

Sto-Away Power Cranes®
Specifications **
CSR 315©

Revised 3-1-2003

Truck Style: This bumper crane will bolt on for **4x4- Chevy S-10 / GMC S-15 series; Ford; Ranger; Dodge Ram** and **Toyota Tundra** with a standard bed of an approximate **width of 64 or 67"**.

Minimum Safety Requirements*:

All Pinch Points *: Must have hand guards and be clearly labeled to prevent an accidental hand injury.

Safety Placards *: The bumper crane shall have pictorial warning placards at all the known hazard areas thus protecting the operator from known pinch-point areas when folding away the crane. Placards must meet Federal and **ANSI Z535** standards for pictorial warning decals.

Conspicuous - High visibility *: A premium **3M®** reflective material must be placed on the face of the bumper to increase the visibility of the truck's rear at night and low visibility conditions.

Premium Anti-Slip Surface / Locking Top Cover *: The top of the bumper crane must have **60%** of its top surface covered with an anti-slip material to help prevent slipping and falling when used as a step bumper. Must be able to padlock the bumper cranes top cover in order to have limited access to the crane.

Emergency Kill Circuit * The bumper crane shall have a permanent, weather proof, and fused de-energizing circuit. One Kill switch mounted on the corner of the bumper to prevent the possible "run-away crane". The Kill switch shall be clearly marked by a safety placard containing of no less than **11.25 sq. inches**.

Lockout and Tag-Out *: The unit must come complete with a steering wheel lockout and tag-out package that complies with Federal OSHA Standards.

Aircraft Quality Retention Keepers*: The crane must have on all load bearing pivot pins aircraft quality locking retention keepers.

Bumper Construction:

The bumper frame shall be no less than **ASTM A-500 GRADE B** high grade structural tubing and contain no less than **7** cross members **ASTM A-36** carbon alloy plate.

Class 3 Receiver Hitch; **5000 lb.** pull / **1000 lb.** tongue weight shall be built-in.

Trailer Plug Porting *: A port for an **ICC 7** pin trailer lighting plug shall be in the bumper's face.

Built-in Outrigger Leg; shall be collapsible with a minimum of 12 settings.

Mounting / Wiring: The bumper crane shall come complete with all of the wiring; auto reset circuit breakers, mounting brackets, and hardware. A minimum of **(8) 1/2"** alloy bolts must be used to fasten the bumper to its supplied mounting brackets.

Crane Construction:

*Back rib of the crane shall be a solid continuous, without any gaps or spaces made from **Seamless DOM Alloy 1026 certified steel** running from a **3/4" thick thrust collar** at it's base.

Crane's Rotation *: Shall be limited to **270** degrees in order to protect both the interior and the exterior walls of the truck's bed/service body (**360 degrees is available upon request**).

*One-piece Welded Boom construction with a twin inner core providing four points of support for the pulley and boom support arm.

*The crane equipped with the One-Piece Boom that shall have two height settings approximately; **70"** and **84"** measured from the ground to the top of the boom. Reach from the truck's body shall be **45"** [^]. [^]**90 degree's from the rear of the body.**

Pulleys shall be **2 ½ "** in diameter or greater plus contain replaceable bushings. *The crane's boom assembly shall be attached with minimum **5/8"** diameter clevis pin, and held in place by a locking aircraft type keeper.

Load Bearing / Rotation / Lubrication *:

The crane's rotation system must contain the following construction requirements:

All rotation bearings and bottom pulley have external grease zerts for greasing. No dis-assembly required for lubrication and maintenance.

A: The crane must rotate freely using a combination of two sealed needle and a sealed thrust bearing.

B: The needle bearings must meet the following specifications:

- 1) No less than two heavy duty, caged roller with a minimum bearing surface area of **27.475"**.
- 2) Must have double lip grease seal.
- 3) Each bearing must have an external center grease port for complete lubrication.
- 4) The center point of each needle roller bearing shall be **9.250"** to assure a stable base of rotation.

C: The thrust bearing must be sealed with a single center grease port and contain no less than **9.35** square inches of thrust surface area.

. Crane Features:

CSR 315©: Crane's maximum payload cap. Shall be **1,500 lb.** and marked on the crane's boom.

Simple to erect, within **10** seconds, without the need of tools from its stored position within the bumper's frame.

ANSI B30.5 shall be manufactured to applicable standards of **ANSI B30.5** for mobile cranes.

Hoist/Cable: The hoist shall be 12 volt DC have an automatic self-acting mechanical brake and be controlled by a ten-foot weather resistant pendant control. The hoist cable will be **7X19** galvanized aircraft cable with a safety hook and length will be from **25'** to a maximum of **65'**.

Confined Space/Rescue Package A *: This feature shall contain no less than the following **OSHA / A.N.S.I.** requirements for confined space.

A: A certified **3,200-lb.** minimum anchoring point as required by **ANSI Z359.1**.

B: An electronic Load Limiter© that will not exert any more than **350 lb.** pulling force including worker's body weight in order to help prevent crippling, dismemberment, or decapitation from excessive hoisting force.

C: Positive lifting cable attachment to the hoisting drum for the **3,200 lb.** minimum anchorage at the maximum extended reach of the hoisting cable.

D. Must meet **OSHA 1910.66** and **OSHA 1926.502** and **NOSHA 80-106** requirements for a redundant manual backup hoisting system should the power hoist cease to operate.

E: The bumper must come complete with a steering wheel lockout and tag-out package that complies with Federal OSHA Standards.

W.R. Kit© *: This option shall completely enclose the bumper frame and protects the crane/winch drive from snow and mud. Will extend the winch drive warranty from a **(1)** one-year warranty to **(3)** three years if ordered at the initial purchase.

Posi-Lock Mast©: This feature will enable the operator to lock the crane in place every **22 1/2 degrees** throughout its rotation **and stay locked in position until the lever is shifted and the operator has taken control of the load.**

B.L.G.L. ©Winch *: Positive cable attachment to a **3,200 lb.** minimum payload at the maximum extended cable reach for **Below Level Ground Lifting** more than **5** feet beneath the truck.

Optional Equipment:

Cam-Lock Outrigger Leg© *: This feature supersedes the standard outrigger leg and extends to a maximum of **12"** from the corner of the bumper. Extend vertically a maximum of **24"** from the bottom of the crane, and can be set or released with a single cam over center handle (similar to a commercial chain binder).

I.C.C. Tail & Backup Lighting Kit: This feature is factory installed stop / tail and or backup lights in the faceplate of the bumper. **LED** tail lighting available.

Third Boom Setting *: This feature shall allow an approximate maximum boom height to a standard crane.

Boom Extension *: This feature shall extend the standard **42"** reach to a **63"** reach from the truck.

Hide-Away Step: This feature shall allow an operator to extend an additional step from the bumper frame to allow safe entry into the trucks bed or body.

Stainless Steel Cable and Hook: Stainless steel cabling can be supplied from **25' to 130'**.

Rubber Hand Control: This feature shall provide a durable and impact resistant hoist control.

* Denotes Sto-Away's® exclusive

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