



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



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

DESIGN MEETS ANSI B30.5-1994 / STABILITY MEETS SAE J765-1990

**70 FOOT BOOM****RATED LIFTING CAPACITIES IN POUNDS**

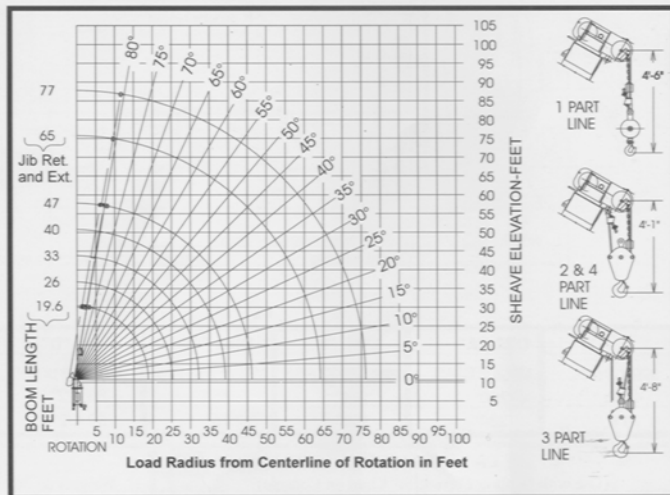
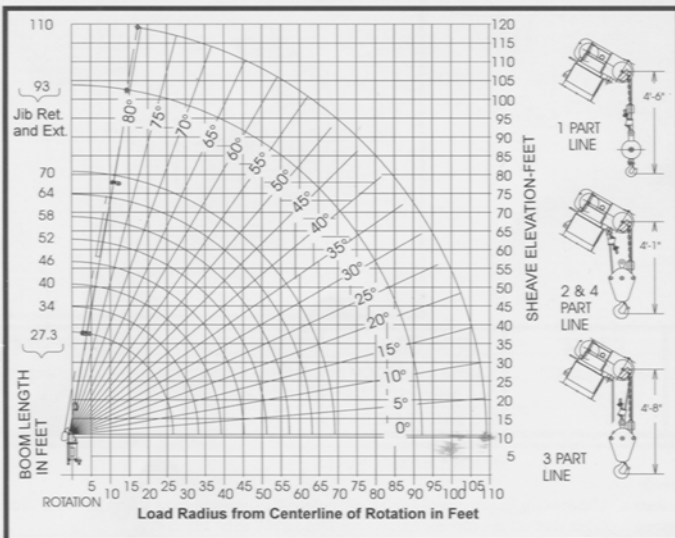
| LOAD RADIUS FEET | BOOM LENGTH IN FEET | | | | | | | |
|---------------------|---------------------|-------|-------|-------|-------|-------|-------|------|
| | 27.3 | 34 | 40 | 46 | 52 | 58 | 64 | 70 |
| 5 | 34000 | | | | | | | |
| 10 | 21000 | 17000 | 16500 | 16000 | 15500 | 15000 | | |
| 15 | 15000 | 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 | | | 6000 | 4800 | 4600 | 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 | 16000 |
| 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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|--|-----------|
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| 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 | 9/16" Dia. | 9/16" Dia. No Spin |
|--------------|--------------------|-----------------------|
| Line | 6x37 IWR IPS Class | 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 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. |

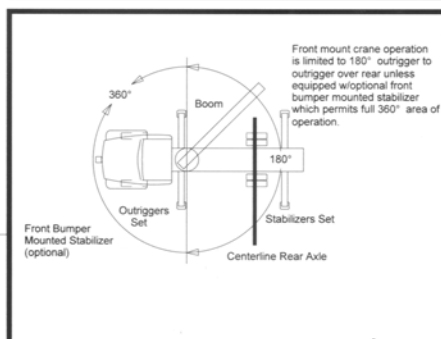
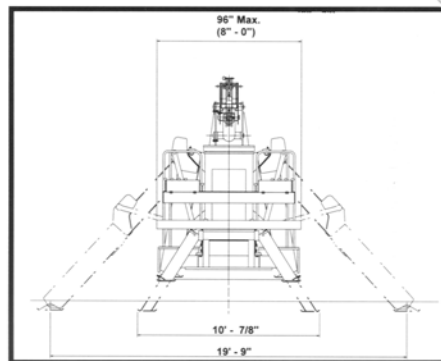
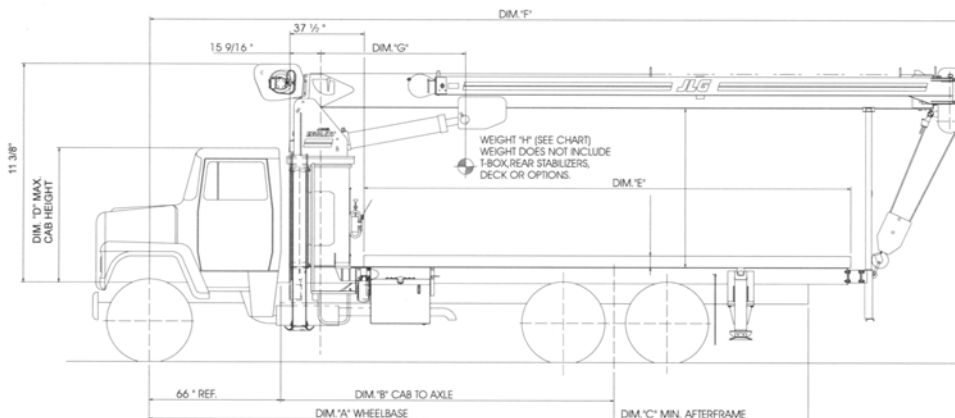
RECOMMENDED MIN. TANDEM REAR AXLE CHASSIS SPECIFICATIONS AND CRANE DIMENSIONS

Front Axle Weight Rating (Min.) = 14,400 lbs.

Frame Section Modulus (Min.) 15.9 in.³ 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 |
|-------------|----------------|------------------|-----------------|-----------------|------------------|---------------------------|------------------------|-----------------------|
| BOOM LENGTH | MIN. WHEELBASE | MIN. CAB TO AXLE | MIN. AFTERFRAME | MAX. CAB HEIGHT | MIN. DECK LENGTH | CL. FRT. AXLE TO BOOM TIP | CENTER OF GRAVITY LOC. | (SEE NOTE ON DRAWING) |
| 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 jib.
- 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,
Work Platforms and Truck or Trailer Mounted Rough Terrain Forklifts
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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.