

# Technical Data

## Specifications & Capacities

# 225|AT

Telescopic Boom All Terrain Crane

**225 US ton**

**200 metric ton**



CAUTION: This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

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# Boom, Attachments, and Upper Structure

## ■ Boom

**Design** – Six section, formed construction of extra high tensile steel consisting of one base section and five telescoping sections. Two plate design of each section has multiple longitudinal bends for superior strength. Each telescoping section extends independently by means of one double-action, single stage hydraulic cylinder with integral holding valves.

### Boom

- 44.9–202.1 ft (13.6–61.6m) six section boom
- Integral boom dolly connection
- Three pinned positions of 0%, 50%, and 100% on each boom section
- Mechanical boom angle indicator
- Wind speed indicator
- Seven boom extend modes (EM1–EM7), controlled from Operator's cab, provide superior capacities by varying extension of telescoping sections:
  - EM1 extends to 202.1 ft (61.6m)
  - EM2 extends to 185.9 ft (56.6m)
  - EM3 extends to 170.2 ft (51.9m)
  - EM4 extends to 155.0 ft (47.2m)
  - EM5 extends to 123.5 ft (37.6m)
  - EM6 extends to 125.4 ft (38.2m)
  - EM7 extends to 93.5 ft (28.5m)
- Maximum tip height for each extend mode is :
  - EM1 is 209 ft (63.7m)
  - EM2 is 193 ft (58.8m)
  - EM3 is 177 ft (53.9m)
  - EM4 is 162 ft (49.3m)
  - EM5 is 130 ft (39.6m)
  - EM6 is 132 ft (40.2m)
  - EM7 is 100 ft (30.5m)

### Boom Wear Pads

- Wear pads with Teflon inserts that self-lubricate boom sections, inserts are universal for boom.
- Bottom rear wear pads are universal for all boom sections.
- Bottom front wear pads are common for base, T1, and T2 boom sections.
- Bottom front wear pads are common for T3 and T4 boom sections.
- Top front wear pads are universal for all boom sections.
- Top rear wear pads are common for T2, T3, T4, and T5 boom sections.

### Boom Head

- Seven 16.5 in (41.9cm) root diameter nylon sheaves to handle up to 14 parts of line with auxiliary lifting sheave
- Easily removable hinged wire rope guards
- Rope dead end lugs on either side of boom head
- Boom head is designed for quick – reeve of hook block

### Boom Elevation

- One hydraulic cylinder with integral holding valve
- Boom elevation: – 1.6° to 83°

### Auxiliary Lifting Sheave – Optional

- Single 16.5 in (41.9cm) root diameter nylon sheave
- Easily removable wire rope guards
- Does not affect erection of fly or use of main head sheaves
- Can be stored on right side of boom without removal

### Hook Blocks and Balls – Optional

- 40 ton (37mt) 1 sheave quick – reeve hook block with safety latch
- 75 ton (68mt) 3 sheave quick – reeve hook block with safety latch
- 120 ton (109mt) 5 sheave quick – reeve hook block with safety latch
- 160 ton (146mt) 7 sheave quick – reeve hook block with safety latch
- 225 ton (204mt) 10 sheave quick – reeve twin hook block with safety latch
- 12 ton (11mt) swivel hook ball with safety latch

### Fly – Optional

- 8ft (2.4m) heavy lift fly, fixed 30° offset. Maximum tip height is 217 ft (66.1m).
- 42-71 ft (12.8-21.6m) two piece bi-fold lattice fly, stowable hydraulically offsettable to 0° through 45°. Maximum tip height is 280 ft (85.3m).

### Fly Extensions – Optional

- Two 25 ft (5.5m) lattice extensions to be mounted between boom head and fly options. Maximum tip height of 334 ft (101.8m).

## ■ Upper Operator's Cab and Controls

**Environmental Cab** – Fully enclosed, one person cab of tubular and sheet steel structure with formed plastic interior panels.

Equipped with:

- Tinted and tempered glass windows
- Extra-large fixed front window with time delayed
- windshield wiper and washer
- Swing up roof window with windshield wiper and washer
- Sliding left side door with large fixed window
- Pop – out rear window for ventilation
- Six way adjustable, cushioned seat with seat belt and storage compartment
- Diesel fired warm – water heater with ten air ducts for front
- windshield defroster and cab floor
- Air Conditioning – Integral with cab heating system
- utilizing same ventilation outlets and automatic temperature control (ATC)
- Adjustable sun screen
- Dome lights with red nighttime reading LED's
- Cup holder
- Fire extinguisher
- Two position travel swing lock
- AM/FM Bluetooth radio

**Armrest Controls** – Two dual axis electronic joystick controllers or optional single axis electronic controllers for: SSwing hoist

- Boom hoist
- Main (front) winch
- Auxiliary (rear) winch – optional
- Winch high/low speed switch(es)
- Warning horn button
- Swing park brake switch
- Engine throttle lock switch
- Engine set/resume switch
- Cab tilt
- Counterweight removal
- Hydraulic offset fly – optional

### Foot Controls

- Boom telescope
- Swing brake
- Engine throttle

**Upper Right Console** – Controls and indicators for:

- |                                     |                                |
|-------------------------------------|--------------------------------|
| • Engine ignition                   | • Radio                        |
| • Engine stop                       | • DRI on/off selection         |
| • Function lockout                  | • HVAC controller              |
| • Front windshield wiper and washer | • Boom floodlights             |
| • Cab lights and upper frame lights | • Rotating beacon/Strobe light |
| • Horn                              | • Top hatch wiper washer       |
| • Dome light with switch            | • Winch(es) disable            |
| • E – stop switch                   | • Engine indicator gauge       |

### Rear Right Side Panel

- 12V accessory outlet (10 amp)
- USB charge port

**Camera Display** – Located on right A-post with an adjustable mount

- Displays right side of upper
- Displays front and rear winches

**Diagnostic Center** – Located on right rear wall behind seat.

- Engine diagnostic
- RCL CANBUS diagnostic
- Boom CANBUS diagnostic
- Outtrigger CANBUS diagnostic

**Fuse & Relay Panel** – Located on left rear wall behind seat.

**Link-Belt Pulse 2.0** – Link-Belt in-house designed, total crane operating system that utilizes a 10 in touch screen color display with integrated RCL and engine data, advanced diagnostics and systems monitoring, Wi-Fi capable for remote software updates, operator customizable, and a readout and operator interface for following systems:

- **Rated capacity limiter** – LCD graphic audio – visual warning system integrated into dash with anti – two block and function limiter. Operating data includes:
  - Crane configuration
  - Boom length and angle
  - Boom head height
  - Allowed load and percent of allowed load
  - RCL light bar
  - Boom angle
  - Radius of load
  - Actual load
  - Wind speed
  - Highlighted unit of measurement on working screen
  - Telescope operation displayed in real time
  - Outtrigger position sensing
  - Drum rotation direction indication
  - Third wrap indicator
  - Diagnostics
  - Counterweight detection system
  - Ground Bearing Pressure on Jacks
  - Swing Motor Lockout For Transport Dolly
  - Operator settable alarms (include):
    - Maximum and minimum boom angles
    - Maximum tip height
    - Maximum boom length
    - Swing left/right positions
    - Operator defined area (imaginary plane)
- **Cab Instrumentation**

• Tachometer	• Swing park brake light
• Engine water temperature	• Engine speed
• Fuel level	• Engine oil pressure
• Hydraulic oil temperature	• Battery voltage
• Stop engine	• Fuel rate (gal/hr)
• Check engine	• Engine load
• Wait to start	• Engine Diagnostics
• Diesel exhaust fluid (DEF) level	
• Engine air filter high restriction light	
• Regeneration light	
• Regeneration inhibit switch	
• Regeneration initiate switch	
• High exhaust temperature light	
• Regeneration disabled light	
- **Telematics** – Cellular based data logging and monitoring system that provides:
  - Location and operational settings
  - Routine maintenance
  - Crane and engine monitoring
  - Diagnostic and fault codes

**Internal RCL Light Bar** – Visually informs operator when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

**Integrated Third Wrap Function Kickout** – Link-Belt Pulse 2.0 color display visually and audibly warns operator when wire rope is on first/bottom layer and provides a function kickout when wire rope is down to last three wraps.

**External RCL Light Bar – Optional** – Visually informs ground crew when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

## ■ Swing

**Motor/Planetary** – Two bi-directional hydraulic swing motors mounted to planetary reduction units for 360° continuous smooth swing at 1.31 rpm.

**Swing Park Brake** – 360°, electric over hydraulic, (spring applied/hydraulic released) multi-disc brake mounted between speed reducer and motor. Operated by a switch in operator's cab.

**Swing Brake** – 360°, foot operated, electric over hydraulic.

**Swing Lock** – Two – position swing lock (boom over front or rear) operated from operator's cab.

## ■ Central Lubrication System

Centralized grease bank that injects grease into turntable bearing, house lock (2- position).

## ■ Electrical

**Swing Alarm** - Audio/Visual warning device signals when upper is swinging.

### Lights

- Two LED working lights on front of cab
- Work Lighting Package
- Includes six LED lights
  - Working light on top of cab - optional
  - Right side of superstructure facing forward
  - Left upper work platform
  - Left & right sides of superstructure facing down
- Two amber strobe beacons on top of upper near winches
- Boom floodlight - Dual
- Boom floodlight - High intensity wirelessly remote
- controlled

**Power Panel** – Sealed power panel containing:

- Fuses, circuit breakers, relays, diodes, resistors
- Control modules

## ■ Hydraulic System

### Power Transmission

- One 90° miter box driven by drive shaft from auxiliary transmission.
- One closed loop pump driving one closed loop hydraulic motor acting as main pump drive for crane functions.

### Main Pumps

- One piston pump for boom hoist, telescope, and main and auxiliary winches
- One pump for swing gear
- One piston pump for counterweight removal, hydraulic fly option, cab tilt, and fly storage
- One gear pump for cab A/C

**Hydraulic Reservoir** – 181 gal (685.1L) capacity equipped with sight level gauge and magnetic drain plug.

### Filtration

- One, 5-micron filter inside hydraulic reservoir, accessible for easy replacement with an in- cab indicator light.
- One, 3 – micron filter for pilot circuit located in main valve area with an in – cab indicator light.

**Load Holding Valves** – Boom extend cylinder and boom hoist cylinder are equipped with load holding valves to provide load lowering and prevent accidental load drop when hydraulic power is suddenly reduced.

**Hydraulic Oil Cooler** – Mounted on left side. Removes heat from hydraulic oil.

**Boom Hoist Float Valves** – For transporting boom over rear of crane with a boom dolly. Allows hydraulic oil within boom hoist cylinder to flow between piston side and case side.

**Swing Brake Release Valve** – For transporting boom over rear of crane with a boom dolly. Holds 360° swing park brake in released position allowing free rotation of upper structure.

## ■ Load Hoist System

### Load Hoist Performance

Main (Front) and Auxiliary (Rear) Winches - 7/8 in (22mm) Rope										
	Maximum Line Pull		Normal Line Speed		High Line Speed		Layer		Total	
Layer	lb	kN	ft/min	m/min	ft/min	m/min	ft	m	ft	m
1	29,392	130.7	181	55.2	334	101.8	197	60.0	197	60.0
2	26,996	120.1	195	59.4	371	113.1	215	65.5	412	125.6
3	24,961	111	209	63.7	397	121.0	232	70.7	644	196.3
4	23,212	103.3	223	68	424	129.2	250	76.2	893	272.2
5	21,691	96.5	337	102.7	450	137.2	267	81.4	1160	353.6

Wire Rope Application		Diameter		Type	Maximum Permissible Load	
		in	mm		lb	kN
Main	Standard	7/8	22	37x7 rotation resistant - right regular lay (Type KC)	21,625	96.2
	Optional	7/8	22	34x7 rotation resistant - right regular lay (Type YB)	21,920	97.5
Auxiliary	Standard	7/8	22	37x7 rotation resistant - right regular lay (Type KC)	21,625	96.2
	Optional	7/8	22	35x7 rotation resistant - right regular lay (Type YB)	21,920	97.5

### Main (Front) and Optional Auxiliary (Rear) Winches

- Axial piston, full and half displacement (2-speed) motors driven through planetary reduction unit for positive control under all load conditions
- Grooved lagging
- Power up/down mode of operation
- Hoist drum cable followers - optional
- Drum rotation indicators
- Drum diameter: 18.5 in (47cm)
- Rope diameter: 7/8 in (22mm)
- Rope length:
  - Main (Front) 1,000 ft (290m)
  - Auxiliary (Rear) 775 ft (236.2m) or 1,000 ft (290m) – optional
- Last layer and third wrap function kick-out
- Poured socket rope termination

### ■ Counterweight

**Standard** – Total of 41,000 lb (18.6mt) of total counterweight consisting of three hydraulically removable counter-weights. Assembled and disassembled by hydraulic cylinders controlled from operator's cab with capacities for:

- 0lb (0t) counterweight
- 8,000 lb (3.6t) counterweight
- 19,000 lb (8.6t) counterweight
- 41,000 lb (18.6t) counterweight

**Optional** – 77,000 lb (35.0t) in addition to standard counterweight for a total of 118,000 lb (53.5t) counterweight for additional capacities for:

- 52,000 lb (23.6t) counterweight
- 63,000 lb (28.6t) counterweight
- 74,000 lb (33.6t) counterweight
- 96,000 lb (43.6t) counterweight
- 118,000 lb (53.6t) counterweight

### ■ Additional Options

- Heavy lift package – (required for base rating) includes additional boom head sheave pack, boom hoist cylinder.
- Boom launching – includes hydraulically removable boom foot pins and hydraulic quick disconnects for boom plumbing.
- Hydraulic quick disconnects for boom plumbing.
- Upper mounted storage box.
- Working light bar mounts on top of operator's cab.



<b>Standard</b>									
			<b>Optional</b>						
Counterweight Packages			41,000 lb (18.6mt) – Standard						
			118,000 lb (53.5mt) – Optional						
Counterweight Modules			A 8,000 lb (3.6mt)	B 11,000 lb (5.0mt)	C 11,000 lb (5.0mt)	D 22,000 lb (10.0mt)	D 22,000 lb (10.0mt)	D 22,000 lb (10.0mt)	E 22,000 lb (10.0mt)
Counterweight Usage Configurations		0 lb							
	A	8,000 lb (3.6mt)	X						
	A,B	19,000 lb (8.62mt)	X	X					
	A,B,D	41,000 lb (18.6mt)	X	X	X	X			
	A,B,C,D	52,000 lb (23.6mt)	X	X					X
	A,B,D,D	63,000 lb (28.6mt)	X	X	X	X			X
	A,B,C,D,D	74,000 lb (33.6mt)	X	X		X	X		X
	A,B,C,D,D,D	96,000 lb (43.5mt)	X	X	X	X	X		X
	A,B,C,D,D,D,E	118,000 lb (53.5mt)	X	X	X	X	X	X	X

# Carrier

## ■ General

- 10 ft (3.04m) wide (525/80R25 tires)
- 27 ft 6.3 in (8.4m) wheel base (centerline of first axle to centerline of fifth axle)
- **Frame** – Box-type, torsion resistant, welded construction made of high tensile steel. Equipped with front and rear tie-down lugs and four carrier access ladders.

## ■ Outriggers

**Boxes** – Two, double box, front and rear welded to carrier frame

**Beams and Jacks** – Two, single stage front and two dual stage rear beams hydraulically controlled via rigging remote control. Jacks with integral check valves, hydraulically controlled via wireless rigging remote control.

**V-CALC** – Variable confined area lifting capabilities that are incorporated into Pulse 2.0 display allowing multiple outrigger configurations of fully extended, intermediate, and fully retracted in infinite combinations, with live on screen working radii, utilizing 360° charts and swing arrest.

### Pontoons

- **Main** – Four, stow'n go, 20 in (50.8cm) square steel pontoons with a contact area of 385 in<sup>2</sup> (2 483.8cm<sup>2</sup>) can be stored for road travel under outrigger boxes

**Outrigger Work Station Floodlights** – LED Flood lights are mounted at each side of carrier.

### Jack Reaction

- **Main** – Rear: 260,000 lb (1156.5kN) force and 654 psi (4509.1kPa)  
Front: 180,000 lb (800.7kN) and 453 (3123.3kPa)psi ground bearing pressure. Consult factory for base rating ground bearing pressure information.

## ■ Steering and Axles

- Full integral master gear/relay arm steering system provides hydraulic assisted steering with mechanical link between steering wheel and wheels.

**On Highway (Primary) Steering Mode** – Axles 3, 4, and 5 will automatically steer in combination with axles 1 and 2 based on travel speed:

On- Highway (Primary)			
Speed	Less than 18.6 mph (30km/h)	18.6-31 mph (30-50km/h)	Greater than 31 mph (50km/h)
Axle 1	Steered	Steered	Steered
Axle 2	Steered	Steered	Steered
Axle 3	Steered	Locked	Locked
Axle 4	Steered	Locked	Locked
Axle 5	Steered	Steered	Locked

Off Road (Auxiliary) Steering Modes - Four independent modes consisting of:

All Wheel: Axles 1, 2, 3, 4, and 5

Diagonal (Crab): Axles 1, 2, 3, 4, and 5

Independent Rear: Axles 3, 4, and 5

Drive Away From Walls: Temporary crab

Front, all wheel, and diagonal (crab) steering modes are controlled from steering wheel and are selected by controls in driver's cab. Switches in driver's cab control rear steering mode through steering module display.

Emergency Steering - A pump is flange-mounted to transfer case and provides hydraulic pressure to steering circuit as long as crane is in motion

- **Drive** - 10x6x10 Standard
- **Axle 1** – Steered
- **Axle 2** – Steered, driven
- **Axle 3** – Steered
- **Axle 4** – Steered, driven
- **Axle 5** – Steered, driven
- **Drive** – 10x8x10 Optional
- **Axle 1** – Steered
- **Axle 2** – Steered, driven
- **Axle 3** – Steered, driven
- **Axle 4** – Steered, driven
- **Axle 5** – Steered, driven
- **Inter- Axle Differential Lock** – Traction aiding device that locks axles 2, 4, and 5. Operated by a switch in carrier cab.
- **Transverse (Cross- Axle) Differential Locks** – Traction aiding device that locks differentials within axles 2, 4, and 5. Operated by a momentary switch in carrier cab.

## ■ Suspension

Hydro – pneumatic, lockable with level adjustment and automatic ride height leveling. All axles have longitudinal and transverse trailing arms with leveling adjustment and lockable cylinders. Carrier can be raised, lowered, and tilted side to side by controls in carrier cab that adjust suspension cylinders to aid in machine setup.

- Cylinder stroke: - 4.5 in (- 11.43cm)/+3.5 in (8.89cm) at ride height

## ■ Tires and Wheels

**Standard** – Ten, (single) 525/80R25 tires on aluminum disc wheels

- Lug nut torque indicator
- Tire pressure and temperature monitoring

**Optional** – Ten, (single) 445/95R25 tires on aluminum disc wheels

- Tire inflation kit – optional
- Spare tires and wheels – optional

## ■ Brakes

**Service** – Air anti-lock (ABS) braking system. Disc brakes on all wheel ends. Dual circuit compressed air system with air dryer.

**Parking/Emergency** – Spring loaded type, acting on 2nd, 3rd, 4th, and 5th axles, automatically apply when air pressure drops below 40 psi (275kPa) in both circuits.

**Intarder** – Hydrodynamic driveline brake that is integral to transmission. Activated by a switch in carrier cab and controlled by paddle shifters on steering wheel.

**Traction Control** – ABS activated traction control to limit wheel slip of axles 1, 2, 4, and 5.

## ■ Central Lubrication System

Automated lubrication unit that injects grease into steering gear arms, steering knuckles, axle king pins, and suspension cylinders. Activated by a timer on ignition switch.

## ■ Electrical

Battery - Four batteries provide 24 volt starting and operation, easily accessible battery disconnects, and battery jumping charging posts

### Lights

- Front lighting includes two main daytime running/ headlights, two high beam lights, two LED parking/directional indicators, and five LED cab marker lights
- Side lighting includes four parking/directional indicators per side
- SLED rear lighting includes two parking/directional indicators, two parking/brake lights, two reverse lights, three marker lights, and a license plate light
- Other equipment includes hazard/warning system, cab LED light, instrument panel light, signal horn, and two outrigger LED lights on each side
- Two amber strobe beacon behind cab

## ■ Transmission

**Main Transmission** – Automated – ZF TraXon (no clutch pedal) manual transmission with 12 forward gears and 2 reverse gears.

**2-Speed Transfer Case** – Air actuated manual transmission with high/low/neutral range.

## ■ Fuel Tank

- Two, 79 gal (299L) capacity aluminum fuel tanks for a total capacity of 158 gallons (598.1L)
- One, 15 gal (56.8L) capacity plastic diesel exhaust fluid (DEF) tank

## ■ Engine

Specification	Cummins X 15
Emission Compliance Level:	EPA ON-ROAD
Maximum Allowable Sulfur Content of Fuel (PPM):	15
Numbers of cylinders	6
Cycle	4
Bore and Stroke: inch (mm)	5.39 x 6.65 (136.9x169)
Piston Displacement: in <sup>3</sup> (cm <sup>3</sup> )	912 (14 945)
Max. Brake Horsepower: hp (kW)	548 (409) @ 2,000 rpm 580 (432) @ 1,800 rpm
Peak Torque: ft lb (Nm)	1,950 (2 644) @ 1,400 rpm
Alternator: volts – amps	24 - 200
Crankcase Capacity: qt (L)	48 (45.4)
<ul style="list-style-type: none"> <li>• Cruise control</li> <li>• Three stage engine compression brake</li> <li>• Thermostatically controlled, hydraulically driven radiator fan</li> <li>• 120 volt engine block heater</li> <li>• Emergency shut – off valve - optional</li> <li>• Spark arrestor – optional</li> <li>• Air shut- off valve – optional</li> </ul>	

## ■ Hydraulic System

### Main Pumps

- Two section, fixed displacement gear pump for 1<sup>st</sup> and 2<sup>nd</sup> axle steering circuits, suspension, outriggers, and 3<sup>rd</sup> and 4<sup>th</sup> axle steering circuits
- One, fixed displacement gear pump for 5<sup>th</sup> axle steering circuit
- One, variable displacement piston pump for cooling fan circuit

**Hydraulic Reservoir** – 48gal(181.7L) capacity.

Filtration – One, 5 – micron filter inside hydraulic reservoir. Accessible for easy filter replacement.

### ■ Pump Drive

- Engine fan, outriggers, steering, and suspension pumps mounted to engine
- Rear steering pump mounted to back of air compressor
- Ground driven pump mounted to back of transfer case

## ■ Carrier Speeds and Gradeability

ZF TraXon Transmission		Governed Speed*			Peak Torque**		
Gear	Ratio	Vehicle Speed		Gradeability %Grade	Vehicle Speed		Gradeability %Grade
		mph	km/h	Min.	mph	km/h	Min.
12th	0.77	55.00	88.00	0.5	50.00	81.00	1.5
11th	1.00	49.00	78.00	1.0	39.00	62.00	2.5
10th	1.30	37.00	60.00	2.5	30.00	48.00	4.0
9th	1.68	29.00	46.00	4.0	23.00	37.00	5.0
8th	2.19	22.00	36.00	5.0	18.00	28.00	7.5
7th	2.83	17.00	27.00	6.0	14.00	22.00	10.0
6th	3.53	14.00	22.00	9.0	11.00	18.00	12.5
5th	4.57	11.00	17.00	12.0	9.00	14.00	16.5
4th	5.94	8.00	13.00	15.0	7.00	10.00	22.5
3rd	7.69	6.00	10.00	22.5	5.00	8.00	30.0
2nd	9.98	5.00	8.00	30.0	4.00	6.00	40.0
1st	12.92	4.00	6.00	37.5	3.00	5.00	40.0
Reverse (1)	12.03	4.00	6.00	35.7	3.00	5.00	40.0
Reverse (2)	9.29	5.00	8.00	27.1	4.00	7.00	36.7

Based on a gross vehicle weight of 135,000 lb (61 235kg) using 525/80R25 tires

\* Governed Speed represents maximum speed achieved by each gear on flat road and maximum % grade to maintain that speed.

\*\* Peak Torque represents maximum grade achieved at each gear and corresponding speed at each grade and gear (Engine rpm @ 1,600 rpm for all gears).

ZF TraXon Transmission		Transfer Case High			Transfer Case Low		
Gear	Ratio	Vehicle Speed		Gradeability %Grade	Vehicle Speed		Gradeability %Grade
		mph	km/h	Min.	mph	km/h	Min.
6th	3.53	4.80	8.00	6.0	1.20	2.00	57.0
5th	4.57	3.70	6.00	8.0	0.90	1.00	57.0
4th	5.94	2.90	5.00	11.0	0.70	1.00	57.0
3rd	7.69	2.20	4.00	15.0	0.50	1.00	57.0
2nd	9.98	1.70	3.00	20.0	0.40	1.00	57.0
1st	12.92	1.30	2.00	26.0	0.30	1.00	57.0
Reverse (1)	12.03	1.40	2.00	24.2	0.30	1.00	57.0
Reverse (2)	9.29	1.80	3.00	18.3	0.40	1.00	57.0

Cross-Axle Lock are limited to 1st gear; Inter-Axle Lock is limited to 1st through 6th gears.

ZF TraXon Transmission		Governed Speed*			Peak Torque**		
Gear	Ratio	Vehicle Speed		Gradeability %Grade	Vehicle Speed		Gradeability %Grade
		mph	km/h	Min.	mph	km/h	Min.
12th	0.77	55.00	88.00	0.5	50.00	81.00	1.0
11th	1.00	49.00	78.00	1.0	39.00	62.00	2.0
10th	1.30	37.00	60.00	2.0	30.00	48.00	3.0
9th	1.68	29.00	46.00	3.0	23.00	37.00	4.5
8th	2.19	22.00	36.00	4.0	18.00	28.00	6.0
7th	2.83	17.00	27.00	6.0	14.00	22.00	8.0
6th	3.53	14.00	22.00	7.0	11.00	18.00	10.0
5th	4.57	11.00	17.00	10.0	9.00	14.00	14.0
4th	5.94	8.00	13.00	13.0	7.00	10.00	18.0
3rd	7.69	6.00	10.00	15.0	5.00	8.00	25.0
2nd	9.98	5.00	8.00	25.0	4.00	6.00	33.0
1st	12.92	4.00	6.00	30.0	3.00	5.00	33.0
Reverse (1)	12.03	4.00	6.00	28.2	3.00	5.00	33.0
Reverse (2)	9.29	5.00	8.00	21.4	4.00	7.00	30.3

Based on a gross vehicle weight of 162,000 lb (72 575kg) using 525/80R25 tires

\* Governed Speed represents maximum speed achieved by each gear on flat road and maximum % grade to maintain that speed.

\*\* Peak Torque represents maximum grade achieved at each gear and corresponding speed at each grade and gear (Engine rpm @ 1,600 rpm for all gears).

ZF TraXon Transmission		Transfer Case High			Transfer Case Low		
Gear	Ratio	Vehicle Speed		Gradeability %Grade	Vehicle Speed		Gradeability %Grade
		mph	km/h	Min.	mph	km/h	Min.
6th	3.53	4.80	8.00	5.0	1.20	2.00	44.0
5th	4.57	3.70	6.00	7.0	0.90	1.00	44.0
4th	5.94	2.90	5.00	10.0	0.70	1.00	44.0
3rd	7.69	2.20	4.00	12.5	0.50	1.00	44.0
2nd	9.98	1.70	3.00	17.5	0.40	1.00	44.0
1st	12.92	1.30	2.00	21.0	0.30	1.00	46.0
Reverse (1)	12.03	1.40	2.00	20.1	0.30	1.00	46.0
Reverse (2)	9.29	1.80	3.00	15.4	0.40	1.00	44.0

Cross-Axle Lock are limited to 1st gear; Inter-Axle Lock is limited to 1st through 6th gears.

## ■ Lower Cab and Controls

**Environmental Cab** – Fully enclosed, dual occupancy cab of aluminum constructed with acoustical insulation. Equipped with:

- Tinted and tempered glass windows
- Power left and right door windows for ventilation
- Intermittent windshield wiper and washer
- Six-way adjustable and air suspended driver's seat with seat belt
- Passenger seat with integrated storage
- Two heated and electrically adjustable side view mirrors with passenger infrared camera
- Engine dependent warm – water heater with air ducts for chest/face, foot, and windshield defroster
- Adjustable sun visor
- SLED dome lights
- Fire extinguisher

**Air Conditioning** – Integral with cab heating system utilizing same ventilation outlets

- Automatic temperature control

**Overhead Console** – Located above sun visor

- AM/FM Bluetooth radio
- Dome light switch
- 12V accessory power outlet

**Camera Display** – Integrated with right side LCD display

- Displays right side of machine
- Displays rear view
- Displays dolly rear view – option

**Cab Instrumentation** – Ergonomically positioned instrumentation for driving including:

- Digital speedometer with odometer, hour meter, trip meter, clock and outside temperature.
- Tachometer
- Fuel and diesel exhaust fluid (DEF) level with warning indicator

### Indicator Lights

- Regeneration inhibit
- Check engine
- Stop engine
- Exhaust regeneration
- High exhaust temperature
- Engine air filter high restriction light
- Cruise
- Park brake
- Tire pressure warning
- ABS
- Trailer ABS
- Steer computer
- Steer pump
- Steer hydraulic oil level
- Intarder level
- Engine brake level
- Transaxle (cross- axle) differential lock
- Inter- axle differential lock
- Transfer case
- Travel mode
- Ride height
- Diesel Exhaust Fluid (DEF)
- Seat belt
- Traction control
- Hill hold start

### Dash Mounted Controls For:

- Carrier lights
- Console dimmer switch
- Remote mirror control switches
- Mirror heating switch
- Cab heater/air conditioning switch
- Fresh/Recirculation air switch
- Park brake air valve
- Trailer brake air valve
- Carrier engine ignition switch

### Dash Mounted Indicators For:

Turn signal indication

High beam headlights

**Right Side LCD Display** – Ergonomically positioned on right of driver's dash panel, digital instrumentation and indicators for crane operations including:

- Transmission digital readout
- **Gauges**
  - Engine water temperature
  - Engine oil pressure

### Diagnostic Screens

- Engine
- After treatment
- Suspension/Outriggers
- Intarder
- Tire Pressure Monitoring Screen (TPMS)

**Right Side Console** – Controls and indicators for:

- Transmission gear shifting
- Steering electronic control panel
- Auxiliary transmission range selector switch
- Intarder on/off switch
- Diesel particulate filter switch
- Regeneration inhibit switch
- Fan override switch
- ABS Traction control switch
- Transaxle (cross- axle) differential lock switch with indicator light
- Inter- axle differential lock switch with indicator light
- Travel mode switch
- Front axles (axles 1 & 2) suspension height switch
- Rear axles (axles 3 – 5) suspension height switch
- Ride height switch
- Hill hold start switch

### Steering Column/Wheel Controls For:

- Turn signal switch
- High beam switch
- Tilt/telescope adjustments
- Cruise Control
- Engine brake control
- Warning horn
- Hazard light switch
- Intarder brake control
- Intermittent windshield wiper and washer

### Foot Controls For:

- Carrier service brakes
- Engine throttle

**Carrier Fuse & Relay Center** – Located inside cab passenger dash contains:

- Fuses and relays for carrier functions

**Diagnostic Ports** – Located under dash to left of steer column:

- OBD
- Transmission
- CANBUS
- CB radio hook ups

## ■ Additional Equipment

### Standard:

- Aluminum full deck fenders
- Two storage boxes located between axle 4 and 5, one on each side
- Air hose connection ports
- Clearance flags
- Front and rear anchor shackles
- Pneumatic and electrical quick disconnect connections mounted to rear for trailer or boom dolly brakes and lights

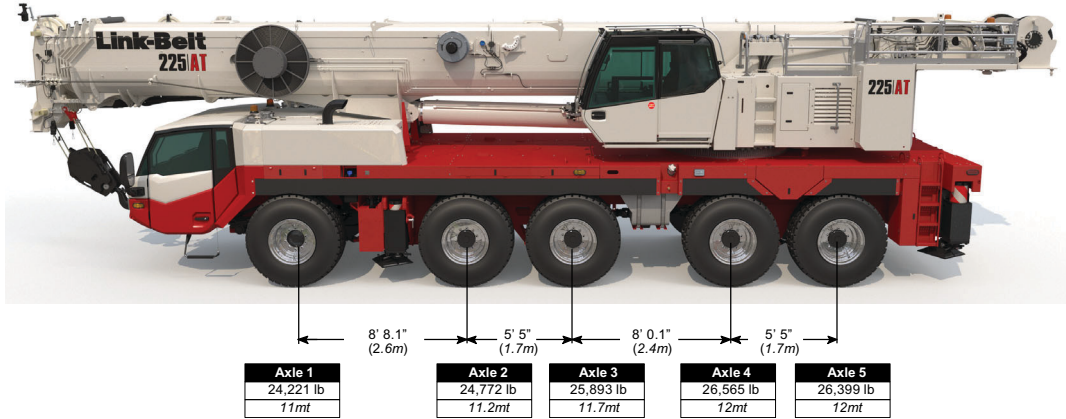
### Optional:

- Rear mounted pintle hook
- Oversize load sign mounted below front bumper
- Third axle lift
- Hydraulic quick disconnects for outrigger beam removal
- Aluminum storage box on right side of upper
- Boom Launch: Includes hydraulic pin pullers, retaining pin for boom hoist cylinder pin, alignment bumpers to base section, boom hoist cylinder rest bracket, slings, and shackles to simplify boom removal & installation for transport.

## Transport Scenarios - Axle Loads

### Machine Configuration:

Base crane equipped with 525/80R25 tires, main winch with 1,000 ft (305m) KC wire rope, hoist drum follower, 40 ton (37mt) 1-sheave hook block at front bumper, auxiliary lifting sheave, full tank of fuel, 250 lb driver, and 500 lb in storage boxes.



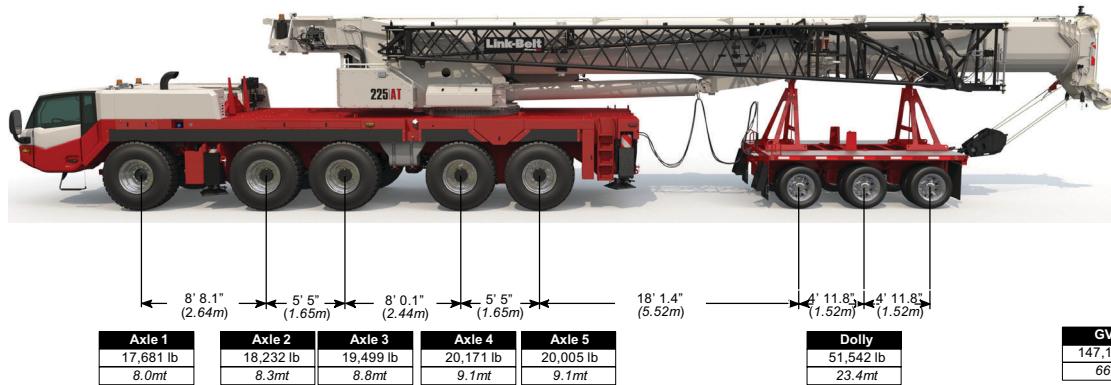
Axle Load Transfer Option Substitution (Boom Over Front)		Axle 1	Axle 2	Axle 3	Axle 4	Axle 5
Add: 42'- 71' Hyd Offsetable Fly	lb mt	2,893 1.3	2,893 1.3	- 203 - 0.10	- 203 - 0.10	- 203 - 0.10
Add: Auxiliary winch w/ 775 ft wire rope	lb mt	- 1,995 - 0.90	- 1,995 - 0.90	2,678 1.2	2,678 1.2	2,678 1.2
Add: Counterweight Tray	lb mt	2,799 1.3	2,799 1.3	800 0.40	800 0.40	800 0.40
Add: 12 ton Hook Ball	lb mt	763 0.30	763 0.30	- 225 - 0.10	- 225 - 0.10	- 225 - 0.10
Substitute: 445/95R25 tires	lb mt	- 183 - 0.10	- 183 - 0.10	- 183 - 0.10	- 183 - 0.10	- 183 - 0.10
Remove: 40 ton Hook Block	lb mt	- 1,340 - 0.60	- 1,340 - 0.60	395 0.20	395 0.20	395 0.20



## Transport Scenarios - 3- Axle Boom Dolly

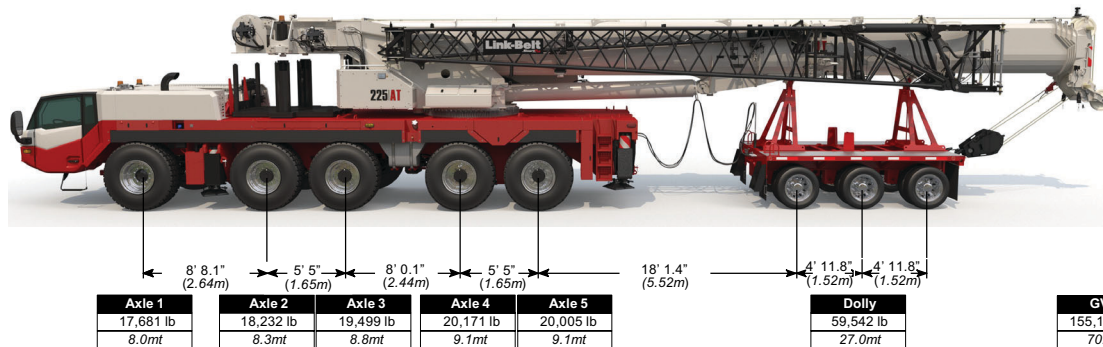
### Machine Configuration:

Base crane equipped with 525/80R25 tires, main winch with 1,000 ft (305m) KC wire rope hoist drum follower, aux (rear) winch with 775' KC wire rope, 42' – 71' hydraulically offsettable fly stored, 75 ton 3 sheave hook block, auxiliary lifting sheave, boom extended, full tank of fuel, 250 lb driver. Boom Dolly: Nelson Manufacturing 3-axle close couple dolly. Est weight 9000lbs (4082kg)



0 lb  
(0 mt)

### With Counterweight Tray Installed:

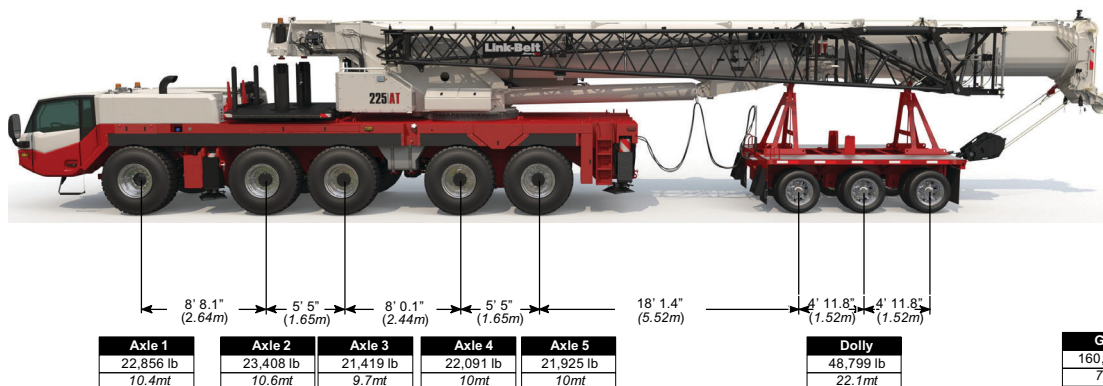


8,000 lb  
(3.6 mt)

### Machine Configuration:

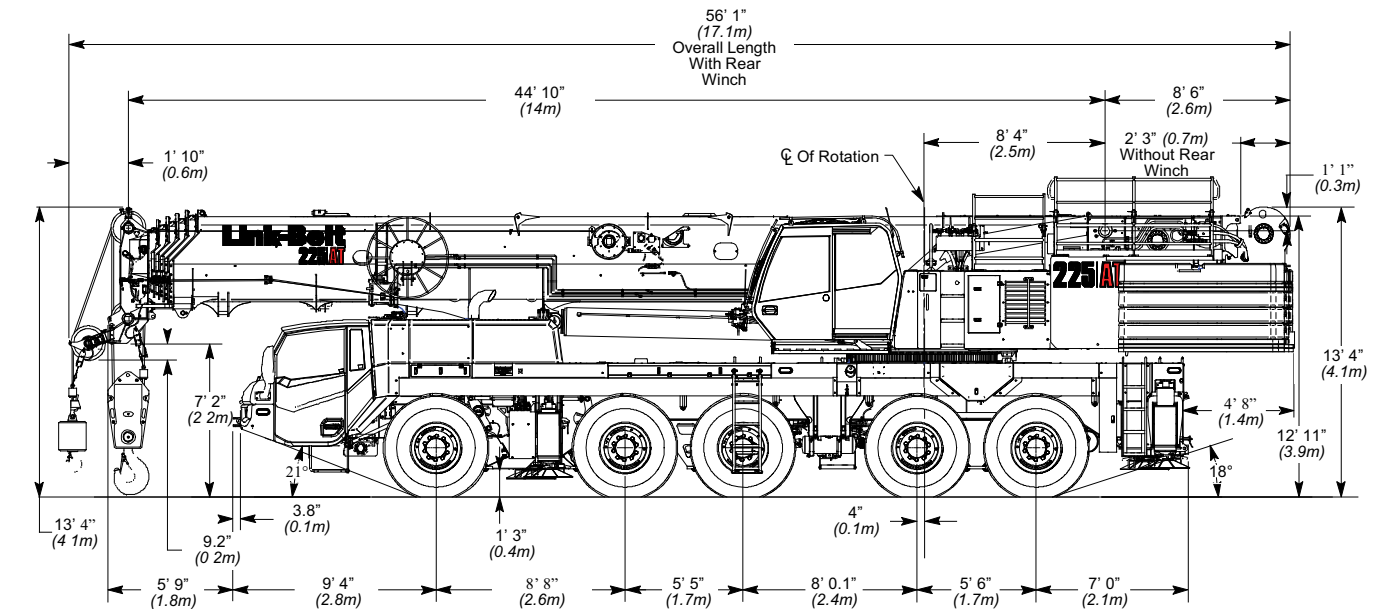
Base crane equipped with 525/80R25 tires, main winch with 1,000 ft (305m) KC wire rope hoist drum follower, 42' – 71' hydraulically offsettable fly stored, 40 ton 1 sheave hook block, auxiliary lifting sheave, boom extended, full tank of fuel, 250 lb driver. Boom Dolly: Nelson Manufacturing 3-axle close couple dolly. Est weight 9000lbs (4082kg)

### With Counterweight Tray + 11K Installed:



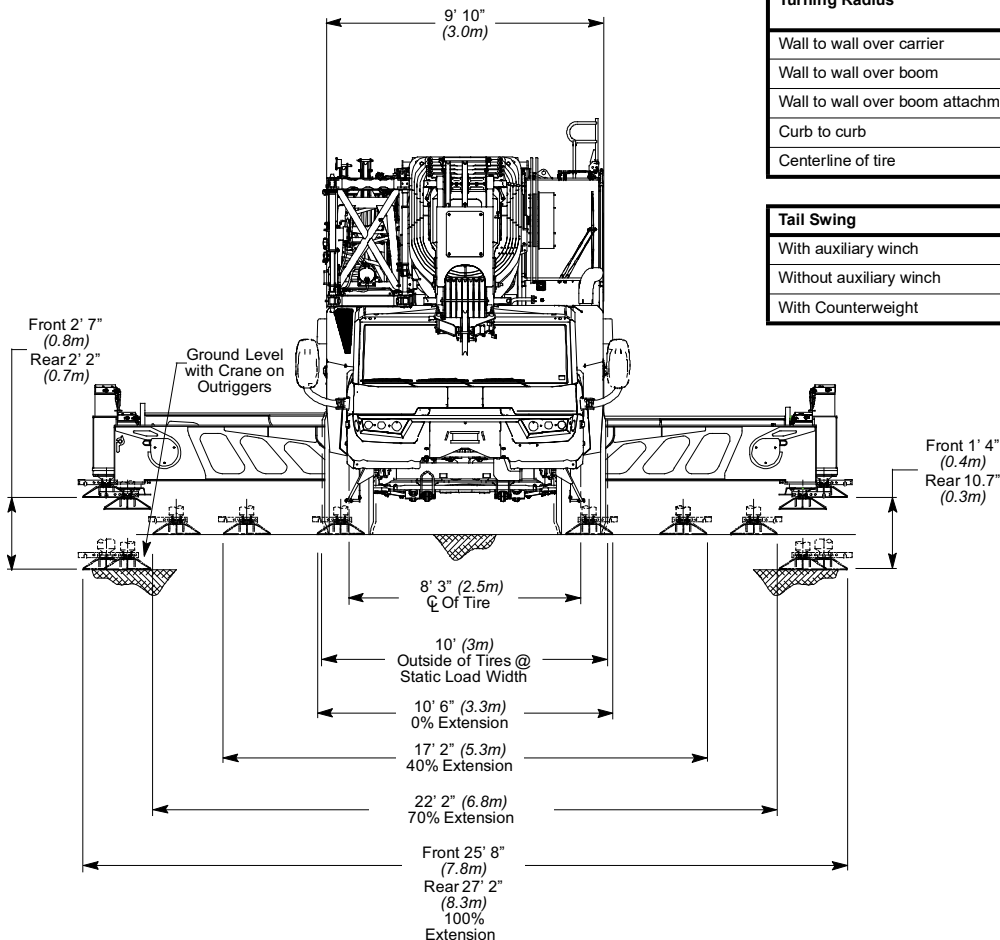
19,000 lb  
(8.6 mt)

# General Dimensions

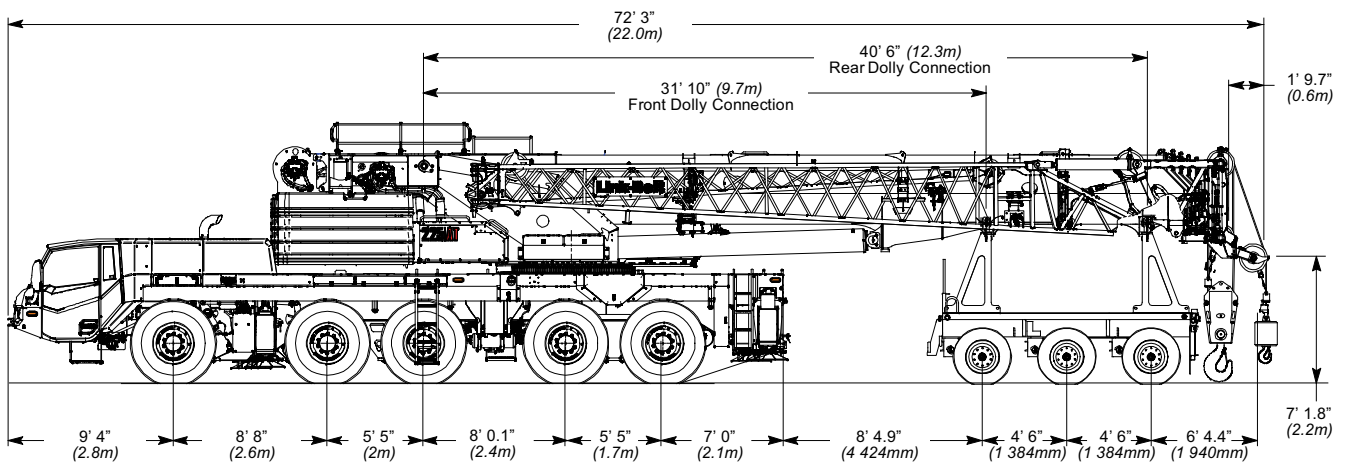
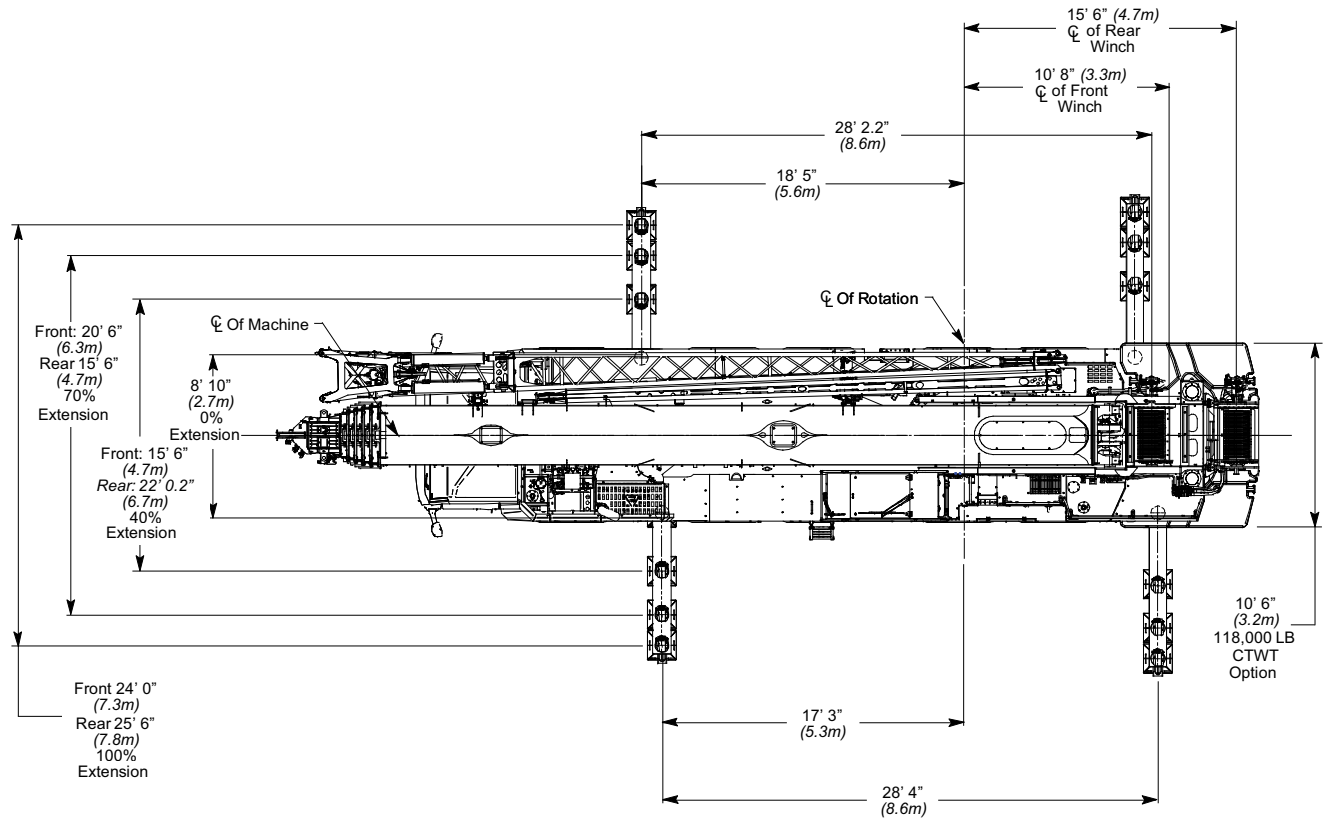


Turning Radius	525/80R25	
	English	Metric
Wall to wall over carrier	39'- 0"	11.9m
Wall to wall over boom	41'- 6"	12.6m
Wall to wall over boom attachment	43'- 6"	13.2m
Curb to curb	34'- 10.9"	10.6m
Centerline of tire	41'- 11.2"	12.8m

Tail Swing	English	Metric
With auxiliary winch	16'- 11"	5.2m
Without auxiliary winch	14'- 7.5"	4.5m
With Counterweight	17'- 0"	5.2m



Not to Scale

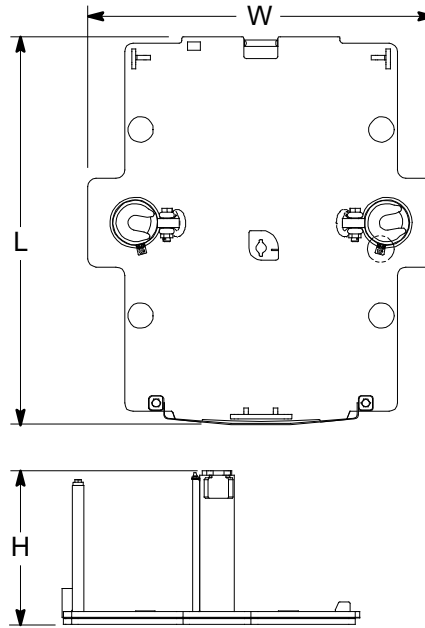


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# Counterweights

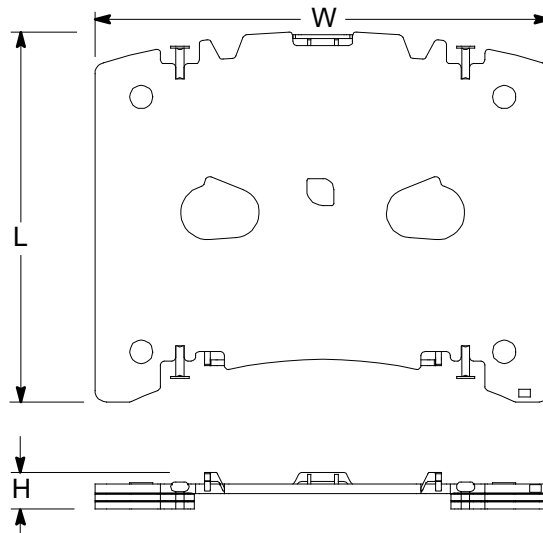
## Counterweight Tray (A) ❶

Length	91.73 in	(2 330mm)
Width	82.0 in	(2 082mm)
Height	47.38 in	(1 203mm)
Weight	8,019 lb	(3.64mt)



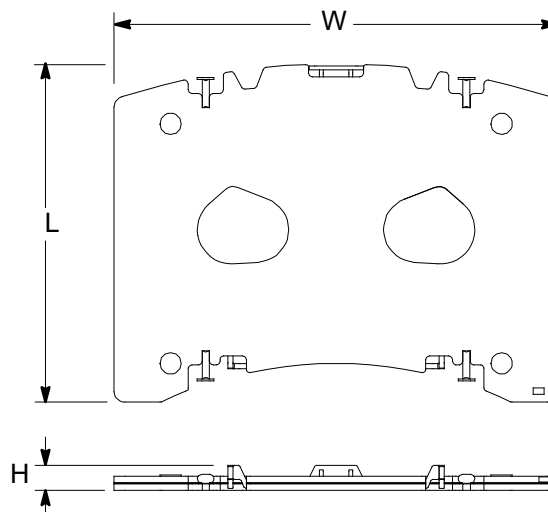
## Counterweight (B) ❶

Length	95.81 in	(2 433mm)
Width	118.0 in	(2 997mm)
Height	9.44 in	(240 mm)
Weight	11,083 lb	(5.0mt)



## Counterweight (C) ❶

Length	95.81 in	(2 434mm)
Width	126 in	(3 200mm)
Height	6.94 in	(176mm)
Weight	11,000 lb	(5.0mt)

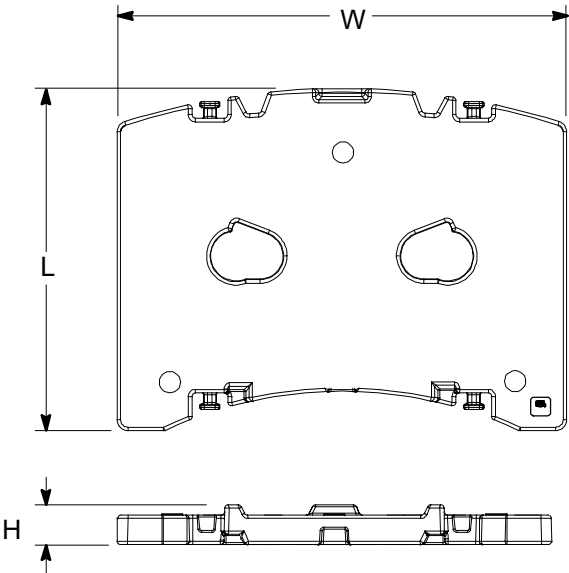


Number inside black circle "❶" of components

\* - Optional equipment

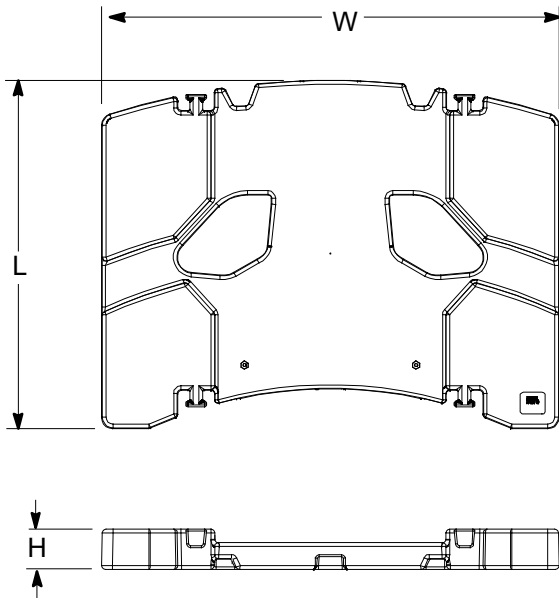
**Counterweight (D)** ③

Length	95.9 in	(2 436mm)
Width	126.00 in	(3 199mm)
Height	11.6 in	(294mm)
Weight	22,000 lb	(10.0mt)



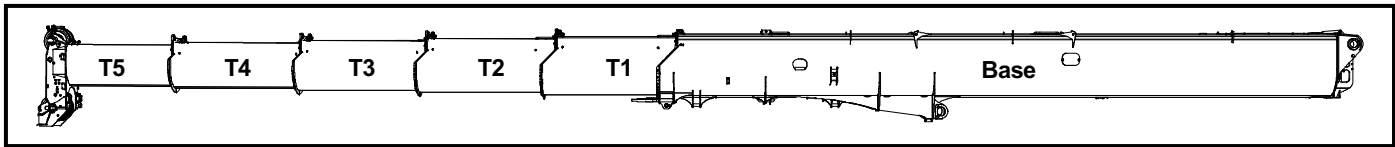
**Counterweight (E)** ①

Length	95.9 in	(2 436mm)
Width	126.00 in	(3 199mm)
Height	11.0 in	(280mm)
Weight	22,000 lb	(10.0mt)



Number inside black circle “①” of components  
\* - Optional equipment

## Boom Extend Modes



EM 1	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	74.4	22.7	100%				
	104.9	32.0	100%	100%			
	136.4	41.6	100%	100%	100%		
	168.8	51.4	100%	100%	100%	100%	
	185.5	56.5	100%	100%	100%	100%	50%
	202.2	61.6	100%	100%	100%	100%	100%

EM 2	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	74.4	22.7	100%				
	104.9	32.0	100%	100%			
	136.4	41.6	100%	100%	100%		
	152.6	46.5	100%	100%	100%	50%	
	169.3	51.6	100%	100%	100%	50%	50%
	186.0	56.7	100%	100%	100%	50%	100%

EM 3	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	74.4	22.7	100%				
	104.9	32.0	100%	100%			
	120.6	36.8	100%	100%	50%		
	136.8	41.7	100%	100%	50%	50%	
	153.5	46.8	100%	100%	50%	50%	50%
	170.2	51.9	100%	100%	50%	50%	100%

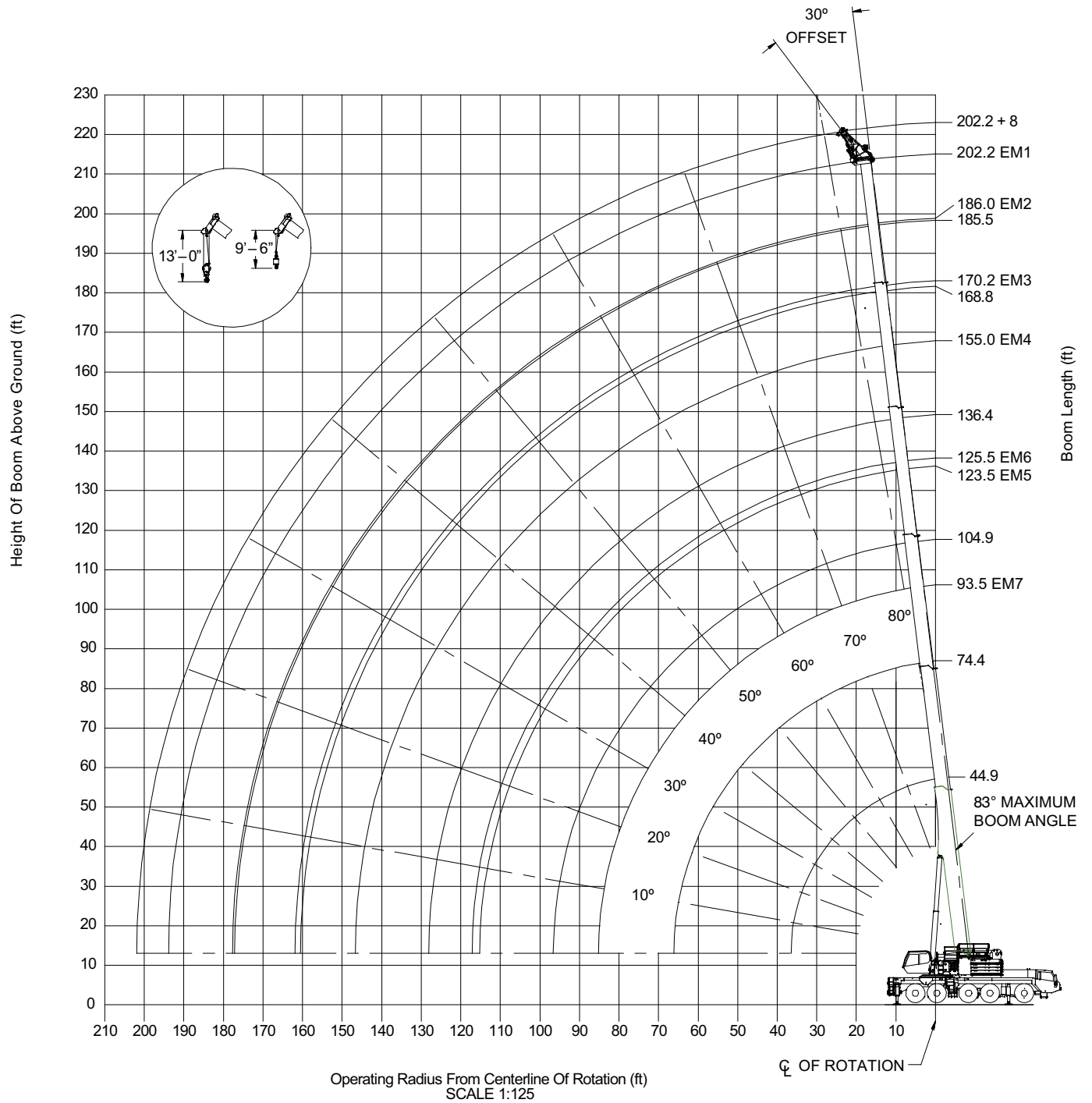
EM 4	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	74.4	22.7	100%				
	89.6	27.3	100%	50%			
	105.4	32.1	100%	50%	50%		
	121.6	37.1	100%	50%	50%	50%	
	138.3	42.1	100%	50%	50%	50%	50%
	155.0	47.2	100%	50%	50%	50%	100%

EM 5	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	59.6	18.2	50%				
	74.9	22.8	50%	50%			
	90.6	27.6	50%	50%	50%		
	106.8	32.6	50%	50%	50%	50%	
	123.5	37.6	50%	50%	50%	50%	50%

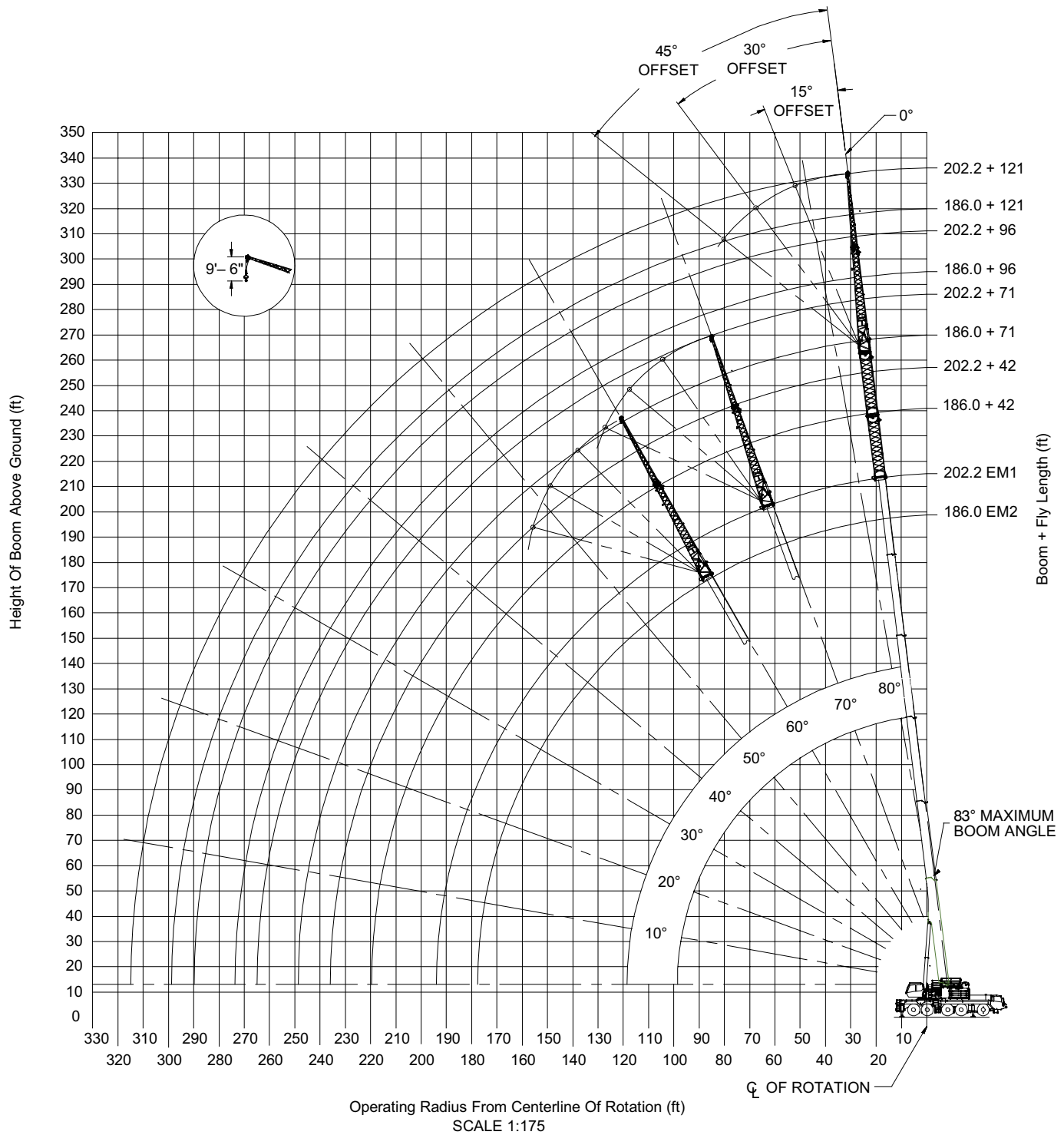
EM 6	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	60.1	18.3		50%			
	75.9	23.1		50%	50%	0%	
	92.1	28.1		50%	50%	50%	
	108.8	33.1		50%	50%	50%	50%
	125.4	38.2		50%	50%	50%	100%

EM 7	Boom Length		Telescope Length				
	ft	m	T5	T4	T3	T2	T1
	44.9	13.7					
	60.6	18.5			50%		
	76.8	23.4			50%	50%	
	93.5	28.5			50%	50%	50%

# Working Range Diagram - Main Boom

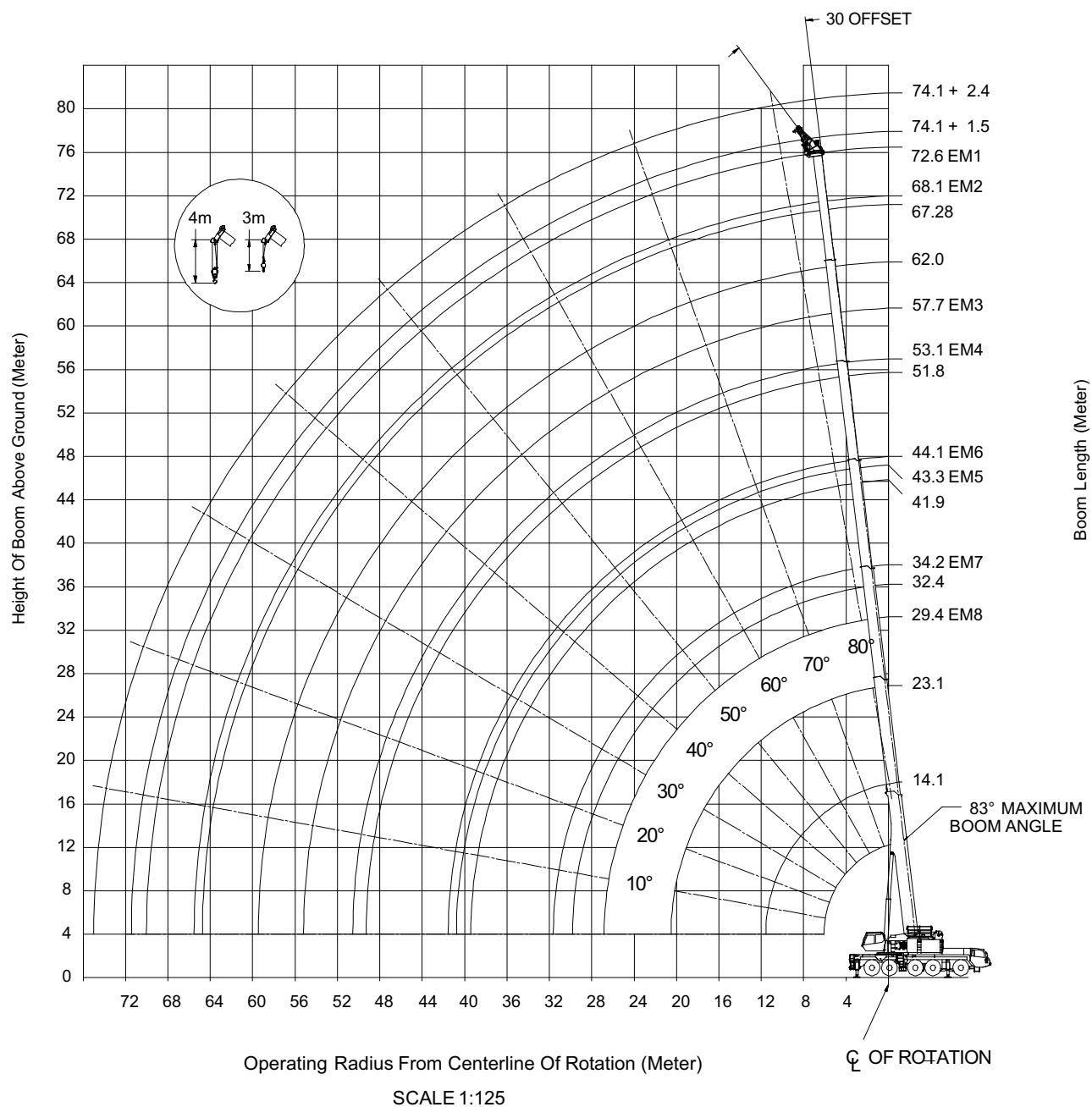


# Working Range Diagram - Main Boom + Fly

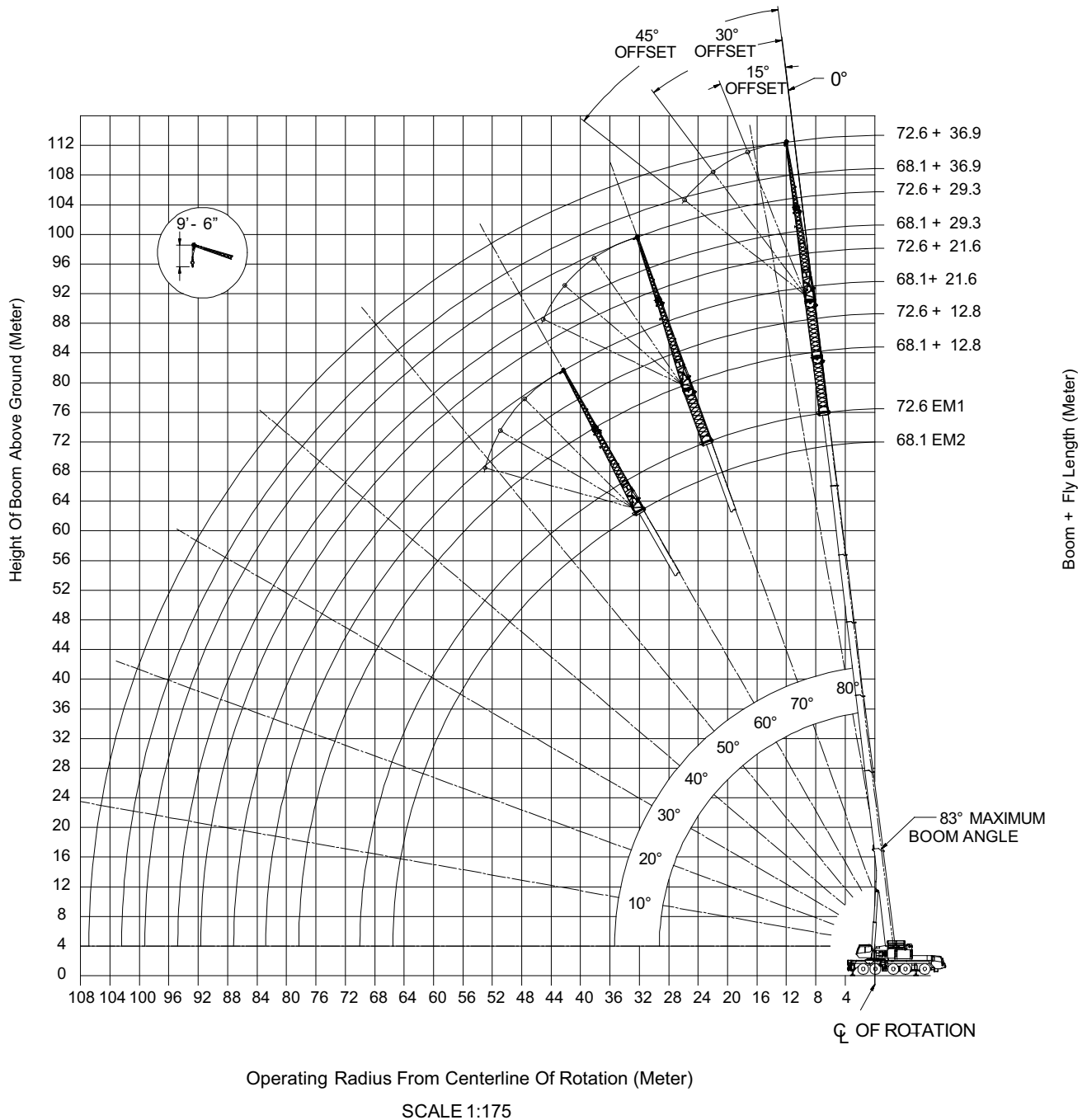




# Working Range Diagram - Main Boom (Metric)



# Working Range Diagram - Main Boom + Fly (Metric)



## Main Boom Lift Capacity Charts - Standard

8,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)											
Radius	Boom Length (ft)										Radius
	44.86	59.61 – 60.59	74.37 – 76.80	89.63 – 93.50	104.88 – 108.75	120.62 – 125.44	136.35 – 138.27	152.57 – 154.96	168.78 – 170.22	185.47 – 185.95	
10	287,100	280,200									10
12	245,400	242,600	230,600	114,200							12
15	199,600	199,800	193,900	187,500	107,900						15
20	149,500	151,800	151,000	148,300	144,200	77,000					20
25	97,100	104,300	107,100	107,400	106,400	104,100	91,000	60,700			25
30	65,400	72,800	75,500	76,000	76,900	77,000	74,700	72,800	55,300	41,700	30
35	46,000	53,400	57,000	58,400	58,400	57,300	58,100	56,200	54,600	41,700	35
40		41,000	44,400	45,700	46,500	46,300	45,500	45,200	44,500	41,700	40
45		32,100	35,700	37,000	37,800	37,600	37,500	36,600	36,000	34,600	45
50		25,600	29,300	30,500	31,300	31,100	31,000	30,200	29,500	28,200	50
55			24,200	25,500	26,300	26,100	26,000	25,200	24,600	23,300	55
60			20,200	21,600	22,300	22,200	22,000	21,300	20,900	19,800	60
65			17,000	18,400	19,300	19,200	19,100	18,300	17,800	16,600	65
70				15,700	16,700	16,500	16,400	15,700	15,200	14,000	70
75				13,400	14,400	14,300	14,200	13,500	13,000	11,900	75
80				11,500	12,400	12,400	12,300	11,700	11,100	10,000	80
85				2,900	10,700	10,800	10,700	10,000	9,500	8,400	85
90					9,300	9,300	9,300	8,600	8,100	7,000	90
95					8,000	8,000	8,100	7,400	6,900	5,800	95
100						6,900	6,900	6,300	5,800	4,700	100
105						5,900	5,900	5,300	4,800	3,800	105
110						5,000	5,000	4,400	3,900	2,900	110
115							4,200	3,600	3,100	2,100	115
120							3,400	2,900	2,400		120
125							2,800	2,200			125
Note: Capacities depict multiple boom modes.											

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

41,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)												
Radius	Boom Length (ft)											Radius
	44.86	59.61-60 .59	74.37-76 .80	89.63-93 .50	104.88-1 08.75	120.62-1 25.44	136.35-1 38.27	152.57-1 54.96	168.78-1 70.22	185.47-1 85.95	202.16-2 02.16	
10	295,700	289,500										10
12	262,600	258,500	230,600	114,200								12
15	214,200	213,800	207,100	199,700	107,900							15
20	160,900	163,100	159,600	155,500	154,100	77,000						20
25	126,800	129,900	129,900	128,200	125,200	125,100	91,000	60,700				25
30	89,200	96,200	98,600	99,000	98,000	96,000	84,000	72,800	55,300	41,700		30
35	66,600	73,600	75,900	76,300	75,400	74,700	75,200	70,200	55,300	44,000		35
40		58,200	60,600	61,000	62,900	61,800	60,000	58,500	55,300	44,000	35,500	40
45		46,700	50,300	51,400	51,400	50,400	50,500	49,400	48,100	44,000	35,500	45
50		38,200	41,900	43,000	42,900	43,100	42,700	41,300	41,400	40,900	35,500	50
55			35,400	36,700	37,500	37,300	36,400	36,400	35,700	34,500	33,500	55
60			30,200	31,600	32,300	32,200	32,100	31,300	30,700	29,500	28,500	60
65			26,000	27,400	28,200	28,100	27,900	27,200	26,600	25,400	24,400	65
70				23,900	24,800	24,600	24,500	23,800	23,200	22,000	21,100	70
75				21,000	21,900	21,800	21,600	21,100	20,600	19,500	18,600	75
80				18,500	19,500	19,500	19,400	18,700	18,100	17,100	16,200	80
85				9,500	17,300	17,400	17,300	16,600	16,000	15,000	14,100	85
90					15,400	15,500	15,400	14,800	14,200	13,200	12,300	90
95					13,800	13,800	13,800	13,200	12,600	11,600	10,700	95
100					6,500	12,300	12,400	11,700	11,200	10,200	9,300	100
105						11,000	11,000	10,500	9,900	8,900	8,100	105
110						9,900	9,900	9,300	8,800	7,800	6,900	110
115						4,900	8,800	8,300	7,800	6,800	5,900	115
120							7,900	7,300	6,900	5,900	5,000	120
125							7,000	6,400	6,000	5,000	4,200	125
130								5,600	5,200	4,300	3,400	130
135								4,900	4,500	3,500	2,700	135
140								4,300	3,800	2,900	2,100	140
145								2,500	3,200	2,300		145
150									2,600			150
155									2,100			155

Note: Capacities depict multiple boom modes.

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

63,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)												
Radius	Boom Length (ft)											Radius
	44.86	59.61 – 60.59	74.37 – 76.80	89.63 – 93.50	104.88 – 108.75	120.62 – 125.44	136.35 – 138.27	152.57 – 154.96	168.78 – 170.22	185.47 – 185.95	202.16 – 202.16	
10	297,700	290,600										10
12	271,700	267,300	230,600	114,200								12
15	228,600	227,500	209,000	203,600	107,900							15
20	172,300	174,100	170,300	165,800	156,700	77,000						20
25	136,200	139,200	136,700	133,900	133,600	126,100	91,000	60,700				25
30	111,100	114,600	115,100	113,800	111,400	111,800	84,000	72,800	55,300	41,700		30
35	84,400	91,300	93,600	93,900	93,000	91,100	77,800	70,200	55,300	44,000		35
40		73,100	75,600	75,900	75,100	73,400	72,400	64,300	55,300	44,000	35,500	40
45		60,200	62,800	63,200	62,400	63,900	62,300	59,100	54,600	44,000	35,500	45
50		50,500	53,000	53,600	55,100	54,300	52,700	51,400	50,600	44,000	35,500	50
55			46,000	46,100	47,600	46,800	45,100	45,800	44,600	42,500	35,500	55
60			40,200	41,600	41,600	40,700	40,800	39,900	38,700	38,800	35,500	60
65			35,000	36,400	36,500	35,700	36,300	34,800	34,900	33,800	33,500	65
70				32,200	32,300	32,600	32,100	31,600	30,700	30,300	29,300	70
75				28,600	29,500	29,400	28,600	28,500	27,500	26,800	25,900	75
80				25,500	26,400	26,400	25,600	25,500	24,900	23,800	22,900	80
85				16,000	23,800	23,800	23,700	22,900	22,400	21,300	20,700	85
90					21,500	21,500	21,400	20,900	20,400	19,300	18,400	90
95					19,500	19,600	19,600	18,900	18,400	17,400	16,500	95
100					12,000	17,800	17,800	17,200	16,600	15,600	14,800	100
105						16,200	16,200	15,600	15,100	14,100	13,200	105
110						14,700	14,700	14,200	13,700	12,700	11,800	110
115						9,600	13,500	12,900	12,400	11,400	10,600	115
120							12,300	11,700	11,300	10,300	9,400	120
125							11,200	10,700	10,200	9,300	8,400	125
130								9,700	9,200	8,300	7,500	130
135								8,800	8,300	7,400	6,600	135
140								8,000	7,500	6,600	5,800	140
145								6,000	6,800	5,800	5,100	145
150									6,100	5,100	4,400	150
155									5,400	4,500	3,700	155
160									4,900	3,900	3,100	160
165										3,300	2,600	165
170										2,800		170
175										2,300		175
Note: Capacities depict multiple boom modes.												

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

118,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)												
Radius	Boom Length (ft)											Radius
	44.86	59.61-60 .59	74.37-76 .80	89.63-93 .50	104.88-1 08.75	120.62-1 25.44	136.35-1 38.27	152.57-1 54.96	168.78-1 70.22	185.47-1 85.95	202.16-2 02.16	
10	300,900	289,900										10
12	277,000	270,000	230,600	114,200								12
15	245,000	241,500	209,000	203,600	107,900							15
20	202,900	202,200	180,500	174,100	156,700	77,000						20
25	164,500	166,800	158,800	151,700	138,600	126,100	91,000	60,700				25
30	135,100	138,200	136,000	133,400	123,200	114,200	84,000	72,800	55,300	41,700		30
35	113,500	117,100	115,400	113,400	110,500	104,100	77,800	70,200	55,300	44,000		35
40		100,900	100,300	97,900	98,900	95,600	72,400	64,300	55,300	44,000	35,500	40
45		88,000	89,000	88,400	86,700	87,800	67,700	59,100	54,600	44,000	35,500	45
50		77,700	78,800	78,300	76,800	78,200	63,400	54,600	50,600	44,000	35,500	50
55			70,900	69,900	69,400	69,900	59,700	50,600	47,000	42,500	35,500	55
60			64,900	63,100	64,500	63,100	56,400	47,100	43,800	40,100	35,500	60
65			57,100	59,000	58,600	57,100	53,500	43,900	41,000	37,800	35,500	65
70				52,900	52,500	51,100	50,800	41,200	38,400	35,800	33,400	70
75				47,800	47,300	46,000	47,300	38,600	36,100	33,700	31,400	75
80				43,300	43,000	42,600	42,900	36,300	34,000	31,800	29,600	80
85				26,000	39,100	40,600	39,300	34,200	32,100	29,900	27,800	85
90					35,800	37,200	35,900	32,300	30,300	28,300	26,200	90
95					33,700	34,200	33,000	30,600	28,700	26,800	24,800	95
100					22,200	31,600	30,400	29,000	27,200	25,300	23,400	100
105						29,300	28,000	27,700	25,800	24,000	22,200	105
110						27,200	25,900	26,600	24,500	22,800	21,000	110
115						20,300	24,000	24,700	23,300	21,700	19,900	115
120							22,300	22,900	22,000	20,600	18,900	120
125							21,200	21,300	20,600	19,600	18,000	125
130								20,000	19,100	18,700	17,100	130
135								18,700	18,200	17,800	16,200	135
140								17,500	17,500	16,800	15,500	140
145								14,100	16,500	15,600	14,700	145
150									15,400	14,600	14,000	150
155									14,400	13,600	13,400	155
160									12,100	12,700	12,400	160
165										12,200	11,600	165
170										11,600	10,800	170
175										10,500	10,000	175
180											9,300	180
185											8,700	185
**Special Equipment required. Base Rating pick on 70% extended outriggers												

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

# Main Boom Offset Fly Attachment Lift Capacity Charts - Optional

118,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)												
Radius	Main Boom – 8' Heavy Lift Fly (ft)											Radius
	44.86	59.61 – 60.59	74.37 – 76.80	89.63 – 93.50	104.88 – 108.75	120.62 – 125.44	136.35 – 138.27	152.57 – 154.96	168.78 – 170.22	185.47 – 185.95	202.16 – 202.16	
12	86,100											12
15	86,100	86,000	83,300									15
20	86,100	86,000	85,900	76,400								20
25	86,100	86,000	85,900	85,800	85,700	85,600	76,500					25
30	86,100	86,000	85,900	85,800	85,700	85,600	71,100	65,000	50,600			30
35	86,100	86,000	85,900	85,800	85,700	85,600	66,500	65,000	50,600	40,800		35
40	86,100	86,000	85,900	85,800	85,700	85,600	62,400	61,400	50,600	40,800	34,000	40
45		86,000	85,900	85,800	85,700	82,200	58,600	56,500	50,200	40,800	34,000	45
50		79,000	77,700	77,400	77,200	76,300	54,900	52,200	47,200	40,800	34,000	50
55			71,000	70,300	68,800	69,900	51,700	48,300	44,600	39,400	34,000	55
60			63,800	63,300	61,900	63,100	48,900	44,900	42,000	37,100	34,000	60
65			57,600	57,200	57,100	57,100	46,300	42,100	39,300	35,000	33,400	65
70				51,300	52,700	51,300	44,000	39,400	36,800	33,100	31,500	70
75				48,100	47,500	46,100	41,900	36,900	34,500	31,300	29,600	75
80				43,600	43,000	41,900	40,000	34,700	32,500	29,700	28,000	80
85					39,300	38,000	38,200	32,600	30,600	28,200	26,400	85
90					35,800	34,600	35,800	30,700	28,800	26,800	25,000	90
95					32,800	32,400	32,800	29,000	27,200	25,400	23,600	95
100						31,100	30,100	27,400	25,800	24,000	22,200	100
105						29,000	27,800	26,000	24,400	22,700	21,100	105
110						24,500	25,600	24,600	23,100	21,600	19,900	110
115							23,700	23,000	22,000	20,500	18,900	115
120							21,900	22,100	21,000	19,500	17,800	120
125								21,100	19,900	18,500	16,900	125
130								19,600	18,700	17,600	16,000	130
135								18,200	17,300	16,700	15,200	135
140								15,400	16,100	15,900	14,400	140
145									15,300	15,100	13,600	145
150									14,700	14,000	12,900	150
155										13,000	12,300	155
160										12,100	11,600	160
165										11,200	10,900	165
170										10,400	10,100	170
175											9,400	175
180											8,600	180
185											8,000	185

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

# Hydraulic Offset Fly Attachment Lift Capacity Charts - Optional

118,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)									
Radius (ft)	202.2' Main Boom Length								Radius (ft)
	42' Hydraulic Offset Fly				71' Hydraulic Offset Fly				
	0.00	15.00	30.00	45.00	0.00	15.00	30.00	45.00	
50.0	19,400				10,800				50.0
55.0	19,400				10,800				55.0
60.0	19,400	19,600			10,800				60.0
65.0	19,400	19,600			10,800				65.0
70.0	19,400	19,600	20,400		10,800	11,400			70.0
75.0	19,400	19,600	20,400	17,800	10,800	11,400			75.0
80.0	19,400	19,600	20,400	17,700	10,800	11,400			80.0
85.0	19,400	19,600	20,400	17,500	10,800	11,400	11,200		85.0
90.0	19,400	19,600	20,100	17,300	10,800	11,400	11,000		90.0
95.0	19,400	19,600	19,800	17,200	10,800	11,400	10,900	8,800	95.0
100.0	19,400	19,600	19,500	17,100	10,800	11,400	10,700	8,700	100.0
105.0	19,000	18,800	18,700	16,900	10,800	11,400	10,600	8,700	105.0
110.0	18,000	17,900	17,800	16,800	10,800	11,400	10,500	8,600	110.0
115.0	17,100	17,000	16,900	16,700	10,800	11,400	10,300	8,500	115.0
120.0	16,200	16,200	16,100	16,000	10,800	11,400	10,200	8,400	120.0
125.0	15,400	15,400	15,300	15,300	10,700	11,400	10,100	8,300	125.0
130.0	14,600	14,600	14,600	14,600	9,600	11,200	10,000	8,300	130.0
135.0	13,900	13,900	13,900	13,900	8,700	10,200	9,800	8,200	135.0
140.0	13,100	13,300	13,300	13,300	7,800	9,200	9,700	8,100	140.0
145.0	12,400	12,600	12,700	12,700	7,000	8,300	9,400	8,100	145.0
150.0	11,700	12,000	12,100	12,100	6,200	7,500	8,500	8,000	150.0
155.0	11,100	11,400	11,500	11,500	5,500	6,700	7,700	8,000	155.0
160.0	10,500	10,800	11,000	11,000	4,800	6,000	6,900	7,600	160.0
165.0	9,900	10,200	10,400	10,500	4,200	5,300	6,200	6,800	165.0
170.0	9,400	9,600	9,800	9,900	3,700	4,700	5,500	6,100	170.0
175.0	8,900	9,100	9,300	9,400	3,100	4,100	4,900	5,400	175.0
180.0	8,400	8,600	8,800	8,900	2,600	3,500	4,300	4,700	180.0
185.0	7,900	8,100	8,300	8,300	2,100	3,000	3,700	4,100	185.0
190.0	7,500	7,700	7,800	7,900		2,500	3,100	3,500	190.0
195.0	7,000	7,200	7,400	7,400			2,600	3,000	195.0
200.0	6,500	6,800	6,900				2,100	2,400	200.0
205.0	5,900	6,200	6,400						205.0
210.0	5,400	5,700	5,900						210.0
215.0	5,000	5,200	5,300						215.0
220.0	4,500	4,700	4,800						220.0
225.0	4,100	4,300							225.0
230.0	3,700	3,900							230.0

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.



118,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)									
Radius (ft)	202' Main Boom Length + 96' Hydraulic Offset Fly + 121' Hydraulic Offset Fly								Radius (ft)
	96' Hydraulic Offset Fly				121' Hydraulic Offset Fly				
	0.00	15.00	30.00	45.00	0.00	15.00	30.00	45.00	
35.0									35.0
40.0					10,800				40.0
45.0					10,800				45.0
50.0	19,400				10,800				50.0
55.0	19,400				10,800				55.0
60.0	19,400	19,600			10,800	11,400			60.0
65.0	19,400	19,600	0	0	10,800	11,400			65.0
70.0	19,400	19,600	20,400	0	10,800	11,400			70.0
75.0	19,400	19,600	20,400	17,800	10,800	11,400	11,200		75.0
80.0	19,400	19,600	20,400	17,700	10,800	11,400	11,000		80.0
85.0	19,400	19,600	20,400	17,500	10,800	11,400	10,900	8,800	85.0
90.0	19,400	19,600	20,100	17,300	10,800	11,400	10,700	8,700	90.0
95.0	19,400	19,600	19,800	17,200	10,800	11,400	10,600	8,700	95.0
100.0	19,400	19,600	19,500	17,100	10,800	11,400	10,500	8,600	100.0
105.0	19,000	18,800	18,700	16,900	10,800	11,400	10,300	8,500	105.0
110.0	18,000	17,900	17,800	16,800	10,800	11,400	10,200	8,400	110.0
115.0	17,100	17,000	16,900	16,700	10,700	11,400	10,100	8,300	115.0
120.0	16,200	16,200	16,100	16,000	9,600	11,200	10,000	8,300	120.0
125.0	15,400	15,400	15,300	15,300	8,700	10,200	9,800	8,200	125.0
130.0	14,600	14,600	14,600	14,600	7,800	9,200	9,700	8,100	130.0
135.0	13,900	13,900	13,900	13,900	7,000	8,300	9,400	8,100	135.0
140.0	13,100	13,300	13,300	13,300	6,200	7,500	8,500	8,000	140.0
145.0	12,400	12,600	12,700	12,700	5,500	6,700	7,700	8,000	145.0
150.0	11,700	12,000	12,100	12,100	4,800	6,000	6,900	7,600	150.0
155.0	11,100	11,400	11,500	11,500	4,200	5,300	6,200	6,800	155.0
160.0	10,500	10,800	11,000	11,000	3,700	4,700	5,500	6,100	160.0
165.0	9,900	10,200	10,400	10,500	3,100	4,100	4,900	5,400	165.0
170.0	9,400	9,600	9,800	9,900	2,600	3,500	4,300	4,700	170.0
175.0	8,900	9,100	9,300	9,400	2,100	3,000	3,700	4,100	175.0
180.0	8,400	8,600	8,800	8,900		2,500	3,100	3,500	180.0
185.0	7,900	8,100	8,300	8,300			2,600	3,000	185.0
190.0	7,500	7,700	7,800	7,900			2,100	2,400	190.0
195.0	7,000	7,200	7,400	7,400					195.0
200.0	6,500	6,800	6,900						200.0
205.0	5,900	6,200	6,400						205.0
210.0	5,400	5,700	5,900						210.0
215.0	5,000	5,200	5,300						215.0
220.0	4,500	4,700	4,800	0					220.0
225.0	4,100	4,300	0	0					225.0
230.0	3,700	3,900	0	0					230.0

This information is not for crane operation. Operator must refer to in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of tipping loads.

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