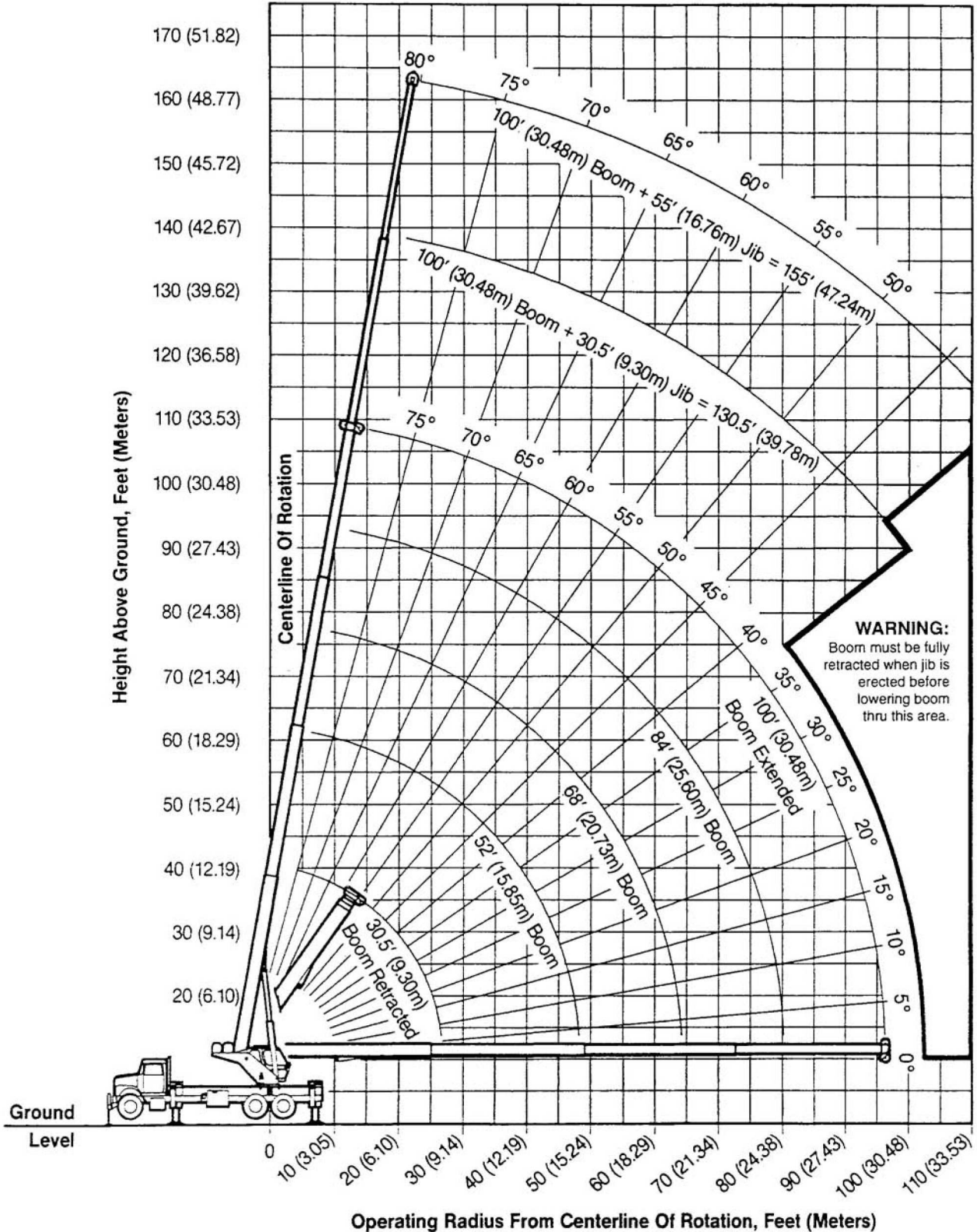




# GENERAL SPECIFICATIONS MODEL C35100 TRUCK-MOUNTED CRANE

RANGE DIAGRAM



# MODEL C35100 LOAD RATING CHART

360° operation with front-mounted outrigger.

This capacity chart is for reference use only and must not be used for a specific serial number crane.

MEETS  
ANSI B30.5  
REQUIREMENTS

MAIN BOOM CAPACITIES — OUTRIGGERS FULLY EXTENDED — LOADED MAIN BOOM ANGLE																
Operating Radius		Load Rating 30.5' (9.30m) Boom			Load Rating 52' (15.85m) Boom			Load Rating 68' (20.73m) Boom			Load Rating 84' (25.60m) Boom			Load Rating 100' (30.48m) Boom		
		Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms
Feet	Meters															
5'	1.52	74°	70,000	31,752												
8'	2.44	68°	52,350	23,746												
10'	3.05	64°	45,780	20,765	76°	27,100	12,292									
12'	3.66	60°	40,500	18,371	73°	27,100	12,292	78°	27,100	12,292						
15'	4.57	53°	34,230	15,526	70°	27,100	12,292	76°	27,100	12,292	79°	21,100	9,570			
20'	6.10	40°	24,680	11,195	64°	24,230	10,990	71°	22,000	9,979	76°	18,500	8,391	79°	14,000 6,350	
25'	7.62	20°	18,840	8,546	58°	19,340	8,772	67°	18,600	8,437	72°	15,780	7,158	76°	12,670 5,747	
30'	9.14				51°	15,400	6,985	62°	15,550	7,053	68°	13,550	6,146	73°	11,020 4,999	
35'	10.67				43°	12,550	5,692	57°	12,700	5,760	65°	11,760	5,334	70°	10,000 4,535	
40'	12.19				34°	9,720	4,408	52°	9,920	4,499	61°	10,040	4,554	67°	8,850 4,014	
45'	13.72				22°	7,690	3,488	46°	7,870	3,569	57°	7,980	3,619	63°	7,850 3,561	
50'	15.24							39°	6,350	2,880	52°	6,460	2,930	60°	6,530 2,961	
55'	16.76							32°	5,170	2,345	48°	5,280	2,394	56°	5,340 2,422	
60'	18.29							22°	4,240	1,923	43°	4,340	1,968	53°	4,400 1,995	
65'	19.81										37°	3,570	1,619	49°	3,630 1,646	
70'	21.34										31°	2,930	1,329	45°	3,000 1,360	
75'	22.86										22°	2,400	1,088	40°	2,460 1,115	
80'	24.38										7°	1,940	879	35°	2,000 907	
85'	25.91													30°	1,600 725	
90'	27.43													22°	1,250 566	
95'	28.96													11°	940 426	

Deductions for Jibs														
Fixed Jib (Stowed)	590	268		350	159		270	122		220	100		180	82
Fixed Jib (Erected)	2,050	930		1,740	789		1,640	744		1,580	717		1,530	694
Telescopic Jib (Stowed)	890	404		530	240		400	181		330	150		280	127
Telescopic Jib (Ret.) Erected	2,920	1,324		2,490	1,129		2,350	1,066		2,260	1,025		2,200	998
Telescopic Jib (Ext.) Erected	3,560	1,615		2,870	1,302		2,630	1,193		2,490	1,129		2,390	1,084

JIB CAPACITIES — OUTRIGGERS FULLY EXTENDED — LOADED MAIN BOOM ANGLE										
Operating Radius		Fixed Jib Load Rating			Telescopic Jib Load Rating					
		30.5' (9.30m) Jib - All Boom Lgths.			30.5' (9.30m) Jib - All Boom Lgths.			55' (16.7m) Jib - All Boom Lgths.		
Feet	Meters	Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms	Loaded Bm. Angle	Pounds	Kilograms
30'	9.14	77°	7,300	3,311	77°	7,000	3,175			
35'	10.67	75°	6,800	3,084	75°	6,500	2,948	78°	4,000	1,814
40'	12.19	73°	6,280	2,849	73°	5,900	2,676	76°	3,850	1,746
45'	13.72	71°	5,720	2,595	71°	5,350	2,427	74°	3,700	1,678
50'	15.24	69°	5,230	2,372	69°	4,850	2,200	73°	3,550	1,610
55'	16.76	66°	4,780	2,168	66°	4,380	1,987	71°	3,310	1,501
60'	18.29	64°	4,370	1,982	64°	3,960	1,796	69°	3,090	1,402
65'	19.81	61°	3,930	1,782	61°	3,520	1,596	67°	2,900	1,315
70'	21.34	59°	3,280	1,487	59°	2,870	1,301	65°	2,710	1,229
75'	22.86	56°	2,730	1,238	56°	2,320	1,052	63°	2,550	1,157
80'	24.38	53°	2,260	1,025	53°	1,850	839	61°	2,400	1,089
85'	25.91	50°	1,850	839	50°	1,440	653	59°	2,140	970
90'	27.43	47°	1,500	680	47°	1,080	489	56°	1,780	807
95'	28.96	43°	1,190	539	43°	770	349	54°	1,460	662
100'	30.48	40°	910	412	40°	500	226	51°	1,170	530
105'	32.00							49°	920	417
110'	33.53							46°	690	313
115'	35.05							43°	490	222

**INFORMATION:** Deductions must be made from rated loads for stowed jib, optional attachments, hooks, and load blocks (see deduction chart). Weights of slings and all other load handling devices shall be considered a part of the load.

Deductions From Rated Loads For Manitex Supplied Load Handling Devices	
Auxiliary Block .....	50 Lbs. (23 Kgs)
Overhaul Ball .....	180 Lbs. (82 Kgs)
Single-Sheave Load Block .....	430 Lbs. (195 Kgs)
Triple-Sheave Load Block .....	630 Lbs. (285 Kgs)
Swing-Around Jib .....	See load chart
Auxiliary Sheave .....	60 Lbs. (27 Kgs)

**DO NOT OPERATE A MANITEX TRUCK-MOUNTED CRANE OR ACCESSORIES WITHIN 10' (3.05m) OF LIVE POWER LINES.**

Because of continuing improvements, Manitex reserves the right to change product specifications without notice.

**WARNING:** Before operating any Manitex crane, the operator must read and understand the owner's manual and other instructions for a specific serial number crane. This chart is only a guide. The notes and warnings are for illustration only and cannot be used to operate a crane.

The operating radius shown in the jib load rating chart is for fully extended boom only. When boom is not fully extended, use only loaded boom angle to determine load rating of jib.

All load ratings below the heavy line on the capacity charts are stability limited capacities, and do not exceed 85% of tipping.

Crane load ratings on outriggers are based on freely suspended loads with the machine leveled and standing on a firm uniform supporting surface. No attempt shall be made to move a load horizontally on the ground in any direction.

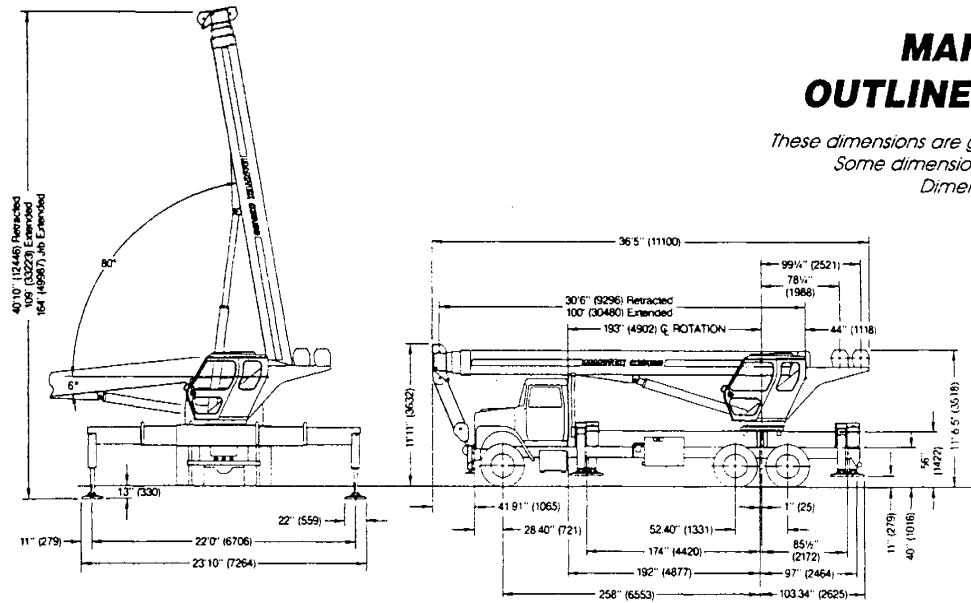
## MANITEX, INC.

A Subsidiary of The Manitowoc Company, Inc.

3000 South Austin Avenue ■ Georgetown, Texas 78626  
Telephone: 512-869-0552 ■ Telefax: 512-863-3776

# MANITEX C35100 OUTLINE DIMENSIONS

These dimensions are general, not for engineering.  
Some dimensions depend on truck selected.  
Dimensions in ( ) are millimeters.



Drawing shows some optional equipment.

## STANDARD EQUIPMENT

- 4-section telescopic proportional boom 30'6" (9.30m) to 100' (30.48m)
- 55' (16.76m) 2-piece telescopic swing-around jib
- Turret, rotation bearing & swing system
- Subframe
- Out-and-down outriggers
- Front-mounted outrigger
- Continuous rotation
- Full-vision deluxe operator's cab
- Electronic LMI with lever lock-out and with read-out for boom angle, length, load weight and radius
- Dual-axis palm controls with 2-speed buttons
- 2-speed planetary hoist
- Anti-two-block shutoff
- Back-up alarm
- Signal horn
- Full instrumentation on dash panel inside operator's cab
- Lift-up arm-rest neutralizes control functions when raised
- Foot-operated swing brake
- Spring-applied hydraulically released swing parking brake
- 5-sheave boom point
- Audible outrigger motion alarm
- 3-section vane-type hydraulic pump
- Removable boom rest
- 100-gallon (379-liter) hydraulic reservoir with suction strainer and inline filters
- 370' (112.78m) of 5/8" (16mm) rotation-resistant wire rope
- Finish paint in Manitec colors
- Cab heater, propane
- Operator/service/parts manuals
- Outrigger Controls
- Rotation swing lock 360°

## TRUCK CARRIER DATA

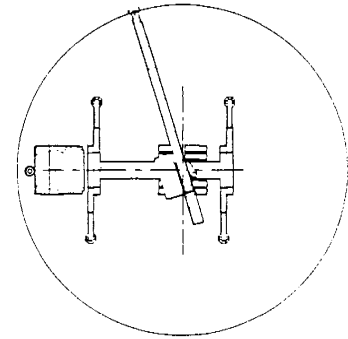
### Recommended Requirements:

Some configurations and options may change requirements

Wheelbase .....	258"	6,553 mm
Cab to axle .....	192"	4,877 mm
Front axle gross weight rating .....	18,000 lbs.	8,165 kgs.
Rear axle gross weight rating .....	38,000 lbs.	17,237 kgs.
Frame section modulus .....	25.0 in <sup>3</sup>	410 cc
	110,000 psi	758,422 kPa

Consult factory for exact Truck Specs.

### AREA OF OPERATION



360° RATING  
REQUIRES  
ALL OUTRIGGER  
FULLY EXTENDED

## WEIGHTS

Total crane, including hydraulic fluid	Lbs. 31,965	Kgs. 14,499
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### Weight Adjustments:

30'6" (9.30m) fixed-length jib .....	(580)	(263)
Deletion of 55' (16.76m) telescope jib .....	(1,700)	(771)
5-ton (4.5-mt) hook and ball .....	180	82
15-ton (13.6-mt) single-sheave block .....	430	195
35-ton (31.75-mt) triple-sheave block .....	630	286
Auxiliary block for 7-part line .....	50	23
Wire rope for auxiliary hoist .....	315	143

### Theoretical Hoist Performance

Maximum Single-Line Speed .....	425 fpm (129.54 mpm)
Maximum Single-Line Pull .....	14,300 lbs. (6,486 kgs.)

### ALLOWABLE LINE PULL

1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	<b>WARNING</b>
9,080 lbs. (4,118 kgs.)	18,160 lbs. (8,237 kgs.)	27,240 lbs. (12,356 kgs.)	36,320 lbs. (16,474 kgs.)	45,400 lbs. (20,593 kgs.)	54,480 lbs. (24,712 kgs.)	63,560 lbs. (28,830 kgs.)	5/8" ROT RESISTANT 5.0:1 S.F.) 45,400 lbs. MIN. BREAKING STRENGTH
10,000 lbs. (4,536 kgs.)	20,000 lbs. (9,072 kgs.)	30,000 lbs. (13,608 kgs.)	40,000 lbs. (18,144 kgs.)	50,000 lbs. (22,680 kgs.)	60,000 lbs. (27,216 kgs.)	70,000 lbs. (31,752 kgs.)	5/8" - 6 x 25 IWRC 3.5:1 S.F.) 35,000 lbs. MIN. BREAKING STRENGTH

## STANDARD SPECIFICATIONS AND FEATURES

**BOOM**—30'6" (9.30m) to 100' (30.48m). Inverted-T cross section. 4-section telescoping type, extended and retracted proportionally by double-acting hydraulic cylinder and cable-crowd system. Easily replaceable and adjustable high-density nylon slide pads. Maximum tip height 109' (33.22m).

**TELESCOPIC SWING-AROUND JIB**—Working lengths 30'6" (9.30m) and 55' (16.76m). Stows along boom base. Manually pinned in retracted or extended position. Maximum tip height 164' (50m).

**BOOM POINT**—Five high-density nylon sheaves mounted on heavy-duty roller bearings. Two removable pin-type rope guards.

**MAIN HOIST**—Theoretical maximum line speed 425 fpm (129.54 mpm). Maximum bottom-layer line pull 14,300 lbs. (6,486 kgs). Two-speed planetary reducer. Spring-applied, pressure-released internal brake.

**WIRE ROPE**—370' (112.78 m) of 5/8" (16mm) diameter, rotation resistant.

**BOOM ELEVATION**—Double-acting hydraulic cylinder. Working range from 6° below horizontal to 80° above.

**SWING SYSTEM**—Externally mounted, double-reduction planetary driven by hydraulic motor. Maximum swing speed 2.50 rpm. Foot-applied, swing brake. Spring-applied hydraulically released parking brake. Ball-bearing swing circle with external gear. Continuous rotation.

**OUTRIGGERS**—8' (2.44m) retracted; 22' (6.71m) extended. Out-and-down type with double-acting hydraulic cylinders operated independently for precise leveling. Front-bumper outrigger. Controls require 2-hand operation located at both sides of carrier and in operator's cab. Bubble level near all three locations of outrigger controls. 22" (559mm) aluminum pads with "quick release" collar locks.

**SUBFRAME**—Torsionally resistant, rigid 4-plate design mounted under crane full length of truck frame.

**REAR UNDERRIDE PROTECTION**—Supplied on factory-mounted cranes. Fabricated structure mounted under rear of carrier. Complies with Bureau Motor Carrier Safety standard 393.86.

**BACK-UP ALARM**—Supplied on factory-mounted cranes. Electronic audible motion alarm activated when truck transmission is in reverse gear.

**OPERATOR'S CAB**—Full-vision, all steel fabricated and acoustically insulated. Lockable sliding access door, sliding right window, opening rear window, and opening skylight with electric wiper. Tinted safety glass. Lexan skylight. Dual-axis palm controls mounted in arm-rests. Deluxe fully adjustable (6-way) seat with angle back. Front windshield wiper and washer. Dash mounted lights for engine functions. On/off rocker switches in cab for engine and crane functions. Adjustable hand control throttle. Cab fan and heater. Tachometer. Fire extinguisher. Load rating charts.

**CONTROL SYSTEM**—Two dual-axis palm controls. Right control activates main hoist and boom elevation. Left control activates swing and boom telescope. Handles include 2-speed buttons for main and optional auxiliary hoists. Fully proportional electrohydraulic controls. Free swing with foot activated swing brake. Manually set, adjustable hand throttle and foot operated throttle. Spring applied, hydraulically released swing parking brake.

**HYDRAULIC SYSTEM**—A 3-section vane pump direct mounted to power take-off on truck transmission provides 43 gpm (163 lpm) to the hoist, 35 gpm (132 lpm) to the boom hoist and telescope circuit, and 12 gpm (45 lpm) to the swing and outrigger circuit. 100-gallon (379-liter) baffled reservoir includes two 10-micron filters in the return lines and suction strainer. All fittings are ORS type and SAE. System includes oil cooler.

**HYDRAULIC CYLINDERS**—All load-holding cylinders are equipped with integral holding valves.

**BOOM REST**—Heavy-duty, removable.

**LOAD MOMENT INDICATOR**—Senses boom hoist cylinder pressures, boom length, and boom angle. Visual and audible alarm indicates approaching overload. Inside operator's cab, LMI displays boom length, angle, load weight and radius. Shutdown system prevents continuing overload.

**ANTI-TWO-BLOCK SYSTEM**—Audible warning and shutoff functions prevent hook from contacting boom point.

**ELECTRICAL**—12-volt direct current. Weatherproof connectors. All circuits fuse-protected. Easily accessible collector ring. Modular design. Main-line circuit breakers. Color-coded and numbered wiring.

**DESIGN/WELDING**—Design conforms to ANSI B30.5. Welding conforms to AWS D1.1. Tested to SAE 1063 and SAE 765.

**MANUALS**—Operator and owner manuals depict correct crane operation, maintenance procedures and parts listing.

## OPERATOR ASSIST FEATURES

- Anti-two-block audio/visual warning and shutoff
- Load moment indicator, audio/visual with shutoff
- Selective hoist lockout
- Load chart/range diagram
- Audible outrigger motion alarm
- Back-up alarm
- On/off switch neutralizes controls
- Outrigger control in cab
- Swing parking brake
- Horn

## OPTIONS

- Swing-around 1-piece jib, 30'6" (9.30m)
- Hook block for 2- to 7-part load line
- Auxiliary block for 7-part line
- Auxiliary sheave boom point
- Aerial baskets, 1- or 2-person
- Top mounted, self leveling, rotatable work platform
- Auxiliary hoist, same as main, less rope
- Hoist drum rotation indicators
- Dunnage/tool boxes
- AM/FM cassette stereo radio
- Special paint
- Roofer's package
- Cab spotlight/Strobe light
- Winch high speed on/off switch
- Engine distress lights