

# Manitex



# CM300.1

**30-ton (27 mt) TELESCOPIC CRANE**  
**CM300.1 SERIES PRODUCT GUIDE**

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## KEY

|                                                                                       |                                                          |
|---------------------------------------------------------------------------------------|----------------------------------------------------------|
|    | Operator aids                                            |
|    | Cab                                                      |
|    | Heating / Air conditioning                               |
|    | Controls                                                 |
|    | Hoist speed                                              |
|    | 1 - Main hoist 2 - Auxiliary winch<br>3 - Recovery winch |
|    | Rope length                                              |
|    | Rope - standard/optional                                 |
|   | Rope diameter                                            |
|  | Permissible line pull                                    |
|  | Maximum line pull                                        |
|  | Slewing / Allowable slewing range                        |
|  | Slewing gears                                            |
|  | Slewing brake                                            |
|  | Outriggers / Lifting on outriggers                       |
|  | 2-Person man basket                                      |
|  | Counterweight                                            |
|  | Radio remote control                                     |

|                                                                                       |                                       |
|---------------------------------------------------------------------------------------|---------------------------------------|
|    | Hook block                            |
|    | Distance from hook to head sheave pin |
|    | Hook and ball                         |
|    | Hydraulics                            |
|    | Boom elevation angle                  |
|    | Max. boom length with extension       |
|    | Boom with extension retracted         |
|    | Boom angle                            |
|   | Telescoping mode                      |
|  | Working radius                        |
|  | Boom length                           |
|  | Hydraulic actuated boom               |
|  | Full power mechanical synchronized    |
|  | Boom head / Hook block dimension      |
|  | Main boom with auxiliary head         |
|  | Tip height                            |

For reference only. Operators manual should be consulted and adhered to.



THE CM300.1 SERIES TELESCOPIC CRANE  
Maximize use and value

The CM300.1 series strikes the perfect balance between the three things customers tell us they care about most: features, cost and ease of use.

The CM300.1 offers:

- A Greer Insight™ load moment indicator, the industry's only monitoring display that offers the feature-rich capabilities and high-resolution VGA graphics to help operators work safer and smarter
- Self-lubricating boom slider pads, to minimize maintenance costs
- A compact size; properly equipped, the 30100C is just 40 ft. long

Other features include:

- 30-ton capacity @ 5 ft. radius
- 102 ft. 4- section proportional boom
- 100 ft. 4-section proportional boom
- 51 ft. 3-section tractor mount
- 112 ft. boom max. tip height
- Inverted "T" cross-section boom design
- Optional fixed & telescopic jib
- A-frame front outriggers
- Out-and-down stabilizers

USER-FRIENDLY CONTROLS

Dual operator stations are equipped with engine start/stop, foot throttle, signal horn, boom angle indicator, load chart and range diagram.



OUTRIGGER DEPLOYMENT

Equipped with double-acting hydraulic cylinders, large pivoting pads and audible alerts when outriggers/stabilizers are in motion.

TWO-SPEED PLANETARY HOIST

The two-speed planetary hoist lets you change line speed on the fly. Grooved drum and tapered flanges minimize rope stacking to increase productivity and minimize downtime.

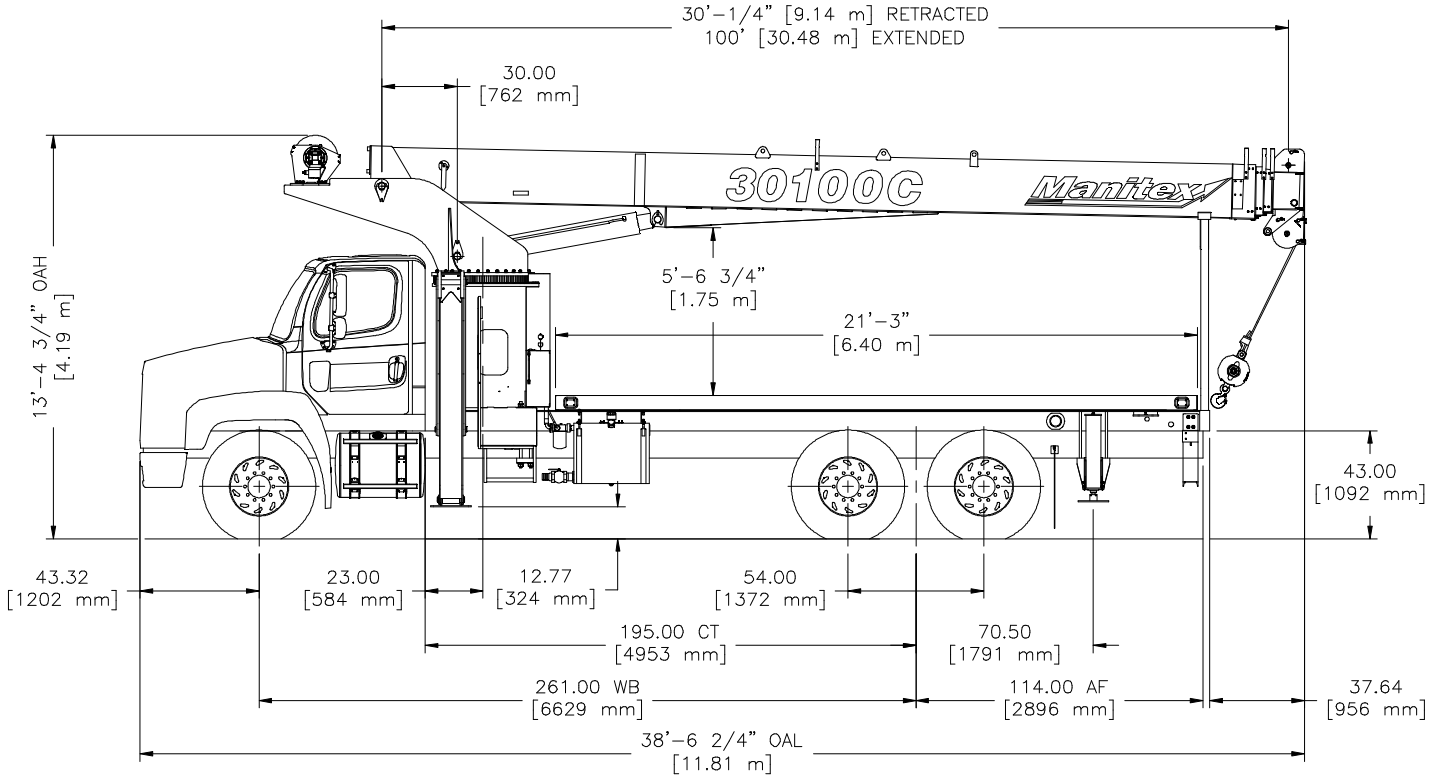
INCREASE PROFITABILITY

The versatile CM300.1 series, designed to be used with a commercial carrier, helps both owners and operators make the most of their investment.

- Travel to and between jobs at highway speed.
- Ride in comfort with a carrier suspension designed for highway driving.
- Get repairs done quickly and by qualified technicians at commercial truck centers.
- Extend the life of the crane by replacing only the chassis when necessary.

30102C / 30100C CHASSIS

30100C Model Shown



CRANE WEIGHTS

|                                                      |                         |
|------------------------------------------------------|-------------------------|
| Total Crane 30102C A-Frame                           | 22,212 lbs. (10,075 kg) |
| Total Crane 30102C Out & Down                        | 23,040 lbs. (10,451 kg) |
| Total Crane -30100C A-Frame                          | 22,485 lbs. (10,199 kg) |
| Total Crane -30100C Out & Down                       | 23,047 lbs. (10,454 kg) |
| Flatbed 22 ft. (6,7 m):                              | 2,552 lbs. (1,144 kg)   |
| Fixed jib: 26 ft. (7,9 m):                           | 832 lbs. (377 kg)       |
| Telescoping jib: 26 ft. (7,92 m) to 46 ft. (14,0 m): | 1,220 lbs. (553 kg)     |

TRUCK AXLE WEIGHT

|                                     |                         |
|-------------------------------------|-------------------------|
| Minimum truck axle weight - Front** | 8,400 lbs. (3,810 kg)   |
| Minimum truck axle weight - Rear**  | 8,400 lbs. (3,810 kg)   |
| Front Axle Gross Weight Rating      | 18,000 lbs. (8,165 kg)  |
| Rear Axle Gross Weight Rating       | 34,000 lbs. (15,422 kg) |

\*\*Minimum chassis weight is required to meet 85% stability requirements. Chassis data is general - not for engineering. Some dimensions depend on truck selection. Notes: Additional axles required for federal bridge legal configuration - consult Mani- tex. Manitex highly recommends addition of a front stabilizer and may be required on some installations - consult Manitex.

CHASSIS DATA

|                                                      |                                                                           |
|------------------------------------------------------|---------------------------------------------------------------------------|
| Wheel Base (WB)                                      | 261 in. (6,629 mm)                                                        |
| Cab to Tandem (CT)                                   | 195 in. (4,877 mm)                                                        |
| After Frame (AF)                                     | 114 in. (2,896 mm)                                                        |
| Nominal frame width                                  | 34 in. (864 mm)                                                           |
| Frame Section Modulus at 180/360° area of operation* | 30 in. <sup>3</sup> (491.6 cm <sup>3</sup> )<br>110,000 psi (758,423 kPa) |

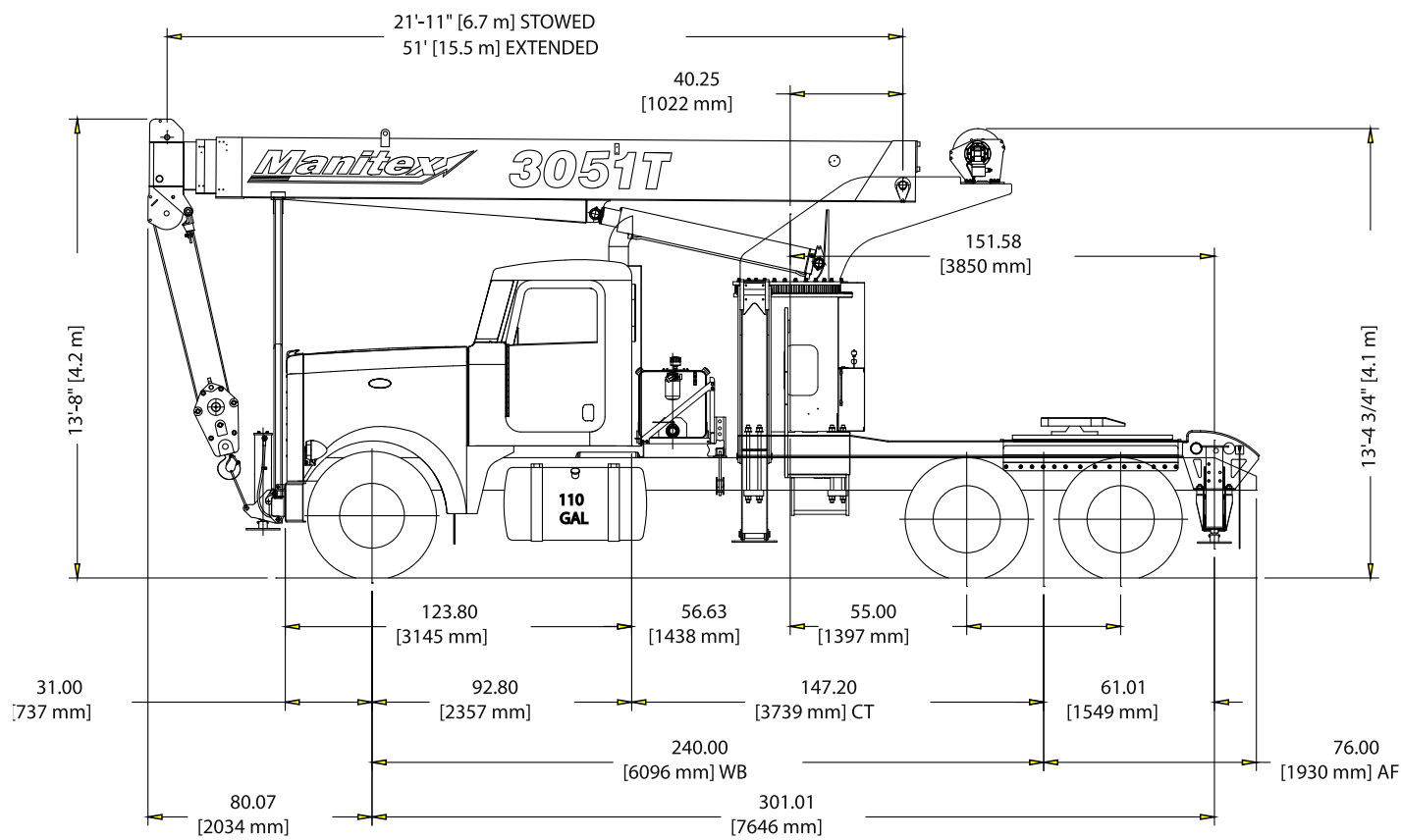
\*Frame selection modulus at 360° area of operation requires front bumper stabilizer.

Data published herein is intended as a guide only. Crane operation is subject to machine specific load charts and information.

For reference only. Operators manual should be consulted and adhered to.

# 3051T CHASSIS

## 3051T Dimensions



## CRANE WEIGHT

|                         |                        |
|-------------------------|------------------------|
| Total crane (standard): | 16,129 lbs. (7,316 kg) |
|-------------------------|------------------------|

## CHASSIS DATA

|                                                      |                                                                           |
|------------------------------------------------------|---------------------------------------------------------------------------|
| Wheel Base (WB)                                      | 240 in. (6,096 mm)                                                        |
| Cab to Tandem (CT)                                   | 147.2 in. (3,739 mm)                                                      |
| After Frame (AF)                                     | 76 in. (1,930 mm)                                                         |
| Nominal frame width                                  | 34 in. (864 mm)                                                           |
| Frame Section Modulus at 180/360° area of operation* | 30 in. <sup>3</sup> (491.6 cm <sup>3</sup> )<br>110,000 psi (758,423 kPa) |

\*Frame selection modulus at 360° area of operation requires front bumper stabilizer.

Data published herein is intended as a guide only. Crane operation is subject to machine specific load charts and information.

## TRUCK AXLE WEIGHT

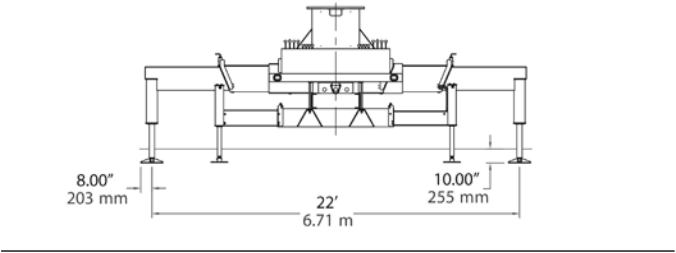
|                                     |                         |
|-------------------------------------|-------------------------|
| Minimum truck axle weight - Front** | 8,400 lbs. (3,810 kg)   |
| Minimum truck axle weight - Back**  | 8,400 lbs. (3,810 kg)   |
| Front Axle Gross Weight Rating      | 18,000 lbs. (8,165 kg)  |
| Rear Axle Gross Weight Rating       | 34,000 lbs. (15,422 kg) |

\*\*Minimum chassis weight is required to meet 85% stability requirements. Chassis data is general - not for engineering. Some dimensions depend on truck selection.  
Notes: Additional axles required for federal bridge legal configuration - consult Manitex. Manitex highly recommends addition of a front stabilizer and may be required on some installations - consult Manitex.

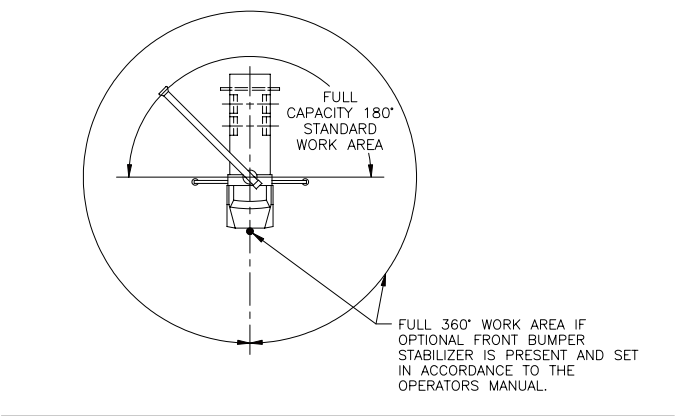


# OUTRIGGER EXTENSION

Out and Down Outrigger-Stabilizer Combination Fully Extended (optional)



## AREA OF OPERATION

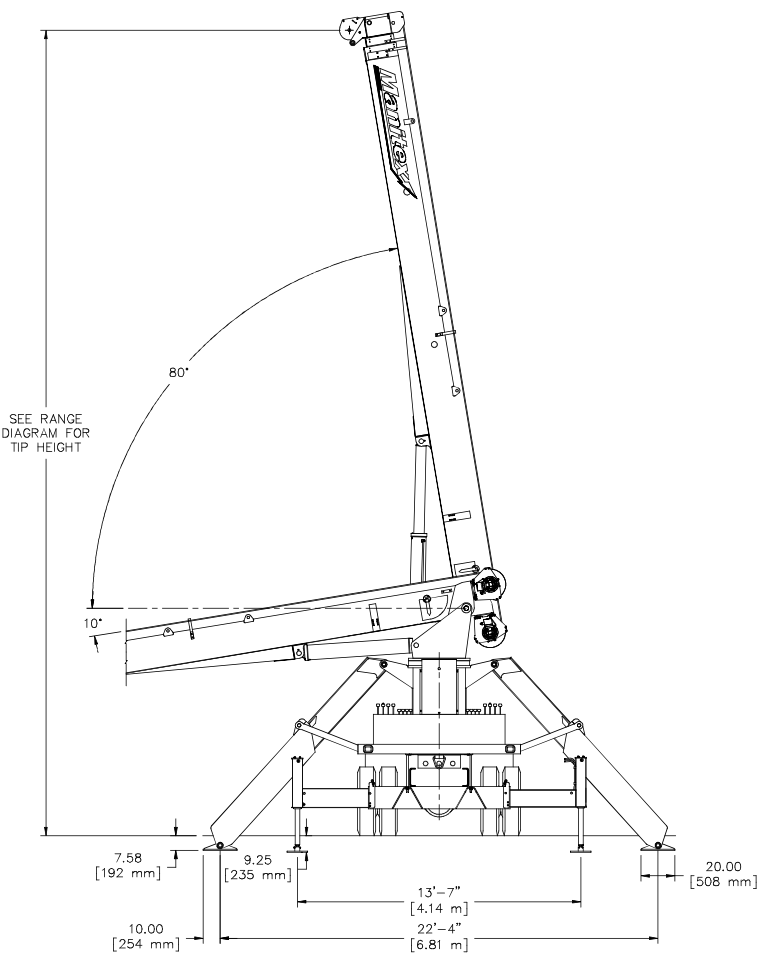


Deductions from rated loads for load handling devices supplied by Manitex

|                  |                                  |
|------------------|----------------------------------|
| Auxiliary block  | 50 lbs. (22,7 kg)                |
| Auxiliary sheave | 50 lbs. (22,7 kg)                |
| Overhaul ball    | See overhaul ball mfr. nameplate |
| Load blocks      | See load block mfr. nameplate    |
| Hose reel        | 140 lbs. (63,5 kg)               |
| Swing around jib | See load chart                   |

**WARNING:** Lifting off the main boom point while the jib is erected is not intended nor approved.

Standard Outrigger-Stabilizer Combination Fully Extended - Imperial & Metric Units



| ALLOWABLE LINE PULL |             |             |             |             |             |             | WARNING                                                                                                                          |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1 PART LINE         | 2 PART LINE | 3 PART LINE | 4 PART LINE | 5 PART LINE | 6 PART LINE | 7 PART LINE |                                                                                                                                  |
|                     |             |             |             |             |             |             |                                                                                                                                  |
| 8500 LBS            | 17000 LBS   | 25500 LBS   | 34000 LBS   | 42500 LBS   | 51000 LBS   | 60000 LBS   |                                                                                                                                  |
| 7700 LBS            | 15400 LBS   | 23100 LBS   | 30800 LBS   | 38500 LBS   | 46200 LBS   | 53900 LBS   | 9/16" 6X25 IWRC (3.5:1 SF) - 29750 LBS MIN BREAKING STRENGTH<br>9/16" ROT RESISTANT (5.0:1 SF) - 38500 LBS MIN BREAKING STRENGTH |

## REEVING DIAGRAM

Data published herein is intended as a guide only. Crane operation is subject to machine specific load charts and information.

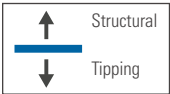
For reference only. Operators manual should be consulted and adhered to.

30102C LOAD CHART A-Frame: Main Boom and Jib

Lifting Capacities 4-section Boom 30 ft. - 100 ft.  
Jib 26 ft. - 46 ft.

22.3 ft. (100%) 372° Non-continuous

| MAIN BOOM LMI CODE1                                                                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
|------------------------------------------------------------------------------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|
| 30.5 ft.                                                                                 |                         | 42 ft. (A)           |                         | 52 ft. (B)           |                         | 62 ft. (C)           |                         | 72 ft. (D)           |                         | 82 ft. (E)           |                         | 92 ft. (F)           |                         | 102 ft. (G)          |                         |                      |
|                                                                                          | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) |
| 5                                                                                        | 77                      | 60,000               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 8                                                                                        | 71                      | 38,600               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 10                                                                                       | 67                      | 33,600               | 73                      | 25,000               | 77                      | 25,000               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 12                                                                                       | 62                      | 29,620               | 71                      | 25,000               | 75                      | 25,000               | 78                      | 25,000               |                         |                      |                         |                      |                         |                      |                         |                      |
| 15                                                                                       | 55                      | 25,510               | 66                      | 23,570               | 71                      | 22,450               | 75                      | 21,640               | 78                      | 19,660               | 80                      | 16,460               |                         |                      |                         |                      |
| 20                                                                                       | 42                      | 20,200               | 58                      | 18,740               | 65                      | 17,730               | 70                      | 17,340               | 74                      | 16,760               | 76                      | 14,330               | 79                      | 12,180               | 80                      | 10,300               |
| 25                                                                                       | 24                      | 15,980               | 50                      | 15,770               | 59                      | 14,910               | 65                      | 14,220               | 69                      | 13,670               | 73                      | 12,570               | 75                      | 10,870               | 77                      | 9,390                |
| 30                                                                                       |                         |                      | 39                      | 13,220               | 52                      | 12,620               | 60                      | 12,020               | 65                      | 11,510               | 69                      | 11,100               | 72                      | 9,590                | 74                      | 8,500                |
| 35                                                                                       |                         |                      | 26                      | 10,380               | 44                      | 10,630               | 54                      | 10,360               | 60                      | 9,910                | 65                      | 9,530                | 69                      | 8,500                | 71                      | 7,630                |
| 40                                                                                       |                         |                      |                         |                      | 35                      | 8,220                | 48                      | 8,360                | 55                      | 8,460                | 61                      | 8,530                | 66                      | 7,790                | 68                      | 6,840                |
| 45                                                                                       |                         |                      |                         |                      | 23                      | 6,500                | 41                      | 6,650                | 50                      | 6,750                | 57                      | 6,810                | 62                      | 6,860                | 65                      | 5,920                |
| 50                                                                                       |                         |                      |                         |                      |                         |                      | 33                      | 5,370                | 45                      | 5,470                | 52                      | 5,540                | 58                      | 5,580                | 62                      | 5,190                |
| 55                                                                                       |                         |                      |                         |                      |                         |                      | 22                      | 4,380                | 38                      | 4,480                | 47                      | 4,540                | 54                      | 4,590                | 58                      | 4,570                |
| 60                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      | 31                      | 3,690                | 42                      | 3,750                | 49                      | 3,800                | 55                      | 3,840                |
| 65                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      | 20                      | 3,030                | 36                      | 3,110                | 45                      | 3,160                | 51                      | 3,190                |
| 70                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         | 28                   | 2,570                   | 40                   | 2,620                   | 47                   | 2,660                   |                      |
| 75                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         | 20                   | 2,110                   | 34                   | 2,160                   | 43                   | 2,200                   |                      |
| 80                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 28                   | 1,770                   | 38                   | 1,810                   |                      |
| 85                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 19                   | 1,430                   | 33                   | 1,470                   |                      |
| 90                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 27                   | 1,180                   |                      |
| 95                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 18                   | 910                     |                      |
| DEDUCTIONS FROM MAIN BOOM CAPACITIES FOR STOWED JIB - FJ = Fixed Jib TJ = Telescopic Jib |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| FJ                                                                                       | 500 lbs.                |                      | 360 lbs.                |                      | 290 lbs.                |                      | 250 lbs.                |                      | 210 lbs.                |                      | 190 lbs.                |                      | 170 lbs                 |                      | 150 lbs                 |                      |
| TJ                                                                                       | 740 lbs                 |                      | 540 lbs.                |                      | 440 lbs.                |                      | 370 lbs.                |                      | 320 lbs.                |                      | 280 lbs.                |                      | 250 lbs.                |                      | 220 lbs.                |                      |

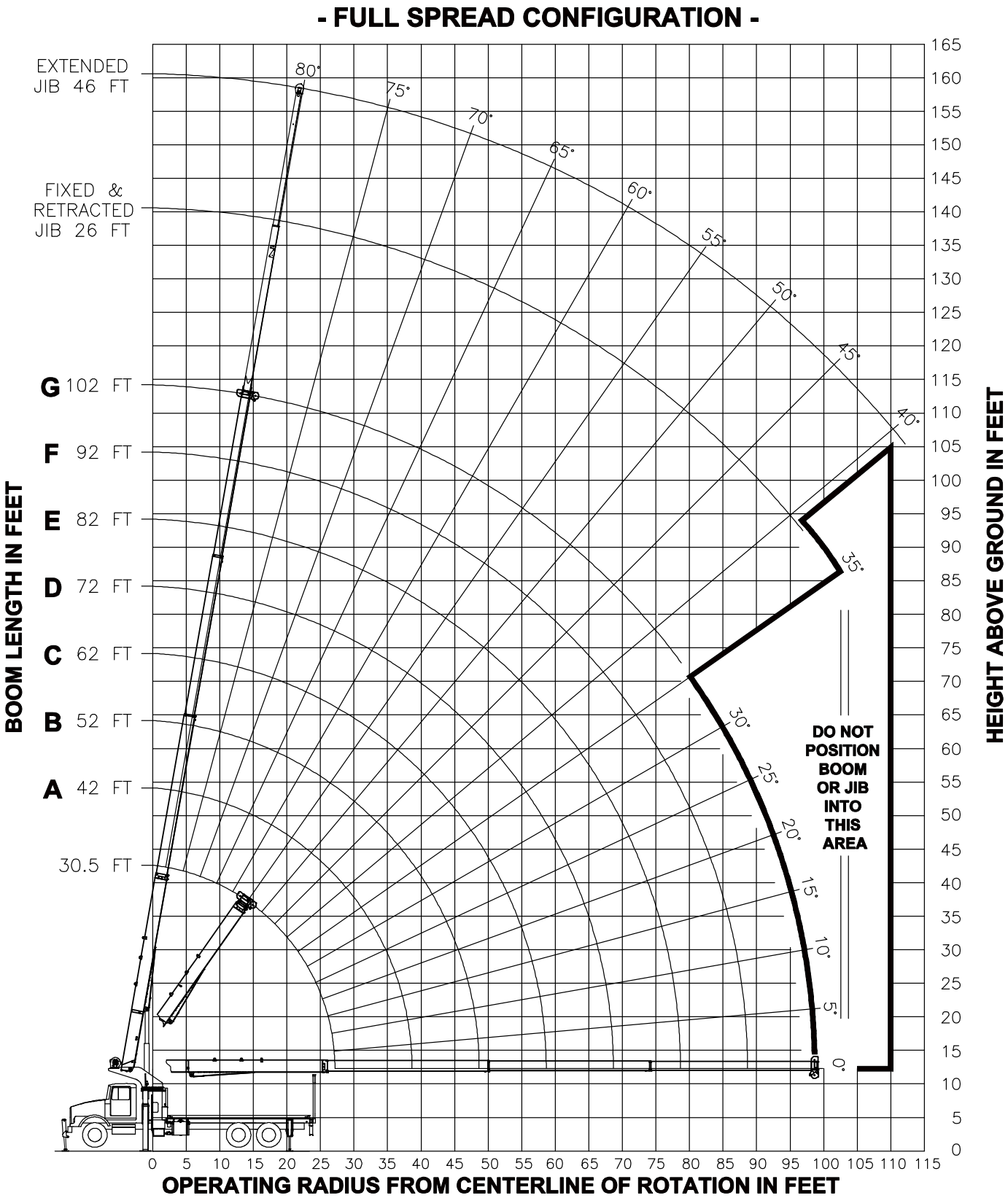


- NOTES:
- All loads rated at 360° pick
  - Loads based on crane on fully extended outriggers and stabilizers
  - All “on outriggers” loads are based on 85% tipping
  - Loads above heavy line are based on structural rating
  - Loads below heavy line are based on tipping rating

| JIB LOAD CAPACITIES |                         |                             |                         |                             |                         |                             |
|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|
| 26 ft. Fixed Jib    |                         | 26 ft. Tele. Jib            |                         | 46 ft. Tele. Jib            |                         |                             |
|                     | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 2 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 3 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 4 |
| 25                  | 80                      | 5,300                       | 80                      | 5,100                       |                         |                             |
| 30                  | 78                      | 5,300                       | 78                      | 5,100                       | 80                      | 3,050                       |
| 35                  | 76                      | 4,990                       | 76                      | 4,730                       | 78                      | 3,050                       |
| 40                  | 74                      | 4,580                       | 74                      | 4,310                       | 77                      | 3,050                       |
| 45                  | 72                      | 4,200                       | 72                      | 3,920                       | 75                      | 3,050                       |
| 50                  | 69                      | 3,850                       | 69                      | 3,560                       | 73                      | 3,050                       |
| 55                  | 67                      | 3,530                       | 67                      | 3,240                       | 71                      | 2,890                       |
| 60                  | 64                      | 3,240                       | 64                      | 2,940                       | 69                      | 2,660                       |
| 65                  | 62                      | 2,920                       | 62                      | 2,560                       | 67                      | 2,440                       |

| JIB LOAD CAPACITIES |                         |                             |                         |                             |                         |                             |
|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|
| 26 ft. Fixed Jib    |                         | 26 ft. Tele. Jib            |                         | 46 ft. Tele. Jib            |                         |                             |
|                     | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 2 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 3 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 4 |
| 70                  | 59                      | 2,570                       | 59                      | 2,220                       | 65                      | 2,440                       |
| 75                  | 56                      | 2,280                       | 56                      | 1,930                       | 63                      | 2,060                       |
| 80                  | 53                      | 1,960                       | 53                      | 1,660                       | 60                      | 1,850                       |
| 85                  | 50                      | 1,620                       | 50                      | 1,320                       | 58                      | 1,630                       |
| 90                  | 47                      | 1,320                       | 47                      | 1,020                       | 55                      | 1,430                       |
| 95                  | 44                      | 1,060                       | 44                      | 760                         | 53                      | 1,240                       |
| 100                 | 40                      | 820                         | 40                      | 520                         | 50                      | 1,000                       |
| 105                 | 36                      | 610                         |                         |                             | 47                      | 790                         |
| 110                 |                         |                             |                         |                             | 44                      | 600                         |

30102C BOOM DIAGRAM



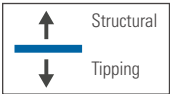
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30100C LOAD CHART A-Frame: Main Boom and Jib

Lifting Capacities 4-section Boom 30 ft. - 100 ft.  
Jib 26 ft. - 46 ft.

22.3 ft. (100%) 372° Non-continuous

| MAIN BOOM LMI CODE1                                                                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
|------------------------------------------------------------------------------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|
| 30 ft.                                                                                   |                         | 40 ft. (A)           |                         | 50 ft. (B)           |                         | 60 ft. (C)           |                         | 70 ft. (D)           |                         | 80 ft. (E)           |                         | 90 ft. (F)           |                         | 100 ft. (G)          |                         |                      |
|                                                                                          | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) |
| 5                                                                                        | 77                      | 60,000               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 8                                                                                        | 70.5                    | 38,800               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 10                                                                                       | 66.5                    | 33,900               | 73                      | 25,000               | 77                      | 25,000               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 12                                                                                       | 62                      | 29,830               | 70                      | 25,000               | 74.5                    | 25,000               | 78                      | 25,000               |                         |                      |                         |                      |                         |                      |                         |                      |
| 15                                                                                       | 55                      | 25,700               | 65.5                    | 23,930               | 71                      | 22,710               | 75                      | 21,850               | 77.5                    | 20,190               | 79.5                    | 16,860               |                         |                      |                         |                      |
| 20                                                                                       | 42                      | 20,350               | 57                      | 19,060               | 64.5                    | 17,980               | 70                      | 17,550               | 73.5                    | 16,930               | 76                      | 14,660               | 78.5                    | 12,470               | 80                      | 10,500               |
| 25                                                                                       | 22                      | 15,880               | 47.5                    | 16,030               | 58                      | 15,140               | 64.5                    | 14,410               | 69                      | 13,840               | 72.5                    | 12,850               | 75                      | 11,080               | 77                      | 9,580                |
| 30                                                                                       |                         |                      | 36                      | 13,350               | 50.5                    | 12,830               | 59                      | 12,200               | 64.5                    | 11,670               | 68.5                    | 11,250               | 72                      | 9,770                | 74                      | 8,540                |
| 35                                                                                       |                         |                      | 19                      | 10,360               | 42.5                    | 10,630               | 53                      | 10,530               | 60                      | 10,060               | 65                      | 9,670                | 68.5                    | 8,630                | 71                      | 7,770                |
| 40                                                                                       |                         |                      |                         |                      | 32.5                    | 8,240                | 46.5                    | 8,390                | 55                      | 8,490                | 60.5                    | 8,560                | 65.5                    | 7,910                | 68                      | 6,900                |
| 45                                                                                       |                         |                      |                         |                      | 17.5                    | 6,520                | 39                      | 6,690                | 49.5                    | 6,780                | 56.5                    | 6,850                | 61.5                    | 6,900                | 65                      | 6,000                |
| 50                                                                                       |                         |                      |                         |                      |                         |                      | 30                      | 5,410                | 43.5                    | 5,510                | 51.5                    | 5,580                | 57.5                    | 5,630                | 61.5                    | 5,250                |
| 55                                                                                       |                         |                      |                         |                      |                         |                      | 16                      | 4,410                | 36.5                    | 4,520                | 46.5                    | 4,590                | 53.5                    | 4,640                | 58                      | 4,630                |
| 60                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      | 28                      | 3,730                | 41                      | 3,800                | 49                      | 3,850                | 54.5                    | 3,890                |
| 65                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      | 15.5                    | 3,080                | 35                      | 3,160                | 44.5                    | 3,210                | 50.5                    | 3,250                |
| 70                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         | 27                   | 2,620                   | 39                   | 2,670                   | 46.5                 | 2,710                   |                      |
| 75                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         | 15                   | 2,160                   | 33.5                 | 2,220                   | 42                   | 2,260                   |                      |
| 80                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 26                   | 1,830                   | 37.5                 | 1,870                   |                      |
| 85                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 14.5                 | 1,480                   | 32                   | 1,530                   |                      |
| 90                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 25                   | 1,230                   |                      |
| 95                                                                                       |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         | 14                   | 960                     |                      |
| DEDUCTIONS FROM MAIN BOOM CAPACITIES FOR STOWED JIB - FJ = Fixed Jib TJ = Telescopic Jib |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| FJ                                                                                       | 490 lbs.                |                      | 370 lbs.                |                      | 300 lbs.                |                      | 250 lbs.                |                      | 210 lbs.                |                      | 190 lbs.                |                      | 170 lbs                 |                      | 150 lbs                 |                      |
| TJ                                                                                       | 730 lbs                 |                      | 550 lbs.                |                      | 440 lbs.                |                      | 370 lbs.                |                      | 320 lbs.                |                      | 280 lbs.                |                      | 250 lbs.                |                      | 220 lbs.                |                      |



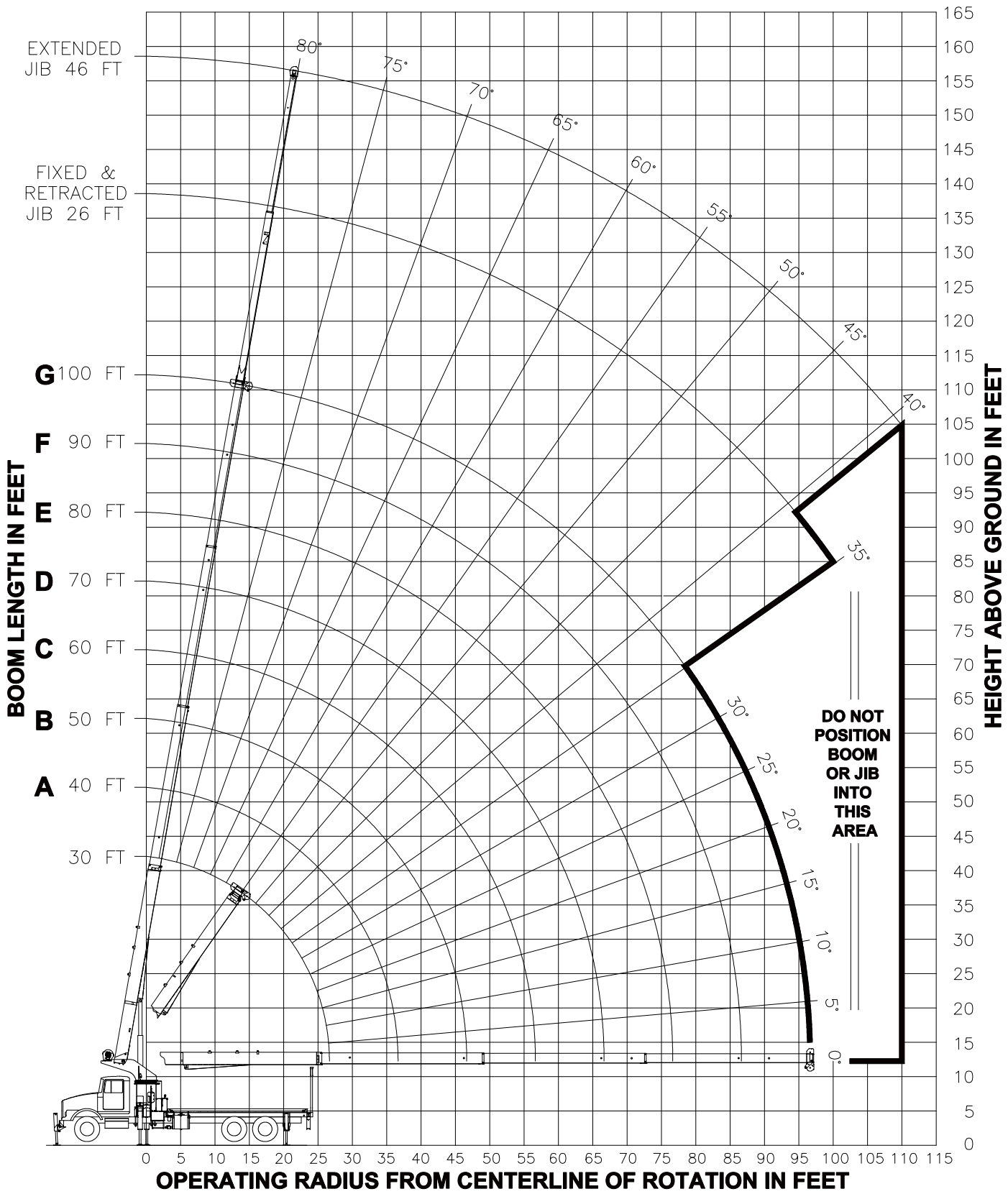
NOTES:

- All loads rated at 360° pick
- Loads based on crane on fully extended outriggers and stabilizers
- All “on outriggers” loads are based on 85% tipping
- Loads above heavy line are based on structural rating
- Loads below heavy line are based on tipping rating

| JIB LOAD CAPACITIES |                         |                             |                         |                             |                         |                             |
|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|
| 26 ft. Fixed Jib    |                         | 26 ft. Tele. Jib            |                         | 46 ft. Tele. Jib            |                         |                             |
|                     | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 2 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 3 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 4 |
| 25                  | 80                      | 5,300                       | 80                      | 5,100                       |                         |                             |
| 30                  | 78                      | 5,300                       | 78                      | 5,100                       | 79.5                    | 3,050                       |
| 35                  | 76                      | 5,000                       | 76                      | 4,800                       | 78                      | 3,050                       |
| 40                  | 73.5                    | 4,650                       | 73.5                    | 4,380                       | 76.5                    | 3,050                       |
| 45                  | 71.5                    | 4,250                       | 71.5                    | 3,980                       | 74.5                    | 3,050                       |
| 50                  | 69                      | 3,890                       | 69                      | 3,610                       | 73                      | 3,050                       |
| 55                  | 66.5                    | 3,560                       | 66.5                    | 3,280                       | 71                      | 2,930                       |
| 60                  | 64                      | 3,270                       | 64                      | 2,980                       | 69                      | 2,690                       |
| 65                  | 61.5                    | 2,950                       | 61.5                    | 2,600                       | 66.5                    | 2,470                       |

| JIB LOAD CAPACITIES |                         |                             |                         |                             |                         |                             |
|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|
| 26 ft. Fixed Jib    |                         | 26 ft. Tele. Jib            |                         | 46 ft. Tele. Jib            |                         |                             |
|                     | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 2 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 3 | Loaded Boom Angle (deg) | Load Capacity (lbs.) Code 4 |
| 70                  | 58.5                    | 2,610                       | 58.5                    | 2,270                       | 64.5                    | 2,260                       |
| 75                  | 55.5                    | 2,320                       | 55.5                    | 1,970                       | 62.5                    | 2,080                       |
| 80                  | 53                      | 2,010                       | 53                      | 1,710                       | 60                      | 1,890                       |
| 85                  | 49.5                    | 1,670                       | 49.5                    | 1,380                       | 57.5                    | 1,670                       |
| 90                  | 46.5                    | 1,370                       | 46.5                    | 1,080                       | 55                      | 1,470                       |
| 95                  | 43                      | 1,110                       | 43                      | 810                         | 52.5                    | 1,290                       |
| 100                 | 39                      | 880                         | 39                      | 580                         | 49.5                    | 1,050                       |
| 105                 |                         |                             |                         |                             | 46.5                    | 840                         |
| 110                 |                         |                             |                         |                             | 43.5                    | 650                         |

30100C BOOM DIAGRAM



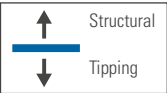
For reference only. Operators manual should be consulted and adhered to.

# 3051T LOAD CHART: Main Boom

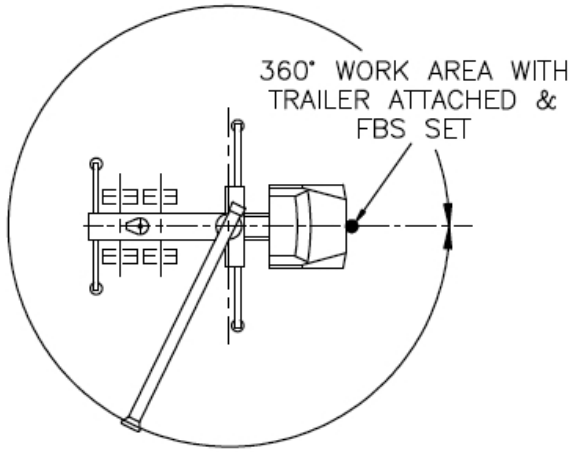
Lifting Capacities 3-section Boom 21.27 ft.–51 ft.

22.3 ft. (100%) 372° Non-continuous

| MAIN BOOM LMI CODE 1 |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|
| 21.27 ft.            |                         |                      | 26 ft. (A)              |                      | 31 ft. (B)              |                      | 36 ft. (C)              |                      | 41 ft. (D)              |                      | 46 ft. (E)              |                      | 51 ft. (F)              |                      |
|                      | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) | Loaded Boom Angle (deg) | Load Capacity (lbs.) |
| 5                    | 70                      | 60,000               |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |
| 8                    | 60.5                    | 43,700               | 66.5                    | 41,700               | 71                      | 40,100               | 74                      | 38,900               | 76.5                    | 38,000               |                         |                      |                         |                      |
| 10                   | 54                      | 38,200               | 61.5                    | 36,400               | 67                      | 35,200               | 70.5                    | 34,100               | 73.5                    | 33,200               | 75.5                    | 32,200               | 77                      | 28,520               |
| 12                   | 47                      | 34,300               | 56.5                    | 32,700               | 62.5                    | 31,200               | 67                      | 30,100               | 70.5                    | 29,250               | 73                      | 28,540               | 75                      | 25,800               |
| 14                   | 38.5                    | 30,700               | 50.5                    | 29,440               | 58.5                    | 28,160               | 63.5                    | 27,110               | 67.5                    | 26,640               | 70.5                    | 25,940               | 72.5                    | 23,780               |
| 16                   | 27.5                    | 27,160               | 44.5                    | 26,760               | 53.5                    | 25,990               | 60                      | 25,010               | 64                      | 24,190               | 67.5                    | 23,520               | 70.5                    | 21,820               |
| 18                   |                         |                      | 37.5                    | 24,640               | 49                      | 23,840               | 56                      | 22,960               | 61                      | 22,200               | 65                      | 21,550               | 68                      | 20,190               |
| 20                   |                         |                      | 28.5                    | 22,260               | 43.5                    | 21,980               | 52                      | 21,230               | 57.5                    | 20,530               | 62                      | 19,910               | 65.5                    | 18,520               |
| 25                   |                         |                      |                         |                      | 26.5                    | 17,760               | 40.5                    | 17,770               | 48.5                    | 17,570               | 54.5                    | 17,070               | 58.5                    | 15,410               |
| 30                   |                         |                      |                         |                      |                         |                      | 24.5                    | 13,170               | 38                      | 13,260               | 46                      | 13,310               | 51.5                    | 12,950               |
| 35                   |                         |                      |                         |                      |                         |                      |                         |                      | 23                      | 10,240               | 36                      | 10,310               | 44                      | 10,350               |
| 40                   |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      | 22                      | 8,270                | 34.5                    | 8,320                |
| 45                   |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      | 21                      | 6,860                |
| 50                   |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |                         |                      |



## AREA OF OPERATION

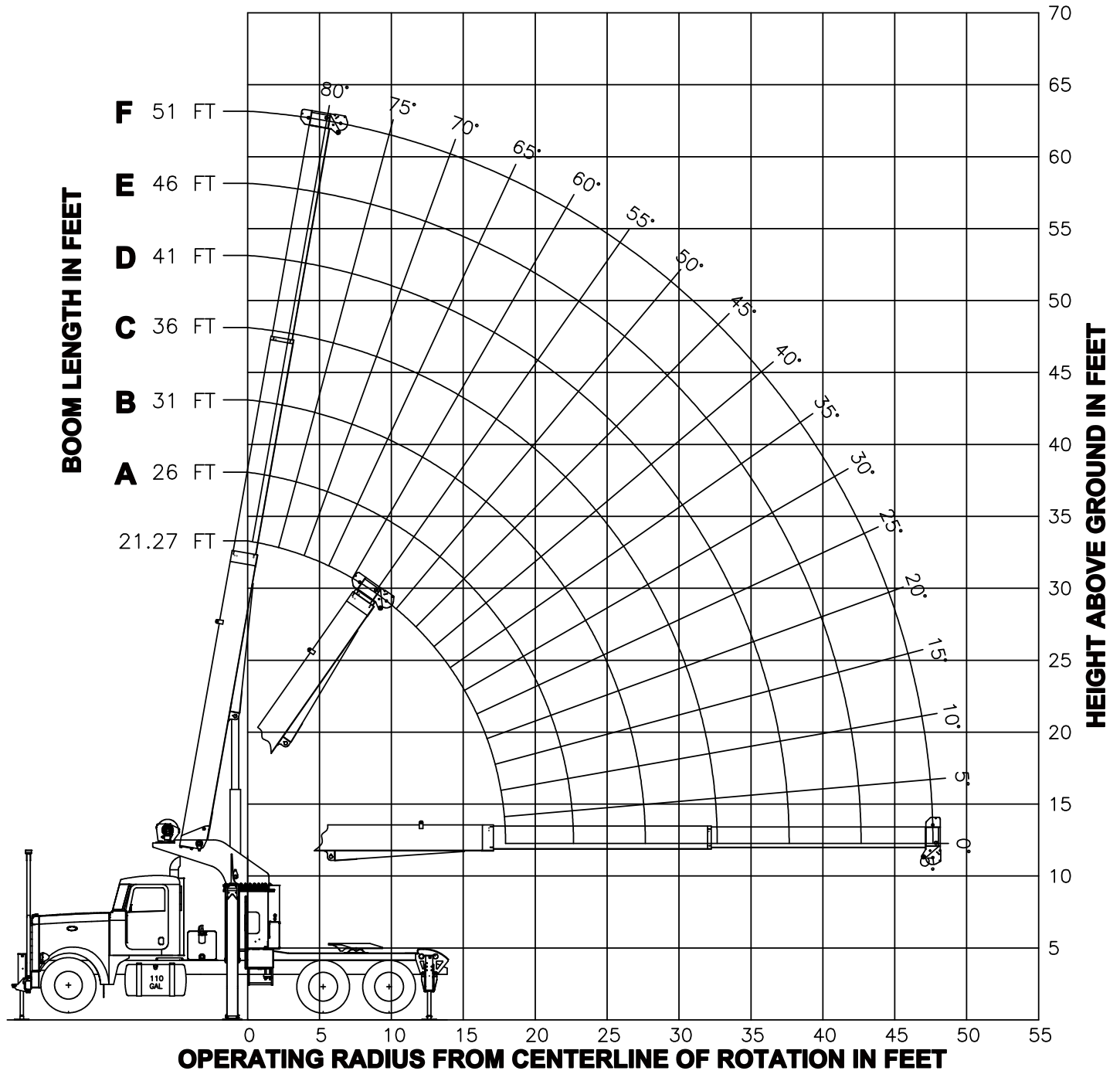


- NOTES:
- All loads rated at 360° pick
  - Loads based on crane on fully extended outriggers and stabilizers
  - All "on outriggers" loads are based on 85% tipping
  - Loads above heavy line are based on structural rating
  - Loads below heavy line are based on tipping rating



Data published herein is intended as a guide only. Crane operation is subject to machine specific load charts and information.

# 3051T BOOM DIAGRAM



Data published herein is intended as a guide only. Crane operation is subject to machine specific load charts and information.

# TECHNICAL DESCRIPTIONS

## Boom



- Boom length: Proportional boom
- 4-section 102 ft (31,1 m)
  - 4-section 100 ft. (30,4 m)
  - 3-section 51 ft. (15,5 m)
- 3-sheave quick reeve boom point  
Self lubricating slider pads
- 
- 30102C:
- Boom Length 102 ft. (31,1 m)
  - Boom Max. Tip Height 112 ft. (34,1 m)
- 30100C
- Boom length 100 ft (30,4 m)
  - Boom Max. Tip Height 110.6 ft. (33,7 m)
- 3051T
- Boom length 51 ft. (15,5 m)
  - Boom Max. Tip Height 62.3 ft. (19 m)



Boom angle (min/max): -10° / 80.6°

## Rotation



Ball-bearing swing circle with external gear  
Double-reduction planetary gearbox driven  
by hydraulic motor



Slewing brake: Spring-applied pressure  
released parking brake



Slewing speed: 0 - 1.5 rpm  
Boom rotation: 372° non-continuous

## Outriggers



- Outriggers: A-frame style
- FBS - Front Bumper Stabilizer (optional)
- A-frame fully extended:
- 22.3 ft. (6,8 m)
- Stabilizers fully extended:
- 14.6 ft. (4,4 m)

## Hoist, Rope and Hook



Maximum theoretical line speed:  
300 fpm (91,4 mpm)



Bottom Layer Permissible line pull:  
8,500 lbs. (3,855.5 kg)



Main winch cable diameter: 9/16 in.  
(14.3 mm) rotation resistant



Line length: 335 ft. (102.1 m)



Main winch: Bent axis 2-speed hydraulic  
motor (activated electrically)



Hook & ball: 7 T (6,4 mt) capacity hook  
with heavy-duty swivel and weight is  
provided for single line operation.

## Hydraulics



- 8-Bolt direct mounted PTO and SAE B input  
and SAE BB output
- 3-section gear pump, SAE BB input (standard)
- Hydraulic reservoir capacity:  
70 gal. (284 L)
- Pump sections @ 2000 rpm with 100 psi
- Shaft end pump: 32.4 gpm (123 lpm)
  - Center pump: 20.6 gpm (78 lpm)
  - Cover end pump: 10 gpm (38 lpm)

## Operator aids



- Externally Wired LMI with crane function  
cut-offs for overload protection
- Text display
- Event recorder
- Externally Wired anti-two block system

# TECHNICAL DESCRIPTIONS

## Control System



- Dual operating stations are equipped with  
four single-lever crane controls arranged in  
accordance with ANSI B30.5 standards.
- Fully proportional control valves
- Each station includes:
- Individual control levers for each  
outrigger and stabilizer
  - Engine start and stop
  - Electronic foot throttle
  - Signal horn
  - Boom angle indicator
  - Beverage holder
  - Load chart with range diagram and  
mount for removable LMI display

## Electrical System

- State-of-the-art, weather-resistant  
components throughout
- Hermetically sealed enclosure includes  
power in relays and circuit status LEDs

## Mounting System

- Pedestal sub-frame and stabilizers  
are mounted to chassis by threaded  
rods and clamp plates
- Sub-frame: Torsion resistant, rigid  
4-plate design mounted under crane  
full length of truck frame
- Rear under-ride protection: Standard  
on factory mounted cranes.
- Boom rest: Heavy-duty fabrication,  
easily removed

## Options

### Outriggers



- Outriggers: Out-and-down style
- Fully extended:  
22 ft. (6,7 m)
- Stabilizer extended:
- Fully extended:  
14.6 ft. (4,4 m)

## Options

### Jib

- 30102C / 30100C:
- 1-section fixed jib 26 ft. (7,9 m)
  - 2-section telescopic jib  
26 ft. (7,9 m) - 46 ft. (14,0 m)

### Max. Tip Height with Extension



- 30102C
- Max. tip height with extension:  
157 ft. (47,9 m)
- 30100C
- Max. tip height with extension:  
155 ft. (47,2 m)



- 30102C
- Max. tip height with extension  
retracted: 137 ft. (41, 8)
- 30100C
- Max. tip height with extension  
retracted: 135 ft. (41,1 m)

### Hoist, Rope and Hook



5/8 in. (15,9 mm) diameter 6 x 25 EIPS  
IWRC wire rope

### Hydraulics



3-section gear pump, SAE C input  
FBS - Front Bumper Stabilizer  
Hose reel - boom mounted  
Hydraulic oil cooler

### 2-Person Baskets



- 2-person man basket - Aluminum or steel -  
consult Manitex
- Non-rotating (600 lbs. cap.) - Steel
  - Rotating (1,200 lbs. cap.) - Aluminum  
Main boom only

### Operator Aids



- 4-Function radio remote crane control system
- 900 Mhz
  - 433 Mhz

### Tool Box & Bulkhead

- 24 in. L x 18 in. W x 18 in. H - Steel  
(610 mm L x 457 mm W x 457 mm H)
- 48 in. L x 24 in. W x 24 in. H - Aluminum  
(1219 mm L x 610 mm W x 610 mm H)
- Bulkhead: 24 in. (610 mm)

### Flatbeds

- 21 ft. Wood Bed x 96"
- 21 ft. Heavy Hauler Steel Bed x 96"



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For reference only.  
Operator's manual should be  
consulted and adhered to.

# CM300.1

## 30-ton (27 mt) TELESCOPIC CRANE

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