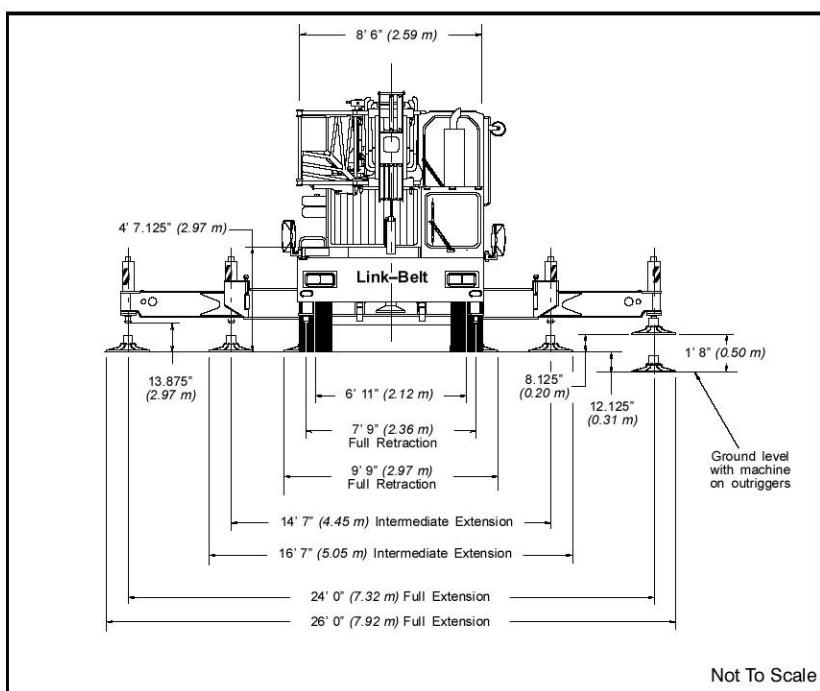
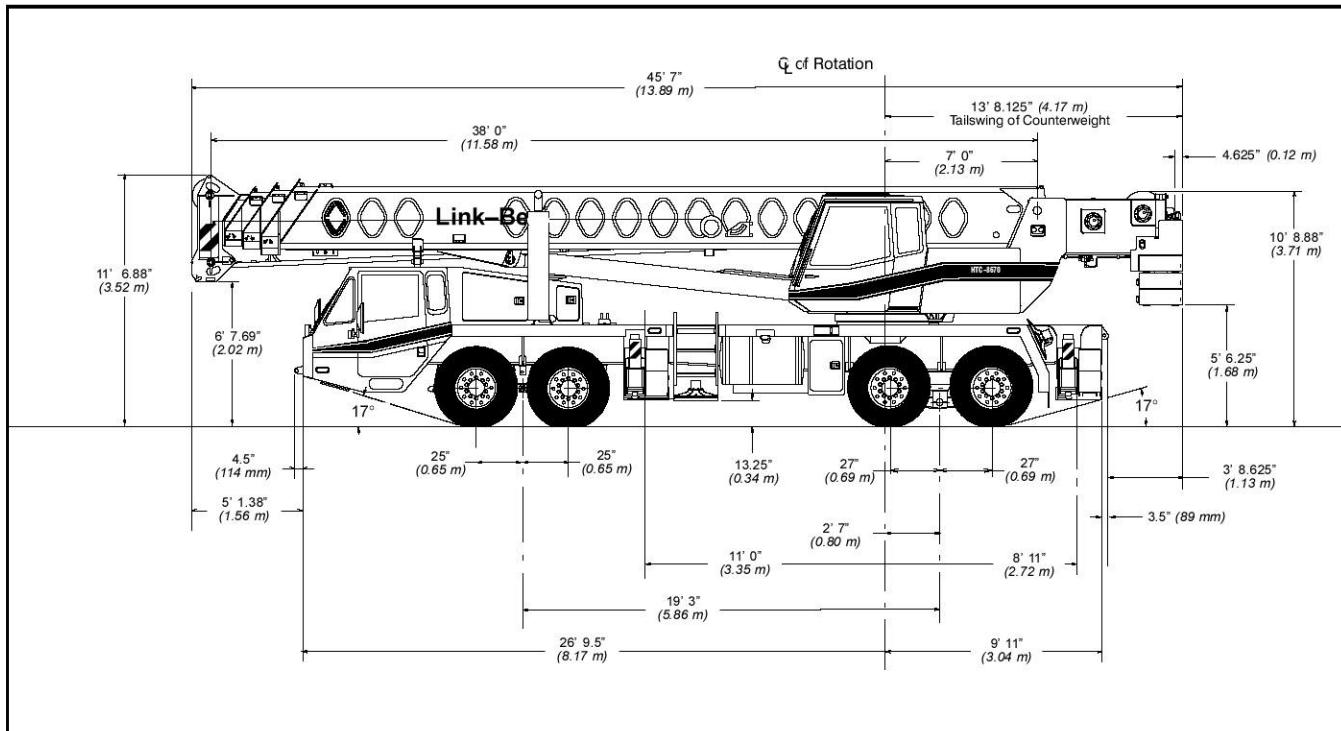


# Specifications

Telescopic Boom Truck Crane

## HTC-8670

70-ton (63.5 metric tons)



General Dimensions	feet	meters
Turning radius (wall to wall)	49' 1.5"	14.97
Turning radius (curb to curb)	41' 10.5"	12.76
Ground clearance	13.25"	0.34
Tailswing	13' 8.125"	4.17

# Upper Structure

## ■ Boom

### Patented Design

- Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (689.5 MPa) steel angle chords for lateral stiffness.
- Boom telescope sections are supported by top, bottom and adjustable side wear shoes to prevent metal to metal contact.

### Boom

- 38 – 115' (11.58 – 35.05 m) four-section full power boom.
- Two mode boom extension
- The basic mode is the full power, synchronized mode of telescoping all sections proportionally to 115' (35.05 m).
- The exclusive "A-max" mode (or mode 'A') extends only the inner mid section to 63' 6" (19.39 m) offering increased capacities for in-close, maximum capacity picks.

### Boom Head

- Five 16-1/2" (0.42 m) root diameter nylon sheaves with a fifth nylon sheave available to handle up to 10 parts of wire rope.
- Easily removable wire rope guards
- Rope dead end lugs provided on each side of boom head.
- Boom head designed for quick reeve of hook block.
- Fly pinning alignment tool.

### Boom Elevation

- One Link-Belt designed hydraulic cylinder with holding valve and bushing in each end.
- Hand control for controlling boom elevation from -3° to +78°.

### Optional Auxiliary Lifting Sheave

- Single 16-1/2" (0.42 m) root diameter nylon sheave with removable wire rope guard, mounted to boom.
- Use with one or two parts of line off the optional front winch.
- Does not affect erection of fly or use of main head sheaves for multiple reeving.

### Optional

- 70-ton (63.5 mt) quick reeve hook block.
- 8-1/2 ton (7.7 mt) hook ball.
- Boom floodlight.
- Mechanical Boom Angle Indicator

## ■ Fly

### Optional

- 36' 6" (11.13 m) One piece lattice fly, stowable, offsettable to 2°, 20° and 40°.
- Lugs to allow for second section.
- 36' 6" – 61' (11.13 – 18.59 m) Two piece (bifold) lattice fly, stowable, offsettable to 2°, 20° or 40°.

## ■ Cab and Controls

### Environmental Ultra-Cab™

- Laminated fiborous composite material; isolated from sound with acoustical fabric insulation.

- Windows are tinted and tempered safety glass.
- Sliding rear and right side windows and swing-up roof window for maximum visibility and ventilation.
- Slide-by-door opens to 3' (0.91 m) width.
- Six-way adjustable seat, with seat belt, for maximum operator comfort.
- Hand-held outrigger controls and sight level bubble located on left side of cab.
- Diesel cab heater
- Pull-out Cabwalk™
- Audible swing alarm
- Backup alarm
- Fire extinguisher
- 12-volt accessory outlet
- Electric windshield wiper
- Windshield washer
- Top hatch window wiper
- Circulating fan
- Warning horn
- Dome light
- Cup holder
- Sun screen
- Hand throttle
- Mirrors
- Defroster fan

### Optional

- Amber strobe light
- Emergency steering system
- Amber rotating beacon
- Hydraulic heater
- Air conditioning

### Controls

- Hydraulic controls (joystick type) for:
- Swing
- Optional auxiliary winch
- Main winch
- Boom hoist
- Foot controls for:
- Boom telescope
- Engine throttle
- Swing brake

### Optional

- Single axis controls
- Auxiliary winch

### Cab Instrumentation

Cornerpost-mounted gauges for:

- Hydraulic oil temperature
- Audio/Visual warning system
- Tachometer
- Voltmeter
- Water temperature
- Oil pressure
- Fuel

## ■ Rated Capacity Limiter

- **Microguard 434** Graphic audio-visual warning system built into dash with anti-two block and function limiters.

Operating data available includes:

- |                          |                  |
|--------------------------|------------------|
| • Machine configuration. | • Boom angle     |
| • Boom length            | • Radius of load |
| • Head height            | • Actual load    |
| • Allowed load           |                  |
| • % of allowed load      |                  |

Presettalable alarms include:

- Maximum and minimum boom angles.
- Maximum tip height.
- Maximum boom length.
- Swing left/right positions.
- Operator defined area alarm is standard.
- Anti-two block weight designed for quick reeve of hookblock.

### Optional

- **Internal RCL light bar:** Visually informs operator when crane is approaching maximum load capacity with a series of green, yellow and red lights.
- **External RCL light bar:** Visually informs ground crew when crane is approaching maximum load capacity kickouts and pre-settable alarms with a series of three lights; green, yellow and red.

## ■ Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 1.7 r.p.m.

- **Swing park brake** – 360°, electric over hydraulic (spring applied, hydraulic released) multi-disc brake mounted on the speed reducer. Operated by toggle switch in overhead control console.
- **Swing brake** – 360°, foot operated, hydraulic applied disc brake mounted on the speed reducer.
- **Swing lock** – Standard; two position travel lock operated from the operator's cab.
- **Counterweight**
  - Standard – Pinned to upper structure frame. 12,000 lbs. (5,443 kg) three-piece design (4,000 lbs. each).
  - Optional – 16,000 lbs. (7,258 kg) five piece design. (Dolly required for five piece arrangement).
  - Hydraulically controlled counterweight removal, standard. Counterweight sections may be lowered on and pinned to carrier deck to balance axle loadings for travel.

### Optional

- 360° (Pawl-in-Gear) swing lock. Meets New York City requirements.

## ■ Hydraulic System

### Main Pump

- Two gear pump with a total of five sections.
- Combined pump capacity of 152 gpm (575 lpm). Powered by carrier engine with pump disconnect.
- Spline type pump disconnect, engaged / disengaged from carrier cab.
- Maximum system operating pressure is 3,500 psi (24,133 kPa).

### Pilot Pressure / Counterweight Removal Pump

- Pressure compensated piston pump powered by carrier engine with pump disconnect. Operates at 1,500 psi (10,343 kPa) maximum.

### Steering / Fifth Outrigger Pump

- Single gear type pump, 8 gpm (30 lpm). Powered by carrier engine through front gear housing. Max. pump operating pressure is 2,000 psi (13,790 kPa).
- Reservoir – 169 gallon (639.7 L) capacity. One diffuser for deaeration.

(continued on next page)

(continued from page 2)

#### Filtration

- One, 10-micron filter located inside hydraulic reservoir
- Accessible for easy replacement

#### Control valves

- Six separate pilot operated control valves allow simultaneous operation of all crane functions.

## ■ Load Hoist System

#### Standard

- 2M main winch with grooved lagging.
- Two-speed motor and automatic brake.

- Power up/down mode of operation.
- Hoist drum cable followers.
- Bi-directional piston-type hydraulic motor driven through planetary reduction unit for positive control under all load conditions.
- Asynchronous parallel double crossover grooved drums minimize rope harmonic motion.
- Winch circuit control provides balanced oil flow to both winches for smooth, simultaneous operation.
- Rotation resistant wire rope.
- Drum Rotation Indicators.

#### Line Pulls and Speeds

- Maximum available line pull 16,506 lbs. (7,484 kg) and maximum line speed of 513 f.p.m. (156 m/min) on 16" (0.41 m) root diameter grooved drum.

#### Optional

- 2M auxiliary winch with two-speed motor, automatic brake, and winch function lock-out. Power up/down modes.
- Hoist drum cable followers.
- Third wrap indicators.

## Carrier

### ■ Type

- 8' 6" (2.59 m) wide, 231" (5.87 m) wheelbase. 8 x 4 drive – standard

#### Frame

- 100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. steel outrigger boxes

#### Optional

- Carrier mounted storage boxes
- Pintle hook
- Electric and air connections for trailers and boom dollies

## ■ Axles

#### Front

- Tandem, 84.38" (2.14 m) track.

#### Rear

- Tandem, 72.8" (1.85 m) track. 6.17 to 1.0 ratio with interaxle differential with lockout.

## ■ Suspension

#### Front axle

- Leaf spring suspension

#### Rear axle

- Solid mount, bogie beam type

## ■ Wheels

#### Standard

- Front and rear hub piloted aluminum disc

#### Optional

- Spare tire and wheel assemblies

## ■ Tires

#### Standard Front

- 445/65R22.5 (Load range "L") single tubeless radials

#### Standard Rear

- 12R22.5 (Load range "L") dual tubeless radials

## ■ Brakes

#### Service

- Full air brakes on all wheel ends with automatic slack adjustors. Dual circuit with modulated emergency brakes.
  - Front – 16.5 x 6 S-Cam brakes.
  - Rear – 16.5 x 7 S-Cam brakes.

#### Parking/Emergency

- One spring set, air released chamber per rear axle end.
- Parking brake applied with valve mounted on carrier dash.
- Emergency brakes apply automatically when air drops below 40 psi (275.8 kPa) in both systems.

## ■ Steering

- Sheppard rack and pinion design.

## ■ Transmission

**Standard** – Eaton RTO-14709MLL; 11 speeds forward, 3 reverse.

## ■ Electrical

- Four, 12-volt batteries provide 12-volt starting.
- 2,800 cold cranking amps available.
- 12-volt operating system, 130-amp alternator.

#### Lights

- Four dual beam sealed headlights.
- Front, side, and rear directional signals.
- Stop, tail and license plate lights.
- Rear and side clearance lights.
- Hazard warning lights.

## ■ Outriggers

- Three position operation capability.
- Four hydraulic, telescoping beam and jack outriggers.
- Vertical jack cylinders equipped with integral holding valve.
- Beams extend to 24' (7.32 m) centerline-to-centerline and retract to within 8' 6" (2.59 m) overall width.
- Equipped with stowable, lightweight 24" (0.61 m) diameter aluminum floats.
- Standard fifth outrigger, 14 3/4" (0.37 m) self storing steel pad is operable from ground or operator's cab.
- Hand-held controls and sight level bubble located on carrier deck.

#### Confined Area Lifting Capacities (CALC™) System

- The crane is operational in one of the three outriggers positions and operational in confined areas in two positions (intermediate and full retraction).

The three outrigger positions are:

- Full extension – 24' 0" (7.32 m).
- Intermediate position – 14' 7" (4.45 m).
- Full retraction – 7' 9" (2.36 m).
- Capacities are available with the outrigger beams in the intermediate and full retraction positions.
- When the outrigger position levers (located on the outrigger beams) are engaged, the operator can set the crane in the intermediate or full retraction outrigger position without having to leave the cab.

## ■ Carrier Cab

- One-man cab of laminated fibrous composite material acoustical insulation with cloth covering.

#### Equipped with:

- Air-ride adjustable operator's seat with seat belt.
- Tilting and locking steering wheel.
- Door and windows locks.
- Left-hand and right-hand rear view mirrors.
- Sliding right-hand and rear tinted windows.
- Roll up/down left-hand tinted window.
- Desiccant-type air dryer.
- Steps to upper, lower cab and rear carrier.
- 120-volt electric engine block heater.
- Back-up warning alarm.
- Tow hooks and shackles.
- Aluminum fenders and mud flaps.
- Carrier mounted outrigger controls with throttle control.
- Electric windshield wiper and washer.
- Rotating beacon
- Horn
- Fire extinguisher
- 36,000 BTU heater
- Dome light
- High beam light switch
- Travel lights
- Mud flaps
- Ashtray
- Defroster
- Cruise control

#### Cab instrumentation

- Illuminated instrument panel speedometer.
- Tachometer
- Fuel gauge
- Oil pressure gauge
- Turn signal indicator
- Water temperature gauge.
- Front and rear air pressure gauges.
- Audio/visual warning system.
- Check engine and stop engine lights.
- Automotive type ignition.
- Optional – Amber strobe light.
- Optional – Air conditioning

## ■ Carrier Speeds (Manual Transmission – Standard tires)

Gear	High				Low				Deep reduction		Hi rev.	Lo rev.	Deep reduction	Deep reduction @ 600 rpm	Deep reduction @ 600 rpm		
	8	7	6	5	4	3	2	1	LL2	LL1	Rev.	Rev.	Rev.	LL1	Low		
Ratio	0.73	1.00	1.38	1.95	2.77	3.79	5.23	7.41	16.30	11.85	26.08	4.15	15.76	25.21	26.08	25.21	
Speed	mph	58.20	42.49	30.79	21.79	15.34	11.21	8.12	5.73	2.61	3.59	1.63	10.24	2.70	1.69	0.47	0.48
	km/hr.	93.65	68.36	49.54	35.06	24.68	18.04	13.07	9.23	4.19	5.77	2.62	16.47	4.34	2.71	0.75	0.72

## ■ Engine

Engine	Detroit Diesel Series 60 12.7 L	
Cylinders – cycle	6 / 4	
Bore	5.12" (0.13 m)	
Stroke	6.30" (0.16 m)	
Displacement	778 cu. in. (12 751 cm <sup>3</sup> )	
Maximum brake hp.	365 @ 1,800 rpm; 350 @ 2,100 rpm	
Peak torque	1,350 ft. lbs. (1 831 J) @ 1,200 rpm	
Electric system	12-volt neg. ground / 12 volt starting	
Fuel capacity	100 gallons (378.5 L)	
Alternator	12 volt, 130 amps	
Crankcase capacity	32 qts. (30 L)	

- Engine brake – standard
- Ether injection starting package – optional

## ■ Axle Loads

Base machine with standard 38.5' – 115' (11.73 – 35.05 m) four-section boom, 2M main winch with 2-speed hoisting and power up/down, 630' (192.02 m), 3/4" (19 mm) wire rope, 8 x 4, 8.5' (2.59 m) carrier with Detroit Diesel Series 60 engine, 100 gal. (378 L) fuel and no counterweight.	G.V.W. [1]		Upper Facing Front			
			Front Axle		Rear Axle	
	Ibs.	kg.	Ibs.	kg.	Ibs.	kg.
Cold weather starting aids – propane and ether	76,118	34 527	34,542	15 668	41,576	18 859
Aluminum storage box	40	18	57	26	-17	-8
Driver in carrier cab	57	26	16	7	41	19
Pintle hook w/air and electrical hook-ups	200	91	254	185	-54	-24
Air conditioning in carrier cab	30	14	-12	-5	42	19
Auxiliary winch with 630' (192.02 m) front rope	100	45	127	57	-27	-12
Hydraulic heater	855	388	-282	-128	1,137	516
Air conditioning in upper cab	170	77	1	0.5	169	77
One slab of counterweight on upper	120	54	-4	-2	124	56
Two slabs of counterweight on upper	4,000	1 814	-2,140	-971	6,140	2 785
Three slabs of counterweight on upper	8,000	3 628	-4,281	-1 942	12,281	5 571
Three slabs of counterweight on upper plus two cheek weights	12,000	5 443	-6,421	-2 913	18,421	8 356
Fly brackets on boom base section for fly options	16,000	7 257	-8,561	-3 883	24,561	11 140
36.5' (11.13 m) offsettable fly with tip lugs – stowed	160	72	147	68	11	5
36.5' to 61 ft. (11.13 – 18.59 m) two-piece fly – stowed	1,542	700	1,349	612	193	88
40-ton (36.3 mt) hookblock at front bumper	2,248	1 020	1,711	776	537	244
70-ton (63.5 mt) hookblock at front bumper	720	327	1,175	533	-455	-206
Hookball to front bumper	1,400	635	2,284	1 036	-884	-401
Auxiliary arm	360	163	587	266	-227	-103
	125	57	230	104	-105	-48
			Front axle		Rear axle	
Transfer one slab of counterweight to carrier deck	5,333	2 419	-5,333	-2 419		
Transfer two slabs of counterweight to carrier deck	10,666	4 828	-10,666	-4 838		
Transfer three slabs of counterweight to carrier deck	15,999	7 257	-15,999	-7 257		

[1] Adjust gross vehicle weight & axle loading according to component weight. Note: All weights are ± 3%.

Axle	Max. Load @ 65 mph. (105 km/h)
Front	46,400 lbs. (21 047 kg) – Aluminum disc wheels with 445/65R22.5 tires
Rear	50,350 lbs. (22 838 kg) – Aluminum disc wheels with 12R22.5 tires

# Lifting Capacities

PCSA Class 9-247

Hydraulic Truck Crane

## HTC-8670 70-ton (*63.5 metric ton*)

Boom and fly capacities for this machine are listed by the following sections:

**Fully Extended Outriggers** (0, 4,000, 8,000, 12,000, and 16,000 lb. counterweights)

- Working Range Diagrams
- 38' 0" to 63.6' main boom capacities, **A-max** Mode
- 38' 0" to 115' 0" main boom capacities, Basic Mode "B"
- 36' 6" offsettable fly capacities, Basic Mode "B"
- 36' 6" - 61' 0" 2-piece offsettable fly capacities, Basic Mode "B"

**Intermediate Extended Outriggers** (4,000, 8,000, 12,000 and 16,000 lb. counterweights)

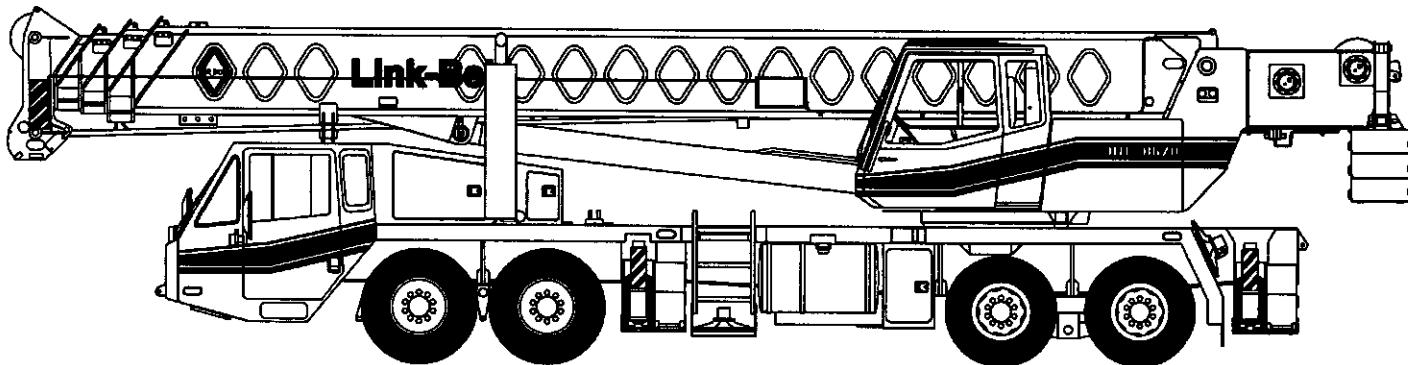
- Working Range Diagrams
- 38' 0" to 63.6' main boom capacities, **A-max** Mode
- 38' 0" to 115' 0" main boom capacities, Basic Mode "B"
- 36' 6" offsettable fly capacities, Basic Mode "B" (12,000 and 16,000 lb. counterweights)

**Fully Retracted Outriggers** (8,000 and 12,000 lb. counterweights)

- Working Range Diagrams
- 38' 0" to 63.6' main boom capacities, **A-max** Mode
- 38' 0" to 85' 0" main boom capacities, Basic Mode "B"

**On Tires** (8,000, 12,000 and 16,000 lb. counterweights)

- Working Range Diagrams
- 38' 0" to 63.6' main boom capacities, **A-max** Mode
- 38' 0" to 85' 0" main boom capacities, Basic Mode "B"



**CAUTION:** This material is supplied for reference only. Operator must refer to in-cab crane rating manual to determine allowable machine lifting capacities and operating procedures.

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36	Main Boom Lifting Capacities (8,000 lb. Counterweight)
37	Working Range Diagram (12,000 lb. Counterweight)
38	Main Boom Lifting Capacities (12,000 lb. Counterweight)
39	Working Range Diagram (16,000 lb. Counterweight)
40	Main Boom Lifting Capacities (16,000 lb. Counterweight)

## OPERATING INSTRUCTIONS

### GENERAL:

1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. The maximum allowable lifting capacities are based on crane standing level on firm supporting surface.

### SET UP:

1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended. The front bumper outrigger must be properly extended.
3. When operating on fully retracted outriggers, do not exceed 64° maximum boom angle with 16,000# counterweight, or 71° maximum boom angle with 12,000# counterweight. Loss of backward stability will occur causing a backward tipping condition.
4. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 18 and Tire Inflation.)
5. Before swinging boom to over side position on tires, or on fully retracted outriggers where capacities are not published, boom sections must be fully retracted and 45° boom angle maintained.
6. For required parts of line, see Wire Rope Strength and Winch Performance.

### OPERATION:

1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 7,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 7,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 55 feet and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected or boom in ~~A~~-max mode are prohibited for both clam and magnet operation.
2. The crane capacities shown on fully extended outriggers do not exceed 85% of the tip load. The crane capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load - 0.1 X load factor)/1.25. The crane capacities shown on tires do not exceed 75% of the tip load. Tipping loads are determined by SAE crane stability test code J-765.
3. The crane capacities in the shaded areas above the bold lines, are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J-1063 cantilevered boom crane structures - method of test. The crane capacities below the bold lines are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Also, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at any radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.

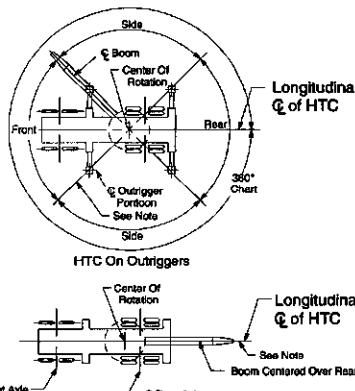
## Operating Instructions (con't)

8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.
9. For main boom capacities when either boom length and/or radius are between values listed, proceed as follows:
  - a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
  - b. For load radii not listed, use rating for next larger radius.
10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom or fly is extremely dangerous.
11. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 feet.
12. Power sections of boom must be extended in accordance with ~~A~~-max mode or boom mode "B".
13. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see wire rope strength) is considered excessive and must be accounted for when making lifts. Use working range diagram to estimate the extra feet of rope then deduct 1 lb for each extra foot of wire rope before attempting to lift a load.
14. The loaded boom angle combined with the boom length give only an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.
15. For fly capacities with main boom length less than 115 ft. and greater than 95 ft., the rated loads are determined by the boom angle using the 115 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the allowable capacity.
16. For fly capacities with main boom length less than 95 ft., the rated loads are determined by the boom angle only using the 95 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the allowable capacity.
17. The 38 ft. boom length capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 45 ft. boom length.
18. Crane capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire picks require lifting from main boom head only on a smooth and level surface. Pick and carry operations are restricted to a maximum speed of 1 MPH. The boom must be centered over the rear of the crane with two position travel swing lock engaged and the load must be restrained from swinging. Lifts with either fly erected on tires are prohibited. For correct tire pressure see Tire Inflation.

### DEFINITIONS:

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and horizontal after lifting the load at the rated radius.
3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
6. No Load Stability Limit – The stability limit radius is the radius beyond which it is not permitted to position the boom plus load handling equipment, because the crane can overturn without any load on the hook.
7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

## WORKING AREAS



Note: These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

## HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (PSI)
Front And Rear Winch	3,500
Outriggers	3,000
Boom Hoist	3,500
Telescope	3,000
Swing	1,500
Steering	1,600
Bumper Outrigger	650
Pilot Control	500
Counterweight Removal	1,700
Swing Park Brake Release	250

## CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment	Weight (Lbs.)
Auxiliary Head Attached	150
70 Ton Hook Block 5 Sheave (See Hook Block For Actual Weight)	1,400
40 Ton Hook Block 4 Sheave (See Hook Block For Actual Weight)	720
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	360
Lifting From Main Boom With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
36.5 Ft. Offset Fly Stowed On Boom Base	900
36.5 Ft. Offset Fly Erected But Not Used	6,100
61 Ft. Offset Fly Stowed On Boom Base	1,200
61 Ft. Offset Fly Erected But Not Used	7,600
Lifting From 36.5 Ft. Offset Fly With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
24.5 Ft. Tip Erected But Not Used	PROHIBITED
24.5 Ft. Tip Stowed On 36.5 Ft. Offset Fly	PROHIBITED

Note: Capacity deductions are for Link-Belt supplied equipment only.

## WINCH PERFORMANCE

Winch Line Pulls		Drum Rope Capacity (Ft.)		
Two Speed Winch				
Wire Rope Layer	Low Speed	High Speed	Layer	Total
	Available Lbs.*	Available Lbs.		
1	16,805	6,290	110	110
2	15,620	7,710	118	228
3	14,590	7,200	126	354
4	13,690	6,760	134	468
5	12,890	6,360	143	631
6	12,190	6,020	151	782

\*Maximum lifting capacity: Type RB Rope=12,920 Type ZB Rope=15,600

## WIRE ROPE STRENGTH

Maximum Lifting Capacities Based On Wire Rope Strength			
Parts of Line	3/4"	3/4"	Notes
	Type RB	Type ZB	
1	12,920*	15,600	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures.
2	25,840	31,200	
3	38,760	46,800	
4	51,680	62,400	
5	64,600	78,000	
6	77,520	93,600	
7	90,440	109,200	
8	103,360	124,800	
9	116,280	140,400	
10	129,200	156,000	

LBC  
DESCRIPTION  
TYPE RB      18 X 19 Rotation Resistant - Extra Improved Plow Steel - Preformed Right Lay - Regular Lay, Swaged  
TYPE ZB      36 X 7 Rotation Resistant - Extra Improved Plow Steel - Right Lay - Regular Lay

## TIRE INFLATION

Tire Size	Operation	Tire Pressure (PSI)
12 R 22.5	1 mph Stationary	120 120

## PONTOON LOADINGS

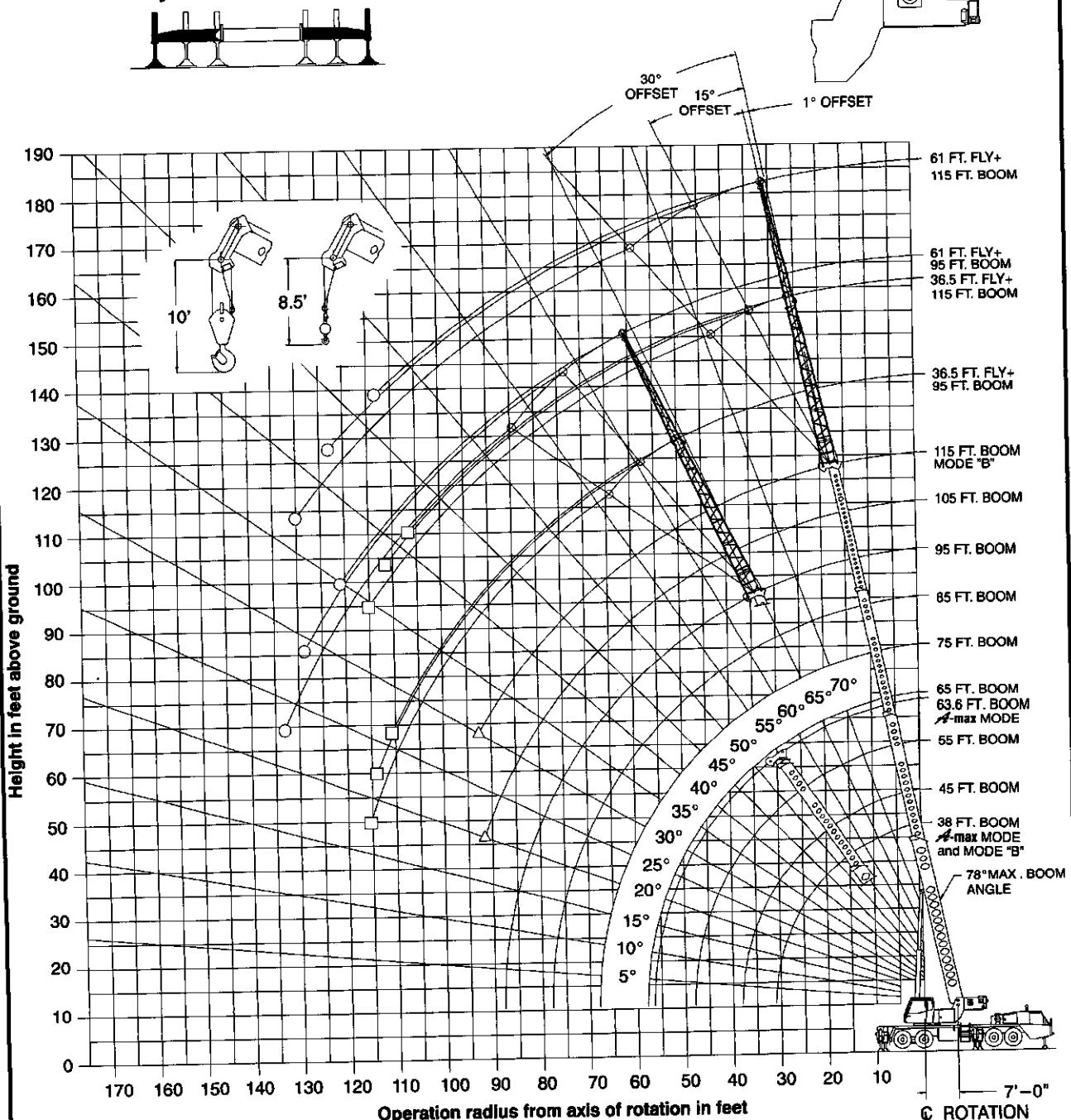
Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
97,400 Lbs.	215 PSI

## OUTRIGGER SPREAD

Position	Distance
Fully Retracted	93° - (7'-0")
Intermediate Extended	175° - (14'-7")
Fully Extended	288° - (24'-0")

# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Extended Outriggers**



- Denotes Main Boom + 61' Fly-Boom Mode "B"
- Denotes Main Boom + 36.5' Fly-Boom Mode "B"
- △ Denotes Main Boom-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



## WARNING

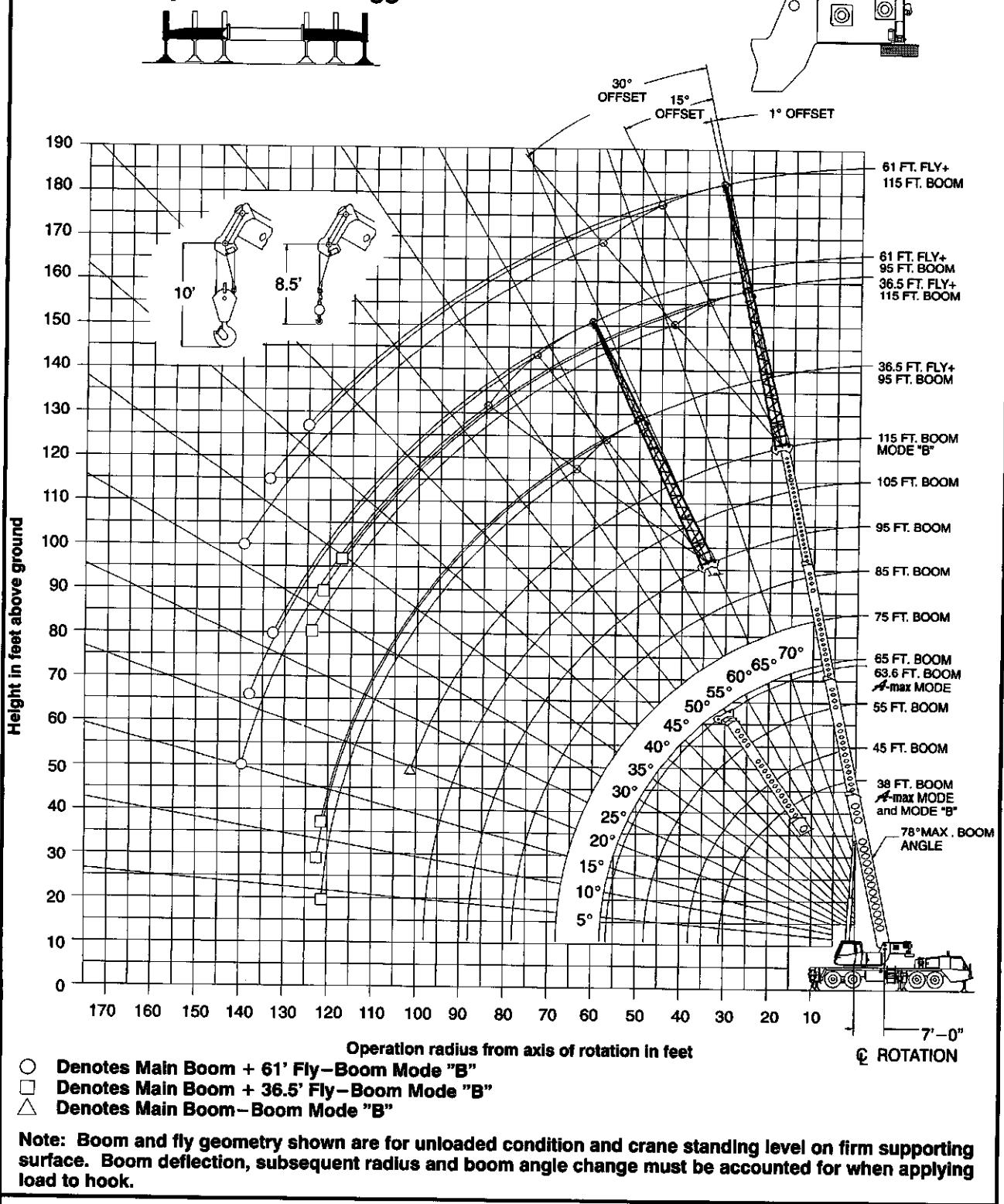
**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**





# WORKING RANGE DIAGRAM

Working Range Diagram  
On Fully Extended Outriggers



## WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.



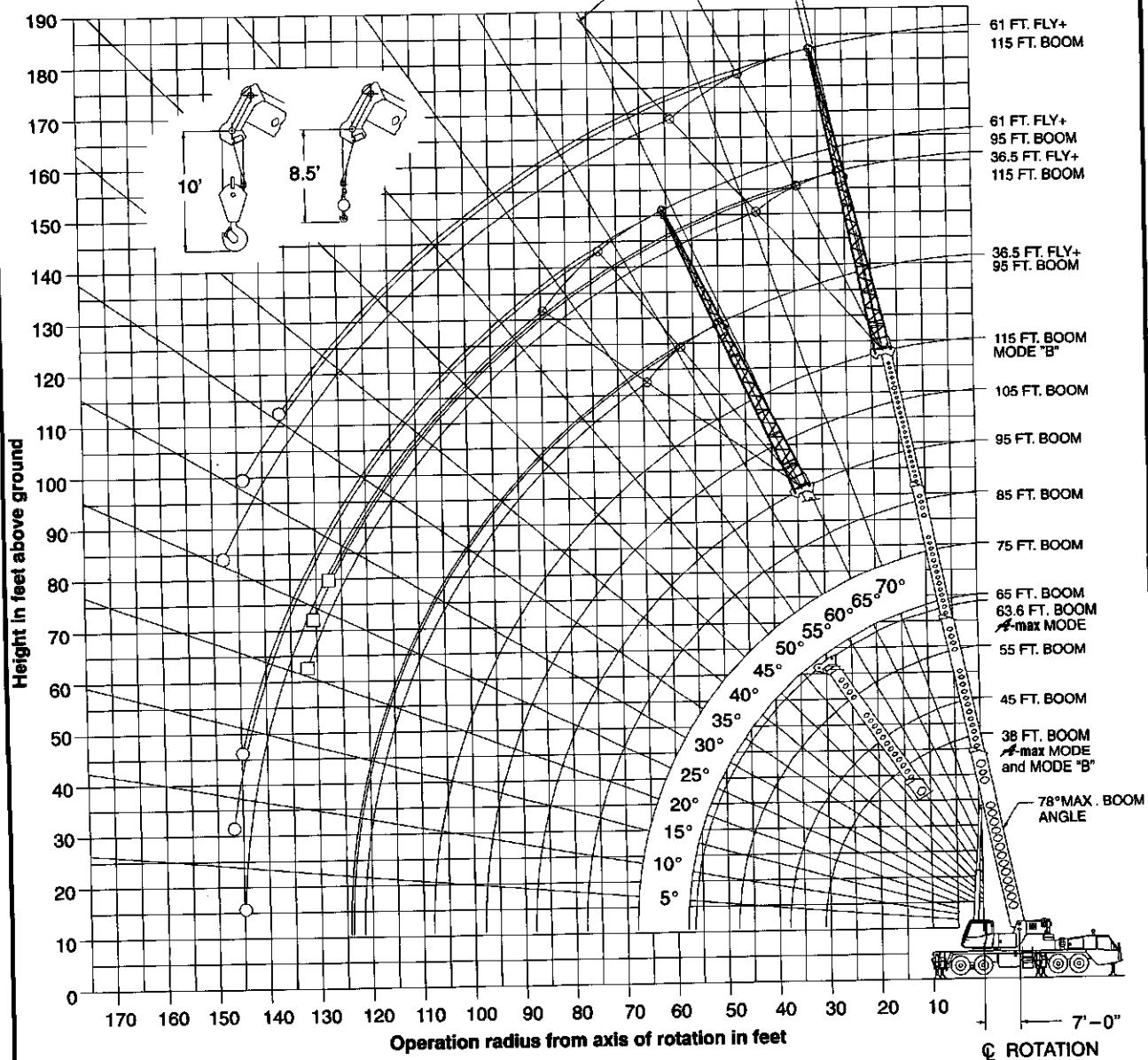
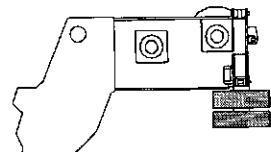


# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Extended Outriggers**



**8,000# Counterweight**



- Denotes Main Boom + 61' Fly-Boom Mode "B"
- Denotes Main Boom + 36.5' Fly-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



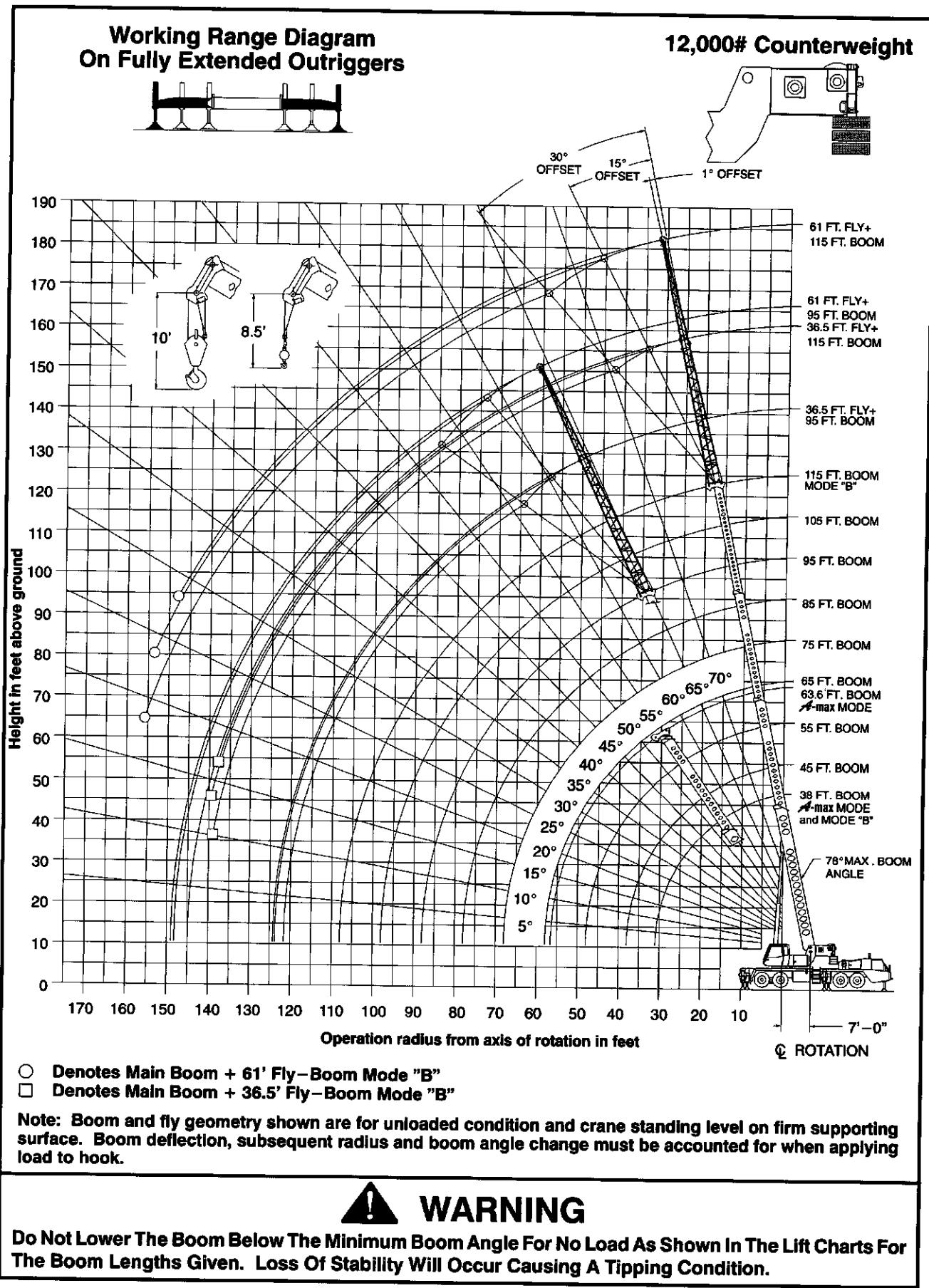
## WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.





## WORKING RANGE DIAGRAM





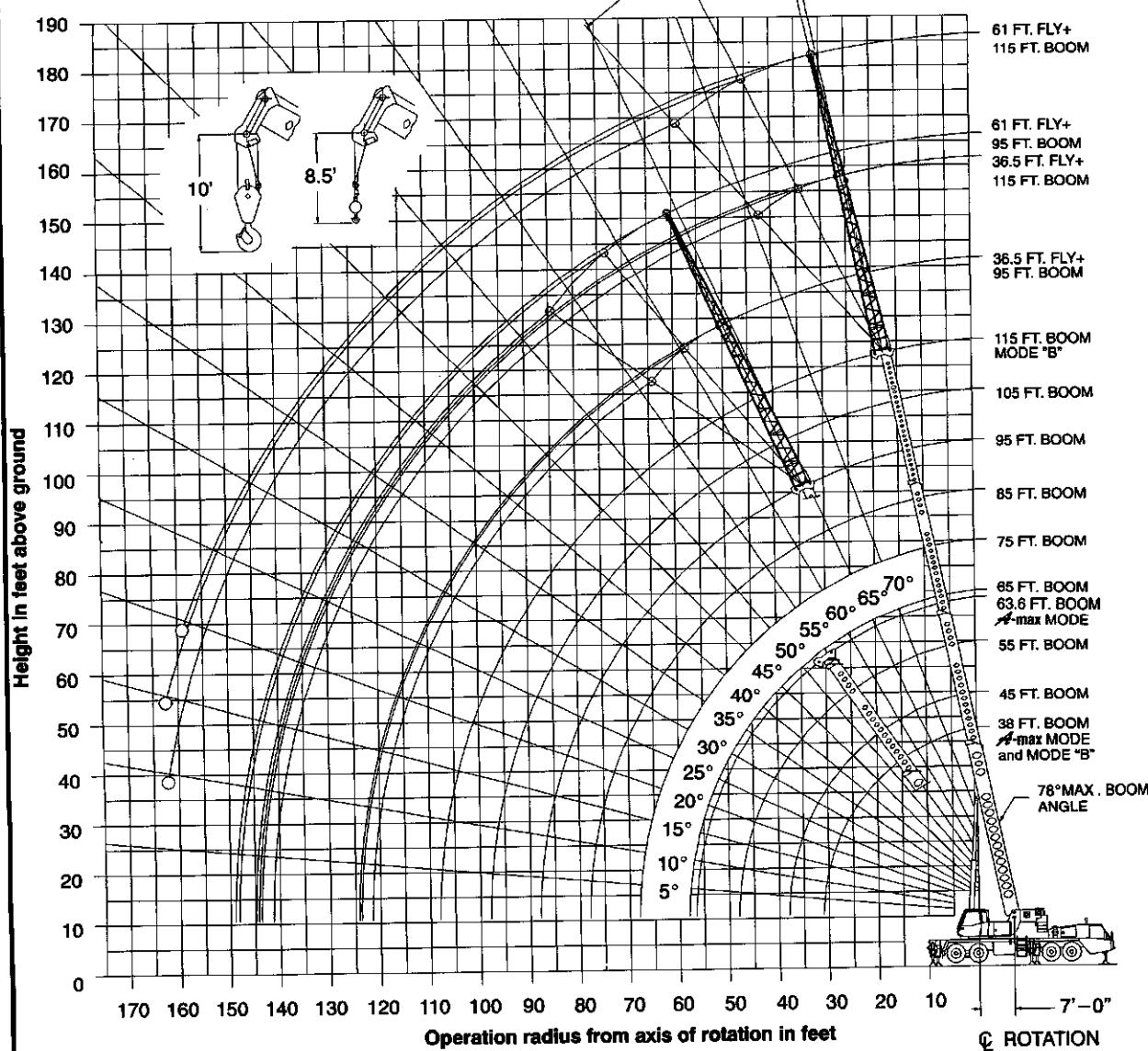
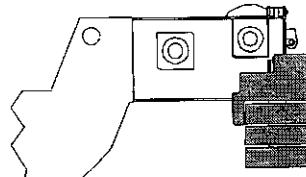


# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Extended Outriggers**



**16,000# Counterweight**



○ Denotes Main Boom + 61' Fly-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



## WARNING

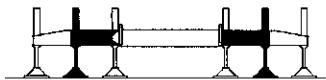
Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.



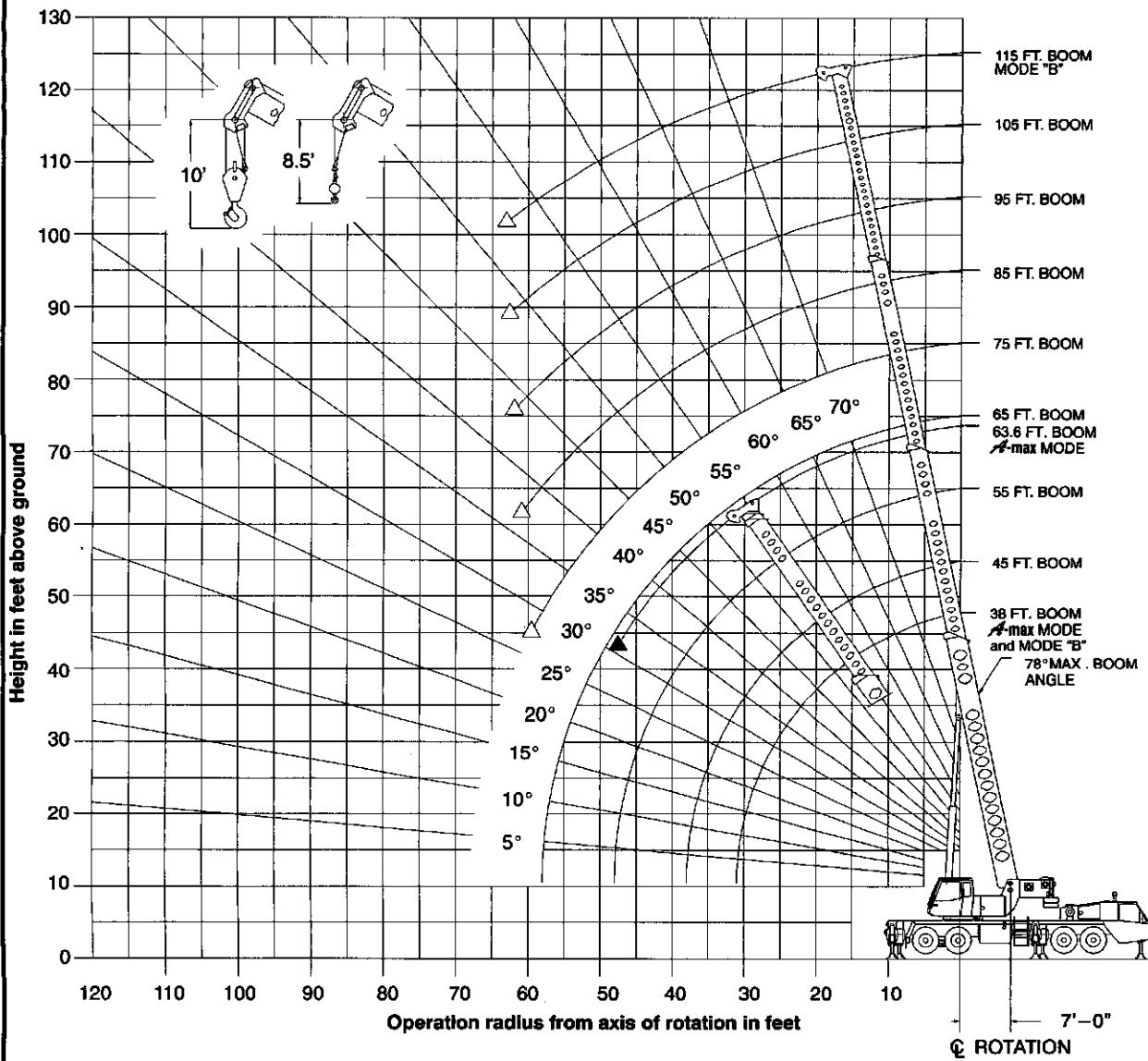
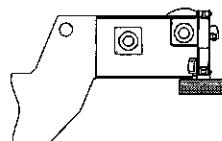


## WORKING RANGE DIAGRAM

**Working Range Diagram  
On Intermediate  
Extended Outriggers**



**4,000# Counterweight**



$\Delta$  Denotes Main Boom- $\Delta$ -max Mode  
 $\triangle$  Denotes Main Boom-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

## Intermediate Extended Outriggers - Main Boom Capacities - 4,000 lb. Counterweight

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
38 Ft. To 45 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	67.0	112,600	71.0	87,400	10
12	64.0	102,100	68.5	87,400	12
15	58.5	82,100	64.0	61,000	15
20	48.5	33,800	56.5	33,000	20
25	36.5	21,400	48.0	20,800	25
30	17.5	14,400	38.0	13,900	30
35			24.5	9,500	35
Min. Boom Angle/ Cap.	0°	13,200	0°	7,300	Min. Boom Angle/ Cap.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
55 Ft. To 63.6 Ft. Main Boom					
Load Radius In Feet	55 Ft.		63.6 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	75.0	85,600			10
12	73.0	85,600	75.5	56,300	12
15	69.5	60,000	72.5	56,300	15
20	63.5	32,200	67.5	31,700	20
25	57.0	20,100	62.5	19,600	25
30	50.5	13,300	57.0	12,900	30
35	43.0	8,900	51.0	8,600	35
40	34.0	5,900	45.0	5,800	40
45	22.0	3,600	37.5	3,300	45
Min. Boom Angle/ Cap.	0°	2,400	31°		Min. Boom Angle/ Cap.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.							
38 Ft. To 55 Ft. Main Boom							
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet		
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°			
10	67.0	112,600	71.0	42,000	74.5	42,000	10
12	64.0	102,100	68.0	42,000	72.5	42,000	12
15	58.5	82,100	64.0	42,000	69.0	42,000	15
20	48.5	33,800	56.5	34,400	63.5	35,100	20
25	36.5	21,400	48.0	22,000	57.0	22,600	25
30	17.5	14,400	38.0	15,100	50.5	15,800	30
35			24.5	10,600	43.0	11,200	35
40					34.0	8,000	40
45					21.5	5,700	45
Min. Boom Angle/ Cap.	0°	13,200	0°	6,500	0°	4,500	Min. Boom Angle/ Cap.

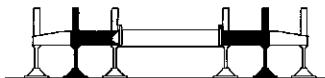
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
65 Ft. To 85 Ft. Main Boom					
Load Radius In Feet	65 Ft.		75 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	75.5	42,000			12
15	73.0	42,000	75.5	42,000	15
20	68.0	35,500	71.5	42,000	20
25	63.0	23,000	67.0	35,700	25
30	57.5	15,900	62.5	23,200	30
35	52.0	11,500	58.0	11,800	35
40	46.0	8,400	53.5	8,600	40
45	39.0	6,100	48.0	6,300	45
50	31.0	4,300	42.5	4,500	50
55	20.0	2,900	36.5	3,100	55
60			29.0	2,000	60
Min. Boom Angle/ Cap.	0°	2,100	27.5°	37°	Min. Boom Angle/ Cap.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
95 Ft. To 115 Ft. Main Boom					
Load Radius In Feet	95 Ft.		105 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	76.5	36,100			20
25	73.0	23,600	75.0	23,700	25
30	69.5	16,500	72.0	16,600	30
35	66.0	12,100	68.5	12,200	35
40	62.5	9,900	65.5	9,000	40
45	59.0	6,600	62.5	6,700	45
50	55.0	4,800	59.0	4,900	50
55	51.0	3,400	56.0	3,500	55
60	47.0	2,300	52.5	2,400	60
Min. Boom Angle/ Cap.	43.5°		46.5°		Min. Boom Angle/ Cap.

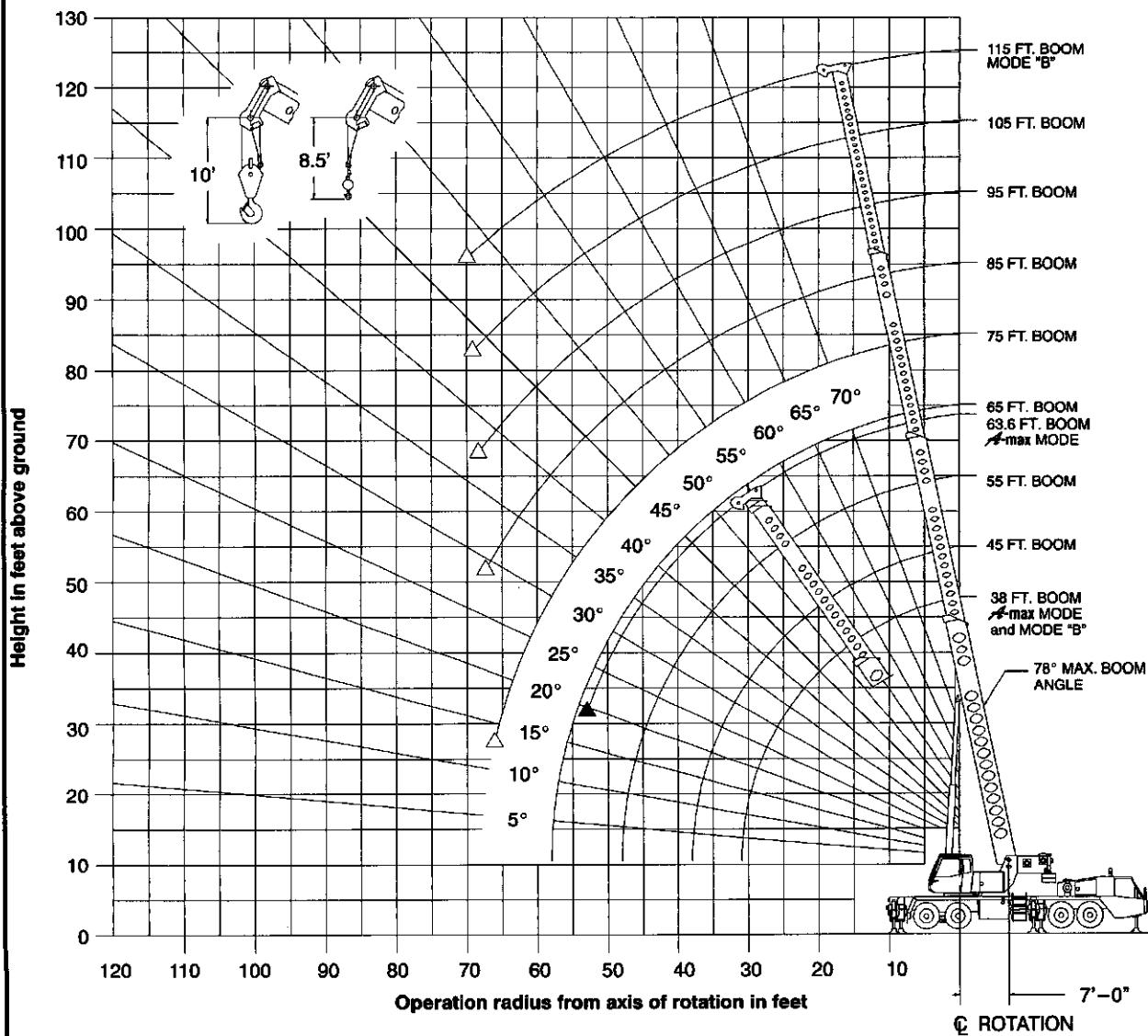
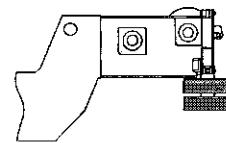
NOTE: Refer To Page 5 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.

## WORKING RANGE DIAGRAM

**Working Range Diagram  
On Intermediate  
Extended Outriggers**



**8,000# Counterweight**



**Note:** Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**

## Intermediate Extended Outriggers - Main Boom Capacities - 8,000 lb. Counterweight

MAX MODE 8,000# COUNTERWEIGHT					
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
38 Ft. To 45 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	67.0	115,600	71.0	67,400	10
12	64.0	104,700	68.5	87,400	12
15	58.5	70,300	64.0	69,200	15
20	48.5	38,800	56.5	38,000	20
25	36.5	25,000	48.0	24,400	25
30	17.5	17,200	38.0	16,700	30
35			24.5	11,800	35
Min. Boom Angle/Cap.	0°	15,900	0°	9,400	Min. Boom Angle/Cap.

MAX MODE 8,000# COUNTERWEIGHT					
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
55 Ft. To 63.6 Ft. Main Boom					
Load Radius In Feet	55 Ft.		63.6 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	75.0	85,600			10
12	73.0	85,600	75.5	56,300	12
15	69.5	68,200	73.0	56,300	15
20	63.5	37,200	67.5	36,700	20
25	57.0	23,700	62.5	23,300	25
30	50.5	16,100	57.0	15,700	30
35	43.0	11,200	51.0	10,900	35
40	34.0	7,800	45.0	7,500	40
45	22.0	5,300	37.5	5,000	45
50			29.0	3,100	50
Min. Boom Angle/Cap.	0°	4,000	19.5°		Min. Boom Angle/Cap.

BOOM MODE "B" 8,000# COUNTERWEIGHT					
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
38 Ft. To 55 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		55 Ft.
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)
10	67.0	115,600	71.0	42,000	74.5
12	64.0	104,700	68.0	42,000	72.5
15	58.5	70,300	64.0	42,000	69.0
20	48.5	38,800	56.5	39,400	63.5
25	36.5	25,000	48.0	25,700	57.0
30	17.5	17,200	38.0	17,900	50.5
35			24.5	12,900	43.0
40					34.0
45					22.0
Min. Boom Angle/Cap.	0°	15,900	0°	10,600	0°
					6,100 Min. Boom Angle/Cap.

65 Ft. To 85 Ft. Main Boom					
Load Radius In Feet	65 Ft.		75 Ft.		85 Ft.
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)
12	75.5	42,000			77.5
15	73.0	42,000	75.5	42,000	82.5
20	68.0	40,400	71.5	40,700	74.0
25	63.0	26,500	67.0	26,800	70.5
30	57.5	18,800	62.5	19,000	66.5
35	52.0	13,800	58.0	14,000	62.5
40	46.0	10,300	53.5	10,600	58.5
45	39.0	7,800	48.5	8,000	54.5
50	31.0	5,800	42.5	6,000	50.0
55	20.0	4,200	36.5	4,500	45.0
60			29.0	3,200	40.0
65			18.5	2,200	34.0
Min. Boom Angle/Cap.	0°	3,400	13°		29° Min. Boom Angle/Cap.

BOOM MODE "B" 8,000# COUNTERWEIGHT					
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
95 Ft. To 115 Ft. Main Boom					
Load Radius In Feet	95 Ft.		105 Ft.		115 Ft.
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)
20	76.5	38,600			
25	73.0	27,100	75.0	27,100	77.0
30	69.5	19,300	72.0	19,400	74.0
35	66.0	14,300	69.0	14,300	71.0
40	62.5	10,900	65.5	11,000	68.5
45	59.0	8,300	62.5	8,400	65.5
50	55.0	6,300	59.5	6,400	62.5
55	51.5	4,800	56.0	4,900	59.5
60	47.0	3,500	52.5	3,600	58.5
65	42.5	2,500	48.5	2,600	53.5
Min. Boom Angle/Cap.	37.5°		43.5°		48° Min. Boom Angle/Cap.

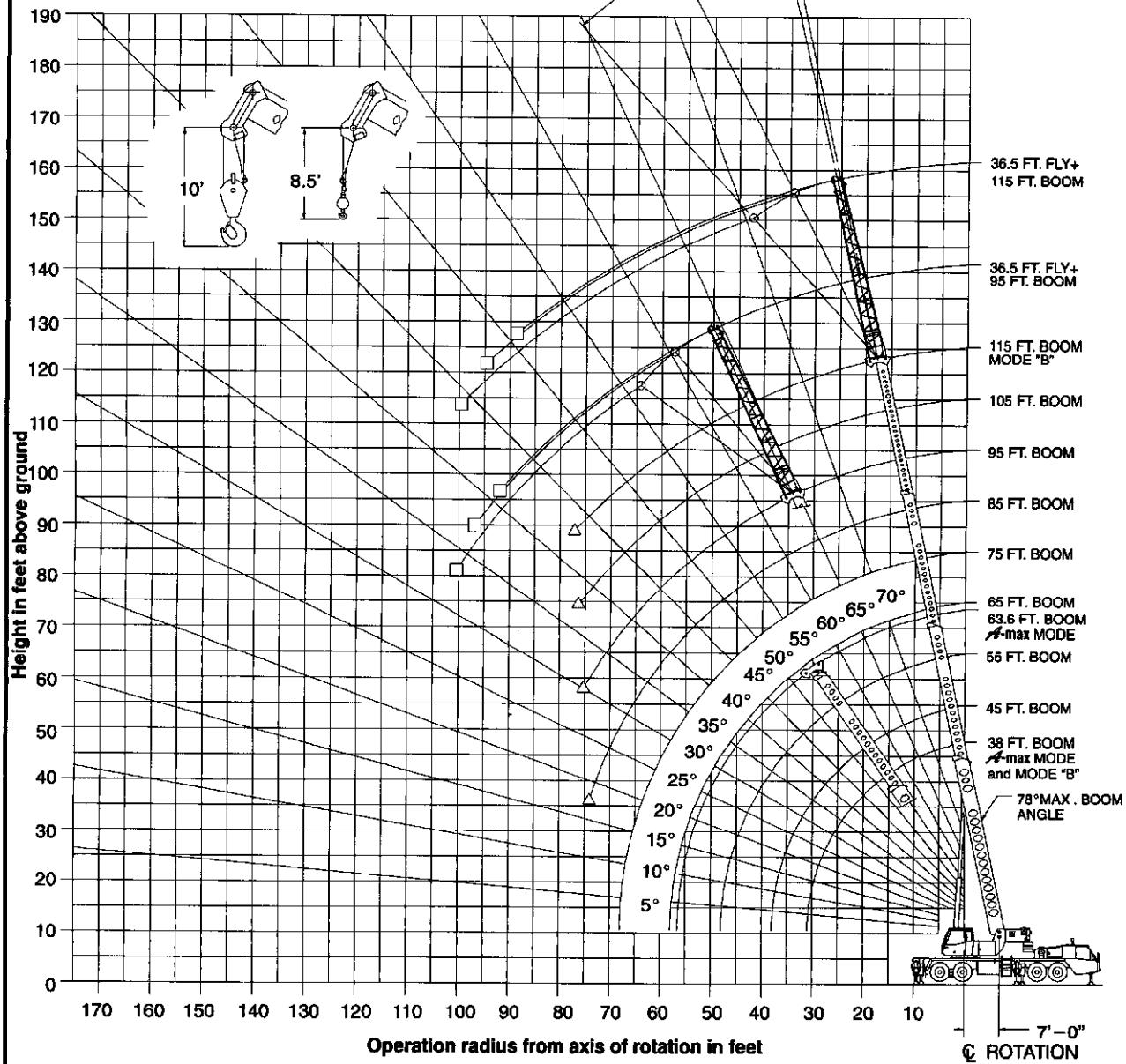
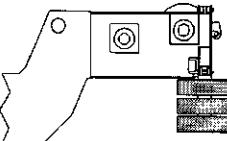
NOTE: Refer To Page 5 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.

# WORKING RANGE DIAGRAM

## Working Range Diagram On Intermediate Extended Outriggers



12,000# Counterweight



△ Denotes Main Boom—Boom Mode "B"

□ Denotes Main Boom + 36.5' Fly—Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



## WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

## Intermediate Extended Outriggers - Main Boom Capacities - 12,000 lb. Counterweight

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
38 Ft. To 45 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	57.0	118,600	71.0	87,400	10
12	64.0	107,300	68.5	87,400	12
15	58.5	78,500	64.0	77,500	15
20	48.5	43,800	56.5	43,000	20
25	36.5	28,600	48.0	27,900	25
30	17.5	20,000	38.0	18,500	30
35			24.5	14,000	35
Min. Boom Angle/Cap.	0°	18,600	0°	11,500	Min. Boom Angle/Cap.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
55 Ft. To 63.5 Ft. Main Boom					
Load Radius In Feet	55 Ft.		63.5 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	75.0	85,600	75.5	85,600	10
12	73.0	85,600	75.5	85,600	12
15	69.5	76,500	73.0	76,500	15
20	63.5	42,200	67.5	41,600	20
25	57.0	27,200	62.5	26,800	25
30	50.5	18,900	57.0	18,500	30
35	43.0	13,500	51.0	13,100	35
40	34.0	9,800	45.0	9,500	40
45	22.0	7,000	37.5	6,700	45
50			29.0	4,600	50
55			15.5	2,900	55
Min. Boom Angle/Cap.	0°	5,600	0°	2,400	Min. Boom Angle/Cap.

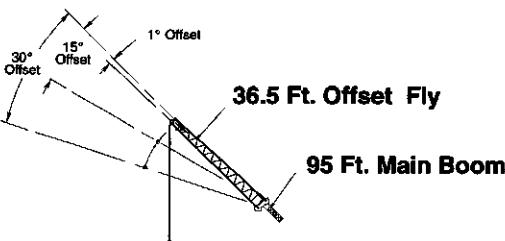
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
38 Ft. To 55 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	57.0	118,600	71.0	82,000	10
12	64.0	107,300	68.0	82,000	12
15	58.5	78,500	64.0	82,000	15
20	48.5	43,800	56.5	42,000	20
25	36.5	28,600	48.0	29,800	25
30	17.5	20,000	38.0	20,700	30
35			24.5	15,200	35
40				34.0	11,900
45				22.0	9,100
Min. Boom Angle/Cap.	0°	18,600	0°	12,600	0°
				7,700	Min. Boom Angle/Cap.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
95 Ft. To 115 Ft. Main Boom					
Load Radius In Feet	95 Ft.		105 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	76.5	38,600			20
25	73.0	30,700	75.5	30,300	25
30	69.5	22,100	72.0	22,200	30
35	68.0	16,600	69.0	16,700	35
40	62.5	12,700	66.0	12,800	40
45	59.0	10,000	62.5	10,100	45
50	55.5	7,800	59.5	7,900	50
55	51.5	6,100	56.0	6,200	55
60	47.5	4,700	52.5	4,800	60
65	43.0	3,600	49.0	3,700	65
70	38.0	2,600	45.0	2,700	70
75			40.5	1,900	75
Min. Boom Angle/Cap.	30°		37.5°		Min. Boom Angle/Cap.
				43°	

65 Ft. To 85 Ft. Main Boom					
Load Radius In Feet	65 Ft.		75 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	75.5	42,000	75.5	42,000	12
15	73.0	42,000	71.5	42,000	15
20	68.0	42,000	71.5	42,000	20
25	63.0	30,100	67.0	30,400	25
30	57.5	21,600	63.0	21,800	30
35	52.0	16,100	58.0	16,300	35
40	46.0	12,300	53.5	12,500	40
45	39.0	9,500	48.5	9,700	45
50	31.0	7,300	42.5	7,500	50
55	20.0	5,600	36.5	5,800	55
60			29.0	4,400	60
65			18.5	3,300	65
70				27.0	2,500
Min. Boom Angle/Cap.	0°	4,700	0°	2,600	17.5°
					Min. Boom Angle/Cap.

NOTE: Refer To Page 5 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or ERECTED Auxiliary Load Handling Equipment.

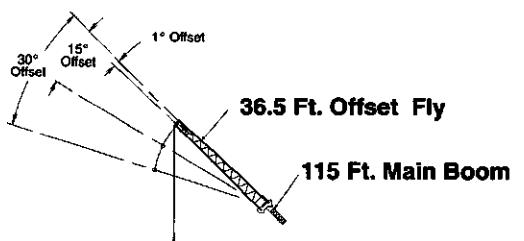
## Intermediate Extended Outriggers - Fly Capacities - Boom Mode "B" - 12,000 lb. Counterweight



BOOM MODE "B" 12,000# COUNTERWEIGHT							Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.							
95 Ft. Main Boom + 36.5 Ft. Offset Fly							115 Ft. Main Boom + 36.5 Ft. Offset Fly							
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
30	76.5	16,000					30							35
35	74.0	15,700	77.5	11,900			35							40
40	72.0	14,300	75.5	11,300			40							45
45	69.5	11,600	73.5	10,700	77.0	9,700	45							50
50	67.0	9,400	71.0	10,300	74.5	9,300	50							55
55	64.0	7,600	68.5	8,600	72.0	8,000	55							60
60	61.5	6,200	65.5	7,100	69.5	7,700	60							65
65	59.0	5,000	63.0	5,800	66.5	6,600	65							70
70	56.0	4,000	60.0	4,700	64.0	5,400	70							75
75	53.5	3,200	57.0	3,800	61.0	4,400	75							80
80	50.5	2,400	54.5	3,000	57.5	3,500	80							85
85	47.5	1,800	51.0	2,300	54.5	2,800	85							90
90			48.0	1,700	51.0	2,100	90							95
95				47.5		1,500	95							

**WARNING**

Do Not Lower 36.5 Ft. Offset Fly In Working Position Below 42 Degrees Unless Main Boom Length Is 69 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.



BOOM MODE "B" 12,000# COUNTERWEIGHT							Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.							
115 Ft. Main Boom + 36.5 Ft. Offset Fly							115 Ft. Main Boom + 36.5 Ft. Offset Fly							
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
35	76.5	10,500					35							35
40	75.0	10,500					40							40
45	73.0	10,500					45							45
50	71.0	9,000	75.0	10,100			50	78.0*	8,700					50
55	68.5	7,300	72.5	8,400			55	76.0	8,400					55
60	66.5	5,900	70.0	6,900	73.5	7,800	60							60
65	64.0	4,700	68.0	5,600	71.5	6,400	65							65
70	62.0	3,700	65.5	4,500	69.0	5,300	70							70
75	59.5	2,900	63.0	3,600	66.5	4,300	75							75
80	57.0	2,100	60.5	2,800	64.0	3,400	80							80
85	54.5	1,500	58.0	2,100	61.0	2,600	85							85
90			55.5	1,500	58.5	2,000	90							90
95				55.5	1,400		95							

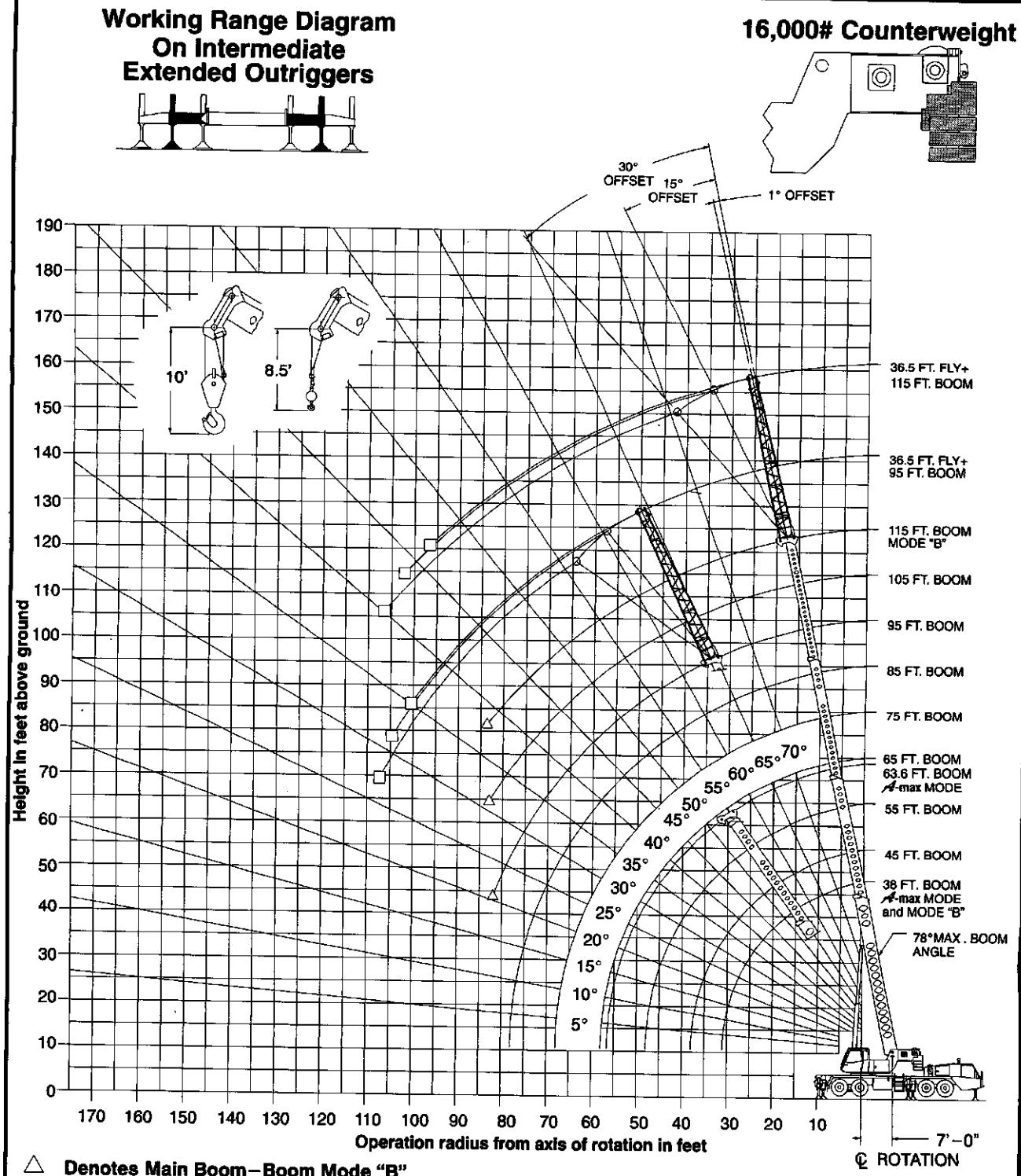
**WARNING**

Do Not Lower 36.5 Ft. Offset Fly In Working Position Below 61.5 Degrees Unless Main Boom Length Is 69 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

\* This capacity based on maximum obtainable boom angle.

# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Intermediate  
Extended Outriggers**



**Note:** Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.

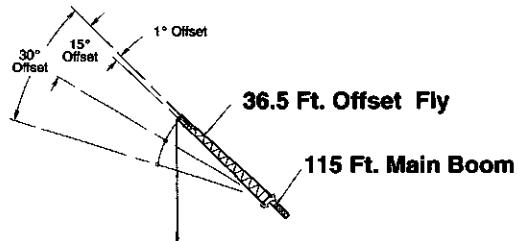
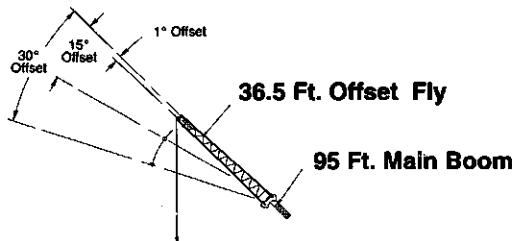


## WARNING

**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**



## Intermediate Extended Outriggers - Fly Capacities - Boom Mode "B" - 16,000 lb. Counterweight



BOOM MODE "B" 16,000# COUNTERWEIGHT		Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
		95 Ft. Main Boom + 36.5 Ft. Offset Fly					
Load Radius In Feet	1° Offset	15° Offset		30° Offset		Load Radius In Feet	
		Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
30	76.5	16,300				30	
35	74.0	15,700	77.5	11,900		35	
40	72.0	14,800	75.5	11,200		40	
45	69.5	13,100	73.5	10,700	77.0	45	
50	67.0	10,800	71.0	10,300	74.5	50	
55	64.5	8,900	68.5	9,800	72.0	55	
60	62.0	7,400	66.0	8,300	69.5	60	
65	59.0	6,100	63.0	6,900	67.0	65	
70	56.5	5,000	60.5	5,700	64.0	70	
75	53.5	4,100	57.5	4,700	61.0	75	
80	50.5	3,300	54.5	3,900	58.0	80	
85	47.5	2,600	51.5	3,100	54.5	85	
90	44.5	2,000	48.0	2,500	51.5	90	
95	41.0	1,500	44.5	1,900	47.5	95	
100			41.0	1,400	43.5	100	

**WARNING**  
Do Not Lower 36.5 Ft. Offset Fly In Working Position Below 35 Degrees Unless Main Boom Length Is 75 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

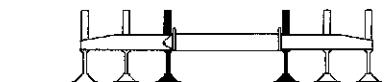
BOOM MODE "B" 16,000# COUNTERWEIGHT		Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.					
		115 Ft. Main Boom + 36.5 Ft. Offset Fly					
Load Radius In Feet	1° Offset	15° Offset		30° Offset		Load Radius In Feet	
		Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
35	76.5	10,500				35	
40	75.0	9,500				40	
45	73.0	10,500	76.5	10,100		45	
50	71.5	10,500	75.0	10,100	78.0*	50	
55	69.0	8,600	73.0	9,700	76.0	55	
60	67.0	7,100	70.5	8,100	74.0	60	
65	64.5	5,800	68.0	6,700	71.5	65	
70	62.0	4,700	66.0	5,500	69.0	70	
75	60.0	3,800	63.5	4,500	66.5	75	
80	57.5	3,000	61.0	3,700	64.0	80	
85	55.0	2,300	58.5	2,900	61.5	85	
90	52.5	1,700	56.0	2,300	59.0	90	
95			53.0	1,700	56.0	95	
100					53.0	100	

**WARNING**  
Do Not Lower 36.5 Ft. Offset Fly In Working Position Below 47.5 Degrees Unless Main Boom Length Is 75 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

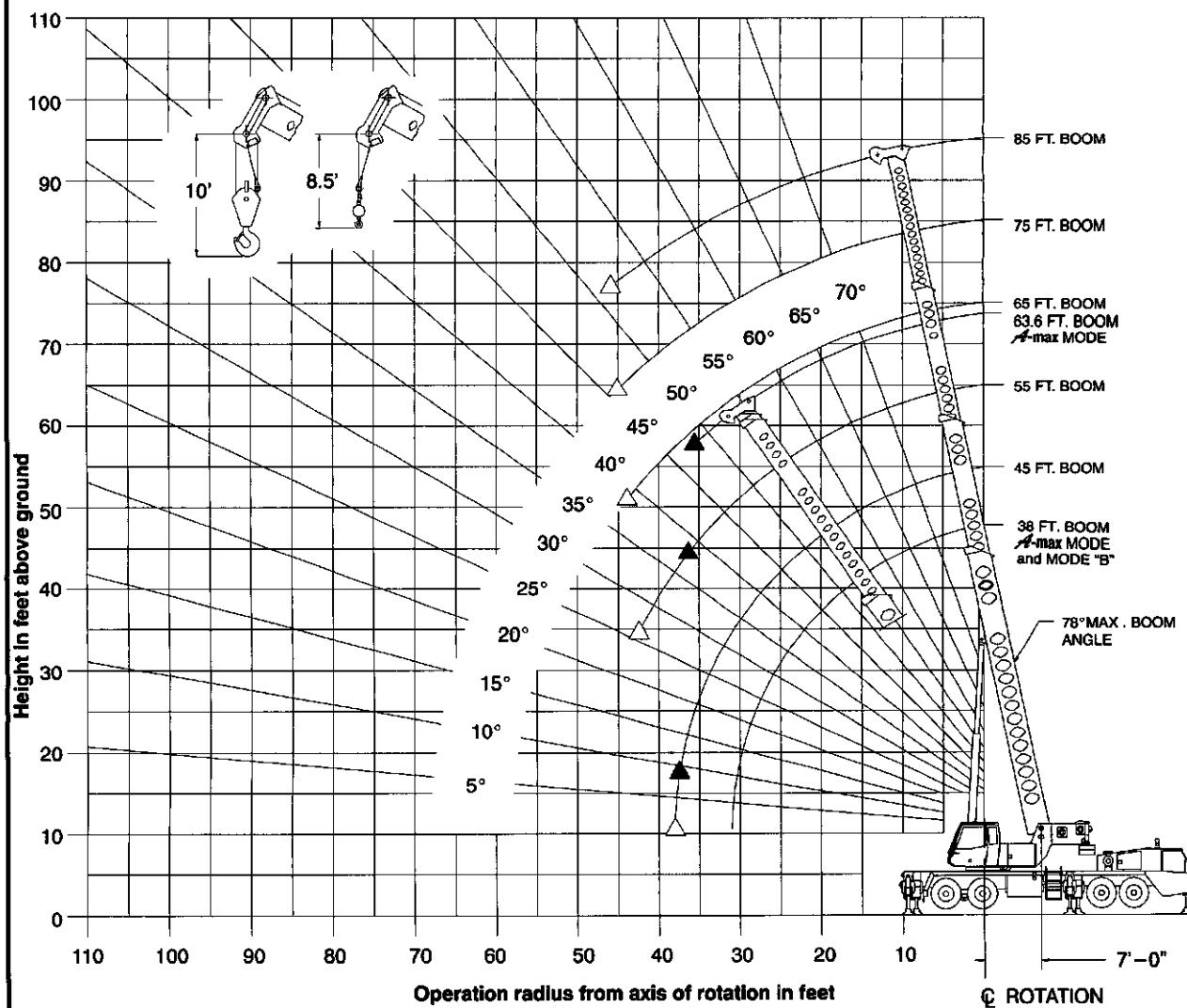
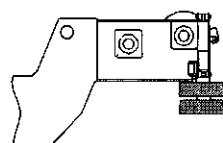
\* This capacity based on maximum obtainable boom angle.

## WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Retracted Outriggers**



**8,000# Counterweight**



▲ Denotes Main Boom- $\Delta$ -max Mode  
△ Denotes Main Boom-Boom Mode "B"

**Note:** Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**

## Fully Retracted Outriggers - Main Boom Capacities - 8,000 lb. Counterweight

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Retracted Outriggers See Set Up Note 2.						
38 Ft. To 45 Ft. Main Boom						
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
10	67.0	59,000	71.0	57,900	10	
12	63.5	42,000	68.0	41,200	12	
15	58.5	28,100	64.0	27,300	15	
20	48.5	18,300	56.5	15,700	20	
25	36.5	10,100	48.0	9,500	25	
30	17.5	6,100	38.0	5,700	30	
35			24.5	3,000	35	
Min. Boom Angle/ Cap.	0°	5,400	9°		Min. Boom Angle/ Cap.	

55 Ft. To 63.6 Ft. Main Boom						
Load Radius In Feet	55 Ft.		63.6 Ft.		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
10	75.0	56,900			10	
12	72.5	40,300	75.0	39,700	12	
15	69.0	26,600	72.5	26,100	15	
20	63.5	15,000	67.5	14,600	20	
25	57.0	9,000	62.0	8,600	25	
30	50.5	5,200	57.0	4,800	30	
35	43.0	2,600	51.0	2,300	35	
Min. Boom Angle/ Cap.	38°		48°		Min. Boom Angle/ Cap.	

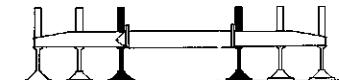
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Retracted Outriggers See Set Up Note 2.							
38 Ft. To 55 Ft. Main Boom							
Load Radius In Feet	38 Ft.		45 Ft.		55 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	67.0	59,000	71.0	42,000	74.5	42,000	10
12	63.5	42,000	68.0	42,000	72.5	42,000	12
15	58.5	28,100	64.0	28,700	69.0	29,200	15
20	48.5	18,300	56.5	16,800	63.0	17,300	20
25	36.5	10,100	48.0	10,600	57.0	11,100	25
30	17.5	6,100	38.0	6,700	50.5	7,200	30
35			24.5	4,100	43.0	4,600	35
40					34.0	2,700	40
Min. Boom Angle/Cap.	0°	5,400	0°	2,700	26°		Min. Boom Angle/Cap.

65 Ft. To 85 Ft. Main Boom							
Load Radius In Feet	65 Ft.		75 Ft.		85 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	75.5	42,000	75.0	29,800	77.5	30,000	12
15	72.5	29,600	71.0	17,900	73.5	18,100	15
20	68.0	17,700	71.0	11,700	70.0	11,800	20
25	63.0	11,400	67.0	7,800	66.0	7,900	25
30	57.5	7,500	62.5	5,100	62.5	5,300	30
35	52.0	4,900	58.0	3,200	58.5	3,300	35
40	46.0	3,000	53.0		54.0	1,900	40
45							
Min. Boom Angle/Cap.	38.5°		46°		51.5°		Min. Boom Angle/Cap.

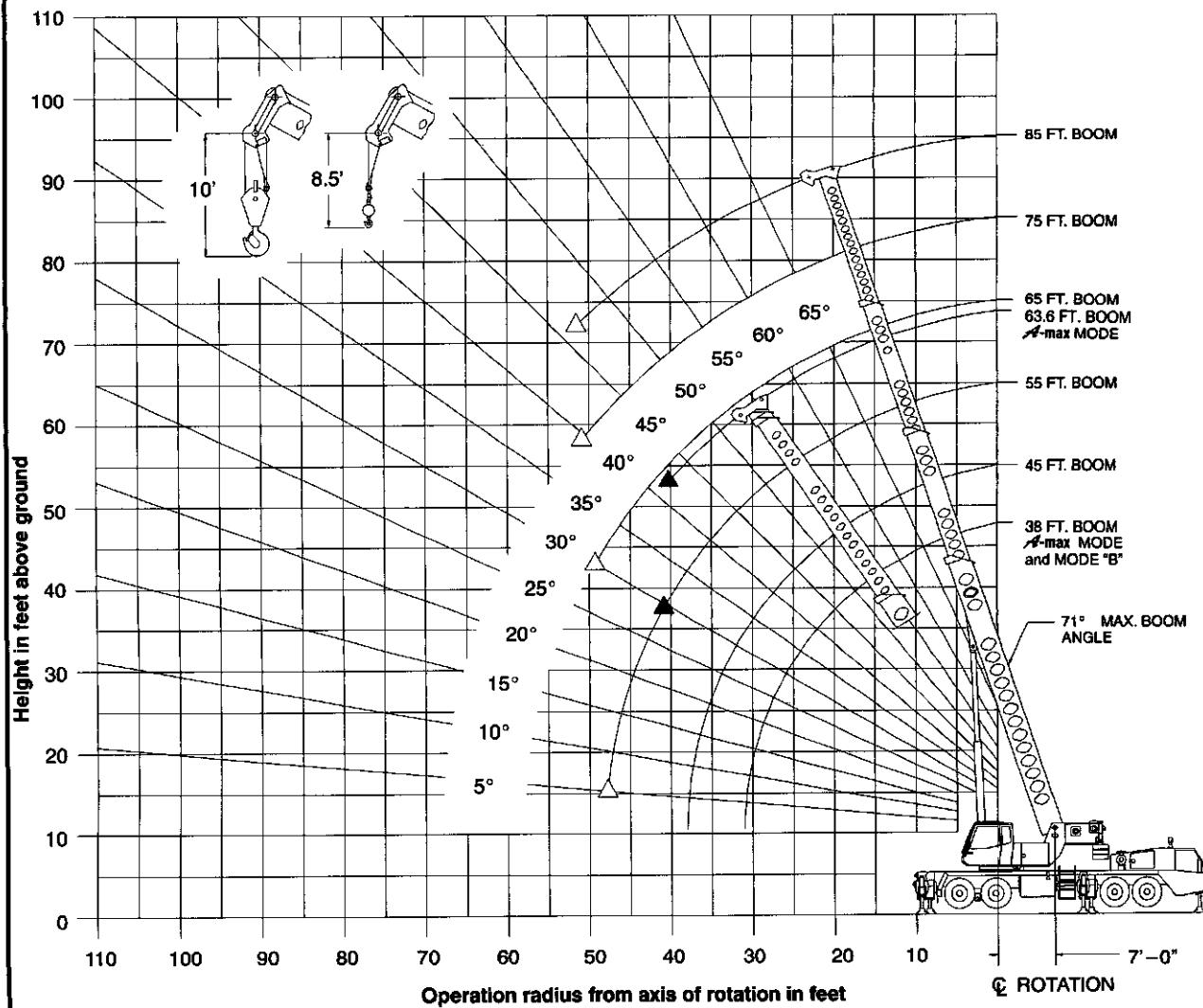
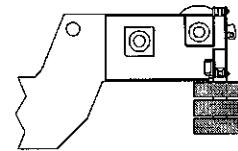
NOTE: Refer To Page 5 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or ERECTED Auxiliary Load Handling Equipment.

## WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Retracted Outriggers**



**12,000# Counterweight**



- ▲ Denotes Main Boom-A-max Mode  
△ Denotes Main Boom-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

**Do Not Lower The Boom Below The Minimum Boom Angle For No Load, Or Raise Boom Above 71°, As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**

## Fully Retracted Outriggers - Main Boom Capacities - 12,000 lb. Counterweight

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Retracted Outriggers See Set Up Note 2.					
38 Ft. To 45 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	67.0	67,600	71.0	66,500	10
12	63.5	48,600	68.0	47,700	12
15	58.5	32,800	64.0	32,100	15
20	48.5	19,800	56.5	19,000	20
25	38.5	12,600	48.0	12,000	25
30	17.5	8,200	38.0	7,700	30
35			24.5	4,800	35
Min. Boom Angle/ Cap.	0°	7,400	0°	3,300	Min. Boom Angle/ Cap.

### WARNING

Do not raise the boom above 71 degrees. Loss of backward stability will occur causing a tipping situation.

Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Retracted Outriggers See Set Up Note 2.					
38 Ft. To 55 Ft. Main Boom					
Load Radius In Feet	38 Ft.		45 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
10	67.0	67,600	71.0	42,000	10
12	63.5	48,600	68.0	42,000	12
15	58.5	32,800	64.0	33,400	15
20	48.5	19,800	56.5	20,100	20
25	38.5	12,600	48.0	13,100	25
30	17.5	8,200	38.0	8,800	30
35			24.5	5,800	35
40				43.0	40
45				21.5	45
Min. Boom Angle/ Cap.	0°	7,400	0°	4,300	5°
Min. Boom Angle/ Cap.					Min. Boom Angle/ Cap.

### WARNING

Do not raise the boom above 71 degrees. Loss of backward stability will occur causing a tipping situation.

55 Ft. To 63.6 Ft. Main Boom					
Load Radius In Feet	55 Ft.		63.6 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
15	69.0	31,300			15
20	63.5	18,300	67.5	17,900	20
25	57.0	11,500	62.0	11,100	25
30	50.5	7,200	57.0	6,900	30
35	43.0	4,300	51.0	4,000	35
40	34.0	2,200	44.5	1,900	40
Min. Boom Angle/ Cap.	29.5°		42°		Min. Boom Angle/ Cap.

### WARNING

Do not raise the boom above 71 degrees. Loss of backward stability will occur causing a tipping situation.

65 Ft. To 85 Ft. Main Boom					
Load Radius In Feet	65 Ft.		75 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	68.0	21,000	71.0	21,200	20
25	63.0	13,900	67.0	14,100	25
30	57.5	9,800	62.5	9,800	30
35	52.0	6,600	58.0	6,900	35
40	46.0	4,400	53.0	4,700	40
45	39.0	2,800	48.0	3,000	45
50				54.0	50
Min. Boom Angle/ Cap.	30°		39.5°		Min. Boom Angle/ Cap.

### WARNING

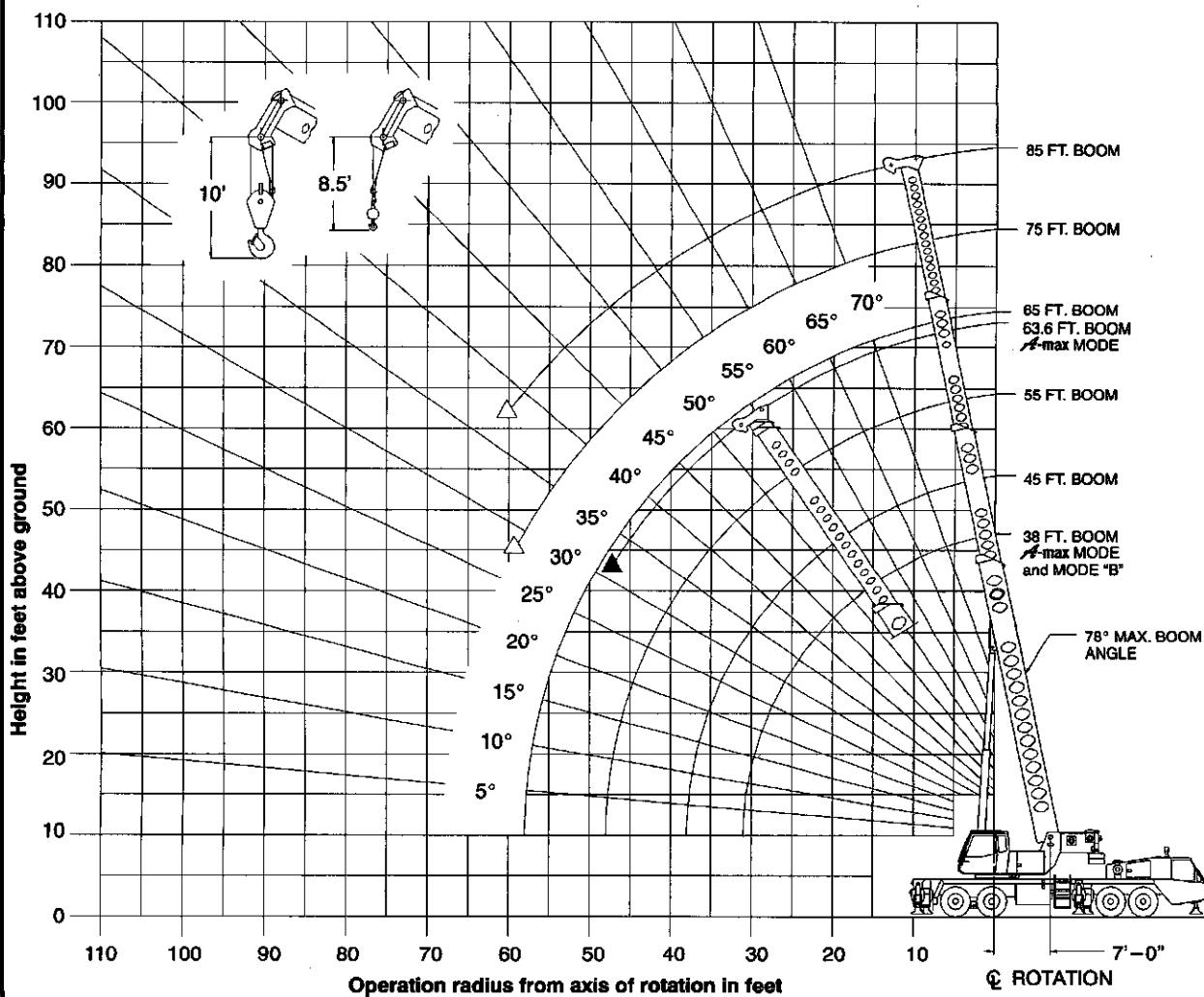
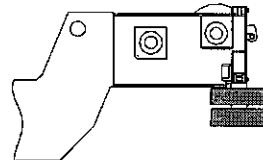
Do not raise the boom above 71 degrees. Loss of backward stability will occur causing a tipping situation.

# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Tires**



**8,000# Counterweight**



- ▲ Denotes Main Boom-A-max Mode
- △ Denotes Main Boom-Boom Mode "B"

Note: Boom geometry shown is for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



## WARNING

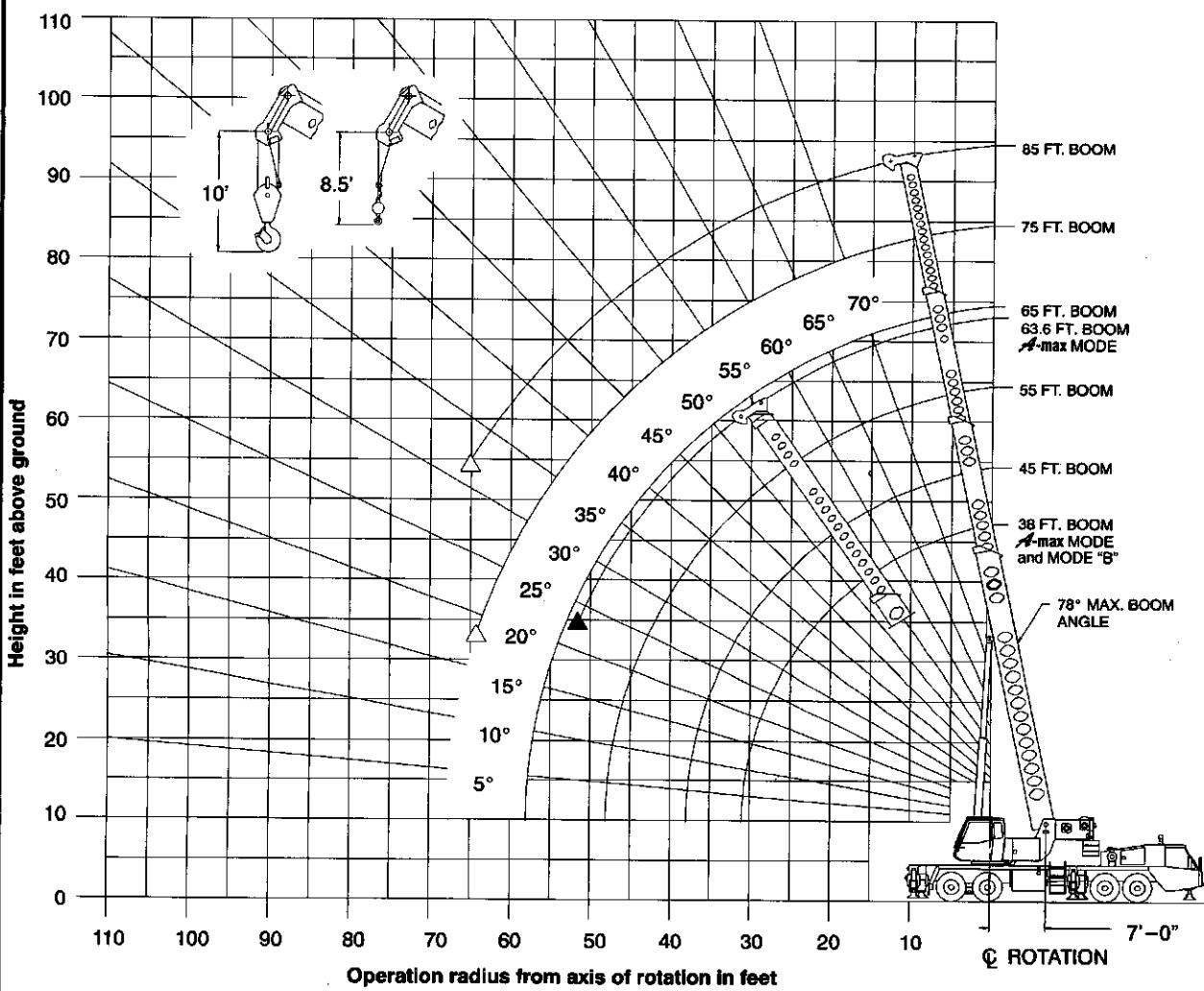
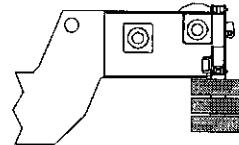
**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**



## WORKING RANGE DIAGRAM

Working Range Diagram  
On Tires

12,000# Counterweight



- ▲ Denotes Main Boom-A-max Mode
- △ Denotes Main Boom-Boom Mode "B"

Note: Boom geometry shown is for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

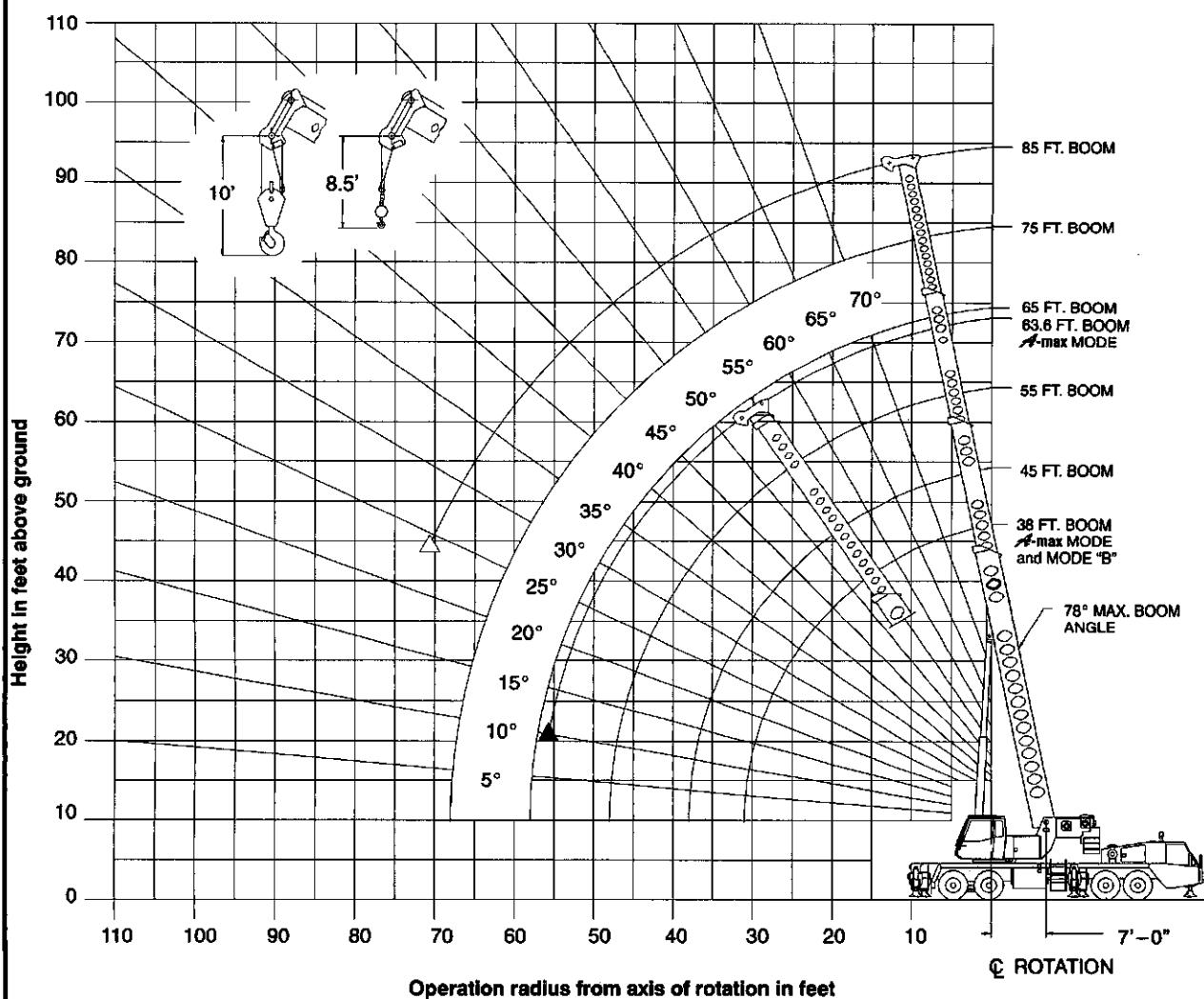
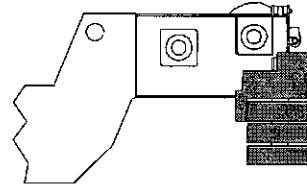
Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.



## WORKING RANGE DIAGRAM

Working Range Diagram  
On Tires

16,000# Counterweight



▲ Denotes Main Boom-Max Mode

△ Denotes Main Boom-Boom Mode "B"

Note: Boom geometry shown is for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.



### WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

