

# J Series

## Telescopic Cranes 1700JBT

- 34,000 lbs. (15,420 kg) Rated Capacity at 5 ft. (1.5 m) Radius
- 120 ft. (36.6 m) tip Height with  
Optional 40 ft. (12.2 m) Jib Attachment
- Exclusive Features such as "Layaway" Hoist,  
Cable Tensioner and Flip-Up Operator Charts
- Ideal for Applications such as
  - ...Roofing
  - ...Steel/Truss Erection
  - ...Sign Installation
  - ...General Construction
- Numerous Mounting Configurations  
and Accessory Options Available
  - ...Personnel Baskets
  - ...Radio Remote Controls
  - ...Roofer's Packages, etc.



*The Crane Operator's Choice*

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Courtesy of CraneMarket



# Series 1700JBT

## STANDARD CRANE SPECIFICATIONS

Rating - 34,000 lbs. (15,420 kg) @ 5 ft. (1.5 m) load radius

### MAIN BOOM

Three-section, inverted top hat cross section design for optimum strength to weight ratio. Fully proportional boom extension. Telescope cylinder with integral holding valve extends the mid section. The fly is simultaneously and mechanically extended by 5/8 in. (15.9 mm) diameter cables attached to the mid and fly section, which provides proportional extensions of all boom lengths. Extension cables are supported by one, 2-groove 10 3/8 in. (263.5 mm) tread diameter non-metallic sheave, which is attached to the barrel end of the telescope cylinder.

### BOOM NOSE

Three non-metallic sheaves mounted on bronze bushings. Idler sheave is a moveable sheave wheel. The boom nose also contains an integral yoke shaft for installation of optional platforms. Each main sheave provides ease of lubrication by using a common grease fitting in the end of the sheave pivot pin.

### JIBS (OPTIONAL)

All jibs contain adjustable brackets for ease of alignment during field installation.

- 18 ft. (5.5 m) fixed length jib for 47 ft. (14.3 m) boom option
- 18-30 ft. (9.1 m - 5.5 m) 2 section jib for 47 ft. (14.3 m) boom option
- 23 ft. (7.0 m) fixed length jib for 70 ft. (21.3 m) boom option
- 23 - 40 ft. (7.0 - 12.2 m) 2 section jib for 70 ft. (21.3 m) boom option

### BOOM ELEVATION

Single, double-acting lift cylinder with integral holding valve provides elevation from -15° to +80°. Mechanical pendulum angle indicators are provided on both sides of the boom.

### HOIST

Layaway planetary drive, power up and down two-speed hoist with automatic brake. Two speed is obtainable on the fly. No stopping of the hoist needed to engage high speed.

**Low Speed** - Maximum permissible single line speed of 188 fpm on 4th layer. Maximum single permissible line pull of 8500 lbs. (3,856 kg).

**High Speed** - Maximum permissible single line speed of 304 fpm on 4th layer. Maximum single permissible line pull of 5273 lbs. (2,392 kg).

### SWING

Planetary drive, 375° non-continuous rotation. Equipped with spring applied, hydraulically released, automatic multiple disc type brake. Swing bearing is bolted to the pedestal and turntable. Maximum swing speed is 1.5 rpm.

### PEDESTAL

All welded box type construction reinforced to provide a rigid mount.

### OUTRIGGERS

A-frame type, 19 ft., 9 in. (6.0 m) span, extended. Double acting hydraulic cylinders with integral holding valves on each extension cylinder. All attach pins are plated and wear pads are nylatron.

### STABILIZERS

A-frame type, 10 ft. (3.0 m) span extended. Double-acting hydraulic cylinders with integral holding valves on each extension cylinder. Wear pads are nylatron. (Out-and-down stabilizers are optional)

### TORSION BOX (SUB-FRAME)

Four-plate design, continuously welded on all four sides to achieve optimum rigidity and torsional strength.

### CONTROL STATIONS

Extra-wide dual operator stations equipped with four single lever crane controls that are arranged to PCSA standards. Fully proportional control valves. Outrigger and stabilizer controls allow independent extension and retraction. Each station contains engine start/stop, mechanical foot throttles, warning horn and bubble level indicators. Load charts, range diagrams, jib charts and component deduction charts are mounted on pivoting plates directly in front of the operator.

### HYDRAULIC SYSTEM

A three-section gear pump is direct mounted to a power take-off on the truck transmission. Flow distribution is 39 gpm (148 lpm) to the hoist function, 24 gpm (91 lpm) to the crane functions and 9 gpm (34 lpm) to the swing function. A 60 gallon (227 l) reservoir includes a 10 micron heavy duty filter in the return line. Sight and temperature gauges are integral on the hydraulic tank face plate. Gate valves are used for servicing the hydraulic pump and/or PTO without fluid removal.

### MOUNTING

Pedestal and torsion sub-frame are bolted directly to the chassis by sixteen Grade 8 bolts. Requires no welding.

### DESIGN/WELDING

Design conforms to ANSI B30.5 1994. All welding conforms to ANSI/AWS D14.3

### BOOM REST/COLLAR REST

A collar rest and house lock are standard with the 47 ft. (14.3m) boom option. A horizontal boom rest is standard with the 70 ft. (21.3 m) boom option.

**⚠ DANGER! DO NOT OPERATE WITHIN 10 FT. (3.0 M) OF POWER LINES**

# 70 FOOT BOOM

**RATED LIFTING CAPACITIES IN POUNDS**

LOAD RADIUS FEET	BOOM LENGTH IN FEET							
	27.3	34	40	46	52	58	64	70
5	34000							
10	21000	17000	16500	16000	15500	15000		
15	15000	14000	13000	12000	11000	10500	10000	9500
20	10500	10000	9500	9000	8500	8000	7600	7200
25	7700	7500	7300	7100	6800	6500	6200	5800
30		6400	6100	5800	5500	5200	5000	4800
35			5900	4800	4500	4400	4200	4100
40				4200	4000	3800	3600	3500
45				3500	3200	3000	3000	3000
50					2900	2700	2600	2600
55						2400	2400	2300
60							2000	1900
65								1700

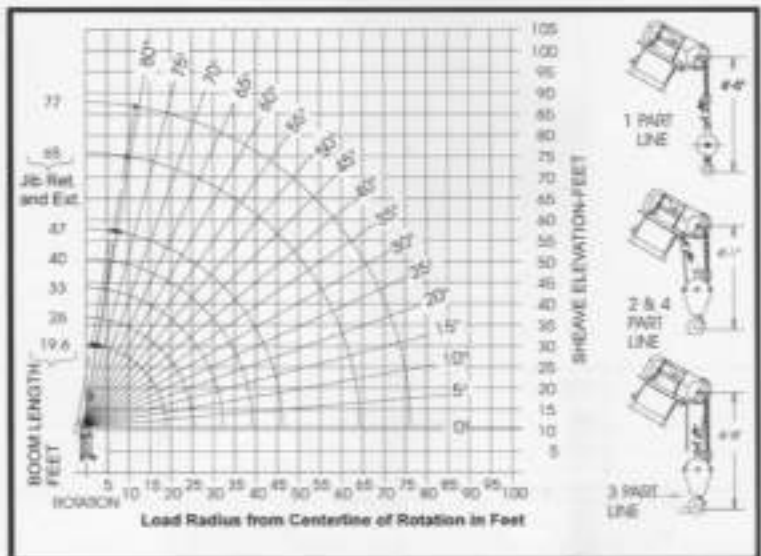
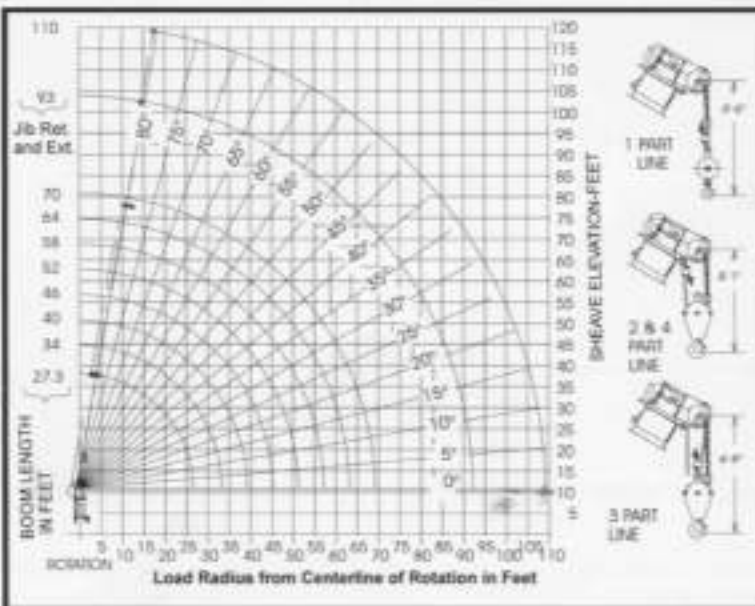
Do not operate this crane unless you know the diameter and type rope currently installed on the crane. Do not exceed permissible rope pull of rope installed on this crane. Do not use 3-part line with boom length over 58 ft. Do not use 4-part line with boom length over 46 ft. Do not use 5-part line with boom length over 34 ft.

# 47 FOOT BOOM

**RATED LIFTING CAPACITIES IN POUNDS**

LOAD RADIUS FEET	BOOM LENGTH IN FEET				
	19.6	26	33	40	47
5	34000				
10	23000	19000	18000	17000	15000
15	16000	15000	14500	13000	11500
20		11200	10500	9500	8500
25		8400	7800	7400	6800
30			7200	6400	5800
35				5800	4700
40					4000
45					3500

Do not operate this crane unless you know the diameter and type rope currently installed on the crane. Do not exceed permissible line pull of rope installed on this crane. Do not use 4-part line with boom length over 33 ft. Do not use 4-part line with boom length over 26 ft.



**RATED JIB LIFTING CAPACITIES IN POUNDS**

23-40 FT. 2 SECTION JIB			23 FT. FIXED JIB	
MINIMUM BOOM ANGLE	JIB FULLY RETRACTED	JIB FULLY EXTENDED	MINIMUM BOOM ANGLE	
80°	4300	2500	80°	4400
75°	3400	1900	75°	3500
70°	2700	1600	70°	2800
65°	2100	1300	65°	2200
60°	1800	1000	60°	1900
55°	1400	850	55°	1500
50°	1200	750	50°	1300
45°	1000	600	45°	1200
40°	900	550	40°	1100
35°	700		35°	900

**RATED JIB LIFTING CAPACITIES IN POUNDS**

18-30 FT. 2 SECTION JIB			18 FT. FIXED JIB	
MINIMUM BOOM ANGLE	JIB FULLY RETRACTED	JIB FULLY EXTENDED	MINIMUM BOOM ANGLE	
80°	6200	3500	80°	6300
75°	4800	2800	75°	4900
70°	3700	2300	70°	3800
65°	3000	1900	65°	3100
60°	2500	1600	60°	2600
55°	2100	1400	55°	2200
50°	1900	1200	50°	2000
45°	1700	1000	45°	1800
40°	1600	900	40°	1700
35°	1500	850	35°	1600
30°	1400	800	30°	1500
25°	1300	750	25°	1400
20°	1200	700	20°	1300
15°	1100	650	15°	1200

**WEIGHT REDUCTION FOR LOAD HANDLING DEVICES**

Headache Ball.....	130 lbs.
Hook Block (Single Sheave).....	220 lbs.
Hook Block (Double Sheave).....	300 lbs.
2-Section Jib Stowed.....	100 lbs.
2-Section Jib Erected (Retracted).....	1000 lbs.
2-Section Jib Erected (Extended).....	1100 lbs.
1-Section Jib Stowed.....	75 lbs.
1-Section Jib Erected.....	750 lbs.

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Hook Block (Single Sheave).....	220 lbs.
Hook Block (Double Sheave).....	300 lbs.
2-Section Jib Stowed.....	75 lbs.
2-Section Jib Erected (Retracted).....	900 lbs.
2-Section Jib Erected (Extended).....	1100 lbs.
1-Section Jib Stowed.....	50 lbs.
1-Section Jib Erected.....	700 lbs.

**PERMISSIBLE ROPE PULL**

Number Parts Line	9/16" Dia 5x37 IWR IPS Class	9/16" Dia. No Spin 18.5 T. Nom. Strength
SINGLE	8500 lbs.	7500 lbs.
TWO	17000 lbs.	15000 lbs.
THREE	25500 lbs.	22500 lbs.
FOUR	34000 lbs.	30000 lbs.
FIVE		34000 lbs.

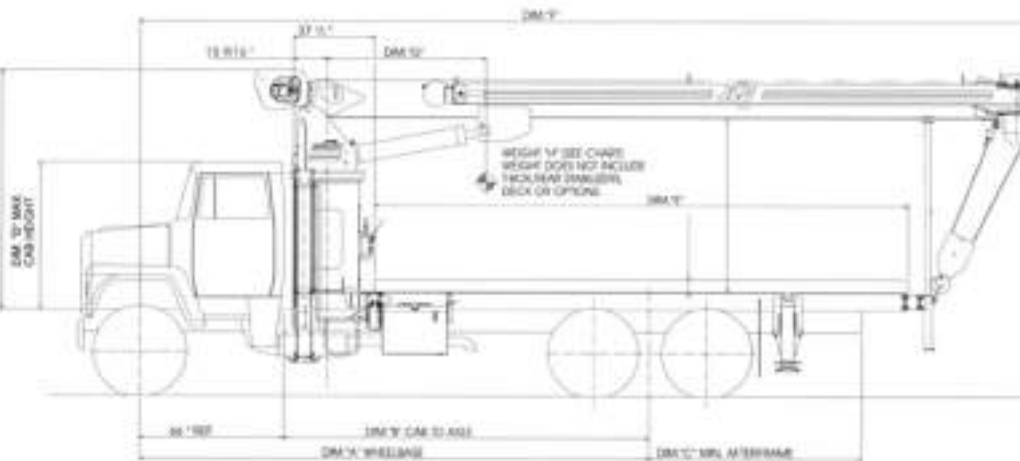
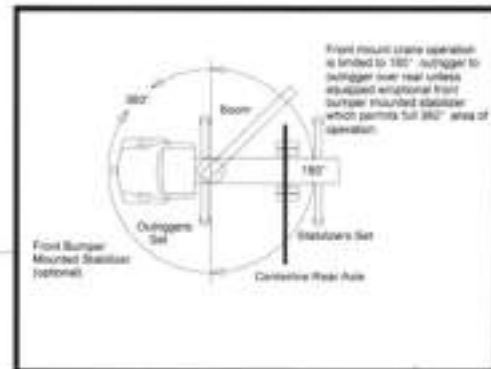
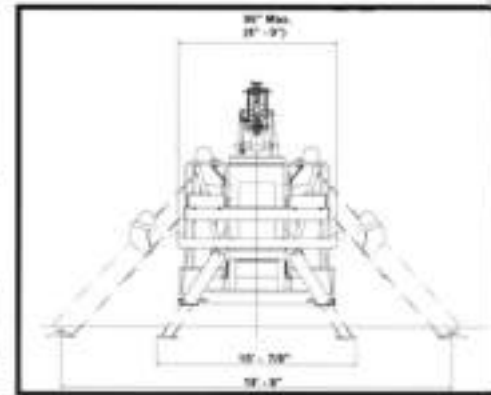
**HOIST SPECIFICATIONS - BRADEN PD12C**

Performance @ 3000 PSI	Low Speed - 39 gpm		High Speed - 63 gpm	
	Line Speed	Line Speed	Line Speed	Line Pull
1ST LAYER	140 fpm	230 fpm	7000 lbs.	
2ND LAYER	155 fpm	255 fpm	6315 lbs.	
3RD LAYER	170 fpm	285 fpm	5750 lbs.	
4TH LAYER	188 fpm	304 fpm	5273 lbs.	

**RECOMMENDED MIN. TANDEM REAR AXLE CHASSIS SPECIFICATIONS AND CRANE DIMENSIONS**

Front Axle Weight Rating (Min.) = 14,400 lbs.  
 Frame Section Modulus (Min.) 15.9 in.<sup>3</sup> on 110,000 psi. steel  
 Rear Axle Weight Rating (Min.) = 34,000 lbs.

**Consult Factory for Rear Mount Configuration and Recommended Truck Requirements**



	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H" WET
ROOM LENGTH	MIN. WHEELBASE	MIN. CAB TO AXLE	MIN. AFTERFRAME	MAX. CAB HEIGHT	MIN. DECK LENGTH	CLEARANCE TO BOOM TOP	CENTER OF GRAVITY LOC.	WET WEIGHT (LOADING)
47 ft.	210"	144"	75"	68 1/2"	16 ft.	318 9/16" (26'-6 9/16")	38.45"	11,150 lbs.
70 ft.	234"	168"	75"	68 1/2"	20 ft.	410 9/16" (34'-2 9/16")	65.44"	12,329 lbs.

**LIFTING NOTES**

(Use with "Lifting Capacities" Chart on Console)

- Rated lifting capacity above the bold line is based on structural strength and not machine stability. Overloading this crane may cause structural collapse or upset.
- Rated lift capacity is based on freely suspended loads. It is the maximum covered by the manufacturer's warranty with the crane leveled on a firm, uniform supporting surface. To level, extend the outriggers and stabilizers only until they are snug against the ground and begin removing vehicle weight from the tires (use bubble level on control console). Blocking under outriggers and stabilizers may be necessary to assure a firm surface or to level machine. Lift capacity depends on capacity and condition.
- Practical working loads for each particular job shall be established by the user depending on operating conditions including the supporting surface, wind and other factors affecting stability, hazardous surroundings, personnel experience, handling of load, etc.
- Load radius is the horizontal distance from the axis of rotation to the centerline of the hoist line or tackle with load applied. Load radius increases due to slight boom deflection when load is applied, especially with a long boom or a job.
- If load radius and/or boom length falls between chart values, use lift capacity for next longer rated radius and/or boom length.
- All load handling devices and boom attachments are considered part of the load and lift capacities must be reduced accordingly. See "weight reduction for load handling devices".
- The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the chart limits.
- For magnet, clamshell or bucket operation, weight of handling device and load must not exceed 90% of rated lift capacities.

**TRUCK CHASSIS NOTES**

- Weights do not include options.
- Distributor must submit a "Chassis Cab Engineering Data Sheet" before JLG acceptance of a firm purchase order.
- Trucks require an electric engine shut-off in order for the console stop switch to be functional.
- Diesel engine with a mechanical governor also must have a variable speed governor.
- Horizontal exhaust with vertical muffler will require extensive exhaust modifications. A "Chassis Cab Engineering Data Sheet" must be submitted before additional charges can be added. Exhaust modifications do not include parts. Refer to "Standards Relocation Charges".
- Automatic transmissions must have a neutral lock-up. (Chassis manufacturer supplied)
- All chassis must meet minimum truck specifications for model and boom length. Refer to specific model literature.
- Some chassis equipped with automatic transmissions require a remote mounted pump with a drive shaft and clockwise rotation pump. Consult factory for installation charges.
- Trucks with longer wheel bases than those specified on the model literature will require a higher FAWR (Front Axle Weight Rating) than is listed on the specification sheet. Consult factory for proper rating.
- If cab height, as measured from the top of the truck frame to the top of the cab roof exceeds 68.5 inches (1740 mm), consult factory for additional charges.
- Truck frames with heights greater than 40.4 inches (1026 mm) will increase overall height of the mounted crane and will decrease outrigger and stabilizer ground penetration.
- Truck frames with widths less than 34 inches (863 mm) will require special brackets and shims. Consult factory for additional installation charge.
- Trucks with air horns require an electrical horn. Consult factory for installation charge.
- Cranes utilizing the air throttle option will require a chassis air compressor.
- Special or heavy duty decks will increase weight on the rear axle, while reducing water level payload availability. "Chassis Cab Engineering Data Sheet" must be submitted and approved before installation.
- Chassis engines that do not have manual throttle linkage will require additional charges. Consult factory.



Manufacturer of a Full Line of Truck Cranes, Trolley Booms,  
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1700-R.O. 2/96

Due to continued improvements, we reserve the right to make specification and/or equipment changes without prior notification.