



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.

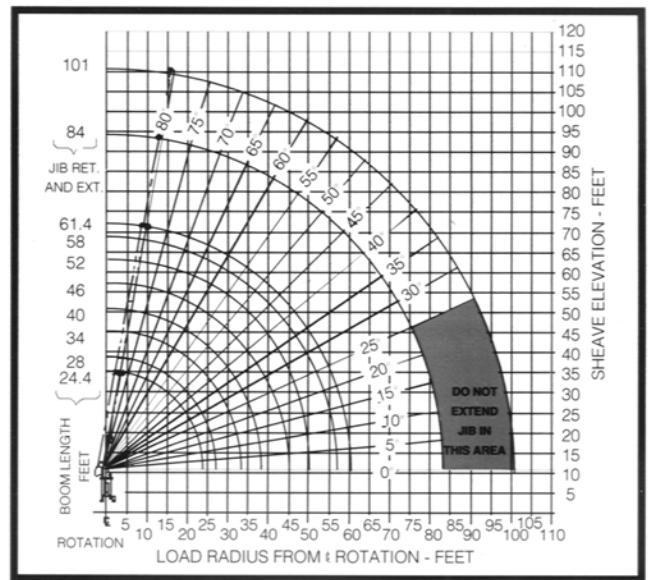
BOOM REST/COLLAR REST

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	
50							1800	1800	
55								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

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.

1 PART LINE

2 PART LINE

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!

