

**Manitex**



# TM200

20-ton (18.1 mt) TELESCOPIC CRANE  
PRODUCT GUIDE

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Do not operate a Manitex crane or accessories within 10' (3.04M) of live power lines.



# KEY

	Operator aids
	Cab
	Heating / Air conditioning
	Controls
	Hoist speed
	1 - Main hoist 2 - Auxiliary winch 3 - Recovery winch
	Rope length
	Rope - standard/optional
	Rope diameter
	Permissible line pull
	Maximum line pull
	Slewing / Allowable slewing range
	Slewing gears
	Slewing brake
	A-Frame outriggers
	2-Person man basket
	Counterweight
	Radio remote controls

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



# THE TM200 TELESCOPIC CRANE

## Maximize Use and Value

The TM200 telescopic crane strikes the perfect balance between the three things customers tell us they care about most in a crane: features, cost and productivity. Competitively priced and packed with standard features designed to save time and money.

- Shift line speed on the fly and minimize rope stacking with its 2-speed burst of speed (combined flow) planetary hoist with grooved drum and negative draft flange.
- Minimize maintenance costs with replaceable, self-lubricating boom slider pads equipped with teflon inserts.
- Get active and real time feedback on load conditions with integrated load-moment indicator system.
- Chassis telemetry provided to operator through LMI display unit.

### Other features include:

- 20-ton Capacity @ 5 ft. radius
- 85 ft. 6-Section Combination Sequential & Proportional Boom
- 95 ft max boom tip height
- Anti-two Block internally routed A2B cable with lockout.
- Removable boom rest

## USER-FRIENDLY CONTROLS

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



## OUTRIGGER DEPLOYMENT

An audible alarm sounds as outriggers are deployed, and indicator lights verify when they are fully extended.

## LOAD MOMENT INDICATOR

The load-moment indicator provides audio/visual warning and locks out the machine when lift limitations are exceeded.

## INCREASE PROFITABILITY

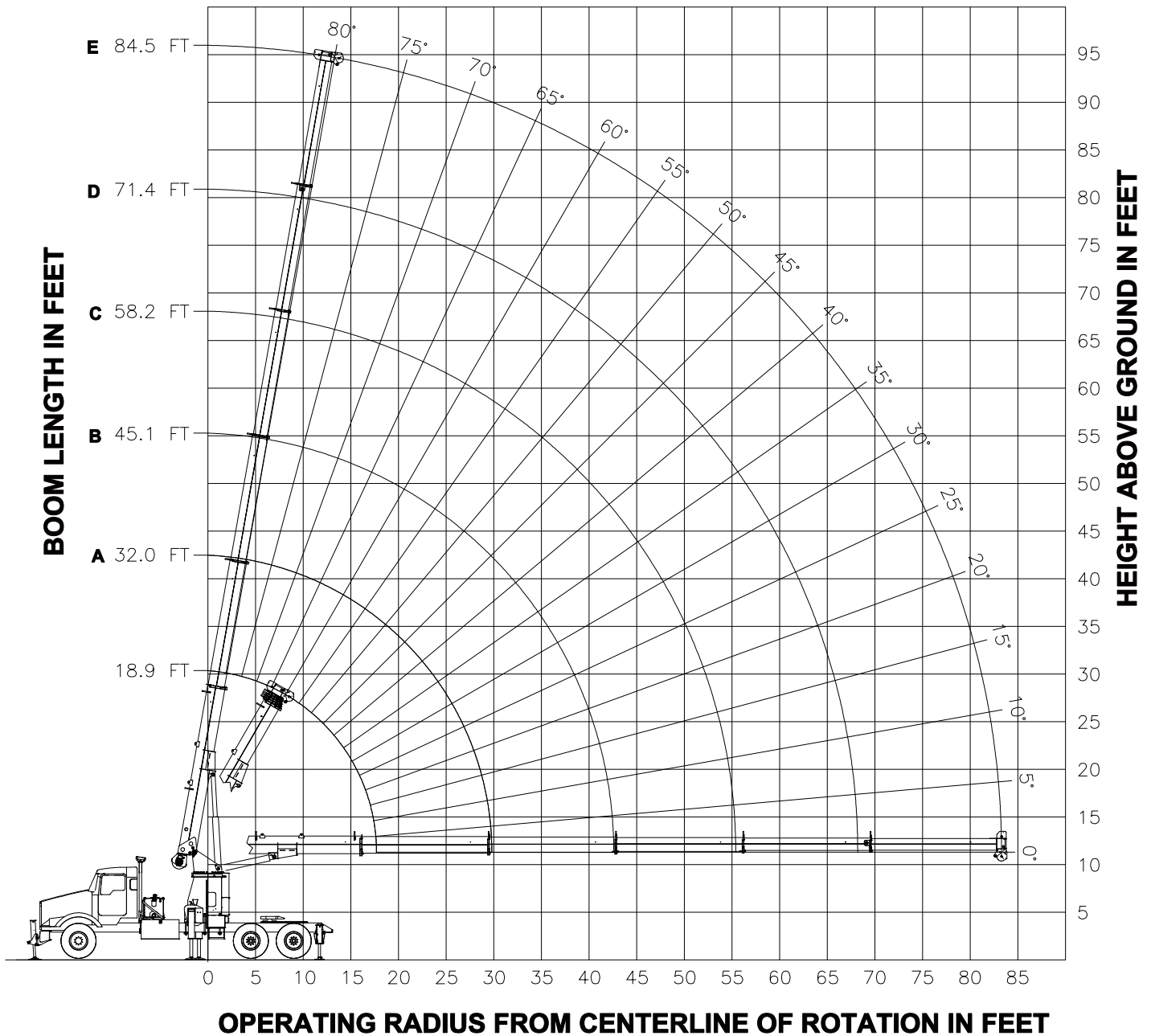
The versatile TM200, designed to be used with a commercial truck tractor, helps both owners and operators make the most of their investment.

- Travel to and between jobs at highway speed.
- Ride in comfort with a carrier suspension designed for highway driving.
- Get repairs done quickly and by qualified technicians at commercial truck centers.



# BOOM DIAGRAM

## RANGE DIAGRAM - FULL EXTENDED OUTRIGGER CONFIGURATION -









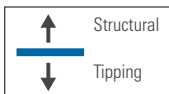
Data published herein is intended as a guide only. Crane operations is subject to machine specific load charts and information.

# LOAD CHART: Main Boom & Jib

6-section Boom 18.9 ft - 85 ft



Full Extended Outrigger Configuration - LMI CODE 1												
18.9 ft.		32 ft. (A)		45.1 ft. (B)		58.2 ft. (C)		71.4 ft. (D)		84.5 ft. (E)		
Load radius ∠°		Load Capacity (lbs.)		Load Capacity (lbs.)		Load Capacity (lbs.)		Load Capacity (lbs.)		Load Capacity (lbs.)		Load Capacity (lbs.)
5	72	40,000										
8	62	25,300	74	18,700								
10	54	21,300	70.5	18,000	77	12,600						
12	45	18,200	66.5	17,100	74	12,600	78	10,000				
14	35	16,000	62	15,000	71.5	12,600	76	10,000				
16	21	14,300	58	13,500	69	12,600	74	10,000	78	9,900		
20			49	11,000	63	10,300	70	9,300	75	8,000	77	4,600
25			35	8,900	55.5	8,300	65	7,600	70.5	6,600	74	4,600
30					47	6,800	59	6,200	66	5,600	71	4,300
35					37	5,330	53	5,200	61.5	4,700	67	3,900
40					23	3,880	46	4,100	57	4,000	63	3,600
45							39	3,560	51.5	3,400	59	3,100
50							29	2,730	46	3,000	55	2,700
55									40	2,500	50.5	2,300
60									33	2,010	46	2,000
65									24	1,580	41	1,700
70											35	1,400
75											28	1,180
80											19	850
	0	9,200	0	4,300	0	2,000	0	1,200	0	600	0	350



**NOTES:**

- Loads based on crane with fully extended outriggers
- Loads above heavy line are based on structural rating
- Loads below heavy line are based on tipping rating 85%

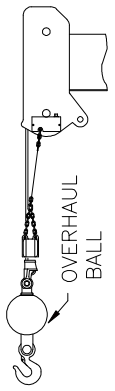
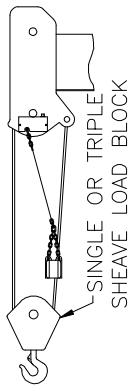

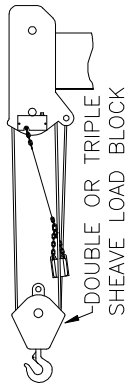
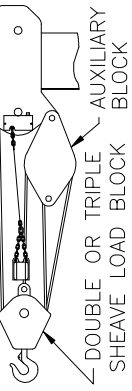

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# LMI OPERATING CODES

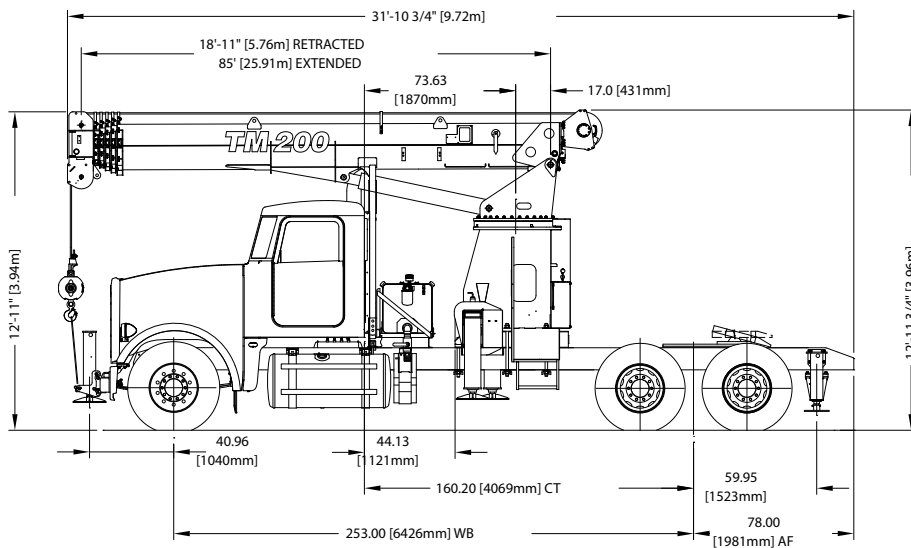
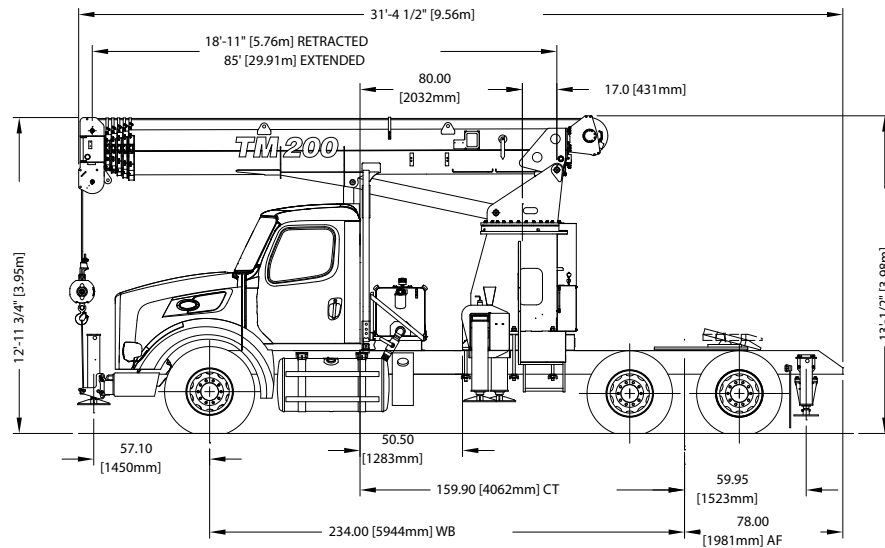
Setting	Crane Configuration	Outrigger Configuration	Area of Operation
#1	Main Boom	Fully Extended	360° Continuous with FBS Option
#2	Main Boom	Intermediate	360° Continuous with FBS Option
#3	Main Boom	Retracted	360° Continuous with FBS Option

## REEVING DIAGRAM

ALLOWABLE LINE PULL						<b>WARNING</b>
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	
						
8500 LBS	17000 LBS	25500 LBS	34000 LBS	40000 LBS	40000 LBS	
7700 LBS	15400 LBS	23100 LBS	30800 LBS	38500 LBS	40000 LBS	<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE. REFER TO OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON DRUM AT ALL TIMES.</p> <p>9/16" - 6X25 IWRC (3.5:1 S.F.) - 29750 LBS. MINIMUM BREAKING STRENGTH</p> <p>9/16" ROT RESISTANT (5.0:1 S.F.) - 38500 LBS. MINIMUM BREAKING STRENGTH</p>

# CRANE DIMENSIONS

Imperial & Metric Units



## CHASSIS DATA

Wheelbase (WB):	234"
Cab to Tandem (CT) :	159.9"
After frame (AF):	78"
Frame section modulus at	30in <sup>3</sup> @ 120,000psi
Nominal frame W:	34"

## TRUCK AXLE WEIGHT

Minimum front axle weight rating	20,000lbs
Minimum rear axle weight rating	40,000lbs
Minimum chassis front axle weight	10,500lbs
Minimum chassis rear axle weight	8,600lbs

## CRANE WEIGHTS

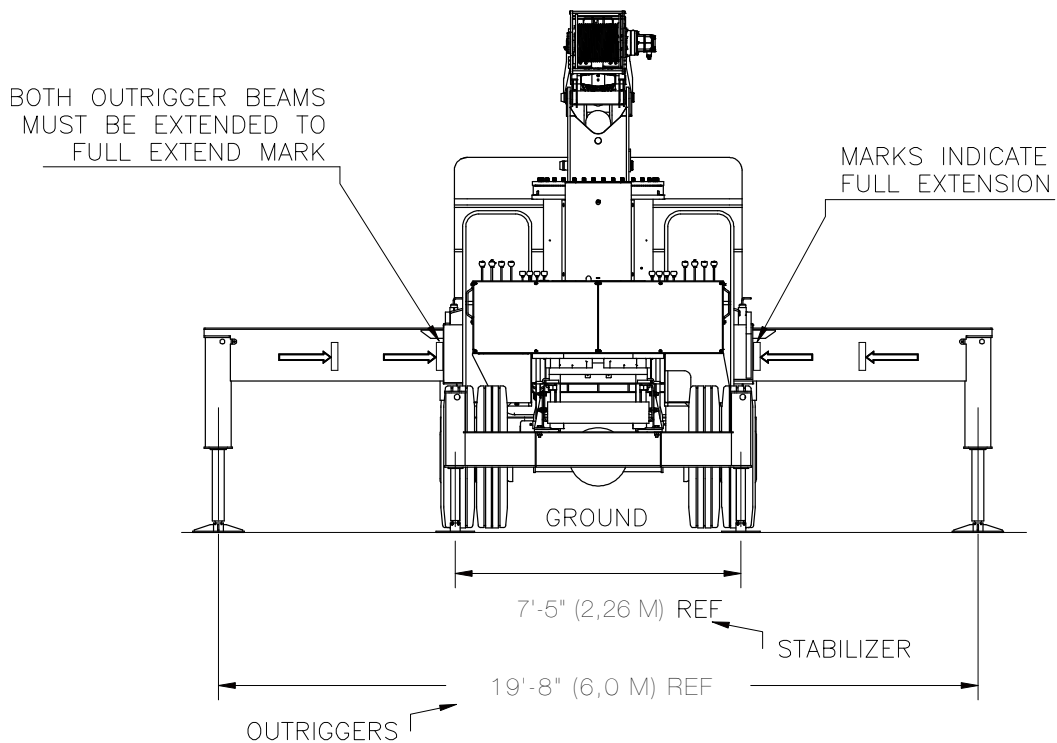
Total crane standard H-configuration stabilizers - Dry Weight	15,400 lbs (6985 kg)
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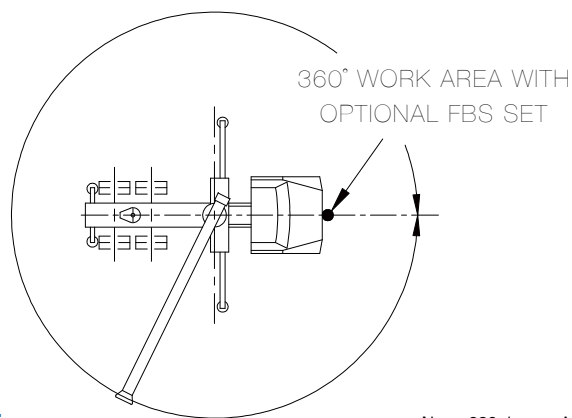


# OUTRIGGER EXTENSION

Imperial & Metric Units



# AREA OF OPERATION



Deductions from rated loads for load handling devices supplied by Manitex

Note: 360 degree Area of Operation when equipped with optional Front Bumper Stabilizer.

Auxiliary Sheave	50 lbs.
Overhaul ball	See overhaul ball mfr. nameplate
Load blocks	See block mfr. nameplate

# TECHNICAL DESCRIPTIONS

## Boom



Boom length: 6-section 85 ft (25.9 m) formed boom

2-sheave quick reeve boom point



Boom max. tip height: 95 ft (28.9g m)

Boom retracted tip height: 29.9 ft (9,11 m)

## Rotation



Oversized ball bearing swing circle with external gear. Powered by double reduction planetary gear box.



Slewing brake: Wet, multi-disc internal brake, spring applied, hydraulic pressure released



Boom rotation: 372° non-continuous

Slewing speed: 1.5 - 2 rpm. (nominal)

## Outriggers



Outriggers: Out and Down

- Front
  - Out and Down, 19.66 ft (6 m)
- Rear
  - H-Configuration Stabilizer, 7.42 ft (2.25 m)
- Stowed
  - Center to Center, 7.25 ft (2,2 m)
- Outrigger motion alarm
- Non removable 16 in diameter steel pads.

## Hoist, Rope and Hook



Maximum theoretical line speed: 300 fpm (91 mpm)



Maximum theoretical bottom-layer line pull rating: 11,500 lbs. (5,216 kg)



Main winch cable diameter: 9/16 in. (14,3 mm) Rotation Resistance



Line length: 300 ft. (91,4 m)



Main Winch Motor: Gear



Load ball: 7T (6.3 mt) capacity hook with heavy-duty swivel and weight is provided for single line operation.

## Hydraulics



6-8 bolt direct mounted PTO and SAE B or output or SAE BB output

3-section gear pump, SAE BB input (standard) Counter Clockwise Rotation

Hydraulic reservoir capacity: 70 gal. (265 L)

- Suction Strainer
- Ball shut off valve
- Magnetic drain plug
- Return filter - 10 micron

Pump sections @ 2000 rpm with 100 psi

- Shaft end pump: 32.4 gpm (123 lpm)
- Center pump: 20.6 gpm (78 lpm)
- Cover end pump: 8 gpm (38 lpm)
- Oil Cooler

## Operator aids



LMI with crane function cut-offs for overload protection

Graphical display

Anti-two block system - Anti-Two-Block System with Lock Out

Internally Routed

Outrigger Motion Alarm

Bubble Level

Verification Indicator for outriggers



# TECHNICAL DESCRIPTIONS

## Operator aids (continued)



Boom angle indicator (min/max): -10° / 80°

## Control System



Dual operating stations are equipped with four single-lever crane controls arranged in accordance with ANSI B30.5 standards.

Fully proportional control valves

Each station includes:

- Individual control levers for each outrigger and stabilizer
- Engine start and stop
- Electronic foot throttle
- Signal horn
- Boom angle indicator
- Beverage holder
- Load chart with range diagram and mount for removable LMI display
- System Pressure Gauge
- High Speed winch control

## Electrical System

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

Weather resistant sealed enclosure includes power in relays and circuit status LEDs

## Mounting System

Pedestal sub-frame and stabilizers are mounted to chassis by threaded rods and clamp plates

Sub-frame: Torsion resistant, rigid 4-plate design mounted under crane

Boom rest: Heavy-duty fabrication.

## Options

### Tool Boxes

24 in. L x 20 in. W x 18 in. H - Steel  
(610 mm L x 508 mm W x 457 mm H)

36 in L x 24 in W x 24 in H Aluminum  
Chassis Mounted  
(9144 mm L x 6096 mm W x 6096 mm)

## Options

### Hoist, Rope and Hook



Load block:

- 1-Sheave
- 3-Sheave
- Main winch cable diameter: 9/16 in. (14,3 mm) 6 x 25 EIPS IWRC

### Hydraulics



3-section vane pump, SAE B input  
FBS - Front Bumper Stabilizer

### 2-Person Baskets



2-person man basket - Aluminum or steel - consult Manitex

- Non-rotating (600 lbs. cap.)
- Rotating (up to 1,200 lbs. cap.)

### Radio Remote Options



4-Function radio remote crane control system

- 900 Mhz
- Radio Remote Control with Joysticks (900 MHz or 433 MHz)
- Radio Remote Control with Paddles (900 MHz or 433 MHz)

In order to ensure continuous improvement, Manitex reserves the right to change design and specifications without notice.

**Manitex**



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PRODUCT GUIDE

**UPTime**

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

**MANITEX**

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MTX-TM200-PC-EN-V1-0816