

| 16‘ 4-7/8“ spread | | | | | | | | | | | | | | | | 360° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35.1‘[1] | 35.1‘ | 48.2‘[1] | 48.2‘ | 61.4‘[1] | 61.4‘ | 74.5‘[1] | 74.5‘ | 87.6‘[1] | 87.6‘ | 100.7‘[1] | 100.7‘ | 113.9‘[1] | 113.9‘ | |
| ft | | | | | | 1,000 lb | | | | | | | | ft |
| 70° | 110,000 | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 66° | 100,600 | 73° | 46,700 | 77° | 46,700 | 80° | 44,300 | - | - | - | - | - | - | 10 |
| 63° | 87,900 | 70° | 46,700 | 75° | 46,700 | 78° | 44,300 | 81° | 41,200 | - | - | - | - | 12 |
| 56° | 72,400 | 67° | 46,700 | 72° | 46,700 | 76° | 44,300 | 79° | 40,300 | 81° | 33,000 | - | - | 15 |
| 44° | 38,500 | 60° | 39,900 | 67° | 40,700 | 72° | 41,400 | 76° | 35,800 | 78° | 30,500 | 80° | 25,100 | 20 |
| 27° | 24,600 | 52° | 26,000 | 62° | 26,600 | 68° | 27,200 | 72° | 27,500 | 75° | 27,200 | 78° | 23,900 | 25 |
| - | - | 44° | 18,600 | 56° | 19,000 | 63° | 19,500 | 68° | 19,800 | 72° | 19,900 | 75° | 19,600 | 30 |
| - | - | 33° | 13,700 | 50° | 14,400 | 59° | 14,800 | 65° | 15,000 | 69° | 15,000 | 72° | 15,100 | 35 |
| - | - | 16° | 10,400 | 43° | 11,200 | 54° | 11,700 | 61° | 11,900 | 65° | 11,900 | 69° | 11,900 | 40 |
| - | - | - | - | 35° | 8,800 | 49° | 9,300 | 57° | 9,500 | 62° | 9,500 | 66° | 9,600 | 45 |
| - | - | - | - | 25° | 7,000 | 43° | 7,500 | 53° | 7,700 | 59° | 7,700 | 63° | 7,800 | 50 |
| - | - | - | - | - | - | 37° | 6,000 | 48° | 6,150 | 55° | 6,150 | 60° | 6,300 | 55 |
| - | - | - | - | - | - | 29° | 4,850 | 43° | 5,000 | 51° | 5,000 | 57° | 5,100 | 60 |
| - | - | - | - | - | - | 18° | 3,700 | 38° | 4,050 | 47° | 4,050 | 54° | 4,150 | 65 |
| - | - | - | - | - | - | - | - | 32° | 3,300 | 43° | 3,300 | 50° | 3,400 | 70 |
| - | - | - | - | - | - | - | - | 24° | 2,650 | 38° | 2,700 | 47° | 2,800 | 75 |
| - | - | - | - | - | - | - | - | 9° | 2,000 | 33° | 2,100 | 43° | 2,200 | 80 |
| - | - | - | - | - | - | - | - | - | - | 27° | 1,600 | 39° | 1,700 | 85 |
| - | - | - | - | - | - | - | - | - | - | 18° | 1,050 | 34° | 1,300 | 90 |
| 0°[2] | | 0° | | 0° | | 0° | | 0° | | 0° | | 19° | | [2] |
| 35.1‘ | | 48.2‘ | | 61.4‘ | | 74.5‘ | | 87.6‘ | | 100.7‘ | | | | |
| 27.8‘ | | 41‘ | | 54.1‘ | | 67.3‘ | | 80.2‘ | | 92.7‘ | | | | |
| 16,500 lb | | 9,900 lb | | 5,670 lb | | 3,480 lb | | 1,980 lb | | 900 lb | | | | 0°[1] |

[1] Loaded boom angle (°)

[2] Minimum boom angle (°) for indicated length (no load)

NOTE:
The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

| 35.1‘ | 35.1‘ to 61.4‘ | 61.4‘ to 113.9‘ | Single top jib |
|---|---|---|---|
| 10 | 6 | 4 | 1 |

# Operation



## Min extended – 360°

| | 8‘ 1-5/8“ spread | | | | | | | | 360° | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 35.1‘[1] | 35.1‘ | 48.2‘[1] | 48.2‘ | 61.4‘[1] | 61.4‘ | 74.5‘[1] | 74.5‘ | 87.6‘[1] | 87.6‘ | 100.7‘[1] | 100.7‘ | 113.9‘[1] | 113.9‘ | |
| ft | | | | | | | 1,000 lb | | | | | | | | ft |
| 8 | 70° | 75,800 | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 10 | 66° | 48,500 | 73° | 46,700 | 77° | 46,700 | 80° | 44,300 | - | - | - | - | - | - | 10 |
| 12 | 62° | 34,100 | 70° | 35,900 | 75° | 35,700 | 78° | 34,900 | 80° | 33,600 | - | - | - | - | 12 |
| 15 | 56° | 22,600 | 67° | 24,100 | 72° | 24,800 | 76° | 24,700 | 78° | 23,900 | 80° | 23,000 | - | - | 15 |
| 20 | 45° | 13,000 | 60° | 14,300 | 67° | 14,900 | 72° | 15,400 | 75° | 15,100 | 77° | 14,600 | 79° | 13,900 | 20 |
| 25 | 29° | 8,050 | 52° | 9,200 | 62° | 9,700 | 67° | 10,200 | 71° | 10,400 | 74° | 10,000 | 76° | 9,500 | 25 |
| 30 | - | - | 44° | 6,100 | 56° | 6,600 | 63° | 7,000 | 68° | 7,200 | 71° | 7,000 | 74° | 6,700 | 30 |
| 35 | - | - | 33° | 3,900 | 50° | 4,400 | 59° | 4,800 | 64° | 5,000 | 68° | 5,000 | 71° | 4,700 | 35 |
| 40 | - | - | 17° | 2,500 | 43° | 2,900 | 54° | 3,300 | 60° | 3,500 | 65° | 3,500 | 68° | 3,300 | 40 |
| 45 | - | - | - | - | 35° | 1,800 | 49° | 2,100 | 56° | 2,300 | 61° | 2,400 | 65° | 2,200 | 45 |
| 50 | - | - | - | - | - | - | 43° | 1,200 | 52° | 1,400 | 58° | 1,500 | 62° | 1,400 | 50 |
| [2] | 0° | | 0° | | 0° | | 36° | | 44° | | 51° | | 57° | | [2] |
| | 35.1‘ | | 48.2‘ | | | | | | | | | | | | |
| | 27.8‘ | | 41‘ | | | | | | | | | | | | |
| [1] 0° | 6,040 lb | | 2,120 lb | | | | | | | | | | | | [1] 0° |

1) Loaded boom angle (°)

2) Minimum boom angle (°) for indicated length (no load)

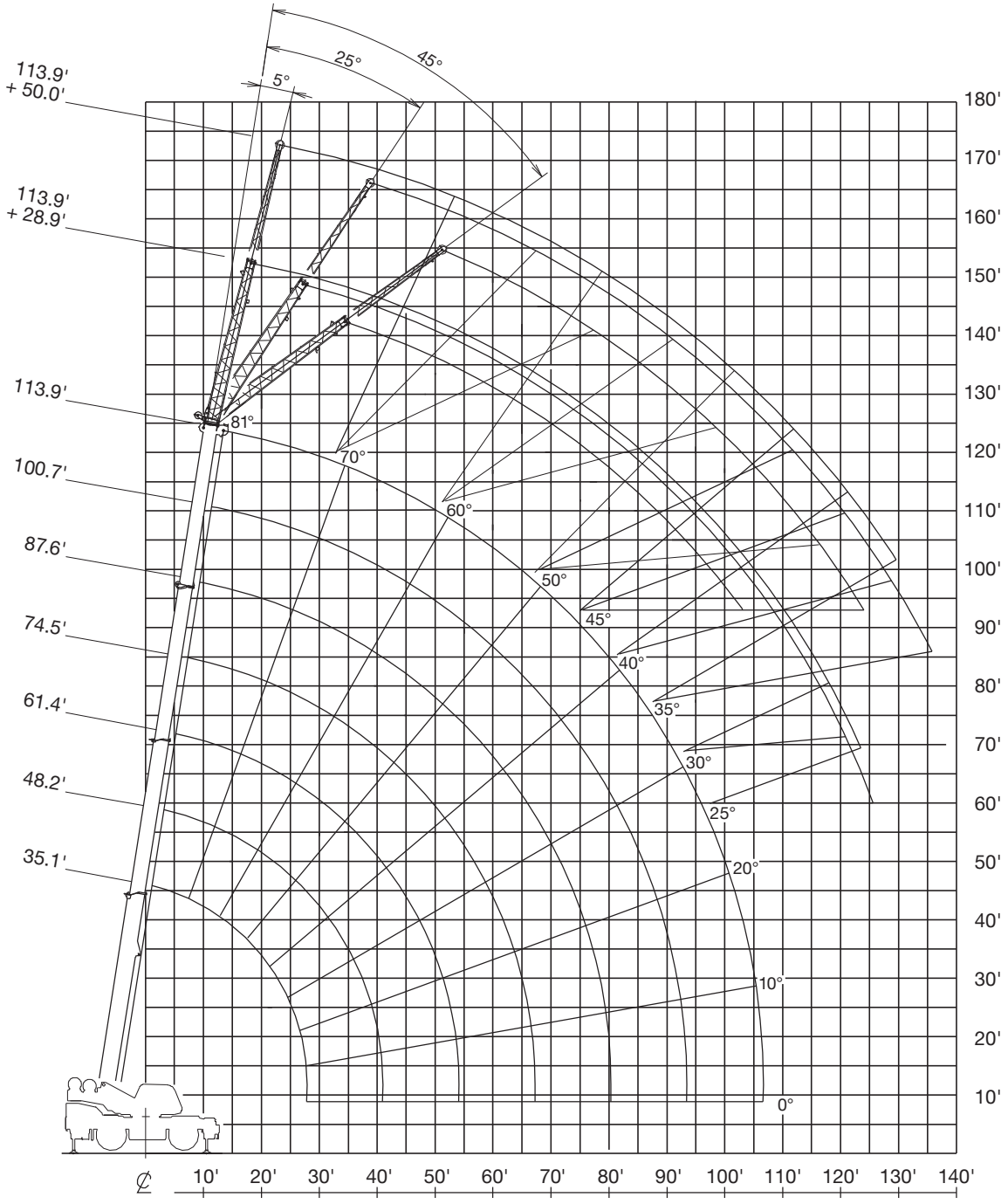
NOTE:
The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

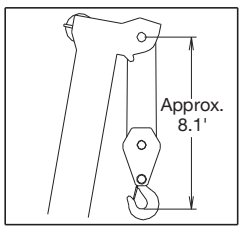
| 35.1‘ | 35.1‘ to 61.4‘ | 61.4‘ to 113.9‘ | Single top jib |
|---|---|---|---|
| 10 | 6 | 4 | 1 |

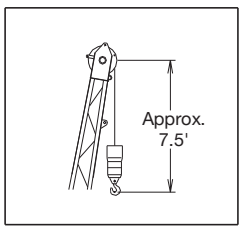
# Notes

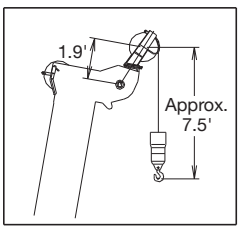
# Operation

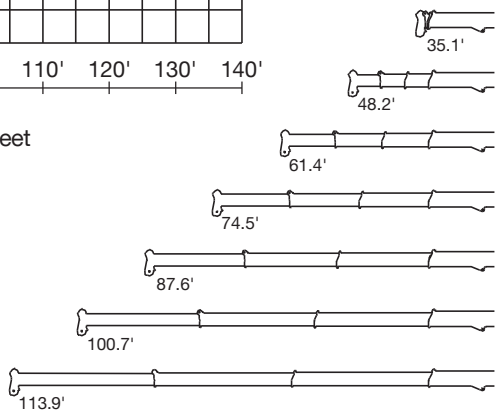
FJ




NOTE: Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

# Operation



## Fully extended – 360°

22‘ 11-5/8“ spread

| 1) | 113.9‘ + 28.9‘ 5° 2) | 3) | 25° 2) | 3) | 45° 2) | 3) |
|---|---|---|---|---|---|---|
| 80° | 25.6‘ | 12,300 | 34.8‘ | 8,400 | 41.5‘ | 6,050 |
| 77.5° | 32.9‘ | 12,000 | 41.3‘ | 8,000 | 47.3‘ | 5,900 |
| 75° | 39.8‘ | 11,500 | 47.5‘ | 7,650 | 53.1‘ | 5,700 |
| 72.5° | 46.3‘ | 10,600 | 53.6‘ | 7,350 | 58.7‘ | 5,550 |
| 70° | 52.3‘ | 9,750 | 59.5‘ | 7,100 | 64.0‘ | 5,400 |
| 67.5° | 58.3‘ | 9,100 | 65.1‘ | 6,850 | 69.2‘ | 5,300 |
| 65° | 64.0‘ | 8,500 | 70.5‘ | 6,600 | 74.0‘ | 5,200 |
| 62.5° | 69.4‘ | 7,900 | 75.6‘ | 6,400 | 78.9‘ | 5,100 |
| 60° | 74.8‘ | 7,400 | 80.5‘ | 6,200 | 83.7‘ | 5,050 |
| 57.5° | 79.5‘ | 6,500 | 85.5‘ | 5,700 | 88.2‘ | 5,000 |
| 55° | 84.0‘ | 5,650 | 90.0‘ | 5,200 | 92.5‘ | 4,950 |
| 52.5° | 88.8‘ | 5,000 | 94.1‘ | 4,600 | 96.2‘ | 4,450 |
| 50° | 93.1‘ | 4,400 | 98.2‘ | 4,100 | 99.7‘ | 3,950 |
| 47.5° | 97.4‘ | 3,950 | 102.1‘ | 3,700 | 103.3‘ | 3,550 |
| 45° | 101.4‘ | 3,500 | 105.6‘ | 3,300 | 106.6‘ | 3,150 |
| 42.5° | 105.3‘ | 3,150 | 109.1‘ | 2,950 | - | - |
| 40° | 109.0‘ | 2,800 | 112.3‘ | 2,650 | - | - |
| 37.5° | 112.6‘ | 2,500 | 115.5‘ | 2,400 | - | - |
| 35° | 115.8‘ | 2,250 | 118.2‘ | 2,200 | - | - |
| 32.5° | 118.7‘ | 2,050 | 120.9‘ | 2,000 | - | - |
| 30° | 121.6‘ | 1,850 | 123.3‘ | 1,800 | - | - |
| 27.5° | 124.1‘ | 1,700 | 125.3‘ | 1,650 | - | - |
| 25° | 126.3‘ | 1,600 | 127.1‘ | 1,550 | - | - |

360°

| 1) | 113.9‘ + 50.0‘ 5° 2) | 3) | 25° 2) | 3) | 45° 2) | 3) |
|---|---|---|---|---|---|---|
| 80° | 32.6‘ | 6,350 | 47.6‘ | 4,050 | 59.0‘ | 2,750 |
| 77.5° | 40.8‘ | 6,200 | 54.9‘ | 3,900 | 65.3‘ | 2,700 |
| 75° | 48.6‘ | 6,050 | 61.9‘ | 3,700 | 71.6‘ | 2,600 |
| 72.5° | 56.0‘ | 5,600 | 68.5‘ | 3,550 | 77.5‘ | 2,550 |
| 70° | 63.0‘ | 5,200 | 75.0‘ | 3,350 | 83.2‘ | 2,500 |
| 67.5° | 69.6‘ | 4,900 | 81.2‘ | 3,200 | 88.7‘ | 2,450 |
| 65° | 76.1‘ | 4,600 | 87.0‘ | 3,100 | 93.9‘ | 2,400 |
| 62.5° | 82.2‘ | 4,350 | 92.6‘ | 3,000 | 98.9‘ | 2,350 |
| 60° | 88.4‘ | 4,150 | 98.1‘ | 2,900 | 103.8‘ | 2,350 |
| 57.5° | 94.4‘ | 3,950 | 103.6‘ | 2,800 | 108.4‘ | 2,300 |
| 55° | 100.0‘ | 3,800 | 108.7‘ | 2,700 | 112.6‘ | 2,300 |
| 52.5° | 105.4‘ | 3,500 | 113.3‘ | 2,650 | 116.7‘ | 2,250 |
| 50° | 110.2‘ | 3,150 | 117.9‘ | 2,600 | 120.3‘ | 2,250 |
| 47.5° | 114.8‘ | 2,750 | 121.9‘ | 2,400 | 124.0‘ | 2,200 |
| 45° | 119.3‘ | 2,400 | 125.7‘ | 2,150 | 127.1‘ | 2,100 |
| 42.5° | 123.3‘ | 2,100 | 129.3‘ | 1,900 | - | - |
| 40° | 127.0‘ | 1,850 | 132.7‘ | 1,700 | - | - |
| 37.5° | 131.1‘ | 1,600 | 135.7‘ | 1,500 | - | - |
| 35° | 134.4‘ | 1,400 | 138.5‘ | 1,300 | - | - |
| 32.5° | - | - | - | - | - | - |
| 30° | - | - | - | - | - | - |
| 27.5° | - | - | - | - | - | - |
| 25° | - | - | - | - | - | - |

1) Loaded boom angle (°)

2) Load radius in feet

3) Rated lifting capacity in pounds

## Mid extended – 360°

### 21‘ 3-7/8“ spread

| 360° | 113.9‘ + 28.9‘ | | | | | |
|---|---|---|---|---|---|---|
| | 5° | | 25° | | 45° | |
| 1) | 2) | 3) | 2) | 3) | 2) | 3) |
| 80° | 25.6‘ | 12,300 | 34.8‘ | 8,400 | 41.5‘ | 6,050 |
| 77.5° | 32.9‘ | 12,000 | 41.3‘ | 8,000 | 47.3‘ | 5,900 |
| 75° | 39.8‘ | 11,500 | 47.5‘ | 7,650 | 53.1‘ | 5,700 |
| 72.5° | 46.3‘ | 10,600 | 53.6‘ | 7,350 | 58.7‘ | 5,550 |
| 70° | 52.3‘ | 9,750 | 59.5‘ | 7,100 | 64.0‘ | 5,450 |
| 67.5° | 58.1‘ | 8,800 | 65.1‘ | 6,850 | 69.2‘ | 5,300 |
| 65° | 63.5‘ | 7,900 | 70.5‘ | 6,600 | 74.0‘ | 5,200 |
| 62.5° | 68.7‘ | 6,800 | 75.3‘ | 5,800 | 78.9‘ | 4,950 |
| 60° | 73.6‘ | 5,800 | 79.9‘ | 5,050 | 83.5‘ | 4,700 |
| 57.5° | 78.5‘ | 5,100 | 84.6‘ | 4,450 | 87.8‘ | 4,250 |
| 55° | 83.3‘ | 4,500 | 89.0‘ | 3,850 | 91.8‘ | 3,850 |
| 52.5° | 87.9‘ | 3,900 | 93.4‘ | 3,300 | 95.7‘ | 3,350 |
| 50° | 92.5‘ | 3,300 | 97.4‘ | 2,850 | 99.3‘ | 2,900 |
| 47.5° | 96.7‘ | 2,800 | 101.4‘ | 2,450 | 102.9‘ | 2,450 |
| 45° | 100.7‘ | 2,350 | 105.0‘ | 2,100 | 106.2‘ | 2,050 |
| 42.5° | 104.3‘ | 2,000 | 108.5‘ | 1,800 | - | - |
| 40° | 108.3‘ | 1,650 | 111.8‘ | 1,550 | - | - |
| 37.5° | 111.7‘ | 1,400 | 115.0‘ | 1,300 | - | - |
| 35° | 115.1‘ | 1,200 | 117.9‘ | 1,100 | - | - |

### 360°

| 360° | 113.9‘ + 50.0‘ | | | | | |
|---|---|---|---|---|---|---|
| | 5° | | 25° | | 45° | |
| 1) | 2) | 3) | 2) | 3) | 2) | 3) |
| 80° | 32.6‘ | 6,350 | 47.6‘ | 4,050 | 59.0‘ | 2,750 |
| 77.5° | 40.8‘ | 6,200 | 54.9‘ | 3,900 | 65.3‘ | 2,700 |
| 75° | 48.6‘ | 6,050 | 61.9‘ | 3,700 | 71.6‘ | 2,600 |
| 72.5° | 56.0‘ | 5,600 | 68.5‘ | 3,550 | 77.5‘ | 2,550 |
| 70° | 63.0‘ | 5,200 | 75.0‘ | 3,350 | 83.2‘ | 2,500 |
| 67.5° | 69.6‘ | 4,900 | 81.2‘ | 3,200 | 88.7‘ | 2,450 |
| 65° | 76.1‘ | 4,600 | 87.0‘ | 3,100 | 93.9‘ | 2,400 |
| 62.5° | 82.2‘ | 4,350 | 92.6‘ | 3,000 | 98.9‘ | 2,350 |
| 60° | 88.3‘ | 4,100 | 98.1‘ | 2,900 | 103.8‘ | 2,350 |
| 57.5° | 93.8‘ | 3,550 | 103.5‘ | 2,700 | 108.4‘ | 2,300 |
| 55° | 99.0‘ | 3,000 | 108.4‘ | 2,500 | 112.6‘ | 2,300 |
| 52.5° | 104.0‘ | 2,450 | 112.9‘ | 2,150 | 116.4‘ | 2,000 |
| 50° | 108.8‘ | 2,000 | 117.1‘ | 1,800 | 119.9‘ | 1,750 |
| 47.5° | 113.6‘ | 1,700 | 121.2‘ | 1,500 | 123.4‘ | 1,450 |
| 45° | 118.0‘ | 1,400 | 124.9‘ | 1,200 | 126.4‘ | 1,150 |
| 42.5° | - | - | - | - | - | - |
| 40° | - | - | - | - | - | - |
| 37.5° | - | - | - | - | - | - |
| 35° | - | - | - | - | - | - |

### 16‘ 4-7/8“ spread

| 360° | 113.9‘ + 28.9‘ | | | | | |
|---|---|---|---|---|---|---|
| | 5° | | 25° | | 45° | |
| 1) | 2) | 3) | 2) | 3) | 2) | 3) |
| 80° | 25.6‘ | 12,300 | 34.8‘ | 8,400 | 41.5‘ | 6,050 |
| 77.5° | 32.9‘ | 12,000 | 41.3‘ | 8,000 | 47.3‘ | 5,900 |
| 75° | 39.8‘ | 11,500 | 47.5‘ | 7,650 | 53.1‘ | 5,700 |
| 72.5° | 45.7‘ | 9,700 | 53.4‘ | 7,000 | 58.7‘ | 5,550 |
| 70° | 51.3‘ | 7,900 | 58.9‘ | 6,300 | 64.0‘ | 5,400 |
| 67.5° | 56.9‘ | 6,550 | 64.4‘ | 5,450 | 68.9‘ | 4,850 |
| 65° | 62.2‘ | 5,300 | 69.2‘ | 4,700 | 73.4‘ | 4,350 |
| 62.5° | 67.3‘ | 4,300 | 74.0‘ | 3,850 | 78.0‘ | 3,650 |
| 60° | 72.3‘ | 3,400 | 78.8‘ | 3,150 | 82.6‘ | 3,000 |
| 57.5° | 77.0‘ | 2,750 | 83.4‘ | 2,550 | 86.8‘ | 2,450 |
| 55° | 81.8‘ | 2,200 | 87.9‘ | 2,000 | 90.8‘ | 2,000 |
| 52.5° | 86.4‘ | 1,700 | 92.3‘ | 1,550 | 94.8‘ | 1,550 |
| 50° | 91.0‘ | 1,300 | 96.4‘ | 1,150 | 98.5‘ | 1,200 |

### 360°

| 360° | 113.9‘ + 50.0‘ | | | | | |
|---|---|---|---|---|---|---|
| | 5° | | 25° | | 45° | |
| 1) | 2) | 3) | 2) | 3) | 2) | 3) |
| 80° | 32.6‘ | 6,350 | 47.6‘ | 4,050 | 58.8‘ | 2,750 |
| 77.5° | 40.8‘ | 6,200 | 54.9‘ | 3,900 | 65.3‘ | 2,700 |
| 75° | 48.6‘ | 6,050 | 61.9‘ | 3,700 | 71.6‘ | 2,600 |
| 72.5° | 56.0‘ | 5,600 | 68.5‘ | 3,550 | 77.5‘ | 2,550 |
| 70° | 63.0‘ | 5,200 | 75.0‘ | 3,350 | 83.2‘ | 2,500 |
| 67.5° | 69.1‘ | 4,500 | 81.0‘ | 3,100 | 88.7‘ | 2,450 |
| 65° | 75.1‘ | 3,800 | 86.6‘ | 2,850 | 93.7‘ | 2,400 |
| 62.5° | 90.9‘ | 3,050 | 91.9‘ | 2,400 | 98.6‘ | 2,150 |
| 60° | 86.1‘ | 2,400 | 97.1‘ | 1,950 | 103.3‘ | 1,900 |
| 57.5° | 91.6‘ | 1,800 | 102.1‘ | 1,500 | 107.5‘ | 1,500 |
| 55° | 96.7‘ | 1,300 | 106.7‘ | 1,100 | 111.6‘ | 1,100 |
| 52.5° | - | - | - | - | - | - |
| 50° | - | - | - | - | - | - |

1) Loaded boom angle (°)

2) Load radius in feet

3) Rated lifting capacity in pounds

# Notes to Lifting Capacity

**GENERAL**

1. RATED LIFTING CAPACITIES apply only to the machine as originally manufactured and normally equipped by TADANO LTD. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Hydraulic cranes can be hazardous if improperly operated or maintained. Operation and maintenance of this machine must be in compliance with information in the ***Operation and Maintenance Manual*** supplied with the crane. If this manual is missing, order a replacement through the distributor.
3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable ASME B30.5 safety standards for cranes as mentioned in OSHA CFR29 part 1926.

**SET UP**

1. Rated lifting capacities on the load chart are the maximum allowable crane capacities. They are based on the machine standing level on firm supporting surface under ideal job conditions. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the loads to a larger surface.
2. For outrigger operation, outriggers shall be properly extended with tires free of supporting surface before operating crane.

**OPERATION**

1. Rated lifting capacities have been tested to and meet minimum requirements of SAE J1063 - Cantilevered Boom Crane Structures Method of Test.
2. Rated lifting capacities do not exceed 85 % of the tipping load on outriggers fully extended as determined by SAE J765-Crane Stability Test Code. Rated lifting capacities for partially extended outriggers are determined from the formula, rated lifting capacities = (tipping load - 0.1 × tip reaction) / 1.25.
3. Rated lifting capacities above bold lines in the chart are based on crane strength and those below, on its stability. They are based on actual load radius increased by boom deflection.
4. The weight of handling device such as hook blocks, slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.
5. Rated lifting capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tires, operating speeds, side loads, etc. Side pull on the boom or jib is extremely dangerous.
6. Rated lifting capacities do not account for wind on lifted load or boom. We recommend against working under the condition that the load is out of control due to a strong wind. During boom lift, consider that the rated lifting capacity is reduced by 50% when the wind speed is 20 mph to 27 mph; reduced by 70% when the wind speed is 27mph to 31 mph.If the wind speed is 31 mph or over, stop operation. During jib lift, stop operation if the wind speed is 20 mph.
7. Rated lifting capacities at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
8. Do not operate at boom lengths, radii, or boom angle, where no capacities are shown. Crane may overturn without any load on the hook.
9. When boom length is between values listed, refer to the rated lifting capacities of the next longer and next shorter booms for the same radius. The lesser of the two rated lifting capacities shall be used.
10. When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.
11. Load per line should not exceed 12,300 lb for main hoist and auxiliary hoist.
12. Check the actual number of parts of line with LOAD MOMENT INDICATOR (AML-C) before operation. Maximum lifting capacity is restricted by the number of parts of line of LOAD MOMENT INDICATOR (AML-C). Limited capacity is as determined from the formula, single line pull for main hoist 12,300 lb x number of parts of line.
13. The boom angle before loading should be greater to account for deflection. For rated lifting capacities, the loaded boom angle and the load radius is for reference only.
14. The 35.1‘ boom length capacities are based on boom fully retracted. If not fully retracted [less than 48.2‘ boom length], use the rated lifting capacities for the 48.2‘ boom length.
15. Extension or retraction of the boom with loads may be attempted within the limits of the RATED LIFTING CAPACITIES. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
16. For lifting capacity of single top, reduce the rated lifting capacities of relevant boom according to a weight reductions for auxiliary load handling equipment. Capacities of single top shall not exceed 12,300 lb including main hook.
17. When base jib or top jib or both jib removing, jib state switch select removed.
18. When erecting and stowing jib, be sure to retain it by hand or by other means to prevent its free movement.
19. Use ”ANTI-TWO BLOCK“ disable switch when erecting and stowing jib and when stowing hook block. While the switch is pushed, the hoist does not stop, even when overwind condition occurs.
20. For boom length with 28.9‘ jib, rated lifting capacities are determined by loaded boom angle only in the column headed „113.9‘ boom + 28.9‘ jib“. For boom length with 50‘ jib, rated lifting capacities are determined by loaded boom angle only in the column headed „113.9‘ boom + 50‘ jib“. For angles not shown, use the next lower loaded boom angle to determine allowable capacity.
21. When lifting a load by using jib (aux. hoist) and boom (main hoist) simultaneously, do the following:
    – Enter the operation status as jib operation, not as boom operation.
    – Before starting operation, make sure that mass of load is within rated lifting capacity for jib.

**DEFINITIONS**

1. Load radius: Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded boom angle: The angle between the boom base section and the horizontal, after lifting the rated lifting capacity at the load radius.
3. Working area: Area measured in a circular arc about the centerline of rotation.
4. Freely suspended load: Load hanging free with no direct external force applied except by the hoist line.
5. Side load: Horizontal side force applied to the lifted load either on the ground or in the air.

# Warning and Operating Instructions for on Rubber Lifting Capacities

1. Rated lifting capacities on rubber are in pounds and do not exceed 75 % of tipping loads as determined by SAE J765-Crane Stability Test Code.
2. Rated lifting capacities shown in the chart are based on condition that crane is set on firm level surfaces with axle oscillation lockout applied. Those above bold lines are based on tire capacity and those below, on crane stability. They are based on actual load radius increased by tire deformation and boom deflection.
3. If the axle oscillation lockout cylinders contain air, the axle will not be locked completely and rated lifting capacities may not be obtainable. Bleed the cylinders according to the operation safety and maintenance manual.
4. Rated lifting capacities are based on proper tire inflation, capacity and condition. Damaged tires are hazardous to safe operation of crane.
5. Tires shall be inflated to correct air pressure. Tires: 23.5-25 · Air pressure: 65 psi.
6. Over front operation shall be performed within two degrees in front of chassis.
7. On rubber lifting with "jib" is not permitted. Maximum permissible boom length is 87.6'.
8. When making lift on rubber stationary, set parking brake.
9. For creep operation, boom must be centered over front of machine, slewing lock engaged, and load restrained from slewing. Travel slowly and keep the lifted load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
10. Do not operate the crane while carrying the load.
11. Creep is motion for crane not to travel more than 200' in any 30 minute period and to travel at the speed of less than 1 mph.
12. For creep operation, choose the drive mode and proper gear according to the road or working condition.

# Notes for Load Moment Indicator (AML-C)

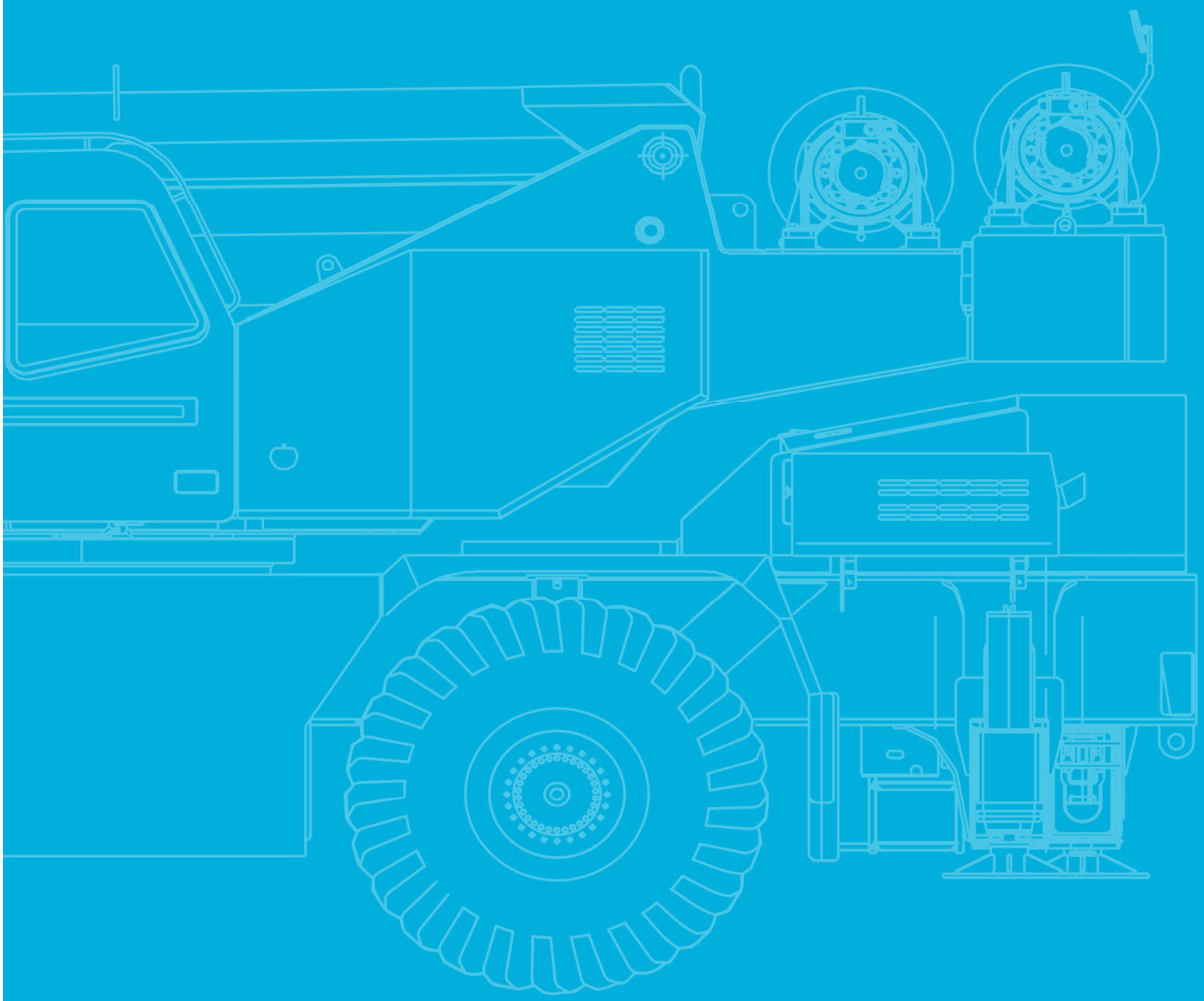
1. When operating crane on outriggers:
   - Set „P.T.O." switch to "ON".
   - Press the outrigger mode select key to register for the outrigger operation. Press the register key, then the outrigger mode indicative symbol changes from flashing to a solid light.
   - Press the lift mode select key to select the lift status that corresponds to the actual boom configuration. Each time the lift mode select key is pressed, the status changes. Press the register key to register the lift status, then the lift indicative symbol changes from flashing to a solid light.
   - When mounting and stowing jib, select the jib set status (the jib state indicative symbol will be flashing).
2. When operating crane on rubber:
   - Set „P.T.O." switch to "ON".
   - Press the outrigger mode select key. The on-tire mode indicative symbol comes on. Each time the outrigger mode select key is pressed the status changes. Select the creep operation, the on-tire mode indicative symbol flicker.
   - Press the lift mode select key to register the boom or single top lift.

   However, pay attention to the following.
   (1) For stationary operation.
   - The front capacities are attainable only when the over front position symbol comes on. When the boom is more than 2 degrees from centered over front of chassis, 360° capacities are in effect.
   - When a load is lifted in the front position and then swung to the side area, make sure the value of the LOAD MOMENT INDICATOR (AML-C) is below the 360° lifting capacity.

   (2) For creep operation.
   - The creep capacities are attainable only when boom is in the straight forward position of chassis and the over front position symbol is on. If boom is not in the straight forward position of chassis, never lift load.
3. A slewing does not automatically stop even if the crane becomes overloaded.
4. During crane operation, make sure that the displays on front panel are in accordance with actual operating conditions.
5. The displayed values of LOAD MOMENT INDICATOR (AML-C) are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tire, operating speed, side loads, etc. For safe operation, it is recommended when extending and lowering boom or slewing, lifting loads shall be appropriately reduced.
6. LOAD MOMENT INDICATOR (AML-C) is intended as an aid to the operator. Under no condition should it be relied upon to replace use of capacity charts and operating instruction. Sole reliance upon LOAD MOMENT INDICATOR (AML-C) aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.

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# TECHNICAL DESCRIPTION



# Technical Description

## Crane specifications

| | |
|---|---|
| **Boom** | Four section full power synchronized telescoping boom, 35.1‘ - 113.9‘, of round box construction with four sheaves, 17-5/16“ root diameter, at boom head. The synchronization system consists of telescope cylinder, two extension cables and retraction cables. Hydraulic cylinder fitted with holding valve. Two easily removable wire rope guards, rope dead end provided on both sides of boom head. Boom telescope sections are supported by wear pads both vertically and horizontally.<br>Extension speed 78.8‘ in 72 seconds. |
| **Boom elevation** | By a double acting hydraulic cylinder with holding valve. Elevation -0.8° - 81°, combination controls for hand or foot operation. Boom angle indicator. Automatic speed reduction and soft stop function.<br>Boom raising speed 20° - 60° in 27 sec. |
| **Jib** | Two stage bi-fold lattice type with 5°, 25° or 45° offset (tilt type). Single sheave, 15-5/8“ root diameter, at the head of both jib sections. Stored alongside base boom section. Jib length is 28.9‘ or 50‘. Assistant cylinders for mounting and stowing, controlled at right side of superstructure. Self stowing jib mounting pins. |
| **Auxiliary lifting sheave (single top)** | Single sheave, 15-5/8“ root diameter. Mounted to main boom head for single line work (storable). |
| **Anti-two block** | Pendant type over-winding cut out device with audio-visual (FAILURE lamp/BUZZER) warning system. |
| **Slewing** | Hydraulic axial piston motor through planetary slewing speed reducer. Continuous 360° full circle slewing on ball bearing turn table at 2.7 $min^{-1}$ {rpm}. Equipped with manually locked/released slewing brake.<br>A 360° positive slewing lock for pick and carry and travel modes, manually engaged in cab.<br>Twin slewing system: Free slewing or lock slewing controlled by selector switch on front console. |
| **Hoist** | MAIN HOIST: Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. Power load lowering and raising. Equipped with automatic brake (neutral brake) and counterbalance valve. Controlled independently of auxiliary hoist. Equipped with cable follower and drum rotation indicator.<br>DRUM: Grooved 14-1/4“ root diameter x 23-5/8“ wide. Wire rope: 633‘ of 3/4“ diameter rope. Drum capacity: 997‘ 7 layers. Maximum line pull (available): 16,500 lb. Maximum line speed: 450 fpm at the 5th layer.<br>AUXILIARY HOIST: Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. Power load lowering and raising. Equipped with automatic brake (neutral brake) and counterbalance valve. Controlled independently of main hoist. Equipped with cable follower and drum rotation indicator.<br>DRUM: Grooved 14-1/4“ root diameter x 23-5/8“ wide. Wire rope: 361‘ of 3/4“ diameter rope. Drum capacity: 997‘ 7 layers. Maximum line pull (available): 16,500 lb. Maximum line speed: 390 fpm at the 3rd layer.<br>WIRE ROPE: Warrington seal wire, extra improved plow steel, preformed, independent wire rope core, right regular lay. 3/4“ 6 x 31 class breaking strength (main and aux.): 54,700 lb. |
| **Hook blocks** | 55 ton - 5 sheaves with swivel hook block and safety latch.<br>6.2 ton - Weighted hook ball with swivel and safety latch. |
| **Hydraulic system** | PUMPS: Two variable piston pumps for crane functions. Tandem gear pump for steering, slewing and optional equipment. Powered by carrier engine. Pump disconnect for crane is engaged/disengaged by rotary switch from operator‘s cab.<br>CONTROL VALVES: Multiple valves actuated by pilot pressure with integral pressure relief valves.<br>RESERVOIR: 148 gallons capacity. External sight level gauge.<br>FILTRATION: BETA10 = 10 return filter, full flow with bypass protection, located inside of hydraulic reservoir. Accessible for easy replacement.<br>OIL COOLER: Air cooled fan type. |
| **Cab and controls** | Both crane and drive operations can be performed from one cab mounted on rotating superstructure.<br>Left side, 1 man type, steel construction with sliding door access and safety glass windows opening at side. Door window is powered control. Windshield glass window and roof glass window are shatter-resistant.<br>Tilt-telescoping steering wheel. Adjustable control lever stands for slewing, boom elevating, boom telescoping, auxiliary hoist and main hoist. Control lever stands can change neutral positions and tilt for easy access to cab.<br>3 way adjustable operator‘s seat with high back, headrest and armrest. Engine throttle knob. Foot operated controls: boom elevating, boom telescoping, service brake and engine throttle. Hot water cab heater and air conditioning.<br>Dash-mounted engine start/stop, monitor lamps, cigarette lighter, drive selector switch, parking brake switch, steering mode select switch, power window switch, pump engaged/disengaged switch, slewing brake switch, telescoping/auxiliary hoist select switch, outrigger controls, free slewing / lock slewing selector switch, eco mode switch and ashtray.<br>Instruments: Torque converter oil temperature, engine water temperature, air pressure, fuel, speedometer, tachometer, hour meter and odometer/tripmeter. Hydraulic oil pressure is monitored and displayed on the AML-C display panel. |

# Technical Description

## Crane specifications

Tadano electronic LOAD MOMENT INDICATOR system (AML-C) including:
Control lever lockout function. Boom position indicator. Outrigger state indicator. Boom angle / boom length / jib offset angle / jib length / load adius / rated lifting capacities / actual loads read out. Ratio of actual load moment to rated load moment indication. Automatic speed reduction and slow stop function on boom elevation and slewing. Working condition register switch. Load radius / boom angle / tip height / slewing range preset function. External warning lamp. Tare function. Fuel consumption monitor. Main hoist / auxiliary hoist select. Drum rotation indicator (audible and visible type) main and auxiliary hoist.

TADANO AML-C monitors outrigger extended length and automatically programs the corresponding "RATED LIFTING CAPACITIES" table.

Operator's right hand console includes transmission gear selector, and slewing lock lever and sight level bubble. Upper console includes working light switch, roof washer and wiper switch, emergency outrigger set up key switch, jib equipped/removed select switch, eco mode switch and air conditioning control switch.

*NOTE*: Each crane motion speed is based on unloaded conditions.

## Carrier specifications

| | |
|---|---|
| **Type** | Rear engine, left hand steering, driving axle 2-way selected type by manual switch, 4 x 2 front drive, 4 x 4 front and rear drive. |
| **Frame** | High tensile steel, all welded mono-box construction. |
| **Engine** | Model: Cummins QSB6.7 [Tier 4] · Type: Direct injection diesel · No. of cylinders: 6 · Combustion: 4 cycle, turbo charged and after cooled · Bore x stroke: 4.212 in. x 4.882 in. · Displacement: 409 cu. in liters · Air inlet heater: 24 volt preheat · Air cleaner: Dry type, replaceable element · Oil filter: Full flow with replaceable element · Fuel filter: Full flow with replaceable element · Fuel tank: 79.2 gallons, right side of carrier · Cooling: Liquid pressurized, recirculating by-pass · Radiator: Fin and tube core, thermostat controlled · Fan: Suction type, 9-blade, 28 in. diameter · Starting: 24 volt · Charging: 24 volt system, negative ground · Battery: 2-120 amp. hour · Compressor, air: 17.0 cfm@ 2,400 rpm · Output, max.: Gross 270 HP (201 kW)@2,000 rpm · Torque, max.: 730 ft-lb (990 Nm)@1,500 rpm · Capacity: Cooling water 7.4 gallons, lubrication 4.0 gallons, fuel 79.2 gallons, DEF 10.0 gallons. |
| **Transmission** | Electronically controlled full automatic transmission. Torque converter driving full powershift with driving axle selector.<br>6 forward and 2 reverse speeds, constant mesh.<br>4 speeds - high range - 2 wheel drive; 4 wheel drive.<br>4 speeds - low range - 4 wheel drive. |
| **Travel speed** | 31 mph. |
| **Gradeability** | 69% (at stall), 57% (machine should be operated within the limit of engine design (30°: Cummins B6.7). |
| **Axle** | Front: Full floating type, steering and driving axle with planetary reduction.<br>Rear: Full floating type, steering and driving axle with planetary reduction and non-spin rear differential. |
| **Steering** | Hydraulic power steering controlled by steering wheel.<br>Three steering modes available: 2 wheel front, 4 wheelcoordinated and 4 wheel crab. |
| **Suspension** | Front: Semi-elliptic leaf springs with hydraulic lockout device.<br>Rear: Semi-elliptic leaf springs with hydraulic lockout device. |
| **Brake systems** | Service: Air over hydraulic disc brakes on all 4 wheels. Parking/Emergency: Spring applied-air released brake acting on input shaft of front axle. Auxiliary: Electro-pneumatic operated exhaust brake. |
| **Tires** | 23.5-25 (OR). |
| **Outriggers** | Four hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve.<br>Each outrigger beam and jack is controlled independently from cab. Beams extend to 22' 11-5/8" center-line and retract to within 9' 9-3/8" overall width with floats. Outrigger jack floats are attached thus eliminating the need of manually attaching and detaching them. Controls and sight bubble located in superstructure cab. Four outrigger extension lengths are provided with corresponding „RATED LIFTING CAPACITIES" for crane duty in confined areas.<br>Min. extension: 8' 1-5/8" center to center<br>Mid. extension: 16' 4-7/8" center to center<br>Mid. extension: 21' 3-7/8" center to center<br>Max. extension: 22' 11-5/8" center to center<br>Float size (diameter): 1' 7-11/16" |

# Technical Description

## Standard equipment

| | |
|---|---|
| **Four section full power synchronized boom** | 35.1‘ - 113.9‘. |
| **Bi-fold lattice jib (tilt type)** | 28.9‘ or 50‘ – with 5°, 25° or 45° pinned offsets and self storing pins. |
| **Auxiliary lifting sheave** | Single top, stowable. |
| **Variable speed main hoist** | With grooved drum, cable follower and 633‘ of 3/4“ cable. |
| **Variable speed auxiliary hoist** | With grooved drum, cable follower and 361‘ of 3/4“ cable. |
| **Drum rotation indicator** | Audible, visible and thumper type – main and auxiliary hoist. |
| **Anti-two block device** | Overwind cutout. |
| **Boom angle indicator** | |
| **Tadano electronic load moment indicator system (AML-C)** | |
| **Outrigger extension length detector** | |
| **Electronic crane monitoring system** | |
| **Tadano twin slewing system and 360° positive slewing lock** | |
| **Self centering finger control levers** | With pilot control. |
| **Control pedals** | For boom elevating and boom telescoping. |
| **3 way adjustable cloth seat** | With armrests, high back and seat belt. |
| **Tilt-telescoping steering wheel** | |
| **Tinted safety glass and sun visor** | |
| **Front windshield wiper and washer** | |
| **Roof window wiper and washer** | |
| **Power window** | Cab door. |
| **Rear view mirrors** | Right and left side. |
| **Mirror for main and auxiliary hoists** | |
| **Cigarette lighter and ashtray** | |
| **Cab floor mat** | |
| **Pump disconnect** | In operator‘s cab. |
| **Hydraulic oil cooler** | |
| **Hot water cab heater and air conditioner** | |
| **Positive control** | |
| **Quick reeving type bi-fold jib** | |
| **Work lights** | |
| **Independently controlled outriggers** | |
| **Four outrigger extension positions** | |

# Technical Description

## Standard equipment

| | |
|---|---|
| **Self-storing outrigger pads** | |
| **Engine** | Cummins QSB6.7 turbo charged after cooled engine (270 HP) with exhaust brake. |
| **Electronic controlled automatic transmission driven by torque converter** | |
| **Drive / steer** | 4 x 4 x 4. |
| **Non-spin rear differential** | |
| **Semi-elliptic leaf springs suspension** | With hydraulic lockout device (front and rear). |
| **Tires** | 23.5-25 (OR). |
| **Disc brakes** | |
| **Fenders** | |
| **Air dryer** | |
| **Water separator** | With filter (high filtration). |
| **Engine over-run alarm** | |
| **Back-up alarm** | |
| **Low oil pressure / high water temp. warning device** | Visual. |
| **Rear steer centering light** | |
| **Air cleaner dust indicator** | |
| **Full instrumentation package** | |
| **Complete highway light package** | |
| **Tool storage compartment** | |
| **Tire inflation kit** | |
| **Electric system** | 24 volt. |
| **Hook block** | 55 ton - 5 sheaves with swivel and safety latch for 3/4“ wire rope. |
| **Hook ball** | 6.2 ton with swivel. |
| **Towing hooks** | Front and rear. |
| **Lifting eyes** | |
| **Hook block tie down** | Front bumper. |
| **Weighted hook storage compartment** | |
| **Halogen head lamp** | |
| **Telematics** | Machine data logging and monitoring system with HELLO-NET via internet. |
| **Fuel consumption monitor** | |
| **Eco mode system** | |

# Notes

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**Lifting your dreams**

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