

**Donovan Enterprises**  
**“Long Arm Jr.”**  
**ELECTRIC OPERATED TARPING SYSTEM**

Trailer covering system to be Donovan Enterprises model 1164-96 for use on trailers up to 38' in length and 96" in width.

**SYSTEM WEIGHT**

The complete Long Arm Jr. as packaged weighs **275** lbs, is weight class 55. It ships in one box and aluminum arms ship separately. Arms are 222" in length.

**ELECTRIC DRIVE SYSTEM**

Covering system to be operated by either a 12 or 24 Volt electric direct drive motor (no chain or sprockets) with a 90:1 reduction ratio. Motor is to be mounted to the driver side of a tarp housing mounted to front of trailer. Motor has a   " diameter drive shaft. Electric kit supplied with a minimum of 25 feet of dual conductor wire, contact plate kit for reduced wire length and rotary switch with forward and reverse action with an automatic reset circuit breaker. Motor protected by chromed plastic cover to prevent damage from weather and for improved appearance.

**TARP HOUSING ASSEMBLY**

Tarp housing assembly will be preassembled with roller bar and direct drive motor installed. Wind deflector of housing will be polished extruded aluminum. Housing assembly is designed to facilitate airflow over tarp. Tarp housing is mounted to the front wall of the trailer with three center gusseted aluminum mounting brackets.

**ROLLERBAR**

Roller bar to be installed inside tarp housing. Roller bar assembly to be a one-piece extruded aluminum design. Roller bar spline groove will be routed 3" minimum at center for tarp change. Roller bar has a   " inside diameter. The extrusion pattern is such that a tarp may be installed using a spline or through bolts.

**PIVOT ARM AND TORSION SPRING ASSEMBLY**

The pivot arms are constructed of single piece polished aluminum extrusion. The extrusion is oval in shape with two **.5"** flat ends. The inside of the extrusion is round with an inside diameter of **1.5"**. Pivot arms are 222" in length from factory. The rear cross piece is constructed of 1.5" schedule 40 aluminum pipe with an outside diameter of **1.69"**. The pivot arms and rear cross piece connect with cast aluminum elbows. The heavy duty 22 coil silicone chrome torsion springs are **.625" steel with a length of XX and a diameter of XX**. Each spring assembly unit (two per system) uses 1 spring. Pivot arm shaft assemblies are constructed of a 20.5" long steel **.875"** hex rod which connects to a **.5"** steel paddle that is welded to 1.5" od steel tubing. Spring tension is adjustable in six positions. The pivot arm shaft assembly is zinc plated. The 22 coil spring and pivot arm shaft assembly mounts to a three piece mounting plate that is made up of a retention plate weldment, a shim plate and a **.25"** steel mounting plate. The retention plate weldment includes a **.875"** hex sealed flange bearing.

### **FINISH**

All steel components are finished with a two part alkyd enamel primer and two part alkyd enamel finish (black). The Pivot arm shaft assemblies are zinc plated.

### **HARDWARE**

Covering system is to be supplied with all of the nuts, bolts, mounting brackets, installation instructions and miscellaneous hardware necessary to install the mechanism onto the trailer body. All hardware is grade 5 or higher.