



JLG[®]

Telescopic Cranes

1410JBT

- 28,000 lbs. Rated Capacity @ 4 ft. Radius
- 111 ft. Tip Height with Optional 40 ft. Jib Attachment
- Exclusive "J" Series Features such as Layaway Hoist, Collar Rest, House Lock and 3-Section Pump
- Ideal for Applications such as...
 - ...Roofing
 - ...Steel/Truss Erection
 - ...Sign Installation
 - ...General Construction

The Crane Operator's Choice

Series

1410JBT

STANDARD CRANE SPECIFICATIONS

Rating ~ 28,000 lbs @ 4 ft. load radius

ANTI-TWO BLOCK SYSTEM

Basic anti-two block system with function lockout of hoist up, telescope out and boom down crane functions.

MAIN BOOM

Three section fully proportional boom extension, with inverted top hat cross section design for optimum strength to weight ratio. Telescope cylinder with integral holding valve which extends the mid section. Fly is simultaneously and mechanically extended by 9/16 inch diameter cables attached to the inner and outer mid-section, which provides proportional extensions of all boom lengths. Extension cables are supported by one, 2-groove 10 inch tread diameter non-metallic sheave which is attached to the barrel end of the telescope cylinder.

BOOM NOSE

Two non-metallic sheaves mounted on bronze bushings. Idler sheave is a moveable sheave wheel. The boom nose also contains an integral yoke shaft for future bucket installation. Each sheave wheel contains external grease fittings for ease of maintenance.

JIBS (Optional)

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

- 23 ft. fixed length jib
- 23-40 ft. (2-section) jib

BOOM ELEVATION

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

HOIST

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

Low Speed - Maximum permissible single line speed of 188 FPM on 4th layer. Maximum permissible single line pull of 8500 lbs.

High Speed - Maximum permissible single line speed of 304 FPM on 4th layer. Maximum permissible single line pull of 7000 lbs.

SWING

Planetary drive, 375 degree 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, 16 ft. 7.5 inch span, extended. Double acting hydraulic cylinders with integral holding valves on each jack cylinder. All attach pins are plated and wear pads are nylatron.

STABILIZERS

A-frame type, 10 ft. span, extended. Double acting hydraulic cylinders with integral holding valves on each jack 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 maximum rigidity and torsional strength.

CONTROL STATIONS

Dual operator stations equipped with four main 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, air 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, for better operator visibility.

HYDRAULIC SYSTEM

A three section gear pump is direct mounted to a power take-off on the truck transmission. Flow distribution is 39 GPM to the hoist function, 24 GPM to the crane functions and 9 GPM to the swing function. A 60 gallon 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.

ELECTRICAL SYSTEM

12 volt direct. All terminal strips, relays and accessory circuits are enclosed in a weather resistant box, mounted externally on the pedestal. All wiring is coded to facilitate troubleshooting.

MOUNTING

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

DESIGN/WELDING

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

BOOM REST/COLLAR REST

A collar rest and house lock is standard. Horizontal boom rest is an option.

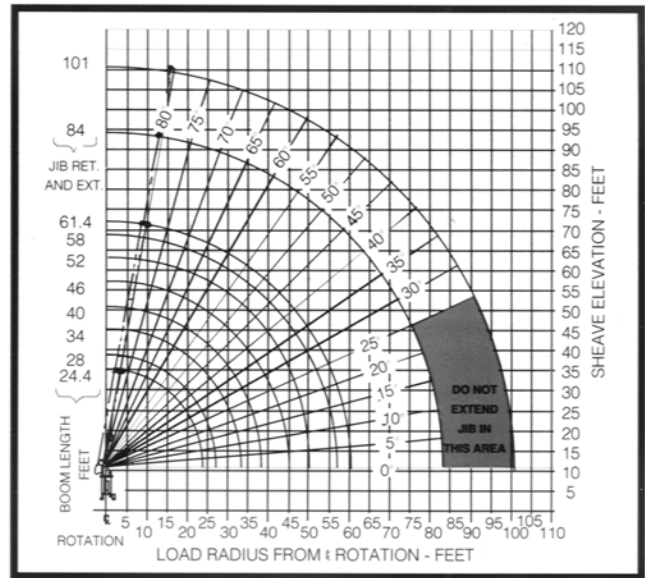
MEETS ANSI B30.5 / SAE J765

61 FOOT BOOM

LOAD CHART RATED LIFTING CAPACITIES IN POUNDS

PCSA - RATING 4-28

LOAD RADIUS FEET	BOOM LENGTH IN FEET							
	24.4	28	34	40	46	52	58	61.4
4	28000							
8	16750							
10	15000	15000	14750	14750	14500	14250	14000	
15	11000	10750	10500	10250	10000	9800	9600	9400
20	8500	8400	8300	8200	8100	8000	7900	7800
25		6400	6400	6400	6400	6400	6400	6400
30			4600	4600	4600	4600	4600	4600
35				3500	3500	3500	3500	3500
40					2800	2800	2800	2800
45					2300	2300	2300	2300
50						1800	1800	1800
55							1400	1400
60								1200



WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

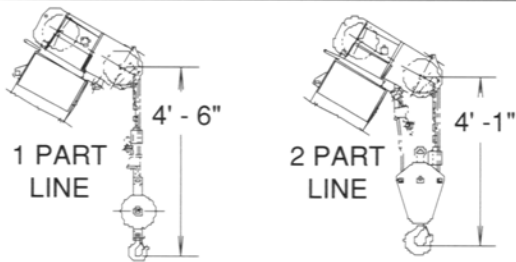
HEADACHE BALL	130 LBS.
HOOK BLOCK (SINGLE SHEAVE)	220 LBS.
HOOK BLOCK (DOUBLE SHEAVE)	300 LBS.
2-SECTION JIB STOWED	85 LBS.
2-SECTION JIB ERECTED (RETRACTED)	1100 LBS.
2-SECTION JIB ERECTED (EXTENDED)	1300 LBS.
1-SECTION JIB STOWED	60 LBS.
1-SECTION JIB ERECTED	800 LBS.

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 46 FEET. DO NOT USE 4 PART LINE WITH BOOM LENGTH OVER 34 FEET. DO NOT OPERATE THIS CRANE UNTIL YOU HAVE READ AND UNDERSTOOD "LIFTING NOTES" DECAL ON PEDESTAL.

LOAD CHART 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°	4200	2400	80°	4500
75°	3300	1900	75°	3600
70°	2600	1600	70°	2800
65°	2000	1200	65°	2200
60°	1700	1000	60°	1900
55°	1400	850	55°	1600
50°	1200	750	50°	1350
45°	1000	600	45°	1150
40°	800	550	40°	950
35°	600		35°	750



PERMISSIBLE ROPE PULL

NUMBER PARTS LINE	9/16" DIA. (244) 6X37 IWR IPS CLASS	9/16" DIA. (244) OF HSLR 18.5 T. NOM. STRENGTH
SINGLE	8500 LBS.	7500 LBS.
TWO	17000 LBS.	15000 LBS.
THREE	25500 LBS.	22500 LBS.
FOUR	28000 LBS.	28000 LBS.

HOIST SPECIFICATIONS - BRADEN PD12C

PERFORMANCE	LOW SPEED-39 GPM	HIGH SPEED-63 GPM	
@ 3000 PSI	LINE SPEED	LINE SPEED	LINE PULL
1 ST 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.

**DO NOT OPERATE WITHIN
10' OF POWER LINES!**

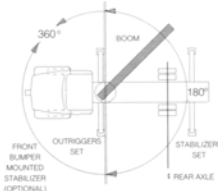
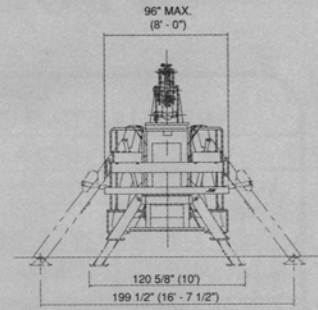
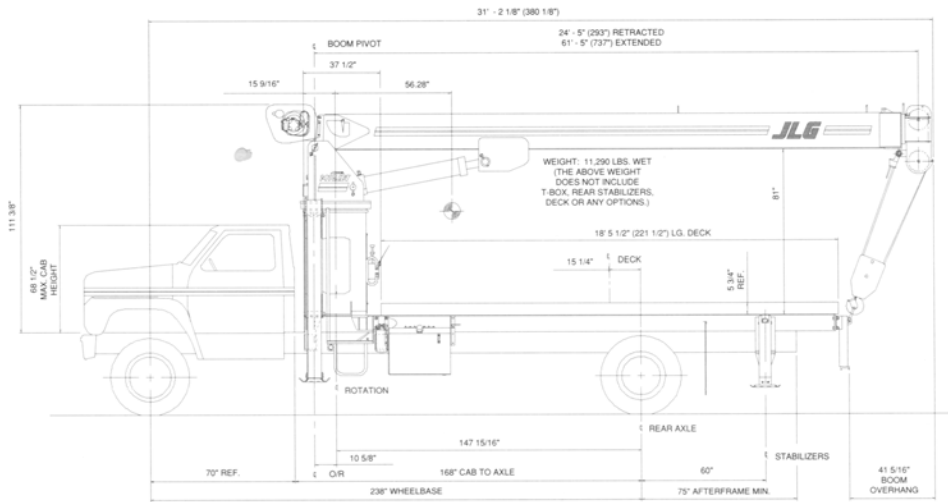
LIFTING NOTES

(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 AND/OR TO LEVEL MACHINE. LIFT CAPACITY DEPENDS ON PROPER TIRE INFLATION, 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 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.

RECOMMENDED MIN. SINGLE REAR AXLE CHASSIS SPECIFICATIONS AND CRANE DIMENSIONS

FRONT AXLE WEIGHT RATING (MIN.)	12,000 LBS.	REAR AXLE WEIGHT RATING (MIN.)	20,000 LBS.
FRAME SECTION MODULUS (MIN.)	13.3 IN. ³ ON 110,000 P.S.I. STEEL OR 18.0 IN. ³ ON 50,000 PSI. STEEL		



Front Mount crane operation is limited to 180° outrigger to outrigger over rear, unless equipped w/optional front bumper mounted stabilizer, which permits full 360° area of operation.

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 specific 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 heights, as measured from the top of the truck frame to the top of the cab roof exceed 68.5 inches, consult factory for additional charges.
- Truck frames with heights greater than 40.4 inches will increase overall height of the mounted crane and will decrease outrigger and stabilizer ground penetration.
- Truck frames with widths less than 34 inches 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.

AVAILABLE OPTIONS

- Two Man Self-Leveling Platform (Main Boom Only)
- Two Man Gravity Leveling Platform (Main Boom Only)
- One Man Fiberglass Basket (Main Boom Only)
- Two, One Man Fiberglass Baskets (Main Boom Only)
- Radio Remote Controls
- Hardwire Remote Controls
- 360 Degree Continuous Rotation
- Front Center Stabilizer (Required with Platform or Basket)
- Hydraulic Clam Shell
- Hydraulic Oil Cooler
- Rear Mount
- Roofer's Package
- Consult Factory for Other Options for Specific Customer Needs

WARRANTY

A comprehensive warranty that exceeds industry standards.

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

JLG

Material Handling Division

Manufacturers of a Full Line of
Telescopic Cranes & Material Handling Equipment

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American Made
American Owned

See your JLG Distributor to find out about our full line of telescopic cranes and material handling products.

WARRANTY

A comprehensive warranty that exceeds industry standards.

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