

SHUTTLELIFT®

# SCD20

## Product Guide

*ASME B30.5 Imperial 85%, Metric 85%*



20 USt  
(18 t)



54.5 ft  
(16,6 m)

**GVW**

36,556 lbs  
(16 582 kg)



86 ft  
(26,2 m)



# SHUTTLELIFT SCD20

## FEATURES

The SCD20 features a 54.5 ft (16,6m) four-section full power main boom and provides superior innovation along with state of the art design. Featuring three steering modes with electronic self-alignment, a four speed powershift transmission, and available 4WD, the SCD20 is easy to maneuver around the jobsite.

With a maximum capacity of 20 USt (18 t) the SCD20 is capable of transporting loads of up to 20,000 lb (9,070 kg) on the deck and is a must-have in any fleet.



## Two position outriggers with independent controls

Outriggers on the SCD20 are two-position (0% and 100%) beam/jack style with inverted jack cylinders and pivoting pad.

## Need more reach?

The main boom can be enhanced with optional boom extensions. The 15 ft (4,6 m) fixed swingaway extension offers a maximum tip height of 76 ft (23,1 m) while the 15 ft – 25 ft (4,6 m – 7,6 m) telescopic extension provides a maximum tip height of 86 ft (26,2 m). Both extensions can be offset 0, -15°, and -30° via the pivoting boom nose.



## Operator Cab

Modern operator cab features hydraulic joystick controls, easy-to-set up full-color graphic RCL system, common automotive dash panel with gauges, indicator lights and rocker switches. Fully adjustable seat and tilting steering wheel are standard features. The optional enclosed cab with split door design for additional comfort.



### CUSTOMIZED OPTIONS

Standard options may not always meet the job requirements. Consult your local dealer for a Lift Solution quote for customized options, such as:

- Non-marking tires
- Barge charts
- Spark arrestor

## Pivoting boom nose

Three-position mechanically offset (0°, 40°, and 80°), lowers boom nose head height by 40,5 cm (1.33 ft) when pivoted fully forward. Negative pivoting of 0°, 15°, and 30° allows boom extension offset capability.



# The world's most advanced crane service and support network

## WORLDWIDE SUPPORT NETWORK

Manitowoc's customer service extends beyond any borders. Our locations span the globe, covering five continents. No matter where the job takes you, you have a business partner nearby.



## PARTS

Locating the correct part quickly is vital to managing your operations. With Manitowoc Customer Support, the parts you need are just a phone call or click away.

## LIFT SOLUTIONS

The Manitowoc Crane Lift Solutions Team is dedicated to helping customers with unique and customized applications for their Manitowoc cranes, regardless of product line.

## TRAINING

Manitowoc Training Centers offer courses for operators and technicians across the globe to provide in-depth instruction on crane operation, maintenance, and troubleshooting procedures.

## EnCORE

Manitowoc's EnCORE program maximizes your investment by rebuilding or repairing your crane to extend its life significantly. EnCORE also includes remanufactured parts.



# MANITOWOC FINANCE

Manitowoc Finance gets you in the field with the right equipment by giving you access to flexible, affordable financing. With Manitowoc Finance, equipment can be acquired with virtually no cash outlay, and unlike traditional lending, our financial products don't affect bank lines of credit. Your capital resources remain intact for times when you need ready access to cash.

Competitive rates with flexible financing options and payment schedules put you in control.

**Did you know?** Manitowoc Finance can finance **used** Manitowoc cranes. You can also **trade-in** your used fleet for upgrade and get financed by Manitowoc Finance.





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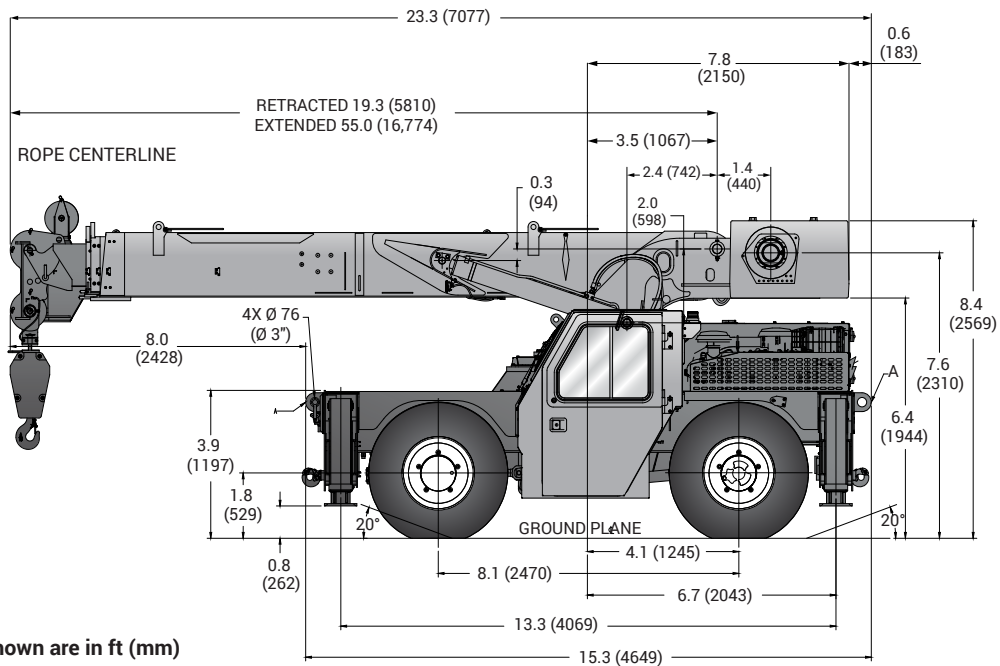
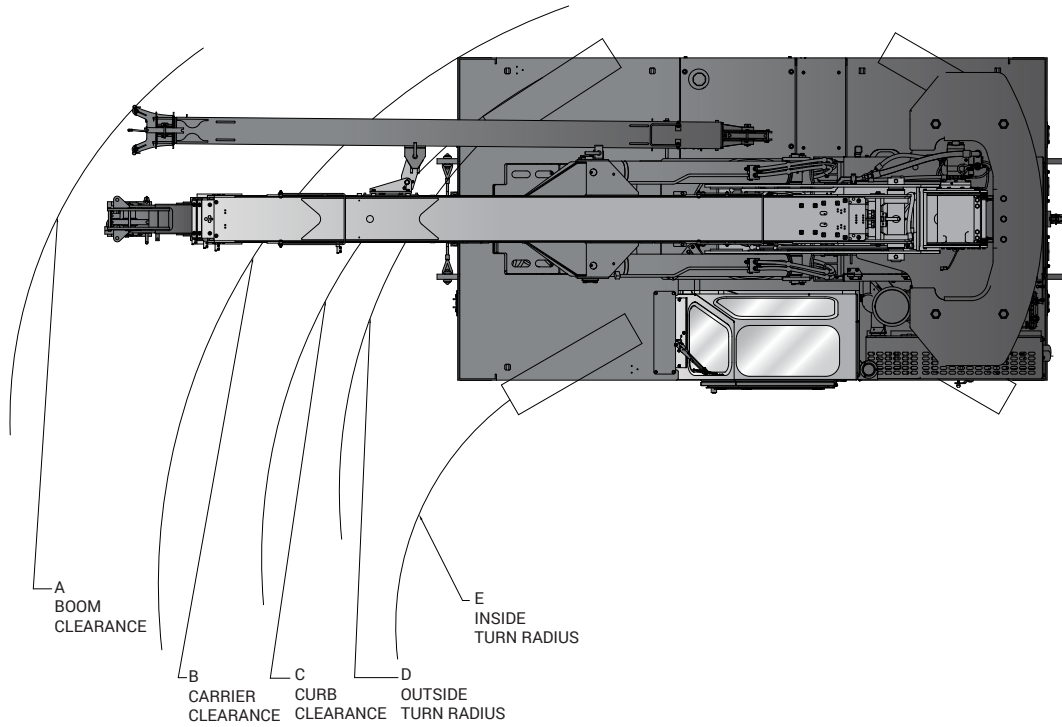
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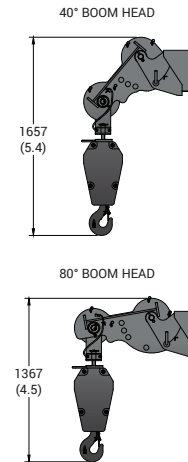
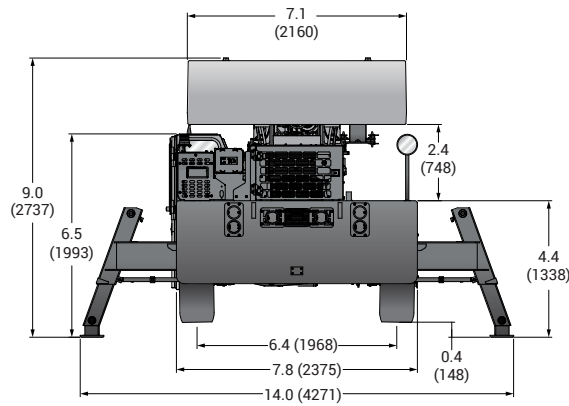
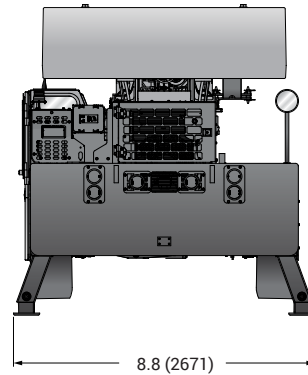
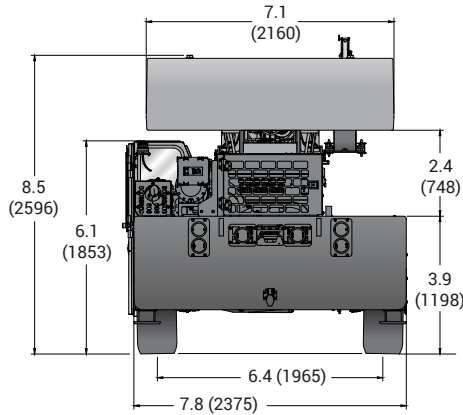
# DIMENSIONS AND WEIGHTS



Dimensions shown are in ft (mm)

| Tire Size        | A                     | B                     | C                     | D                     | E                   |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| Two-wheel steer  | 291.6 in<br>(7407 mm) | 262.8 in<br>(6675 mm) | 244.8 in<br>(6218 mm) | 238.5 in<br>(6058 mm) | 133 in<br>(3375 mm) |
| Four-wheel steer | 212 in<br>(5380 mm)   | 176 in<br>(4481 mm)   | 157 in<br>(3993 mm)   | 151 in<br>(3841 mm)   | 68 in<br>(1722 mm)  |

# DIMENSIONS AND WEIGHTS

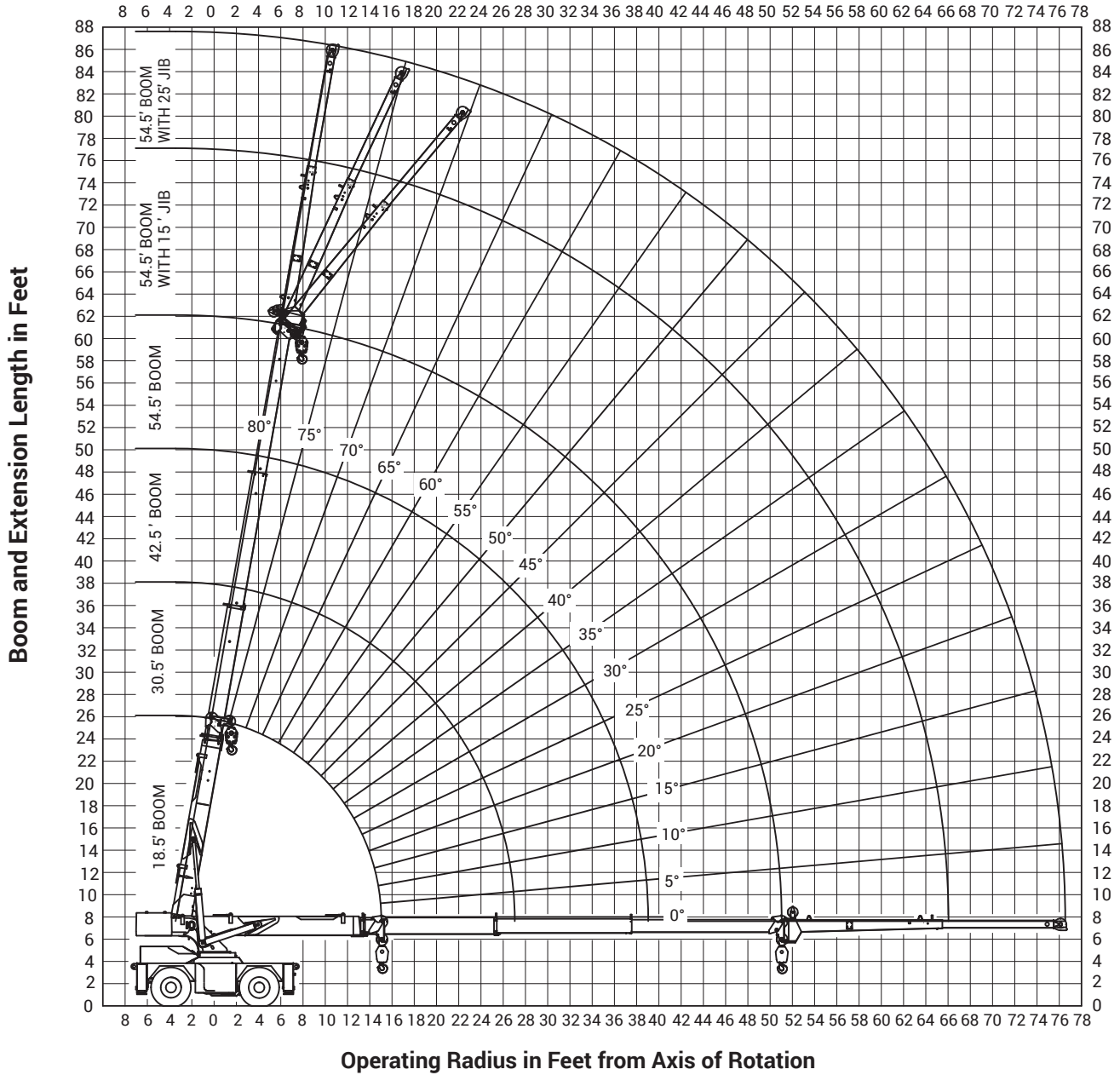


| Weights                                                                                                                                                                              | GVW    |        | Front  |      | Rear   |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|------|--------|--------|
|                                                                                                                                                                                      | lb     | kg     | lb     | kg   | lb     | kg     |
| <b>Basic machine:</b> Including 54.5 ft (16,6 m) main boom, main hoist with 320 ft (97,5 m) of wire rope, 20 USt (18 t) hook block, full counterweight, Tier IV Final/Stage 5 engine | 36,774 | 16 680 | 13,747 | 6236 | 23,027 | 10 445 |
| <b>Add:</b> 15 ft (4,6 m) fixed swingaway extension and extension carrier brackets and downhaul weight                                                                               | 394    | 179    | 641    | 291  | -247   | -112   |
| <b>Crane Weight</b>                                                                                                                                                                  | 37,168 | 16 859 | 14,388 | 6527 | 22,780 | 10 333 |
| <b>Basic machine:</b> Including 54.5 ft (16,6 m) main boom, main hoist with 320 ft (97,5 m) of wire rope, 20 USt (18 t) hook block, full counterweight, Tier IV Final/Stage 5 engine | 36,774 | 16 680 | 13,747 | 6236 | 23,027 | 10 445 |
| <b>Add:</b> Enclosed cab, heater and glass                                                                                                                                           | 197    | 89     | 89     | 40   | 108    | 49     |
| <b>Crane Weight</b>                                                                                                                                                                  | 36,971 | 16 769 | 13,836 | 6276 | 23,135 | 10 494 |
| <b>Basic machine:</b> Including 16,6 m (54.5 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV Final/Stage 5 engine | 36,774 | 16 680 | 13,747 | 6236 | 23,027 | 10 445 |
| <b>Add:</b> 4,6 m - 7,6 m (15 ft - 25 ft) telescopic swingaway extension and extension carrier brackets and downhaul weight                                                          | 714    | 324    | 1079   | 489  | -365   | -166   |
| <b>Crane Weight</b>                                                                                                                                                                  | 37,488 | 17 004 | 14,826 | 6725 | 22,662 | 10 279 |

# WORKING RANGE

Imperial

Boom Deflection Not Shown



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.  
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane

# LOAD CHART

Imperial



18.5 ft - 54.5 ft



100%



360°



0% (front/rear ± 15° defined arc)



Pounds

| Radius (ft) | Main Boom Length (ft) |        |        |        |
|-------------|-----------------------|--------|--------|--------|
|             | 18.5                  | 30.5   | 42.5   | 54.5   |
| 6           | 40,000                | 24,000 |        |        |
| 8           | 33,850                | 24,000 | 23,650 |        |
| 10          | 30,100                | 24,000 | 21,550 | 16,800 |
| 12          | 26,950                | 24,000 | 19,850 | 15,350 |
| 14          | 23,550                | 24,000 | 18,050 | 14,100 |
| 15          | 18,900                | 22,500 | 17,250 | 13,500 |
| 16          |                       | 21,000 | 16,550 | 13,000 |
| 18          |                       | 18,450 | 15,250 | 12,100 |
| 20          |                       | 16,300 | 14,250 | 11,250 |
| 22          |                       | 14,150 | 13,300 | 10,550 |
| 24          |                       | 12,250 | 12,200 | 9,940  |
| 26          |                       | 10,700 | 10,750 | 9,380  |
| 27          |                       | 10,050 | 10,150 | 9,120  |
| 28          |                       |        | 9,600  | 8,880  |
| 30          |                       |        | 8,620  | 8,430  |
| 32          |                       |        | 7,790  | 8,020  |
| 34          |                       |        | 7,090  | 7,300  |
| 36          |                       |        | 6,470  | 6,680  |
| 38          |                       |        | 5,920  | 6,130  |
| 39          |                       |        | 5,680  | 5,890  |
| 40          |                       |        |        | 5,650  |
| 42          |                       |        |        | 5,230  |
| 44          |                       |        |        | 4,850  |
| 46          |                       |        |        | 4,500  |
| 48          |                       |        |        | 4,180  |
| 51          |                       |        |        | 3,760  |

\*NOTE: ( ) Boom angles are in degrees.

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# LOAD CHART

Imperial



15 ft



100%



360°



Pounds

| Main Boom Angle (°) | 0° Offset            |                      | 15° Offset           |                      | 30° Offset      |
|---------------------|----------------------|----------------------|----------------------|----------------------|-----------------|
|                     | To 42.5 ft Main Boom | To 54.5 ft Main Boom | To 42.5 ft Main Boom | To 54.5 ft Main Boom | Any Boom Length |
| 75                  | 9300                 | 6500                 | 7400                 | 5650                 | 3500            |
| 70                  | 8550                 | 6100                 | 6950                 | 4350                 | 2800            |
| 65                  | 7950                 | 6100                 | 6500                 | 3800                 | 2350            |
| 60                  | 7400                 | 5650                 | 5350                 | 3500                 | 2150            |
| 55                  | 6950                 | 4350                 | 4550                 | 2800                 | 1900            |
| 50                  | 6500                 | 3800                 | 4050                 | 2350                 | 1750            |
| 45                  | 5350                 | 3500                 | 3450                 | 2150                 | 1670            |
| 40                  | 4550                 | 2800                 | 3300                 | 1900                 | 1550            |
| 35                  | 4050                 | 2350                 | 3150                 | 1750                 |                 |
| 30                  | 3450                 | 2150                 | 3000                 | 1670                 |                 |
| 25                  | 3300                 | 1900                 | 2800                 | 1550                 |                 |
| 20                  | 3150                 | 1750                 |                      |                      |                 |
| 15                  | 3000                 | 1670                 |                      |                      |                 |
| 10                  | 2800                 | 1550                 |                      |                      |                 |

**NOTES:**

1. 15 ft boom extension may be used for single line lifting service only.
2. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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# LOAD CHART

Imperial



15 ft - 25 ft



100%



360°



Pounds

| Main Boom Angle (°) | 15 ft Length         |                      |                      |                      |                 | 25 ft Length         |                      |                      |                      |                 |
|---------------------|----------------------|----------------------|----------------------|----------------------|-----------------|----------------------|----------------------|----------------------|----------------------|-----------------|
|                     | 0° Offset            |                      | 15° Offset           |                      | 30° Offset      | 0° Offset            |                      | 15° Offset           |                      | 30° Offset      |
|                     | To 42.5 ft Main Boom | To 54.5 ft Main Boom | To 42.5 ft Main Boom | To 54.5 ft Main Boom | Any Boom Length | To 42.5 ft Main Boom | To 54.5 ft Main Boom | To 42.5 ft Main Boom | To 54.5 ft Main Boom | Any Boom Length |
| 80                  | 8,500                | 8,550                | 5,100                | 4,770                | 3,060           | 5,830                | 5,800                | 3,710                | 3,460                | 2,200           |
| 75                  | 6,990                | 6,650                | 4,400                | 4,100                | 2,640           | 5,120                | 4,860                | 3,190                | 2,970                | 1,890           |
| 70                  | 5,940                | 5,580                | 3,790                | 3,540                | 2,290           | 4,330                | 4,070                | 2,740                | 2,560                | 1,630           |
| 65                  | 5,100                | 4,770                | 3,270                | 3,060                | 1,990           | 3,710                | 3,460                | 2,350                | 2,200                | 1,410           |
| 60                  | 4,400                | 4,100                | 2,810                | 2,640                | 1,750           | 3,190                | 2,970                | 2,020                | 1,890                | 1,230           |
| 55                  | 3,790                | 3,540                | 2,420                | 2,290                | 1,560           | 2,740                | 2,560                | 1,730                | 1,630                | 1,090           |
| 50                  | 3,270                | 3,060                | 2,090                | 1,990                | 1,430           | 2,350                | 2,200                | 1,480                | 1,410                | 990             |
| 45                  | 2,810                | 2,640                | 1,830                | 1,750                | 1,370           | 2,020                | 1,890                | 1,290                | 1,230                | 950             |
| 40                  | 2,420                | 2,290                | 1,630                | 1,560                | 1,370           | 1,730                | 1,630                | 1,140                | 1,090                | 950             |
| 35                  | 2,090                | 1,990                | 1,490                | 1,430                | 1,280           | 1,480                | 1,410                | 1,040                | 990                  | 900             |
| 30                  | 1,830                | 1,750                | 1,440                | 1,370                | 1,250           | 1,290                | 1,230                | 1,000                | 950                  | 800             |
| 25                  | 1,630                | 1,560                | 1,440                | 1,370                |                 | 1,140                | 1,090                | 1,000                | 950                  |                 |
| 20                  | 1,490                | 1,430                | 1,440                | 1,280                |                 | 1,040                | 990                  | 900                  | 900                  |                 |
| 15                  | 1,440                | 1,370                | 1,250                | 1,250                |                 | 1,000                | 950                  | 800                  | 800                  |                 |
| 10                  | 1,440                | 1,370                |                      |                      |                 | 1,000                | 950                  |                      |                      |                 |
| 5                   | 1,440                | 1,280                |                      |                      |                 | 900                  | 900                  |                      |                      |                 |
| 0                   | 1,250                | 1,250                |                      |                      |                 | 800                  | 800                  |                      |                      |                 |

**NOTES:**

1. 15 ft - 25 ft boom extension may be used for single line lifting service only.
2. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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# LOAD CHART

Imperial



14.2 ft -  
33.2 ft



Stationary



Defined arc  
over front



Stationary



360°



Pick &  
Carry



Over  
Front



Pounds

| Radius (ft) | Defined Arc 15°<br>Over Front | Stationary 360° |
|-------------|-------------------------------|-----------------|
| 6           | 16,000                        | 15,500          |
| 8           | 14,100                        | 13,550          |
| 10          | 11,250                        | 10,800          |
| 12          | 9,860                         | 8,880           |
| 14          | 8,700                         | 7,420           |
| 15          | 8,190                         | 6,800           |
| 16          | 7,720                         | 6,350           |
| 18          | 6,890                         | 5,890           |
| 20          | 6,180                         | 5,070           |
| 22          | 5,570                         | 4,370           |
| 24          | 4,990                         | 3,760           |
| 26          | 4,460                         | 3,250           |
| 27          | 4,220                         | 3,010           |
| 28          | 4,100                         | 2,810           |
| 30          | 3,680                         | 2,690           |
| 32          | 3,300                         | 2,580           |
| 34          | 2,950                         | 2,130           |
| 36          | 2,640                         | 1,890           |
| 38          | 2,350                         | 1,650           |
| 39          | 2,220                         | 1,540           |
| 40          | 2,160                         | 1,420           |
| 42          | 2,110                         | 1,300           |
| 44          | 1,910                         | 1,170           |
| 46          | 1,720                         | 1,030           |
| 48          | 1,550                         | 900             |
| 51          | 1,310                         | 730             |

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with 12.00R20 at 130 psi cold inflation pressure.
3. Capacities are applicable only with machine on a smooth, level and firm surface.
4. Defined Arc - Over front includes 15° on either side of longitudinal centerline of machine.
5. All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
6. For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. Maximum speed is 2.5 mph.
7. On rubber lifting with boom extension not permitted.

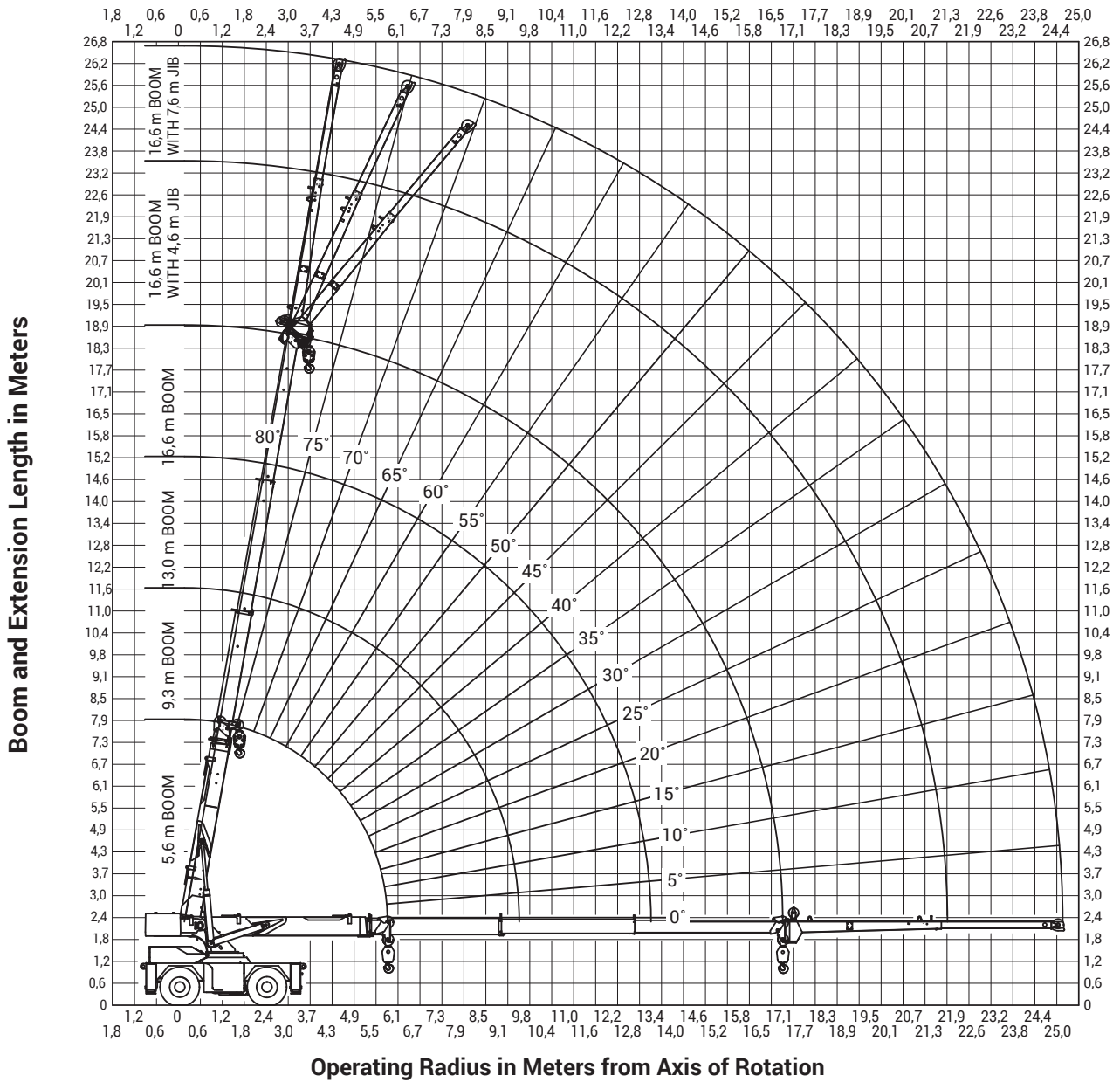
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# WORKING RANGE

Metric

Boom Deflection Not Shown



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# LOAD CHART

Metric



5,6 m - 16,6 m



100%



360° /



0% (front/rear ±  
15° defined arc)



Kilograms

| Radius (m) | Main Boom Length (m) |        |        |       |
|------------|----------------------|--------|--------|-------|
|            | 5,6                  | 9,3    | 13,0   | 16,6  |
| 2.0        | 18,000               | 10,875 |        |       |
| 2.4        | 15,350               | 10,875 | 10,725 |       |
| 3.0        | 13,650               | 10,875 | 9,775  | 7,620 |
| 3.7        | 12,200               | 10,875 | 9,000  | 6,960 |
| 4.3        | 10,675               | 10,875 | 8,185  | 6,395 |
| 4.6        | 8,570                | 10,200 | 7,820  | 6,120 |
| 4.9        |                      | 9,525  | 7,505  | 5,895 |
| 5.5        |                      | 8,365  | 6,915  | 5,485 |
| 6.1        |                      | 7,390  | 6,460  | 5,100 |
| 6.7        |                      | 6,360  | 6,030  | 4,785 |
| 7.3        |                      | 5,560  | 5,555  | 4,505 |
| 7.9        |                      | 4,905  | 4,905  | 4,255 |
| 8.2        |                      | 4,610  | 4,630  | 4,135 |
| 8.5        |                      |        | 4,380  | 4,025 |
| 9.1        |                      |        | 3,940  | 3,820 |
| 9.8        |                      |        | 3,510  | 3,625 |
| 10.4       |                      |        | 3,200  | 3,300 |
| 11.0       |                      |        | 2,930  | 3,020 |
| 11.6       |                      |        | 2,690  | 2,780 |
| 11.9       |                      |        | 2,590  | 2,670 |
| 12.2       |                      |        |        | 2,565 |
| 12.8       |                      |        |        | 2,370 |
| 13.4       |                      |        |        | 2,200 |
| 14.0       |                      |        |        | 2,045 |
| 14.6       |                      |        |        | 1,905 |
| 15.5       |                      |        |        | 1,715 |

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# LOAD CHART

Metric



4,6 m



100%



360°



Kilograms

| Main Boom Angle (°) | 0° Offset           |                     | 15° Offset          |                     | 30° Offset      |
|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------|
|                     | To 13,0 m Main Boom | To 16,6 m Main Boom | To 13,0 m Main Boom | To 16,6 m Main Boom | Any Boom Length |
| 75                  | 4215                | 2945                | 3355                | 2560                | 1585            |
| 70                  | 3875                | 2765                | 3150                | 1970                | 1270            |
| 65                  | 3605                | 2765                | 2945                | 1720                | 1065            |
| 60                  | 3355                | 2560                | 2425                | 1585                | 975             |
| 55                  | 3150                | 1970                | 2060                | 1270                | 860             |
| 50                  | 2945                | 1720                | 1835                | 1065                | 790             |
| 45                  | 2425                | 1585                | 1565                | 975                 | 760             |
| 40                  | 2060                | 1270                | 1495                | 860                 | 700             |
| 35                  | 1835                | 1065                | 1425                | 790                 |                 |
| 30                  | 1565                | 975                 | 1360                | 760                 |                 |
| 25                  | 1495                | 860                 | 1270                | 700                 |                 |
| 20                  | 1425                | 790                 |                     |                     |                 |
| 15                  | 1360                | 760                 |                     |                     |                 |
| 10                  | 1270                | 700                 |                     |                     |                 |

**NOTES:**

1. 4,6 m boom extension may be used for single line lifting service only.
2. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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# LOAD CHART

Metric



| Main Boom Angle (°) | 4,6 m Length        |                     |                     |                     |                 | 7,6 m Length        |                     |                     |                     |                 |
|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------|---------------------|---------------------|---------------------|---------------------|-----------------|
|                     | 0° Offset           |                     | 15° Offset          |                     | 30° Offset      | 0° Offset           |                     | 15° Offset          |                     | 30° Offset      |
|                     | To 13.0 m Main Boom | To 16.6 m Main Boom | To 13.0 m Main Boom | To 16.6 m Main Boom | Any Boom Length | To 13.0 m Main Boom | To 16.6 m Main Boom | To 13.0 m Main Boom | To 16.6 m Main Boom | Any Boom Length |
| 80                  | 3,855               | 3,875               | 2,310               | 2,160               | 1,385           | 2,640               | 2,630               | 1,680               | 1,565               | 995             |
| 75                  | 3,170               | 3,015               | 1,995               | 1,860               | 1,195           | 2,320               | 2,200               | 1,445               | 1,345               | 855             |
| 70                  | 2,690               | 2,530               | 1,715               | 1,605               | 1,035           | 1,960               | 1,845               | 1,240               | 1,160               | 735             |
| 65                  | 2,310               | 2,160               | 1,480               | 1,385               | 900             | 1,680               | 1,565               | 1,065               | 995                 | 640             |
| 60                  | 1,995               | 1,860               | 1,275               | 1,195               | 790             | 1,445               | 1,345               | 915                 | 855                 | 555             |
| 55                  | 1,715               | 1,605               | 1,095               | 1,035               | 705             | 1,240               | 1,160               | 785                 | 735                 | 490             |
| 50                  | 1,480               | 1,385               | 945                 | 900                 | 645             | 1,065               | 995                 | 670                 | 640                 | 445             |
| 45                  | 1,275               | 1,195               | 830                 | 790                 | 620             | 915                 | 855                 | 585                 | 555                 | 430             |
| 40                  | 1,095               | 1,035               | 735                 | 705                 | 620             | 785                 | 735                 | 515                 | 490                 | 430             |
| 35                  | 945                 | 900                 | 675                 | 645                 | 580             | 670                 | 640                 | 470                 | 445                 | 405             |
| 30                  | 830                 | 790                 | 650                 | 620                 | 565             | 585                 | 555                 | 450                 | 430                 | 360             |
| 25                  | 735                 | 705                 | 650                 | 620                 |                 | 515                 | 490                 | 450                 | 430                 |                 |
| 20                  | 675                 | 645                 | 650                 | 580                 |                 | 470                 | 445                 | 405                 | 405                 |                 |
| 15                  | 650                 | 620                 | 565                 | 565                 |                 | 450                 | 430                 | 360                 | 360                 |                 |
| 10                  | 650                 | 620                 |                     |                     |                 | 450                 | 430                 |                     |                     |                 |
| 5                   | 650                 | 580                 |                     |                     |                 | 405                 | 405                 |                     |                     |                 |
| 0                   | 565                 | 565                 |                     |                     |                 | 360                 | 360                 |                     |                     |                 |

**NOTES:**

1. 4,6 m - 7,6 m boom extension may be used for single line lifting service only.
2. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane

# LOAD CHART

Metric



5,6 m -  
16,6 m



Stationary



Defined arc  
over front



Stationary



360°



Pick &  
Carry



Over  
Front



Kilograms

| Radius (m) | Defined Arc 15°<br>Over Front | Stationary 360° |
|------------|-------------------------------|-----------------|
| 2.0        | 6,965                         | 6,735           |
| 2.4        | 6,395                         | 6,145           |
| 3.0        | 5,100                         | 4,895           |
| 3.7        | 4,470                         | 4,025           |
| 4.3        | 3,945                         | 3,365           |
| 4.6        | 3,715                         | 3,080           |
| 4.9        | 3,500                         | 2,880           |
| 5.5        | 3,125                         | 2,670           |
| 6.1        | 2,800                         | 2,300           |
| 6.7        | 2,525                         | 1,980           |
| 7.3        | 2,260                         | 1,705           |
| 7.9        | 2,020                         | 1,470           |
| 8.2        | 1,910                         | 1,365           |
| 8.5        | 1,860                         | 1,275           |
| 9.1        | 1,665                         | 1,220           |
| 9.8        | 1,495                         | 1,170           |
| 10.4       | 1,335                         | 965             |
| 11.0       | 1,195                         | 855             |
| 11.6       | 1,065                         | 745             |
| 11.9       | 1,005                         | 695             |
| 12.2       | 980                           | 640             |
| 12.8       | 955                           | 590             |
| 13.4       | 865                           | 530             |
| 14.0       | 780                           | 465             |
| 14.6       | 700                           | 405             |
| 15.5       | 590                           | 330             |

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with 12.00R20 at 130 psi cold inflation pressure.
3. Capacities are applicable only with machine on a smooth, level and firm surface.
4. Defined Arc - Over front includes 15° on either side of longitudinal centerline of machine.
5. All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
6. For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. Maximum speed is 4,0 km/h.
7. On rubber lifting with boom extension not permitted.

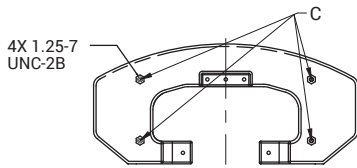
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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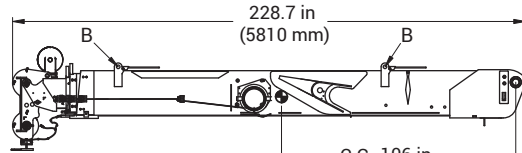
# TRANSPORTATION & LIFTING

1. Lifting of entire crane or major crane assemblies must be accomplished by utilizing specific fittings indicated on adjacent chart. Use of fittings for purposes other than those designated on chart is prohibited. Fitting capacities are maximum allowable loads per individual fitting.
2. Rigging personnel shall be responsible for proper selection and placement of all slings and load handling devices.
3. Dimensions and weights shown are estimated for largest configuration available. Weights do not include boom extension and or jib, unless otherwise indicated.
4. Rigging personnel shall verify dimensions as required for clearance.
5. Do not use counterweight lift locations or boom sling point for lifting or tie down of entire crane.
6. Lifting of the counterweight to be accomplished with a properly rated 1 1/4 inch eyebolt.

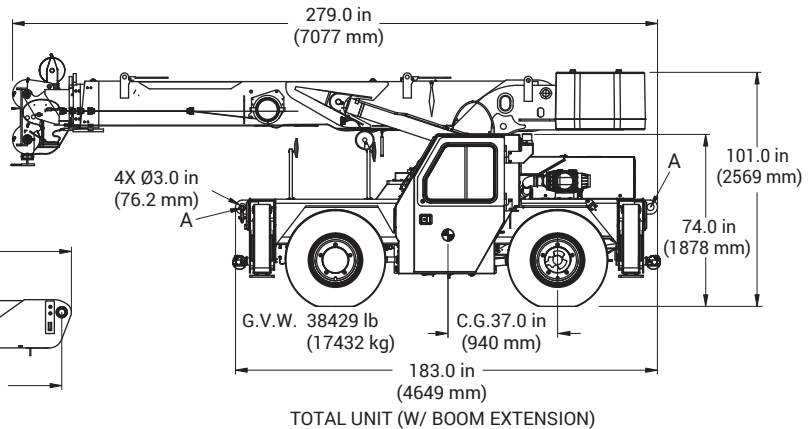
| FITTING | NO. / UNIT | LIFT | TOW | TIE DOWN | BOOM | CWT | CAPACITY Ust (t) |              |              |            |              |      |      |
|---------|------------|------|-----|----------|------|-----|------------------|--------------|--------------|------------|--------------|------|------|
|         |            |      |     |          |      |     | LIFT             | LIFT         | LIFT         | TOW        | TIE DOWN     |      |      |
|         |            |      |     |          |      |     |                  |              |              |            | FORE & AFT   | SIDE | DOWN |
| A       | 4          | X    | X   | X        |      |     | 10<br>(9,1)      | 30<br>(27,2) | 30<br>(27,2) | 1<br>(0,9) | 30<br>(27,2) |      |      |
| B       | 4          |      |     |          | X    |     | 2<br>(1,8)       |              |              |            |              |      |      |
| C       | 4          |      |     |          |      | X   | 1<br>(0,9)       |              |              |            |              |      |      |



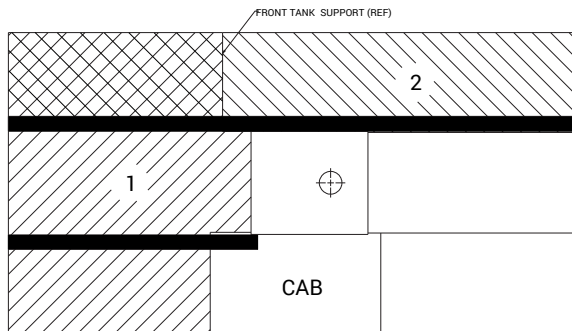
WEIGHT: 10,100 lb ( 4581 kg)



BOOM WEIGHT: 4976 lb (2257 kg)



## Load Distribution For Carrydeck



Maximum Allowable Uniformly Distributed Load

**AREA 1**  
20,000 lb (9071 kg)

OR

**AREA 2**  
9000 lb (4082 kg)

1. Maximum travel speed with any or all loads - 2.5 MPH (4.0 kmh)
2. Loads to be transported on smooth level firm surfaces only.
3. Boom must be retracted and in center forward position, and lowered as much as the load allows.
4. Pick and carry loads may be transported on either Deck Area 1 or Deck Area 2; combined loading of Deck Area 1 and Deck Area 2 not permitted.
5. Lifting is not permitted when carry deck is loaded except for loading and unloading carry deck.
6. The maximum pick and carry loads may be transported on deck area 1 provided the load is centered over the front axle and cribbed directly on the frame rails.

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# LOAD HANDLING

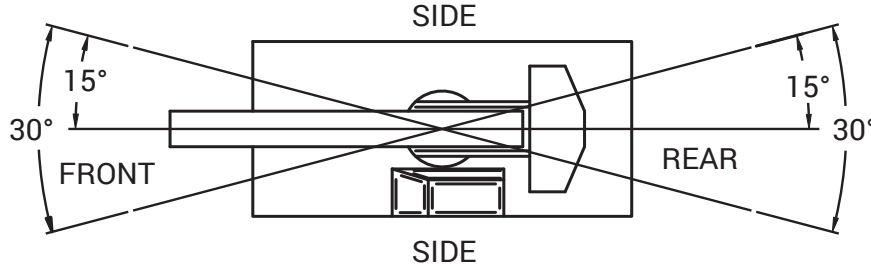
## Weight Reductions for Load Handling Devices

| Offsettable Extensions                                                                                                                                                    |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| *Stowed                                                                                                                                                                   | N/A     |
| *15 ft fixed ext. erected                                                                                                                                                 | 700 lb  |
| *15 ft tele. ext. erected                                                                                                                                                 | 1400 lb |
| *25 ft tele ext. erected                                                                                                                                                  | 1950 lb |
| *Reduction of main boom capacities                                                                                                                                        |         |
| When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity. |         |

| Hook Blocks And Headache Balls                                                                                                                                                                         |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 20 USt, two-sheave hook block                                                                                                                                                                          | 388 lb+ |
| 6.25 USt down haul weight                                                                                                                                                                              | 105 lb+ |
| +Refer to rating plate for actual weight                                                                                                                                                               |         |
| NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Shuttlelift furnished equipment. |         |

| Tire Inflation - Bar (PSI) |            |                                                      |
|----------------------------|------------|------------------------------------------------------|
| Size<br>(Front & Rear)     | Ply Rating | Lifting Service, General Travel<br>& Extended Travel |
|                            |            | Static & 2.5 MPH                                     |
| Continental 12.00R20 RT20  | 18         | 130                                                  |

## Lifting Area Diagram



## Line Pulls and Reeving Information

| Hoists      | Cable Specs.                                                                         | Permissible Line Pulls | Nominal Cable Length |
|-------------|--------------------------------------------------------------------------------------|------------------------|----------------------|
| <b>Main</b> | 9/16" 35x7 class<br>Python Dynamiq Bright EEIPS+<br>Min. breaking strength 50,000 lb | 10,000 lb*             | 320 ft               |

The approximate weight of 9/16" wire rope is 0.65 lb/ft.

\*With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to hoist performance table for lift planning to ensure adequate hoist performance on drum rope layer required.

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# SPECIFICATIONS

## Superstructure



### Boom

18.5 ft – 54.5 ft (5,64 m – 16,61 m) four-section full power boom.  
Maximum tip height: 63 ft (19,2 m)



### \*Optional Boom Extensions

15 ft (4,6 m) fixed swingaway extension.  
Maximum tip height: 76 ft (23,1 m)

15 ft – 25 ft (4,6 m – 7,6 m) telescopic swingaway extension.  
Maximum tip height: 86 ft (26,2 m)  
Both extensions can be offset 0°, -15°, and -30° via pivoting boom nose.



### Boom Nose

Two sheave, quick reeve type with three- pinned pivoting (0°, +40°, and +80°) design to minimize head space requirements. Lowers head height 1.33 ft (40,5 cm) when nose is pivoted fully forward.



### Boom Elevation

Two double acting hydraulic cylinders with integral holding valve. Elevation: 0° to 80°.



### Anti-two Block Device

Standard anti-two block device (hard wired), which, when activated, provides an audible and visual warning to the operator and “locks out” all functions whose movement can cause two-blocking.



### Rated Capacity Limiter (RCL)

Full-color, graphical display of boom angle, boom length, boom radius, rated load, and calculated load. Allows for operator inputs to set the crane configuration. RCL system is hardwired and calculates load via pressure transducers in the lift cylinder. Display includes a color coded light bar and audible alarm with function cut-out if load exceeds the load chart parameters.

\*Optional RCL system includes work area definition (WADS), and is datalogger capable.



### Swing

Ball bearing swing circle with 360° continuous rotation. Worm gear and pinion driven by hydraulic motor. Spring applied, hydraulic released brake. Equipped with swing enable control.

Maximum speed: 2.5 rpm



### Hydraulic System

One pressure compensated variable displacement axial piston pump, with load sensing.

Maximum output of: 155 LPM (41.0 GPM)

Maximum operating pressure: 276 bars (4000 p.s.i.)

Four-section valve bank, chassis mounted, operated via dash mounted pilot pressure hydraulic joystick controllers.

130.6 L (34.5 gal) steel hydraulic reservoir with sight level gauge and steel side plating to guard against side impact.

Return line replaceable filter with by-pass protection and service indicator. Cartridge filter rating of three micron.



### Hoist Specifications

Smooth drum with cable follower.

Maximum hoist pull (first layer): 14,300 lb (63,6 kN)

Maximum permissible single line pull: 10,000 lb (44,5 kN) (3.5:1 design factor)

Maximum single line speed: 210 fpm (64 m/min)

Rope construction: 35 x 7 EEIPS+

Rope diameter: 9/16 in (14 mm)

Rope length: 320 ft (97,5 m)

*\*Denotes optional equipment*

# SPECIFICATIONS

## Carrier



### Chassis

High strength alloy frame constructed with integral outrigger housings; front and rear lifting, tie-down, and towing lugs. Deck carrying capacities of 20,000 lb (9071 kg) or 9000 lb (4082 kg). Deck coated with anti-skid treatment.



### Outriggers

Single stage hydraulic telescoping beam with oblique style jack cylinder on all four corners. Provides extended and down and retracted and down lifting capabilities. Integral holding valve on both beam and jack.

Outrigger positioning indicator located in dash display. Outrigger pad size: 8.75 in x 10 in (222 mm x 254 mm)  
Maximum outrigger pad load: 34,100 lb (15 468 kg)/ 401 p.s.i.



### Outrigger Controls

Independent outrigger control rocker switches for beam or jack selection with a separate extend /retract rocker selector switch. 360° level bubble located inside cab.



### Engine (EPA Tier IV Final /Stage V)

Cummins F3.8L four-cylinder/turbo-charged diesel rated at 90 kW (120 hp) at 2500 rpm. Meets emissions per U.S. EPA Tier IV Final and E.U. Stage V. Includes standard 120V engine block heater and air intake "Grid" heater. Engine hour meter located in dash display. Alternator: 135 amp. Maximum Torque: 500 Nm (369 lb-ft) at 1,500 rpm. Fuel requirements: Maximum of 15 ppm sulphur content Requires "Ultra Low" diesel fuel.



### Engine (EPA Tier III)

Cummins QSF 3.8L Tier III four-cylinder/turbo-charged diesel rated at 97 kW (130 hp) at 2500 rpm. Includes standard 120V engine block heater and air intake "Grid" heater. Engine hour meter located in dash display. Alternator: 135 amp. Maximum Torque: 489 Nm (361 ft/lb) at 1600 rpm.



### Engine (Dual Fuel)

KEM 4.3L V-6 gasoline 90 HP @ 2200 rpm / LP gas engine (07 EPA) 87 HP @ 2200 rpm (LP tank not included) with engine shutdown feature.



### Fuel Tank Capacity

Steel with side impact plate. Capacity: 40 gal (151,4 L).



### Transmission

Powershift with four speeds forward and four reverse. Steering column mounted shifter.



### Operators Control Station

Frame mounted, open air style control station with cab shell includes all crane functions and driving controls and equipped with overhead safety glass. Other standard equipment includes a suspension seat with seat belt, sight level bubble and 1,1 kg (2.5 lb) fire extinguisher, and tilt steering wheel. The dash panel will display the fuel level gauge, water temperature gauge, engine r.p.m., battery voltage, and hour meter. Indicator lights will display parking brake, low transmission pressure, low brake pressure, outrigger position, headlights, work lights (if ordered), and hoist 3rd wrap. Crane function indicator and turn signal indicators are also included. The RCL display will be mounted on the top of the dash panel for direct line of sight for the operator.



### \*Operators Control Station-Enclosed

Includes the standard cab shell and all controls and indicators noted above, with the addition of front, rear, and right side glass, a split (two-piece) hinged door with sliding glass, front windshield wiper and washer, hot water heater and defroster with fan and cab dome light.



### Electrical system

One heavy duty maintenance free 12V battery, 1000CCA at 0°F.



### Drive

Two-wheel (front-wheel) as standard with four-wheel drive as an option. Drive axles supplied with planetary hubs and limited slip differential.

# SPECIFICATIONS

## Carrier (cont.)



### Steering

Standard three steering modes. Front (two-wheel), four-wheel coordinated, and four-wheel crab steer with electronic self alignment. Three position rocker switch located on dash panel.

#### Outside Turning Radius:

Two wheel steer: 19.84 ft (6,05 m)

Four wheel steer: 12.46 ft (3,8 m)



### Suspension/Axles

Front: Drive / steer in both two-wheel drive and four-wheel drive

Rear: non-drive with steer in two-wheel drive, drive/steer in four-wheel drive.

Front axle is rigid mounted to frame. Rear axle offers 1.5° of oscillation.



### Brakes

Hydraulic actuated internal wet-disc service brake acting on each drive wheel. Dash mounted rocker switch with indicator light for activating or release of the dry disc parking brake mounted on the front axle input shaft.



### Tires

Tubeless type, semi-aggressive tread. 12.00 R20



### Lights

Full LED lighting includes turn indicators, head, tail, brake, and hazard warning lights recessed mounted.



### Maximum Speed

21.0 mph (33,8 km/h)



### Gradeability (theoretical)

68% – (to drive train stall) NO LOAD

40% – (to drive train stall) with 20,000 lb (9072 kg) DECK LOAD



### Gross Vehicle Weight (GVW)

Open cab: 36,386 lb (16504 kg) with Tier IV Final / Stage V

Enclosed cab: 36,583 lb (16 594 kg) with Tier IV Final / Stage V

### Miscellaneous Standard Equipment

- Back-up motion alarm
- Non-skid decking
- Towing
- Hoist drum rotation indicator
- Outrigger motion alarm
- Front and rear lifting
- Tie-down lugs
- Hoist third wrap indicator with hoist function cut-out

### \* Optional equipment

- Auxiliary lighting: includes cab mounted amber flashing light and dual base boom mounted LED work lights
- Convenience package: includes front and rear pintle hitch, dual rear view mirrors, head and tail light metal mesh grille covers
- Enclosed cab package: includes heater and defroster, cab dome light, all window glass, and two-piece split door
- Four-wheel drive
- Below deck hydraulic tow winch with 10,000 lb (4536 kg) capacity
- 15 ft (4,6 m) fixed boom extension
- 15 ft – 25 ft (4,6 m – 7,6 m) telescopic boom extension
- Air conditioning (closed cab option required)
- 360° swing lock
- Vertical light bar
- Auxiliary hydraulic oil cooler

# SYMBOLS GLOSSARY



Axles



Chassis



Gross Vehicle Weight (GVW)



Rotation



Anti-Two Block Device



Counterweight



Hoist



Speed



Boom



Drive



Hydraulic System



Steering



Boom Elevation



Electrical System



Lights



Swing



Boom Extension



Engine



Outriggers



Tires



Boom Nose



Extension



Outrigger Controls



Transmission



Brakes



Fuel Tank Capacity



Radius



Cab



Gradeability



Rated Capacity Limiter (RCL)

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