Manitex

CD100i

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

Courtesy of Crane.Market

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Effective Date: February 17, 2014
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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

Courtesy of Crane.Market

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.

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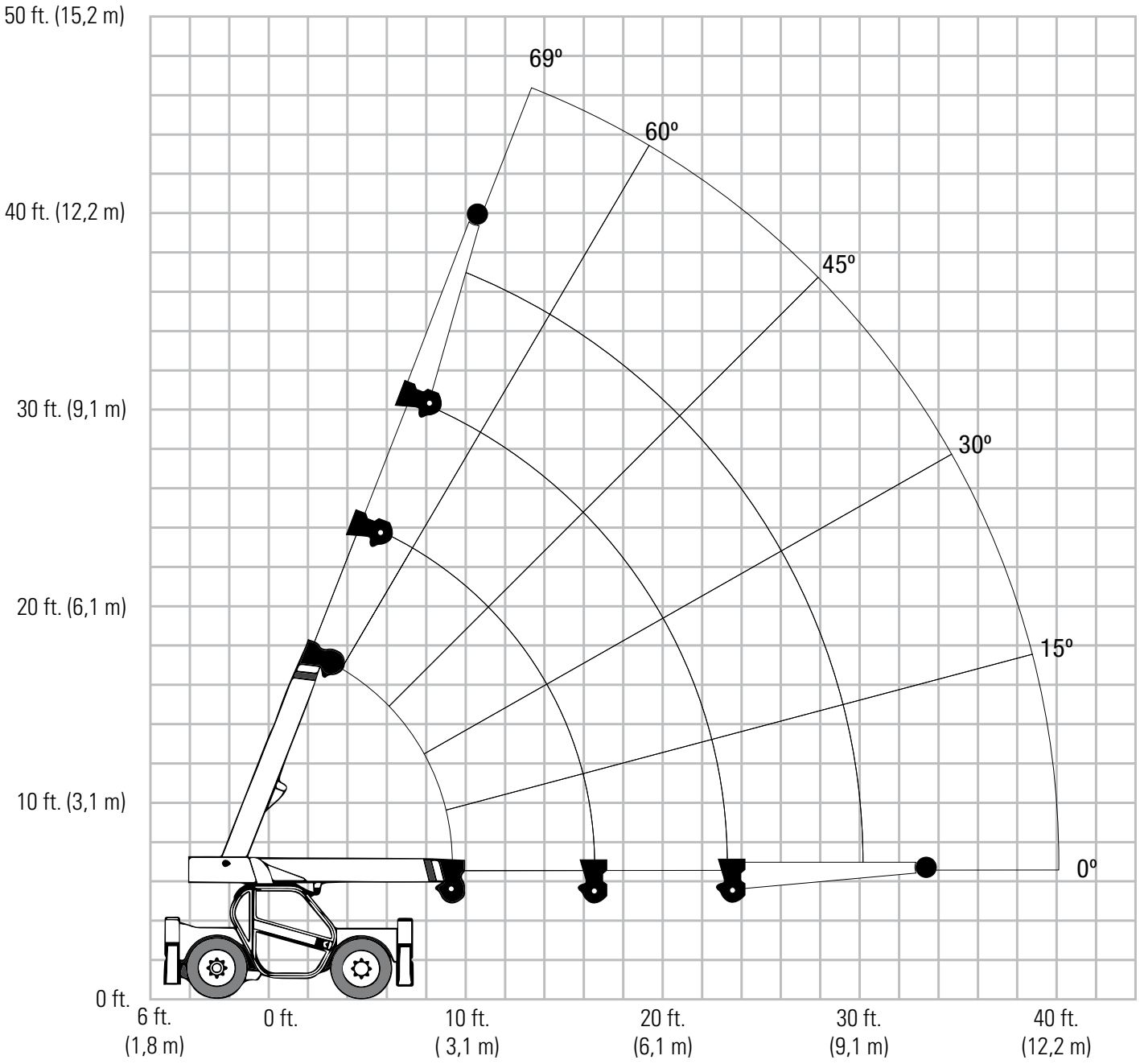
BOOM DIAGRAM

Imperial & Metric Units



CRANE WEIGHT

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

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Courtesy of Crane.Market

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%) 360º 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°	Max. 69° Min 12°
MAIN BOOM	5	20,000	20,000	12,083	16,835	15,657	13,712
	6	17,153	17,153	10,464	14,612	13,589	11,980
	8	14,082	14,082	6,851	11,329	10,536	9,145
	10	11,700	11,700	4,609	8,788	8,173	6,981
	12	9,529	9,825	3,363	6,247	6,247	5,329
	14	7,094	8,050	2,491	4,765	4,765	4,068
	16	5,718	7,200	1,993	3,706	3,706	3,106
	18	4,765	6,400	1,619	2,965	2,965	2,371
	20	3,918	5,506	1,246	2,329	2,329	1,810
	22	3,388	4,659	997	2,012	2,012	1,382
	23	———	4,024	810	1,747	1,747	———
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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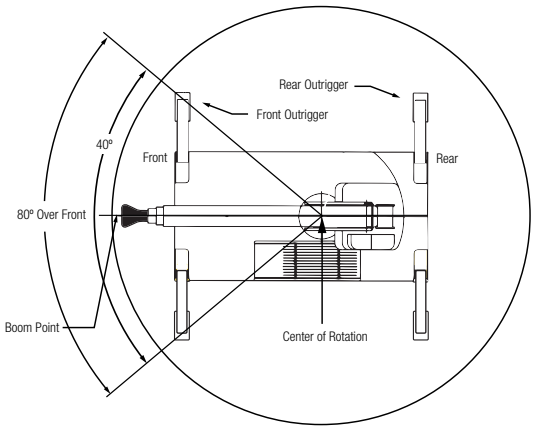
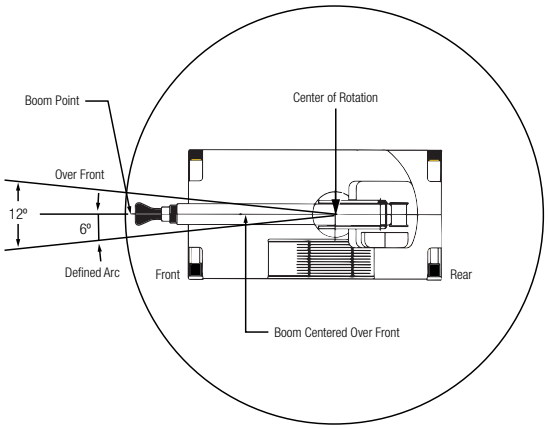
AREA OF OPERATION

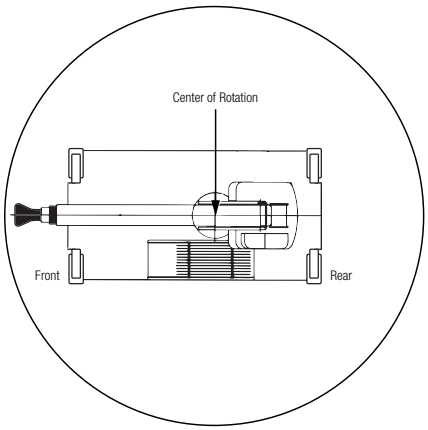
On Outriggers



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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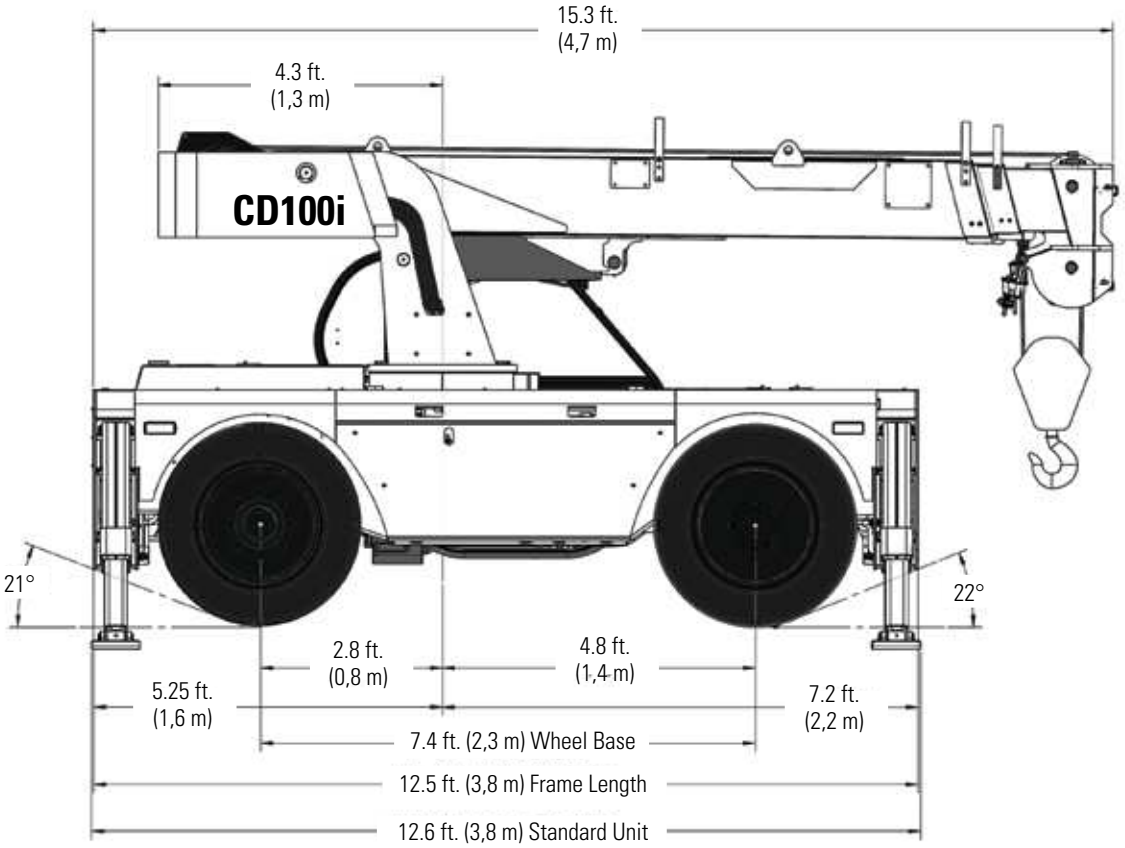
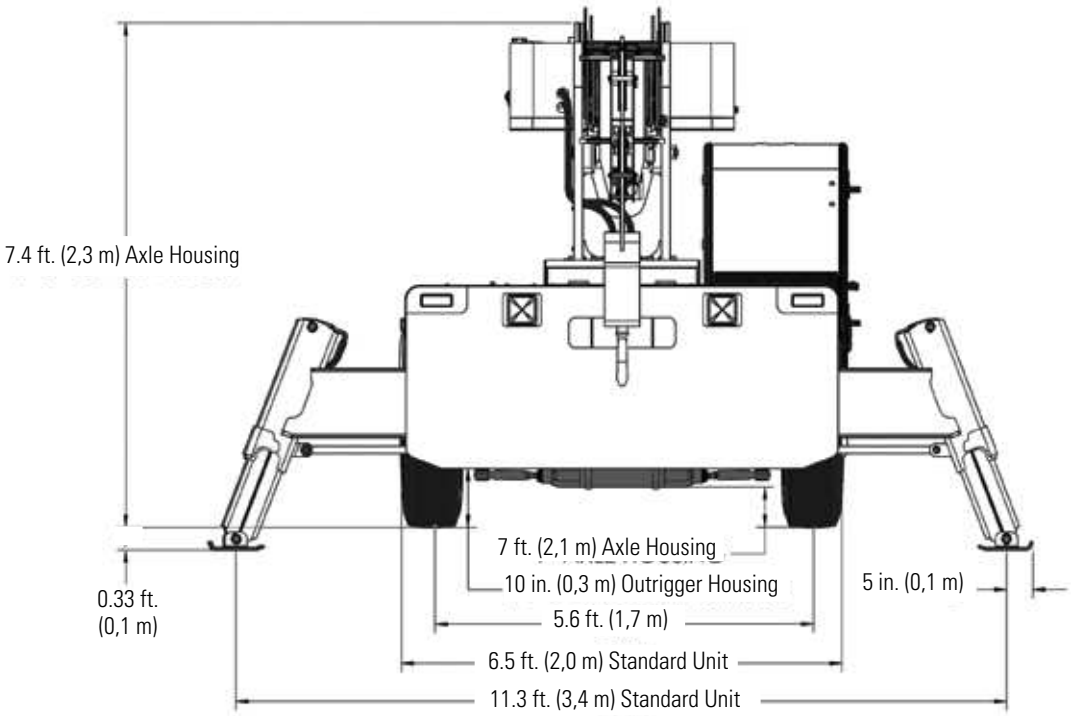
CRANE DIMENSIONS

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: 82 FPM

Maximum line pull*:

- Single line: 6,670 lbs.
- Double line: 13,340 lbs.
- Triple line: 20,010 lbs.

Line diameter: 9/16 in. (14.3 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: 9.75 in. (.25 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

Courtesy of Crane.Market

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 24 gpm, Auxiliary section 16 gpm @ 2500 rpm.

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

Maximum system operation pressure: 2250 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^2 (2,2 m) with 6,620 lbs. (3,003 kg) carrying capacity
- Side right: 21.8 ft^2 (2 m) with 2,200 lbs. (998 kg) carrying capacity

Deck includes adhesive anti-skid treatment.

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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:

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Manitex

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

UPTime

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

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MTX-CD100i-PC-EN-V1-0415

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