

Sto-Away Power Cranes®
Specifications **
CSR 215-A ©and CSR 220-A©

Revised 01/01/08

Truck Style: This bumper crane will bolt-on and fit **1/2, 3/4 & 1 ton Chevy and Ford Cargo Vans** with a standard bumper of an approximate width of 77".

Minimum Safety Requirements *:

Safety Placards / All Pinch Points *: 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.

Emergency Kill Circuit *: The bumper crane shall have a permanent, weather proof, and fused de-energizing circuit 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.

Premium Anti-Slip Surface / Locking Top Steel 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.

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 it's base.

Crane's Rotation *: Shall be **360 degrees**.

***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; **67" and 87"** measured from the ground to the top of the boom. The reach from the truck's body shall be **49" ^**. **^90 degree's from the rear of the body**.

Pulleys shall be **2 1/2"** in diameter or greater plus and 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 pulleys 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 215-A: Crane's maximum payload cap. Shall be **1,500 lb.** and marked on the crane's boom.

CSR 220-A: Crane's maximum payload cap. Shall be **2,000 lb.** and marked on the crane's boom.

The crane is **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 pendent control. The hoist cable will be **7X19** galvanized aircraft cable with a safety hook and the length will be from **25'** (optional up to **65'**).

Confined Space/Rescue Package A *: This feature shall contain no less than the following **O.S.H.A / A.N.S.I.** requirements for confine 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 O.S.H.A Standards.

Mud & Snow Panels©: This option consists of the 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. 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).

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'**.

Face Plate Pintle Mount© *: This shall be a **Class 4; 10,000 lb.** Pintle mount built in and reinforced within the bumper frame.

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 trucks bed or body.

CSR 215-A© and CSR 220-A©

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

* Denotes Sto-Away's® exclusive

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