



A Division of Transportation Equipment Inc.



Pulltarps Ultimate Aluminum Electric Arm System (Part number 213-0215 & 501-0785)

10/30/09

OPERATING DESIGN: Tarpaulin shall deploy by means of an electrically driven roller spool using spring loaded pivots connected to arms attached to the side of the body. Complete tarping function to be performed from ground level or truck cab. Tarp system shall come with all required mounting hardware, electric wire, switch and breakers. Nuts, bolts, brackets, hardware, arm pivots and roller shaft shall be zinc plated to prevent rust.

- A. TARPAULIN ROLLER SPOOL: Tarp spool shall consist of the following:
 - A.1 Tarp spool shall be driven by means of a direct gear drive motor
 - A.1.1 Motor to be 12 or 24 volt as required and produce 1.1 hp. minimum.
 - A.1.2 Motor to be lubricated and sealed from the factory.
 - A.1.3 Motor controlled by sealed reversing solenoid with remote low voltage rocker switch. Switch panel, terminal ends and terminal covers are provided.
 - A.1.4 six-gauge duplex service wire and supply breaker to be provided.
 - A.2 Tarpaulin roller spool shall be minimum 3", 6063 aluminum or 3" galvanized steel tube and shall be sealed from weather.
 - A.2.1 Roller tube shall have a groove for full width insertion and retention of the tarpaulin, by means of a nylon hem tube.
 - A.3 Tarpaulin roller spool shall pivot on heavy-duty nylon bushings.
 - A.3.1 Bushings shall pivot on a minimum ½ inch diameter, zinc plated steel roller stub shaft.
 - A.4 Tarpaulin roller spool shall be designed so that the tarp shall roll off the top or bottom of the spool.
 - A.5 The roller spool shall be protected by a polished Ultimate Aluminum Super Shield housing. Ultimate Aluminum Super Shield housing shall be constructed of a minimum .125" thick polished aluminum housing and reinforced cast aluminum end plates.

- A.5.1 Ultimate Aluminum Super Shield housing enclosure shall be supplied with steel or aluminum weld on mounting brackets, which utilize bolts of sufficient strength to safely secure the enclosure to the vehicle bed.
 - A.5.2 Ultimate Aluminum Super Shield housing enclosure shall be designed so that air is deflected over the deployed tarpaulin, and radiused so that strength is maximized to deflect falling debris over the retracted tarpaulin.
- B. SPRING PIVOT ASSEMBLY: Spring arm assemblies shall be suitable for tarp length from 10 feet to 40 feet and shall consist of the following:
- B.1 Spring arm pivot to be manufactured out of heavy gauge steel and contain one spring per side.
 - B.1.1 Pivot assembly to be fully enclosed to protect the spring and designed to provide compact side mounting.
 - B.1.2 Springs shall be two-inch wide, spiral wound, each providing 600 ft lbs. of torque under tension.
 - B.1.3 Springs to be designed to provide 180 degrees of rotation and protected from over-tensioning by means of a polypropylene coil insert
 - B.1.4 Springs to be heavy powder coated red.
 - B.2 Arm sections are to be of heavy duty standard size galvanized steel tubing or that is easily replaceable.
 - B.2.1 Upper arm sections and pull bar to be made of common 1.66 diameter .083 wall, galvanized tubing for applications to 33 feet in length or 1 ¼" diameter schedule 40 aluminum pipe for applications to 40 feet in length.
 - B.2.2 Upper arm sections attach to pull bar by means of connecting elbows made of cast aluminum.
 - B.2.3 Lower arm sections are made of common 1.90 diameter .090 wall, galvanized tubing for applications to 33 feet in length or 1 ½" diameter schedule 40 aluminum pipe for applications to 40 feet in length.
- C. TARPAULIN FABRIC: Tarpaulin fabric shall consist of one of the following:
- C.1. Asphalt tarpaulin fabric shall be 14-ounce nylon vinyl fabric coated on both sides (A-2) with urethane. Tarpaulin fabric shall be impermeable to water or moisture, and shall be resistant to mildew and ultra violet light. Tarpaulin fabric shall withstand normal handling and placement at temperatures from -35 degrees Fahrenheit to 400 degrees Fahrenheit without endangering the structural integrity and serviceability of the fabric.

- C.2. 18-ounce vinyl coated nylon fabric. Tarpaulin fabric shall be impermeable to water or moisture, and shall be resistant to mildew and ultra violet light. Tarpaulin fabric shall withstand normal handling and placement at temperatures from -35 degrees Fahrenheit to 375 degrees Fahrenheit without endangering the structural integrity and serviceability of the fabric.
- C.3. Heavy duty open weave black or red PVC coated polyester mesh.
- D. TARPULIN CONSTRUCTION: Double-lock stitching.
- E. SIDE FLAPS & TIE DOWNS: Ground operated integrated system.
 - E.1 Side flaps to be integral part of tarp and retract fully into the housing enclosure. Side flaps to be secured by flap rope passing through large #4 brass grommets attached to the edge of the flap. Side flaps to extend a minimum of 17" from edge of tarp.
 - E.2 Tie down system to be integral part of tarp and retract fully into the housing enclosure. Tie downs to be secured by tie down rope passing through straps with large #4 brass grommets attached to the ends of the straps. Tie downs to be constructed of fabric matching that of the tarp and extend a minimum of 6" from edge of tarp.
- F. WARRANTY:
 - F.1 The Automatic Arm System carries a one year guarantee on all moving parts, and a lifetime guarantee on the UHMW bushings.
 - F.2 Electric motor carries a three-year manufacturer's prorated warranty