

Manitex



50155GT



















50-ton (45.3mt) RUBBER TRACKED CRANE
50155GT SERIES PRODUCT GUIDE

















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KEY

| | |
|-------------------------------------------------------------------------------------|------------------------------------------|
|  | Operator aids / Load limiter / Indicator |
|  | Cab |
|  | Heating/Air conditioning |
|  | Controls |
|  | Hoist line speed |
|  | 1 - Main hoist 2 - Auxiliary 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 |
|  | Removable counterweight system |
|  | Counterweight |
|  | Radio remote control |

| | |
|-------------------------------------------------------------------------------------|---------------------------------------|
|  | Hook block |
|  | Distance from hook to head sheave pin |
|  | Hook and ball |
|  | Hydraulics |
|  | Max. boom length with extension |
|  | Boom extension with offset |
|  | Boom angle |
|  | Telescoping mode |
|  | Working radius |
|  | Boom length |
|  | Hydraulic actuated boom |
|  | Mechanical synchronized |
|  | Boom head / Hook block dimension |
|  | Main boom with auxiliary head |
|  | Tip height |
|  | 2-Person man basket |

THE 50155GT RUBBER TRACKED CRANE

CONQUER CHALLENGING ENVIRONMENTS.

The new Manitex 50155GT Rubber-Tracked Crane is the highest-capacity crane ever mounted on a rubber-tracked carrier.

With its wide tracks, 50-ton capacity and 200-foot tip height, the 50155GT is designed not to exceed 4.5 lbs. per square inch of pressure (psi) so you can:

- Traverse rough terrain to construct and maintain non-energized electrical transmission lines
- Operate in soft, marshy or muddy ground within mines to perform routine maintenance where traditional "wheeled" cranes cannot operate effectively

Plus, with an overall height of under 11-feet, 1-inch the crane can be hauled to and from worksites without having to obtain costly over-height transportation permits.

The new 50155GT combines proven components from three industry leaders:

- The upperworks of a Manitex 50155 truck mounted crane
- A low-profile pedestal
- Prinoth® Go-Tract® 4500 tracked carrier

THE BEST OF ALL WORLDS



With the 50155GT, you can:

- **Conquer challenging environments.** The unit's lightweight, 43-inch wide tracks keep ground-bearing pressure to about 4.5 psi, so you can travel on soft or marshy ground.
- **See clearly.** The 50155GT cab tilts up as much as 20° so the operator can see the boom clearly and without neck strain.
- **Reach farther/lift more.** With its outriggers fully extended, the 50155GT can lift 50 tons at 6' radius and has the ability to lift a two-person work platform to a height of 200 feet.
- **Lift confidently.** The built-in full-color load-moment indicator sounds a warning or interrupts boom functions when lift limitations are exceeded.
- **Avoid over-height permits and fees.** With an overall height of just under 11'1" you can haul the crane to and from worksites without having to obtain costly over-height permits.
- **Meet the latest EPA tiered engine requirements.** The Caterpillar® C9 Tier 3 diesel engine complies with the newly established U.S. Environmental Protection Agency (EPA) air emissions standards.

PRINOTH SPECS

DIMENSIONS

| | |
|----------------------------------|-----------------------|
| Shipping weight (basic vehicle) | 15,678 kg (34,563 lb) |
| Overall length without extension | 7,488 mm (295 in) |
| Overall width | 3,480 mm (137 in) |
| Overall height | 3,043 mm (119,8 in) |
| Ground clearance | 533 mm (21 in) |

PERFORMANCE

| | |
|---------------------------------------------|---------------------------------|
| Payload | 20,865 kg (46,000 lb) |
| Maximum speed | 10 km/h (6.3 mph) |
| Fording depth | 1,219 mm (48 in) |
| Turning radius | 0 m (0 ft) |
| Ground pressure @ 150 mm (6 in) penetration | |
| Basic vehicle | 135 g/cm ² (1.9 psi) |
| Loaded vehicle | 310 g/cm ² (4.4 psi) |
| Maximum gradeability | |
| Uphill/downhill | 60% (31°) |
| Sidehill | 40% (21.8°) |

ENGINE

| | |
|------------------------|--------------------------------------------------------------------|
| Make | Caterpillar |
| Model | C9 |
| Type | Turbo diesel, electronic fuel system, EPA Tier 3 and EU Stage IIIA |
| Number of cylinders | 6 |
| Displacement | 8.8 L (537 in ³) |
| Horsepower @ 2,200 RPM | 280 kW (375 hp) |
| Torque @ 1,400 RPM | 1,668 N·m (1,230 lb·ft) |

TRANSMISSION

| | |
|---------------------|---------------|
| | Make |
| Pump drive | Funk |
| Hydrostatic pumps | Sauer-Danfoss |
| Hydrostatic motors | Rexroth |
| Planetary gearboxes | Fairfield |

CONTROLS

| | |
|----------------|------------------------------------------------------------------------------|
| Type | Microcontroller with color display |
| Inputs | Steering wheel, progressive forward, neutral, reverse lever, and speed pedal |
| Outputs | Independent control of each track |
| Other features | Anti-stall, fault code diagnostic and auto-calibration |

ELECTRICAL SYSTEM

| | |
|------------------|---------------|
| Voltage | 12 V |
| Alternator | 145 A |
| Battery capacity | 3 x 1,010 CCA |

UNDERCARRIAGE

| | |
|------|--------------|
| Type | Walking beam |
|------|--------------|

WHEELS

| | |
|------------|------------------------------------|
| Quantity | 10 |
| Type | Solid |
| Dimensions | 221 mm x 920 mm (8.7 in x 36.2 in) |

TRACKS

| | |
|-----------|------------------------|
| Type | D-dent, hardened steel |
| Width | 1,092 mm (43 in) |
| Belt | Rubber, 7 plies |
| Tensioner | Grease-filled cylinder |

CHASSIS

| | |
|---------------|-----|
| Type | Tub |
| Drain plug | Yes |
| Access panels | Yes |

CAPACITIES

| | |
|------------------|--------------------|
| Cooling system | 38 L (10 US gal) |
| Fuel tank | 455 L (120 US gal) |
| Hydrostatic tank | 63 L (16 US gal) |

PROVISION FOR EXTRA HYDRAULIC PUMP

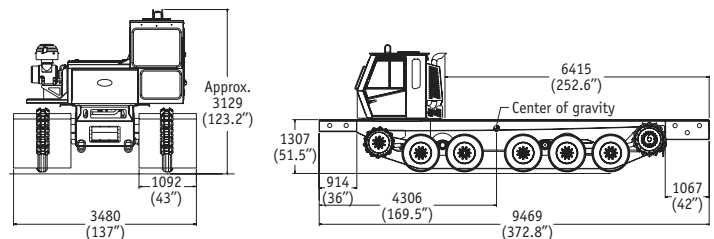
| | |
|-----------------------|----------------------------------|
| Location | Top pad on triple pump drive |
| Flange type | SAE B – 4 in diameter pilot |
| Shaft type | SAE B – 13 teeth, 16/32 pitch |
| Direction of rotation | CCW (when looking at pump shaft) |
| Max. rotational speed | 3,058 RPM |

OPTIONAL EQUIPMENT

- Rear pintle hook
- External mirrors (heated available)
- Amber beacon light with protector
- Remote-controlled directional spotlight
- Electronic inclinometer
- Air conditioning
- Maintenance kit, 500 h or 2 000 h, includes all filters for air/fuel/hydrostatic
- Radio CD AM/FM
- Toolkit
- First aid kit
- ESPAR D5 engine coolant heater, with a 7-day timer
- Satellite boosting lug
- Spare parts kit
- Dash display module with rear view camera
- Custom options available upon request: winch, blade, dump box, etc.
- Tool for track installation



GO-TRACT™ 4500 TECHNICAL DATA



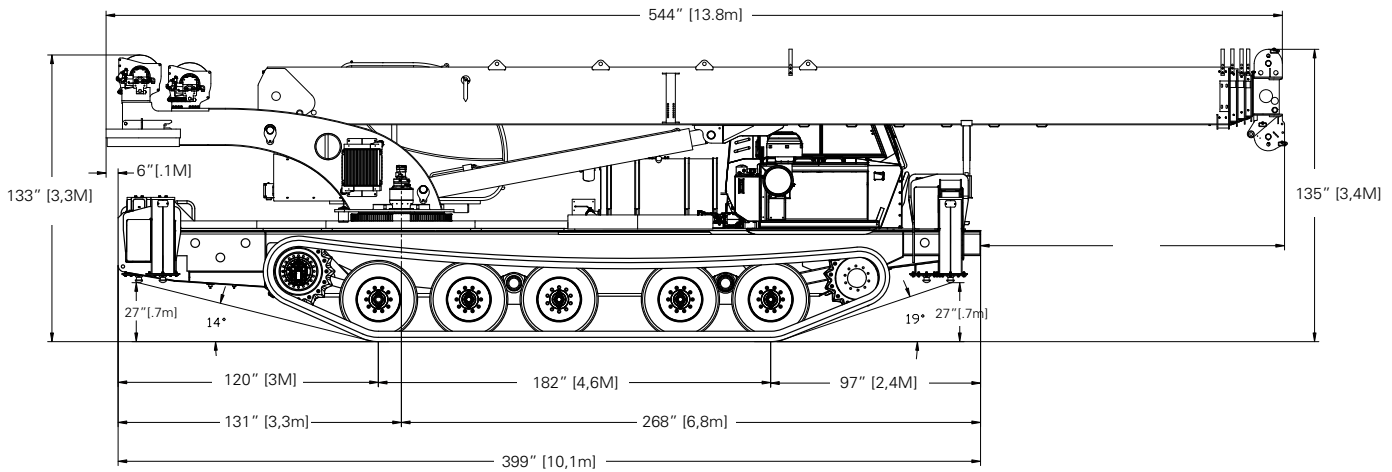
Optional equipment shown

Sales and service sites in your area can be found on www.prinOTH.com

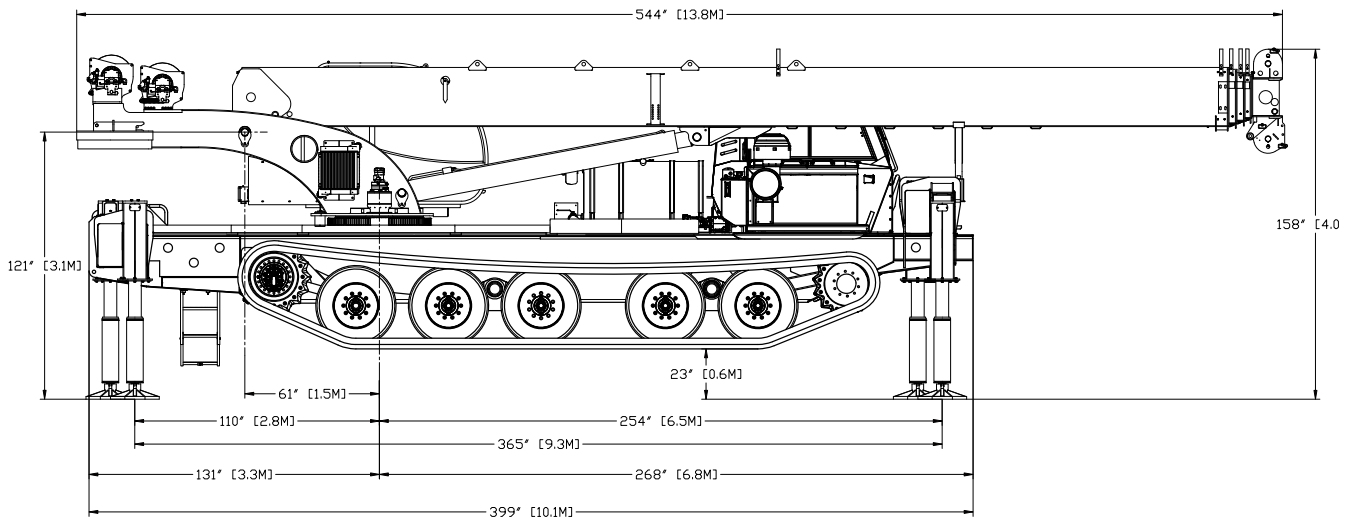
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CHASSIS DIMENSIONS

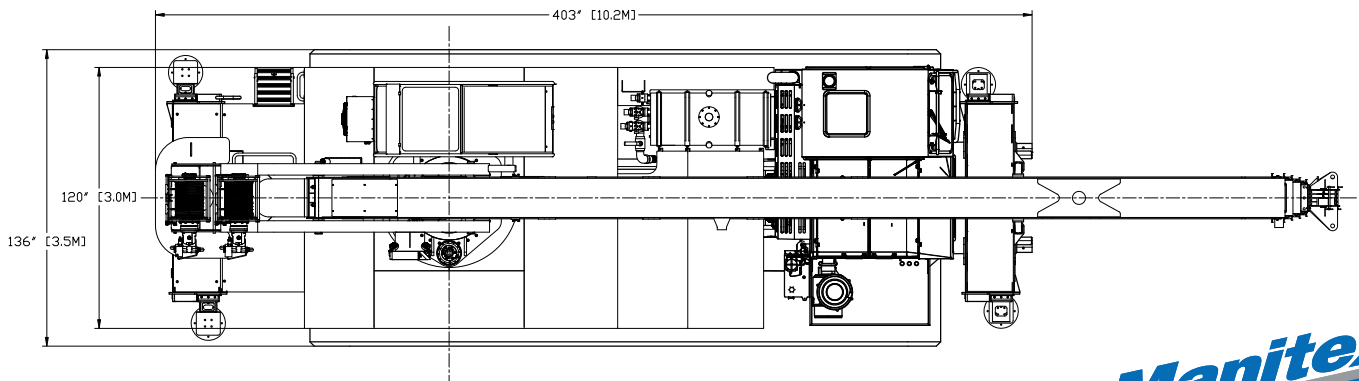
SIDE VIEW ON GROUND



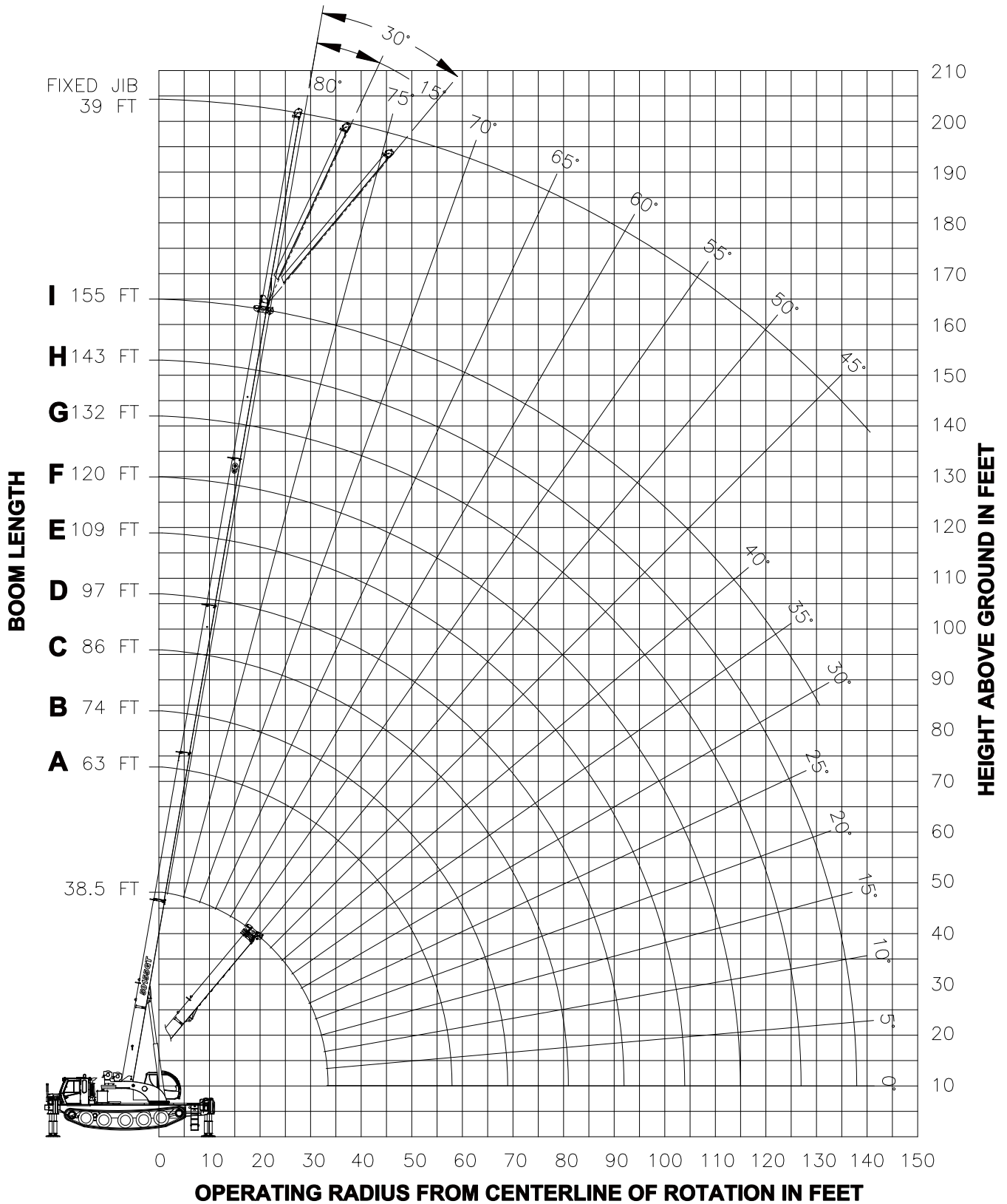
SIDE VIEW ON OUTRIGGERS



TOP VIEW



BOOM DIAGRAM









Data published herein is intended as a guide only. Crane operation is subject to the computer charts and operation manual supplied with the crane.

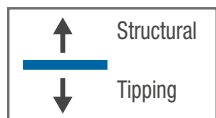
LOAD CHART: Main Boom

Lifting Capacities 5 Section Boom 38.5 ft. - 155 ft.

 23 ft. 3 in.

 360°

| | 38.5 ft. Boom | | 63 ft. Boom | | 74 ft. Boom | | 86 ft. Boom | | 97 ft. Boom | |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|
|  |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |
| 6 ft. | 74.5 | 100,000 | | | | | | | | |
| 8 ft. | 71 | 85,500 | | | | | | | | |
| 10 ft. | 68 | 74,200 | 77.5 | 40,000 | | | | | | |
| 12 ft. | 64.5 | 65,500 | 75.5 | 40,000 | 78.5 | 37,700 | | | | |
| 15 ft. | 59.5 | 55,400 | 73 | 40,000 | 76 | 36,340 | 78.5 | 31,000 | | |
| 20 ft. | 50 | 43,200 | 68 | 38,250 | 72 | 33,380 | 75 | 28,200 | 77.5 | 24,120 |
| 25 ft. | 39.5 | 33,800 | 63 | 34,200 | 68 | 30,620 | 72 | 25,970 | 74.5 | 22,200 |
| 30 ft. | 25 | 24,510 | 57.5 | 26,940 | 63.5 | 27,220 | 68 | 23,950 | 71.5 | 20,480 |
| 35 ft. | | | 51.5 | 20,820 | 59 | 21,080 | 64.5 | 21,290 | 68.5 | 18,670 |
| 40 ft. | | | 45.5 | 16,560 | 54 | 16,820 | 60.5 | 17,010 | 65 | 17,150 |
| 45 ft. | | | 38.5 | 13,410 | 49 | 13,680 | 56 | 13,870 | 61.5 | 14,000 |
| 50 ft. | | | 30 | 10,990 | 43 | 11,270 | 52 | 11,460 | 58 | 11,590 |
| 55 ft. | | | 18.5 | 9,050 | 37 | 9,350 | 47.5 | 9,550 | 54 | 9,680 |
| 60 ft. | | | | | 29.5 | 7,790 | 42.5 | 8,000 | 50 | 8,130 |
| 65 ft. | | | | | 20 | 6,480 | 37 | 6,710 | 46 | 6,840 |
| 70 ft. | | | | | | | 30.5 | 5,620 | 41.5 | 5,760 |
| 75 ft. | | | | | | | 23 | 4,690 | 36.5 | 4,840 |
| 80 ft. | | | | | | | 10 | 2,570 | 30.5 | 4,030 |
| 85 ft. | | | | | | | | | 23.5 | 3,330 |
| 90 ft. | | | | | | | | | 13 | 2,190 |
| STOWED JIB | 960 lbs. | | 590 lbs. | | 500 lbs. | | 430 lbs. | | 390 lbs. | |
| ERECTED JIB | 2,620 lbs. | | 2,270 lbs. | | 2,190 lbs. | | 2,130 lbs. | | 2,080 lbs. | |
| DEDUCTIONS FOR MAIN BOOM CAPACITIES | | | | | | | | | | |



NOTES:

- All loads rated at 360° pick
- Loads based on crane on outriggers
- 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 the computer charts and operation manual supplied with the crane.








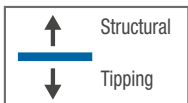
LOAD CHART: Main Boom

Lifting Capacities 5 Section Boom 38.5 ft. - 155 ft.

 23 ft. 3 in.

 360°

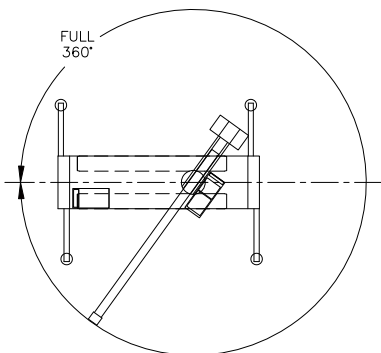
| | 109 ft. Boom | | 120 ft. Boom | | 132 ft. Boom | | 143 ft. Boom | | 155 ft. Boom | |
|-------------------------------------|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|
| |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |
| 25 ft. | 77.5 | 18,000 | 79 | 16,260 | | | | | | |
| 30 ft. | 74.5 | 17,000 | 76.5 | 15,280 | 78.5 | 13,500 | 80 | 11,500 | | |
| 35 ft. | 71.5 | 15,920 | 74 | 14,270 | 76.5 | 12,900 | 78 | 11,300 | 79 | 9,000 |
| 40 ft. | 68.5 | 14,700 | 71.5 | 13,310 | 74 | 12,000 | 76 | 11,000 | 77 | 9,000 |
| 45 ft. | 65.5 | 13,570 | 69 | 12,410 | 71.5 | 11,300 | 74 | 10,460 | 75.5 | 9,000 |
| 50 ft. | 62.5 | 11,690 | 66.5 | 11,600 | 69.5 | 10,550 | 71.5 | 9,460 | 73.5 | 8,800 |
| 55 ft. | 59.5 | 9,780 | 63.5 | 9,850 | 67 | 9,610 | 69.5 | 8,880 | 72 | 8,320 |
| 60 ft. | 56.5 | 8,230 | 60.5 | 8,300 | 64.5 | 8,360 | 67.5 | 8,330 | 70 | 7,820 |
| 65 ft. | 53 | 6,950 | 57.5 | 7,020 | 62 | 7,080 | 65.5 | 7,120 | 68 | 7,160 |
| 70 ft. | 49.5 | 5,870 | 54 | 5,940 | 59 | 6,000 | 62.5 | 6,040 | 65.5 | 6,080 |
| 75 ft. | 46 | 4,940 | 51 | 5,020 | 56 | 5,080 | 60 | 5,120 | 63.5 | 5,160 |
| 80 ft. | 42 | 4,150 | 47.5 | 4,220 | 53 | 4,280 | 57 | 4,330 | 61 | 4,360 |
| 85 ft. | 37.5 | 3,450 | 44 | 3,530 | 50 | 3,590 | 54.5 | 3,630 | 58.5 | 3,670 |
| 90 ft. | 32.5 | 2,830 | 40 | 2,910 | 47 | 2,980 | 52 | 3,020 | 56 | 3,060 |
| 95 ft. | 26.5 | 2,280 | 36 | 2,370 | 43.5 | 2,430 | 49 | 2,480 | 53.5 | 2,520 |
| 100 ft. | 18.5 | 1,780 | 31.5 | 1,880 | 40 | 1,950 | 46 | 1,990 | 51 | 2,030 |
| 105 ft. | | | 26.5 | 1,440 | 36 | 1,510 | 43 | 1,560 | 48.5 | 1,600 |
| 110 ft. | | | 19 | 1,030 | 32 | 1,110 | 39.5 | 1,160 | 45.5 | 1,210 |
| 115 ft. | | | | | 27 | 750 | 36 | 810 | 43 | 850 |
| 120 ft. | | | | | | | | | | |
| STOWED JIB | 340 lbs. | | 310 lbs. | | 280 lbs. | | 260 lbs. | | 240 lbs. | |
| ERECTED JIB | 2,050 lbs. | | 2,020 lbs. | | 1,990 lbs. | | 1,970 lbs. | | 1,950 lbs. | |
| DEDUCTIONS FOR MAIN BOOM CAPACITIES | | | | | | | | | | |



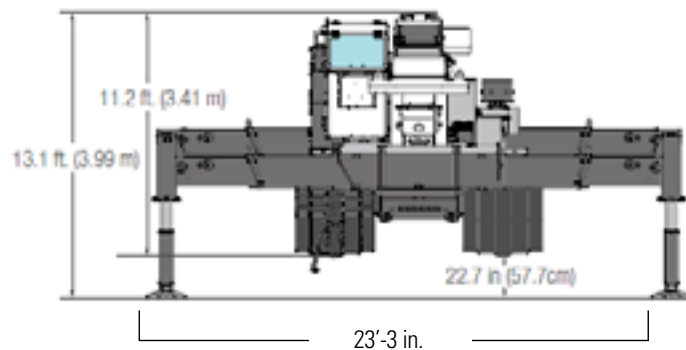
NOTES:

- All loads rated at 360° pick
- Loads based on crane on outriggers
- 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

AREA OF OPERATION






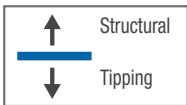
DIMENSIONS



JIB CHART

39 ft. Fixed Jib - 0° Offset - O/R's Extended


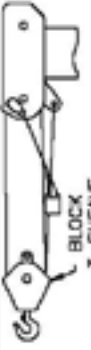








| | LMI CODE 8 – 0° Offset | | LMI CODE 10 – 15° Offset | | LMI CODE 12 – 30° Offset | |
|---------|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|
| |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |  | 360° Deg (lbs.) |
| 40 ft. | 79.5 | 4,000 | | | | |
| 45 ft. | 78 | 4,000 | | | | |
| 50 ft. | 77 | 4,000 | 79.5 | 4,000 | | |
| 55 ft. | 75.5 | 4,000 | 78 | 4,000 | | |
| 60 ft. | 74 | 4,000 | 76.5 | 4,000 | 79.5 | 4,000 |
| 65 ft. | 72.5 | 4,000 | 75 | 4,000 | 77.5 | 4,000 |
| 70 ft. | 71 | 4,000 | 73.5 | 4,000 | 76 | 4,000 |
| 75 ft. | 69.5 | 4,000 | 72 | 4,000 | 74.5 | 3,880 |
| 80 ft. | 68 | 4,000 | 71 | 3,940 | 73 | 3,730 |
| 85 ft. | 66.5 | 3,360 | 69.5 | 3,780 | 71.5 | 3,570 |
| 90 ft. | 64.5 | 2,750 | 67.5 | 3,350 | 70 | 3,430 |
| 95 ft. | 63 | 2,210 | 66 | 2,760 | 68 | 3,230 |
| 100 ft. | 61 | 1,740 | 64.5 | 2,250 | 66 | 2,670 |
| 105 ft. | 59 | 1,310 | 62 | 1,780 | 64.5 | 2,170 |
| 110 ft. | 57 | 930 | 60 | 1,370 | 62.5 | 1,720 |
| 115 ft. | | | 58 | 990 | 60.5 | 1,310 |
| 120 ft. | | | | | 58 | 940 |



NOTES:


- All loads rated at 360° pick
- Loads based on crane on outriggers
- 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

REEVING DIAGRAM

| 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 | 8 PART LINE | 9 PART LINE | 10 PART LINE | |
|  |  |  |  |  |  |  |  |  |  | |
| 10000 LBS | 20000 LBS | 30000 LBS | 40000 LBS | 50000 LBS | 60000 LBS | 70000 LBS | 80000 LBS | 90000 LBS | 100000 LBS | <p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p>REFER TO THE OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.</p> |
| <p>5/8" 6 X 19 CLASS (3.5:1 SF) 35,000 LBS MIN BREAKING STRENGTH</p> <p>5/8" ROT RESISTANT (5:1 SF) 50,000 LBS MIN BREAKING STRENGTH</p> | | | | | | | | | | |


TECHNICAL DESCRIPTIONS & OPTIONS


Boom

 Boom lengths: Proportional boom


- 5-section 155 ft. (47.2 m)


5-sheave quick reeve boom point
Self lubricating slider pads


 Boom max. tip height: 157 ft. - 164 ft. (47,9 m - 50,0 m)

 Boom angle (min/max): -6° / 80°


Rotation

 Ball-bearing swing circle with external gear
Double-reduction planetary gearbox driven by hydraulic motor
Selectable Free Swing or no Free Swing Switch


 Slewing brake: Spring-applied pressure released automatic brake

 Slewing speed: 1.5 - 2 rpm. (nominal)
Boom rotation: 360° continuous


Outriggers

 Outriggers: Out-and-down style
Outrigger monitoring system (for verification only)
Outrigger motion alarm
Full extension


- Front and rear: 23.25 ft. (7,0 m)


 ROC Solid - Radio operated handheld controller for outrigger and FBS setup


Operator aids


 Wired LMI with crane function cut-offs for overload protection, wired anti-two block system, graphical display, event recorder, WADS - Work Area Definition System


Hoist, Rope and Hook


 Maximum theoretical line speed: 453 fpm (138 mpm)

 Maximum theoretical bottom-layer line pull: 13,050 lbs. (5,919 kg)


 Main winch cable diameter: 5/8 in. (15,9 mm) rotation resistant

 Line length: 500 ft. (152 m)


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


 Load block: 5T (4.5 mt) capacity hook with heavy-duty swivel and weight is provided for single line operation.

Hydraulics

 Hydraulic reservoir capacity: 155 gal. (587 L)
3 Variable Flow Load Sensing Pump

Tiltable Cab/Cab Controls


 Standard features:
Curved glass, 0° to 20° cab tilt, Automotive door, heated cloth seat, 8 seat adjustments, lumbar support and adjustable head rest, sliding windows, rear pop out window, top hinged hatch, standard diesel fired heater, retractable sun screen, 12 volt DC outlet, E-coated cab (10 year rust warranty)

 Controls:
PLC crane controller, CANBUS communication, J1939 truck engine communication capability, electronic hand and foot throttle, Hirschmann/PAT iScout D3 LMI system


OPTIONS

Hoist, Rope and Hook

Auxiliary winch same as main winch, includes rooster sheave
2nd overhaul ball available
3rd wrap limiter main and auxiliary winch

 Auxiliary lower sheave block for 2-9 part lines
Load blocks 1-7, 4-8, 2-8, 9-10 part lines


Boom

 1-section fixed jib: 39 ft. (11,8 m)
Max tip height w/ext = 202 ft. (61,7 m)
Max tip height w/ ext retracted: 157 ft - 164 ft (47,8m - 50 m)

Cab

- Air conditioner
- Engine monitoring system
- Cab weather band radio system
- Video camera (1 or 2)
- Wireless wind speed indicator
- Work lights


Operator Aids

 4-function radio remote crane control system either with paddles or joy sticks

- 900 Mhz
- 433 Mhz

Remote Winch Control System for main and auxiliary winches

2-Person Basket

 Consult Manitex for specific application and rating

- 2-person quick attach rotating basket
- Aluminum or Steel
- Aluminum Basket Capacity on Boom is 1200 lbs.

Tool Boxes & Platforms

Tool Boxes

- 24 " L x 18" w x 18" H - Steel (610 mm L x 457 mm W x 457 mm H)
- 48 " L X 24" W x 24" H - Aluminum (1219 mm L x 610 mm W x 610 mm H)
- 48 " L X 24" W x 24" H - Aluminum Top MTD-Swing Door (1219 mm L x 610 mm W x 610 mm H)



50155GT

50-ton (45.3mt) RUBBER TRACKED CRANE
50155GT SERIES PRODUCT GUIDE

UPTime is the Manیتex commitment to complete support of thousands of units working every day.

MANITEX

3000 South Austin Avenue
Georgetown, Texas 78626

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