

**Manitex**



**CD100i**

**10-ton (9,07mt) CARRY DECK CRANE  
PRODUCT GUIDE**

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Refer to the appropriate Operator's Manual and Load Charts for instructions on the proper use of this equipment to determine allowable crane lifting capacities, assembly and operating procedures.

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# KEY

	Engine
	Steering
	Gross vehicle weight
	Weight on rear axle
	Standard (without hook block)
	Operator aids
	Operator's station
	Heating / Air conditioning
	Controls
	Hoist speed
	1 - Main hoist 2 - Auxiliary winch 3 - Recovery winch
	Rope length
	Rope - standard/optional
	Rope diameter
	Maximum line pull
	Slewing / Allowable slewing range
	Slewing gears
	Slewing brake
	Outriggers / Lifting on outriggers
	Frame

	Mechanical transmission
	Tires
	Hydraulics
	Weight on front axle
	Lifting on wheels / Pick & Carry
	Maximum gradeability
	Hook block
	Hook and ball
	Boom elevation angle
	Max. boom length with extension
	Boom with extension retracted
	Telescoping mode
	Working radius
	Boom length
	Hydraulic actuated boom
	Full power mechanical synchronized
	Tip height
	Lights
	Electrical system
	Maximum speed



## THE CD100i CARRY DECK CRANE

### Tight space? No problem!

The Manitex CD100i is our new industrial crane designed to lift loads that can't easily be reached by a traditional crane or forklift. The 10-ton, cab-down crane maneuvers smoothly through cramped machine shops or shipyards and, with its unique outrigger system, can be positioned close to the load. It offers:

- Multiple steering modes (2 Wheel, Crab, Coordinated)
- Powershift transmission with 4 forward - 3 reverse speeds
- Maximum travel speed of 17.9 mph (28.8 kph)

### Other features include:

- Rated capacity: 10-ton (8,2 mt) at 5 ft. (1,5 m) working radius
- Max. boom length: 25.4 ft. (7,7 m)
- Max. tip height: 40 ft. (10,1 m)
- Load Indicator System

### OUTRIGGERS

Lift confidently. Out-and-down outriggers extend adding stability, letting you inch closer to the load.



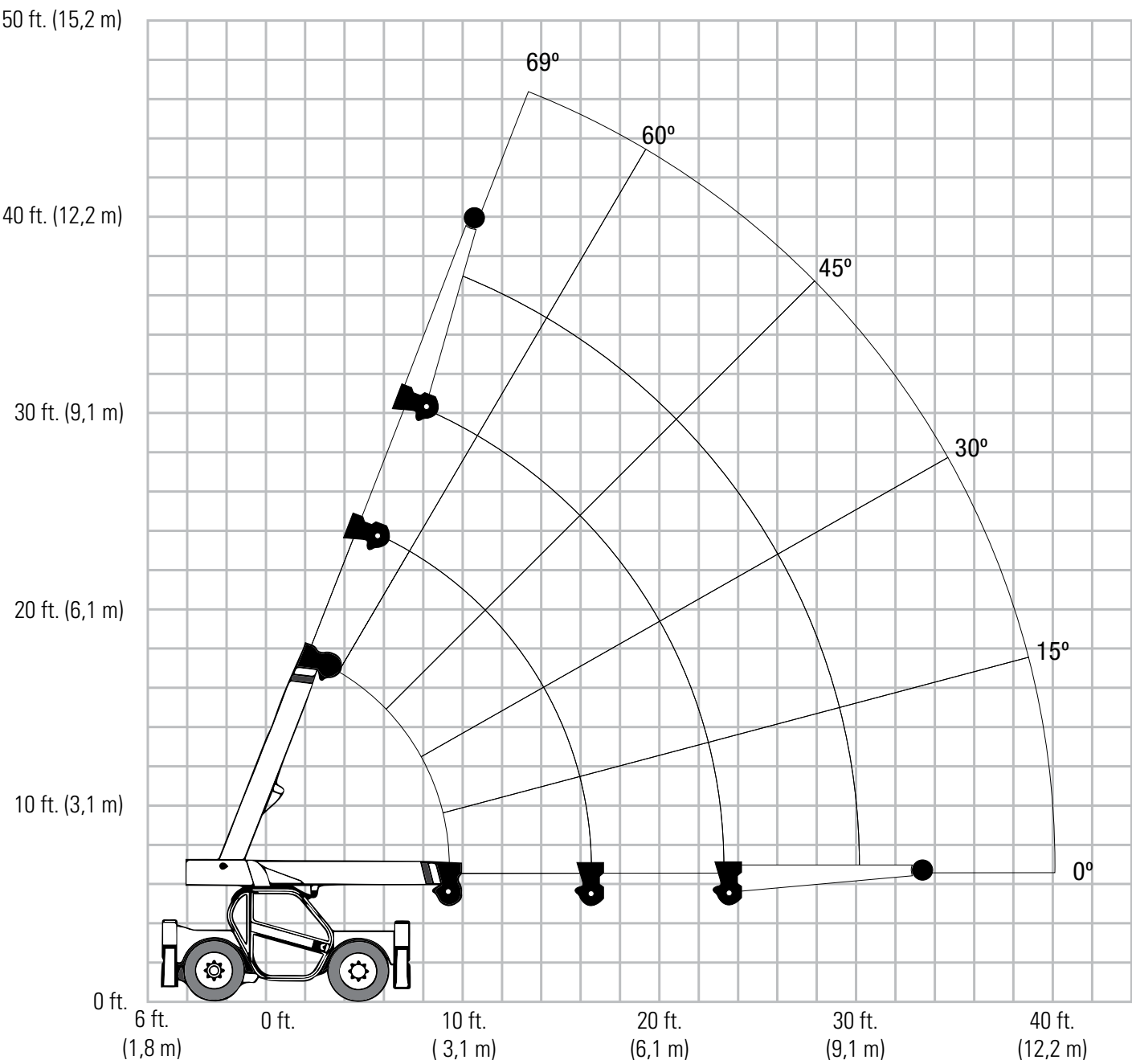
### OPERATOR AIDS

Work smarter. Greer's Insight LMI system allows the operator quick access to critical data in high-resolution VGA graphics.



# BOOM DIAGRAM

Imperial & Metric Units




## CRANE WEIGHT

Standard (without hook block):	16,535 lbs. (7,500 kg)
--------------------------------	------------------------


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 & Jib

Lifting Capacities 3 Section Boom 11.6 ft. - 25.4 ft.  
9.9 ft. (3 m) Fixed Jib

 11.3 ft. (3,5 m) (100%)

 360° Continuous

CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACES						
	On Outriggers		On Rubber Static		On Rubber - 2.5 mph	On Retracted Outriggers
	360° Rotation	40° Front	360° Rotation	6° Front	Front	360° Rotation
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
	ft.	Max. 69° Min 12°	Max. 69° Min 12°	Max. 69° Min 12°	Max. 69° Min 12°	Max. 69° Min 12°
MAIN BOOM	5	20,000	20,000	12,083	16,835	15,657
	6	17,153	17,153	10,464	14,612	13,589
	8	14,082	14,082	6,851	11,329	10,536
	10	11,700	11,700	4,609	8,788	8,173
	12	9,529	9,825	3,363	6,247	6,247
	14	7,094	8,050	2,491	4,765	4,765
	16	5,718	7,200	1,993	3,706	3,706
	18	4,765	6,400	1,619	2,965	2,965
	20	3,918	5,506	1,246	2,329	2,329
	22	3,388	4,659	997	2,012	2,012
	23	—	4,024	810	1,747	1,747
	24	—	—	—	—	—
MAIN BOOM + JIB	13	8,047	8,047	—	—	—
	14	7,200	8,047	—	—	—
	16	5,824	7,518	—	—	—
	18	4,976	6,565	—	—	—
	20	4,024	5,506	—	—	—
	22	3,494	4,659	—	—	—
	24	2,965	4,024	—	—	—
	26	2,541	3,388	—	—	—
	28	2,224	3,071	—	—	—
	30	2,012	2,647	—	—	—
	32	1,800	2,329	—	—	—

## ON OUTRIGGERS

- The tabulated loads are the maximum loads covered by the manufacturer's guarantees. Rated loads for retracted outrigger chart never exceeds 80%. They are given in pounds and include the weight of hook blocks and other hoisting equipment. Their weight must be subtracted from the listed rated lifting capacity to obtain the net load that can be lifted (Also see page 7 for rated load deductions).
- The tires shall be raised clear of the ground and free of crane weight before operating boom or lifting loads.
- All outrigger beams must be extended to the same length; fully extended.
- The crane should be raised and positioned horizontally on outriggers.
- Operating at outrigger positions other than the above is neither intended nor approved.

## ON TIRES

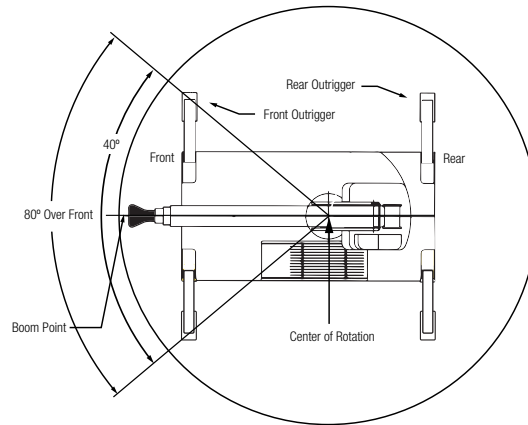
- The tabulated loads are the maximum loads covered by the manufacturer's guarantees. The rated loads never exceed 75% of the tipping load. They are given in pounds and include the weight of hook blocks and other hoisting equipment. Their weight must be subtracted from the listed rated lifting capacity to obtain the net load that can be lifted (also see page 7 for rated load deductions).
- Crane lifting capacities require lifting from main boom head only on a smooth and level surface.
- Crane lifting capacities on tires depend on tire capacity, condition of the tires and tire air pressure. Tires must be inflated to the recommended pressure before lifting (see operator's manual). The recommended pressures are indicated either in the cab or next to the wheels. When handling loads in the structural range with capacities close to maximum ratings, travel should be limited to "creep speed." 2.5 mph capacities are permissible on main boom only, NOT on boom extension.
- For pick and carry operations, the boom must be centered over the front of the machine, the mechanical swing lock engaged and the load must be restrained from swing.
- Do not travel with boom extension erected. Creep: motion less than 200 feet in a 30 minute period and not exceeding 1 mph.

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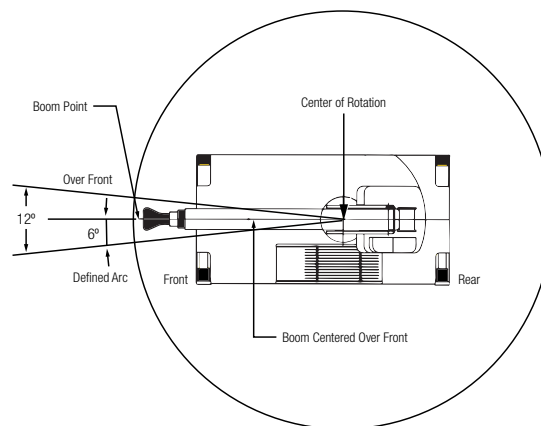


# AREA OF OPERATION

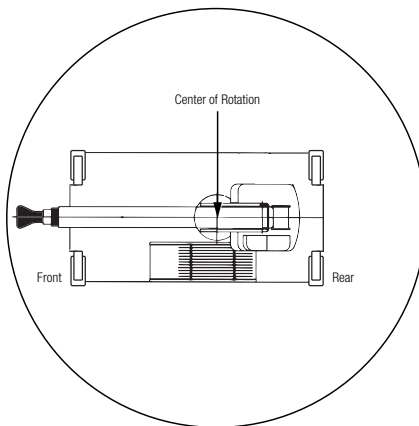
## On Outriggers



## On Tires



## Outrigger retracted 360°



## Deductions from rated loads for load handling devices supplied by Manitex

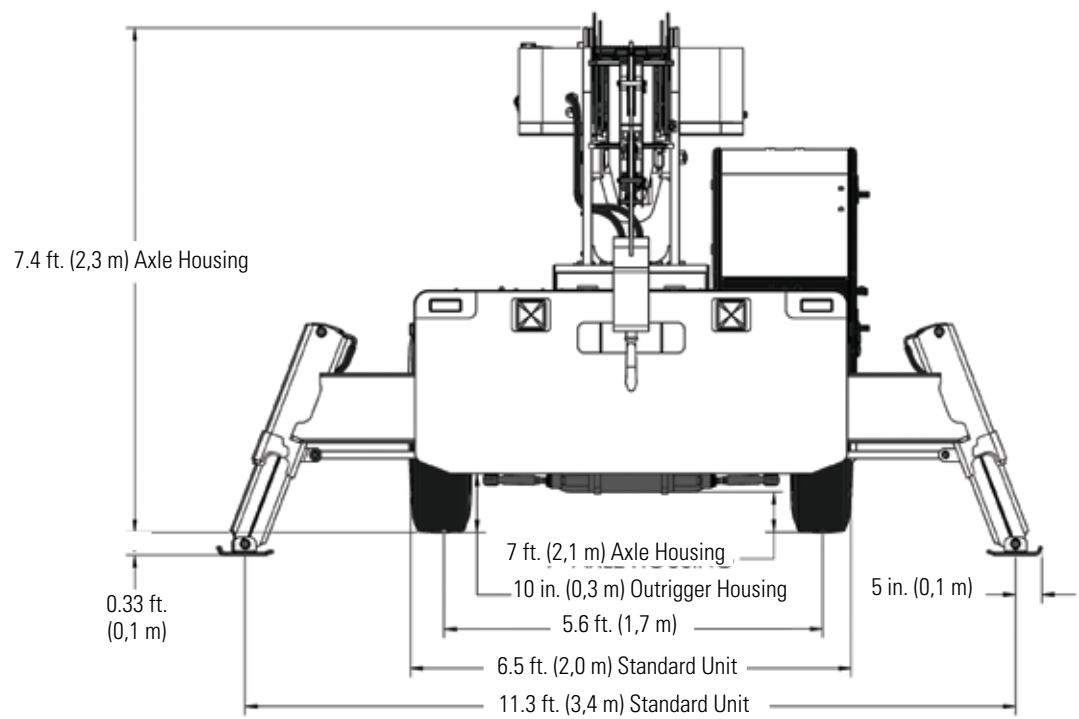
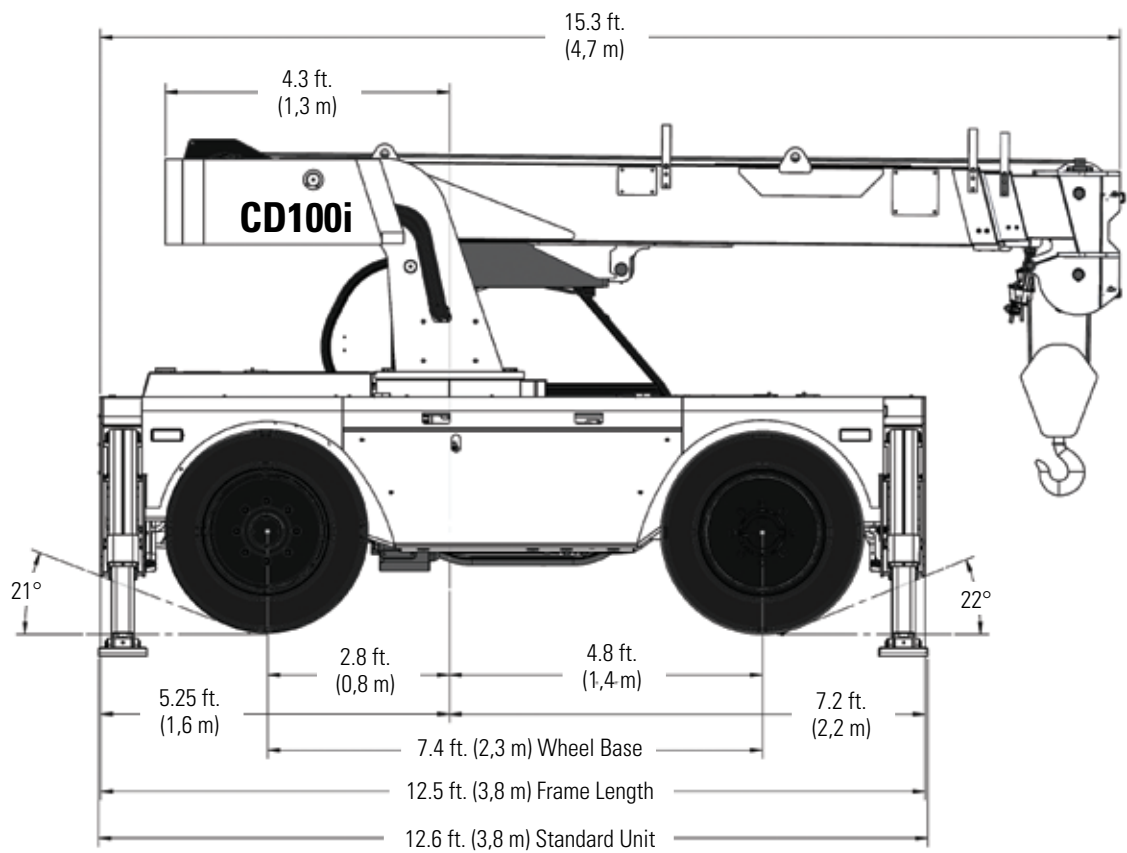
Downhaul weight & swivel hook (use with single part line)	110 lbs. (49.9 kg)
Sheave block	145 lbs. (65.7 kg)
9.9 ft. (3 m) extension	432 lbs. (195.9 kg)

**WARNING:** Lifting off the main boom point while the jib is erected is not intended or approved.

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# CRANE DIMENSIONS ////////////////////////////////////

## Imperial & Metric Units



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# TECHNICAL DESCRIPTIONS

## Boom



Boom length: 3-section 25.4 ft. (7,7 m)  
2-sheave quick reeve boom point  
Full power mechanically synchronized



Boom max. tip height: 33 ft. (10,1 m)



Boom angle (min/max): 0° / 69°

## Rotation



Hydraulic driven worm gear and pinion



Slewing brake: Spring-applied hydraulic released brake



Boom rotation: 360° continuous  
Slewing speed: 1.6 - 2 rpm

## Outriggers



Outriggers: Front and rear, all four corners  
Style: Out-and-down, integral holding valve, outrigger pads

Controls: Five (5) 3-position direct hydraulic levers

Outrigger position sensors

Fully extended:

- Front and rear  
Center of pad: 11.3 ft. (3,5 m)

## Electrical System



State-of-the-art, weather-resistant components throughout  
IP67 rated components

## Hoist, Rope and Hook



Maximum theoretical single line speed: (without load)  
Appx: 60 FPM



Maximum line pull\*:

- Single line:  
10,000 lbs. (4,082 kg)
- Double line:  
20,000 lbs. (8,164 kg)



Line diameter: .625 in. (15.8 mm)



Line length: 3-section boom: 120 ft. (36,5 m)



Line type: 6 x 19 EIPS, right regular lay



Main winch: Gear motor drive with spring applied /hydraulic released brake  
Drum diameter: 10.675 in. (0,3 m)



Downhaul weight & swivel hook:  
110 lbs. (49.9 kg) - use with single part line

## Vehicle Performance



Maximum speed: 17.9 mph (28.8 kph)



Maximum gradability: Vehicle may move on 25% slope at 0.4 mph (0,7 kph)

## Tires



H16 Pneumatic 255/70 R22.5

# TECHNICAL DESCRIPTIONS

## Control System



Includes all crane functions and driving controls

## Operator's Station



Frame mounted non-vibrating open style operator's control station

Standard features:

- Weather resistant seat
- Hour meter

Dash panel includes:

- Engine water temperature gauge
- Fuel gauge
- Tachometer, Check engine light, Engine Stop Light, Outrigger position indicator, wheels centered indicator

## Hydraulics



Winch section 29 gpm, Auxiliary section 16 gpm @ 2500 rpm.

Hydraulic oil reservoir capacity: 50 gal. (189 L)

Maximum system operation pressure: 2000 psi

Return line filter with full flow by-pass protection and service indicator

## Operator aids



Graphic interface for load indicator

Load Moment Indicator (LMI)

Anti-Two Block Device (ATB)

Rated Capacity Limiter (RCL)

## Engine



PSI 3.0L Dual Fuel

Rated power: 70 hp (52.1 kW) @ 2500 rpm

Fuel type: Gas / LP

Fuel tank capacity: 16 gal. (60.6 L)

## Drive-line



DANA syncromesh 4-speeds forward and 3 reverse with electrical steer model 1102FT12410

## Steering



2-wheel, 4-wheel and crab steer with manual alignment

4x2-Front axle drive with planetary hubs and limited slip differential

Front: DANA 212 planetary steer with internal multi-wet-disc brakes and limited slip differential

Rear: Fabricated non-drive steer with disc brakes

## Frame



High strength alloy steel constructed with integral outrigger housings: front and rear lifting, towing, and tie-down lugs.

Carry decks:

- Front: 23.2 ft<sup>2</sup> (2,2 m) with 6,620 lbs. (3,003 kg) carrying capacity
- Side right: 21.8 ft<sup>2</sup> (2 m) with 2,200 lbs. (998 kg) carrying capacity

Deck includes adhesive anti-skid treatment.



# OPTIONS

# Options

## Engine



Cummins® QSF 2.8L Tier IV Final  
Rated power: 65 hp (48.5 kW) @ 2500 rpm  
Fuel type: Diesel  
Fuel tank capacity: 16 gal. (60.6 L)

## Extension



4th-section: 9.9 ft. (3 m)  
Manual section fixed pin

## Hoist, Rope and Hook



Sheave block: 1-sheave: 145 lbs. (65.7 kg)

## Operator's Station



Enclosed cab  
Heater / Defroster  
Front windshield wiper  
Air conditioning

## NOTES:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



# CD100i

## 10-ton (9,07 mt) CARRY DECK CRANE

### PRODUCT GUIDE



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

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#### MANITEX

3000 South Austin Avenue  
Georgetown, Texas 78626

1-877-314-3390 | [www.Manitex.com](http://www.Manitex.com)

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