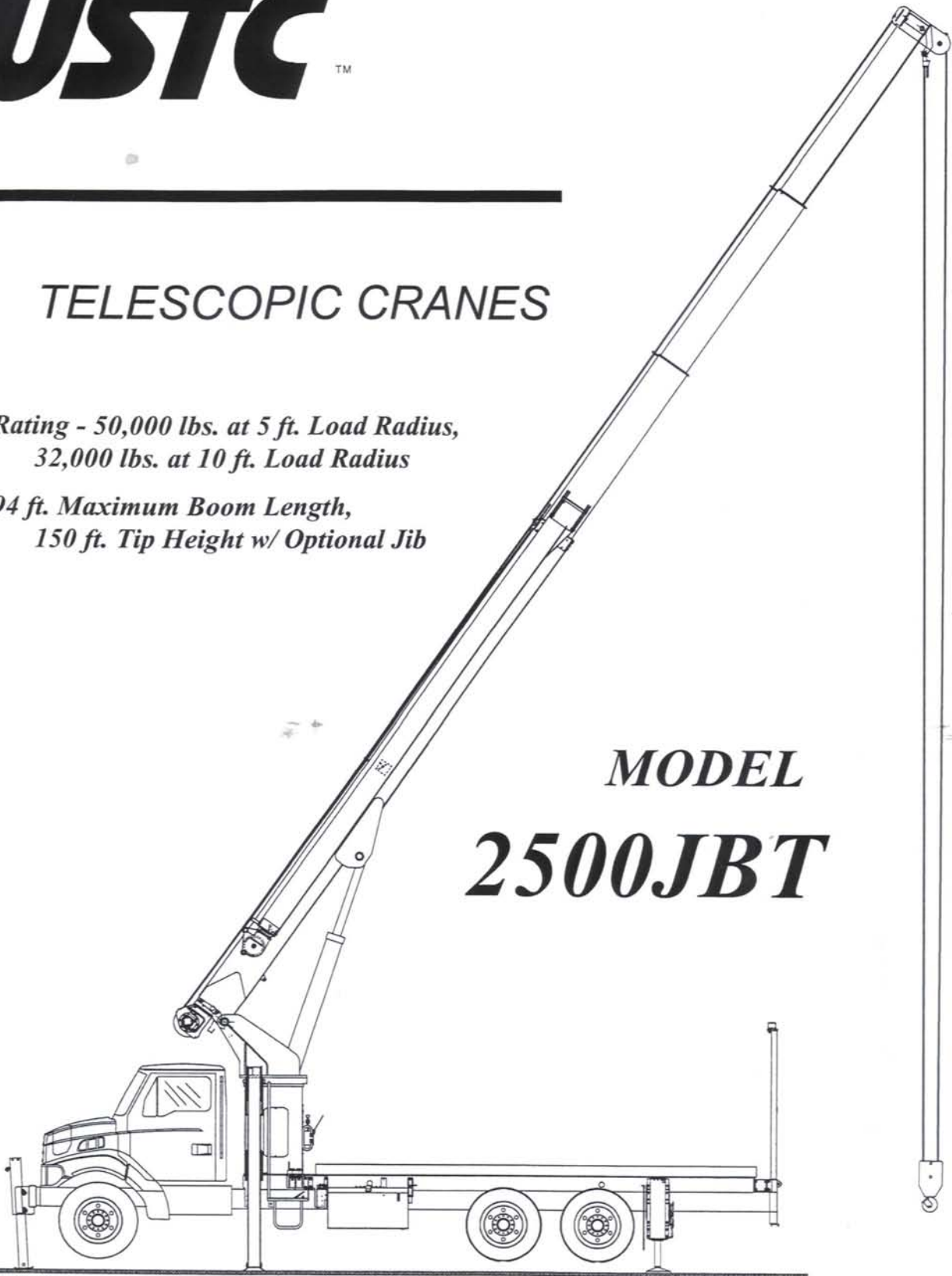


USTC™

TELESCOPIC CRANES

- *Rating - 50,000 lbs. at 5 ft. Load Radius,
32,000 lbs. at 10 ft. Load Radius*
- *94 ft. Maximum Boom Length,
150 ft. Tip Height w/ Optional Jib*

**MODEL
2500JBT**



USTC MODEL 2500JBT

STANDARD CRANE SPECIFICATIONS

MAIN BOOM

New 29 ft. - 94 ft. four-section boom with inverted top hat cross-section is designed for optimum strength. The outer mid and fly sections are simultaneously extended using 9/16" (14 mm) diameter cables attached to inner and outer mid-sections for proportional boom extension.

- Single, four-groove 10 in. (254 mm) diameter non-metallic sheave on telescope cylinder.
- Telescope cylinder with integral holding valve.

BOOM ELEVATION

A double-acting lift cylinder with an integral holding valve provides elevation from -8° to +80°. Mechanical, pendulum angle indicators are visible on either side of boom.

BOOM NOSE

- Three non-metallic sheaves are mounted on bronze bushings.
- Self-aligning top idler sheave.
- Boom nose contains an integral yoke shaft for installation of operation personnel platforms.

JIBS

Jibs contain adjustable brackets for ease of alignment during field installation. The jib nose also contains integral yoke shaft for optional gravity hung personnel platform.

- 26 ft. fixed length (Optional)
- 26 ft. - 46 ft. telescoping two-section length (Standard)

HOIST

USTC's exclusive lay-away feature allows hoist to easily swing away for access to inner boom components such as the telescope cylinder.

- Planetary drive, two-speed hoist with automatic brake.
- Power up and power down for precise control of the load.
- Burst-of-speed allows shifting on-the-fly without the need to stop and change gears.
- Maximum single line speed of 271 fpm on fifth layer in burst-of-speed mode.
- Standard maximum speed is 168 fpm on fifth layer.

LOAD HANDLING DEVICE

- Two-sheave USTC hook block with swivel hook (equipped for 4-part line) is standard.
- Other load-handling device options available.

PEDESTAL

All welded box type construction reinforced at critical points to ensure a rigid mount.

SWING

- Planetary swing drive is equipped with spring-applied, hydraulically released disc brake.
- 375° non-continuous rotation.
- 1.5 rpm maximum swing speed (1.0 rpm recommended).
- Optional continuous rotation available.

TORSION BOX

Four-plate design with internal cross bracing is welded continuously on all four sides to achieve optimum rigidity and torsional strength.

DECK OPTION

- Minimum 20 ft. steel deck is standard.
- Optional deck types available.

OUTRIGGERS

A-frame outriggers, 21 ft.-6 in. extended, 8 ft. retracted. Double acting hydraulic cylinders with integral holding valves on each extension cylinder. Pivoting steel pads that are flared on the leading and trailing edges. All attach pins are plated and wear pads are nylatron.

STABILIZERS

Under frame out and down type rear stabilizers, 13 ft. - 8 in. extended, 8 ft. retracted. Double-acting hydraulic cylinders with integral holding valves on each extension and jack cylinder. All attach pins are plated and wear pads are nylatron.

- Front center stabilizer is standard.

CONTROL STATIONS

Comfortable dual operator stations equipped with four main single lever crane controls, arranged to PCSA standards. Fully proportional control valves. Outrigger and stabilizer controls allow independent extension and retraction. Each station contains engine start/stop switch, 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 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 function, and 9 gpm (34 lpm) to the swing function. A 90-gallon (341 l) reservoir includes a 10-micron high flow 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 internal strips, relays and accessory circuits are enclosed in a NEMA 12X rated weather-resistant electrical box. Wires are terminated individually and color coded for improved circuitry diagnosis and serviceability.

ANTI-TWO BLOCK SYSTEM

A2B system with reel is equipped with lockout of hoist up and telescope out functions.

AUDIO/VISUAL CAPACITY ALERT

Audio/visual overload capacity alert with visual display is standard. Hydraulic lockout is optional.

MOUNTING

Pedestal and torsion sub-frame is bolted directly to the chassis with Grade 8 bolts, minimizing welding required.

DESIGN/WELDING

Design conforms to ANSI B30.5-1994. All welding conforms to ANSI/AWS D 14.3.

DANGER! DO NOT OPERATE WITHIN 10 FT. OF LIVE POWER LINES

2500 JBT RATED LIFTING CAPACITIES IN POUNDS

| LOAD RADIUS FEET | BOOM LENGTH IN FEET | | | | | | | | | |
|---------------------|---------------------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|
| | BOOM ANGLE | 29 | BOOM ANGLE | 45 | BOOM ANGLE | 61 | BOOM ANGLE | 77 | BOOM ANGLE | 94 |
| 5 | 78° | 50000 | | | | | | | | |
| 10 | 64° | 32000 | 76° | 21000 | | | | | | |
| 12 | 58° | 27000 | 74° | 21000 | 78° | 21000 | | | | |
| 15 | 49° | 21000 | 68° | 21000 | 75° | 19000 | 79° | 15600 | | |
| 20 | 35° | 15600 | 62° | 15600 | 70° | 15200 | 75° | 13000 | 79° | 10000 |
| 25 | 20° | 11600 | 54° | 11600 | 65° | 11600 | 71° | 11100 | 76° | 8800 |
| 30 | | | 46° | 9500 | 60° | 9500 | 67° | 9500 | 73° | 7900 |
| 35 | | | 36° | 7700 | 55° | 7700 | 63° | 7700 | 70° | 7000 |
| 40 | | | 24° | 6300 | 49° | 6300 | 59° | 6300 | 66° | 6100 |
| 45 | | | | | 41° | 5200 | 55° | 5200 | 63° | 5200 |
| 50 | | | | | 33° | 4300 | 50° | 4300 | 60° | 4300 |
| 55 | | | | | 23° | 3500 | 45° | 3500 | 56° | 3500 |
| 60 | | | | | | | 39° | 2900 | 52° | 2900 |
| 65 | | | | | | | 32° | 2400 | 48° | 2400 |
| 70 | | | | | | | 25° | 1900 | 43° | 1900 |
| 75 | | | | | | | | | 38° | 1600 |
| 80 | | | | | | | | | 33° | 1300 |
| 85 | | | | | | | | | 27° | 1000 |

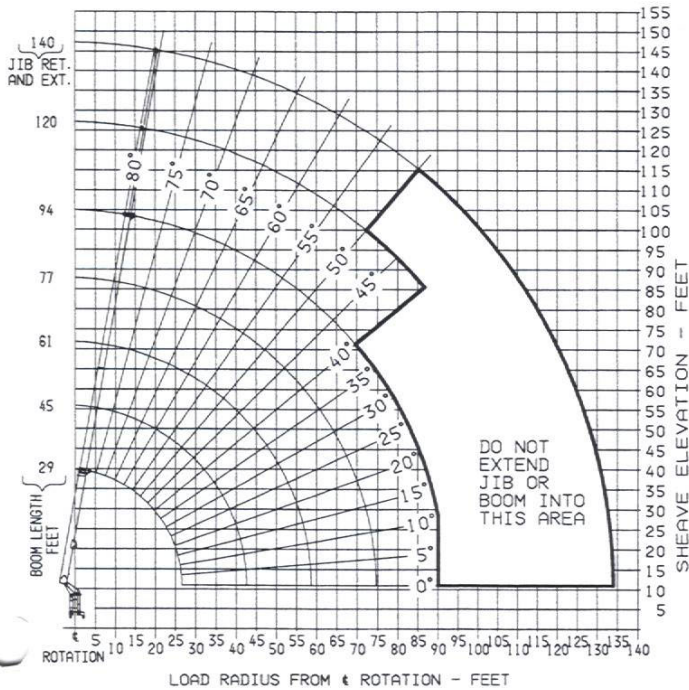
PERMISSIBLE ROPE PULL

| NUMBER PARTS LINE | 9/16" DIA. 400' OF LOW ROTATION FLEX X 19 PLUS | | NUMBER PARTS LINE | 9/16" DIA. 340' OF 6X37 IWRC EIPS | |
|-------------------------|--|--|-------------------------|---|--|
| | | | | | |
| SINGLE | * 8100 LBS. | | SINGLE | 8500 LBS. | |
| TWO | 16200 LBS. | | TWO | 17000 LBS. | |
| THREE | 24300 LBS. | | THREE | 25500 LBS. | |
| FOUR | 32400 LBS. | | FOUR | 34000 LBS. | |
| FIVE | 40500 LBS. | | FIVE | 42500 LBS. | |
| SIX | 48600 LBS. | | SIX | 50000 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 61 FEET. DO NOT USE 4 PART LINE WITH BOOM LENGTH OVER 45 FEET. DO NOT USE 5 PART OR 6 PART LINE WITH BOOM LENGTH OVER 29 FEET.

DO NOT OPERATE THIS CRANE UNTIL YOU HAVE READ AND UNDERSTOOD "LIFTING NOTES" DECAL ON PEDESTAL.

* SINGLE LINE PULL ON 5 TH LAYER OF HOIST DRUM WILL BE 7,800 LB.



RATED JIB LIFTING CAPACITIES IN POUNDS

| 26-46 FT. 2 SECTION JIB | | | 26 FT. FIXED JIB | |
|-------------------------|------------------------|-----------------------|-----------------------|------|
| MINIMUM BOOM ANGLE | JIB FULLY RETRACTED | JIB FULLY EXTENDED | MINIMUM BOOM ANGLE | |
| 79° | 5400 | 3400 | 79° | 5500 |
| 75° | 4400 | 3200 | 75° | 4500 |
| 70° | 3600 | 2700 | 70° | 3700 |
| 65° | 2900 | 2100 | 65° | 3000 |
| 60° | 2400 | 1800 | 60° | 2500 |
| 55° | 1500 | 1300 | 55° | 1600 |
| 50° | 1200 | 900 | 50° | 1300 |
| 45° | 750 | | 45° | 850 |
| 40° | 500 | | 40° | 600 |

1. CAPACITIES BASED ON ANGLE OF MAIN BOOM REGARDLESS OF BOOM LENGTH.
2. RATED LIFTING CAPACITY ABOVE THE BOLD LINE IS BASED ON STRUCTURAL STRENGTH. OVERLOADING THE JIB MAY CAUSE STRUCTURAL COLLAPSE OR UPSET.
3. DO NOT USE JIB FOR MULTI-PART LINE OPERATIONS.
4. IF ACTUAL BOOM ANGLE FALLS BETWEEN CHART VALUES LISTED, USE LIFTING CAPACITY FOR NEXT LOWER BOOM ANGLE.

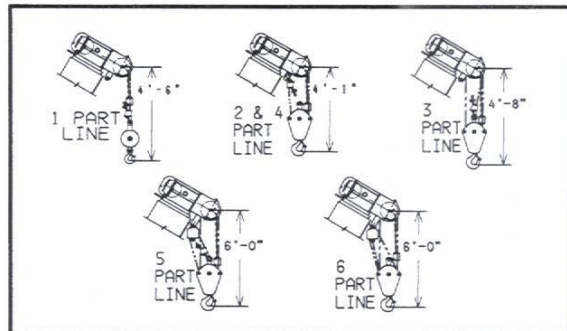
WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

| | |
|---|-----------|
| HEADACHE BALL | 170 LBS. |
| HOOK BLOCK (SINGLE SHEAVE). | 220 LBS. |
| HOOK BLOCK (DOUBLE SHEAVE). | 300 LBS. |
| HOOK BLOCK (TRIPLE SHEAVE). | 500 LBS. |
| 2-SECTION JIB STOWED. | 200 LBS. |
| 2-SECTION JIB ERECTED (RETRACTED) 1600 LBS. | |
| 2-SECTION JIB ERECTED (EXTENDED). 1800 LBS. | |
| 1-SECTION JIB STOWED. | 100 LBS. |
| 1-SECTION JIB ERECTED | 1200 LBS. |

HOIST SPECIFICATIONS - BRADEN PD12C

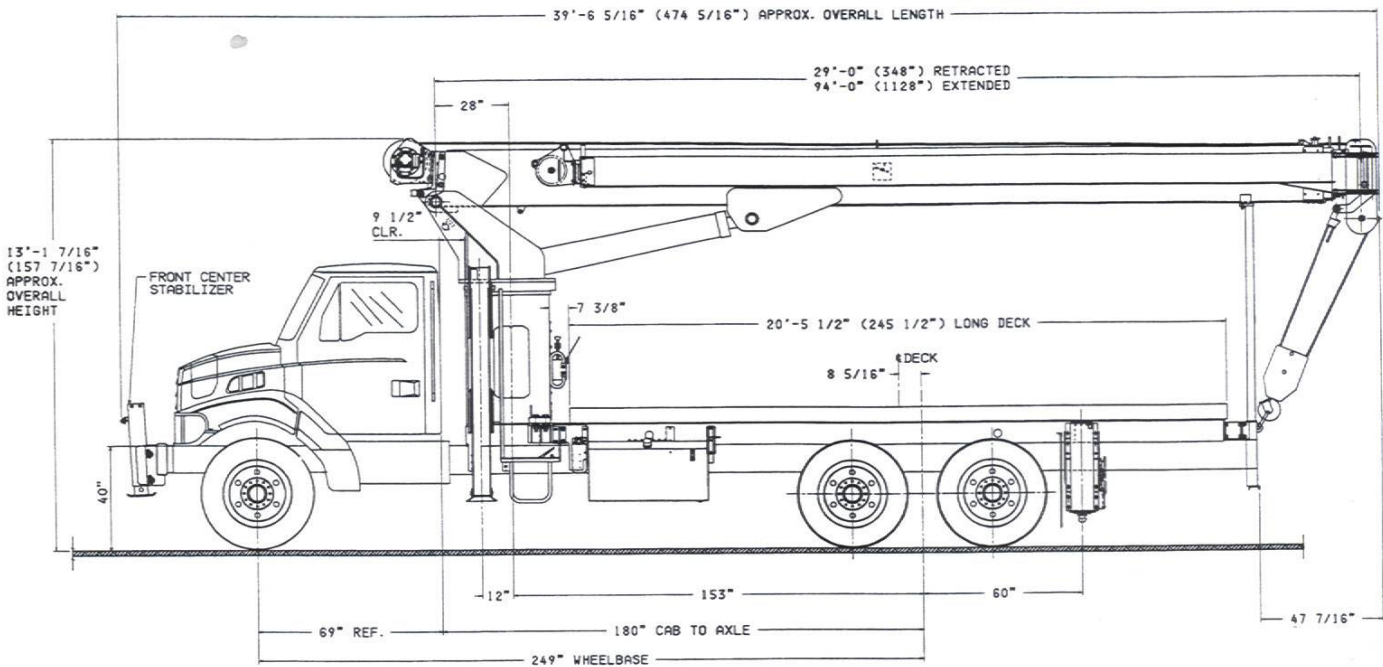
| PERFORMANCE @ 3200 PSI | LOW SPEED-39 GPM | | |
|---------------------------|------------------|--------------|-------------|
| | LINE SPEED | LOW ROTATION | 6 X 37 EIPS |
| 1ST LAYER | 140 FPM | 8100 LBS. | 8500 LBS. |
| 2ND LAYER | 155 FPM | 8100 LBS. | 8500 LBS. |
| 3RD LAYER | 170 FPM | 8100 LBS. | 8500 LBS. |
| 4TH LAYER | 188 FPM | 8100 LBS. | 8500 LBS. |
| 5TH LAYER | 196 FPM | 8100 LBS. | 7800 LBS. |

| PERFORMANCE @ 3200 PSI | HIGH SPEED-63 GPM | |
|---------------------------|-------------------|-----------|
| | LINE SPEED | LINE PULL |
| 1ST LAYER | 230 FPM | 7000 LBS. |
| 2ND LAYER | 255 FPM | 6315 LBS. |
| 3RD LAYER | 285 FPM | 5750 LBS. |
| 4TH LAYER | 304 FPM | 5270 LBS. |
| 5TH LAYER | 317 FPM | 4870 LBS. |





2500JBT TELESCOPIC CRANE



AVAILABLE OPTIONS

- Hydraulic Oil Cooler
- Radio Remote Controls
- Hardwire Remote Controls
- 3'x6' Steel Gravity Hung Platform (Main Boom or Jib)
- 3'x6' Steel Self-Leveling Platform (Main Boom Only)

RECOMMENDED TANDEM AXLE TRUCK SPECIFICATIONS

Front Axle Weight Rating: 18,000 lbs. Minimum
 Rear Axle Weight Rating: 34,000 lbs. Minimum
 Truck Frame: 21 in.3 on a 110,000 psi Minimum Yield Steel Frame.

TRUCK CHASSIS NOTES

1. Distributor must submit detailed truck specifications before acceptance of a firm purchase order.
2. Truck requires an electric engine shut-off in order for the console stop switch to be functional.
3. Diesel engines with a mechanical governor also must have a variable speed governor.
4. Horizontal exhaust with vertical muffler may require extensive exhaust modifications at an additional charge.
5. Automatic transmission must have a neutral lock up (Chassis manufacturer supplied.)
6. Truck specifications must meet minimum truck requirements.
7. Some chassis equipped with automatic transmissions require a remote mounted pump with a drive shaft and clockwise rotation pump at an additional charge.
8. Truck with longer wheel bases than those specified under minimum recommended specifications will require higher FAWR (Front Axle Weight Rating).
9. If cab height, as measured from the top of the truck frame to the top of the cab roof, exceed 74 in. (without cable tensioner), consult factory.
10. Truck frames with heights greater than 41 in. will increase the overall height of mounted crane and will decrease outrigger ground penetration.
11. Truck frames with heights greater than 34 in. will require special hardware and shims. Truck frames **cannot** exceed 35 in. overall width.
12. Special or heavy duty decks will increase weight on the rear axle, while reducing water level payload availability.



A Manitowoc Company

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

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Visit us on our website:

<http://ustc-inc.com>

This information is for marketing only, not to be used during operation. Please refer to the appropriate load charts on crane pedestal.

Due to continued improvements, we reserve the right to make specification and/or equipment changes without prior notification. Some items shown may be optional.

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