

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

Revised 01/01/08

Truck Style: This bumper crane will bolt on a **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 *: 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.

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**. A water proof control switch with an indicator light is also located on the corner of the bumper, to indicate the power is on to the control plug while not in use, and an on/off toggle switch is located on the top of the solenoid box.

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 back rib, without any gaps or spaces made from **Seamless DOM Alloy 1026 certified steel** running from a **3/4" thick thrust collar** at its 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 shall have two height settings approximately ; **70" and 84"** measured from the ground to the top of the boom. The reach from the truck's body shall be **43"±**. **^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 a 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-A[®]: 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'** (optional up to **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 the worker's body weight in order to help prevent crippling, dismemberment, or decapitation from excessive hoisting force.

C. 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.

D: 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 consists of the steel locking lid and bottom panels that shall enclose the bumper frame and protect the crane from snow and mud, and will extend the winch drive's warranty from a one (1) year to three (3) 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.

Cam-Lock Outrigger Leg *: This feature supersedes the standard outrigger leg and extends to a maximum of **12"** from the corner of the bumper. Extends 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).

Feather Lite- Safety Spring *: The crane must have a factory installed Nitrogen spring system to eliminate **90%** of the cranes weight in raising the crane from its stored position, and allow a slow and safe - controlled lowering of the crane.

Optional Equipment :

Aluminum or Stainless Steel Top Lid: The crane can come with a locking Aluminum top cover or Stainless Steel locking top cover.

Stainless Steel Cable and Hook: Stainless steel cabling can be supplied from **25' to 65'**.

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

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.

Step: This feature shall allow an operator to extend an additional step from the bumper frame to allow safe entry into the truck's bed or body . Please call for the different steps available.

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

* Denotes Sto-Away's® exclusive

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