

Donovan Enterprises
“Long Arm Jr. GL – 102” ”
ELECTRIC OPERATED TARPING SYSTEM

Trailer covering system to be Donovan Enterprises model 1164-102GL for use on trailers up to 38’ in length and 102” 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.

GROUND LEVEL DRIVE SYSTEM

Covering system to be operated with a ground level control box mounted on the side wall of the dump trailer on driver’s side. The control box has sealed bearings and a spring loaded disengaging crank handle. The safety brake handle is mounted on control box shaft with synthetic brake pad acting as an intermediate barrier between the braking surface and rotation shaft. Brake handle must provide enough force to immediately stop the movement of the pivot arms when operator’s hand is depressing brake handle at any point throughout the pivot arm’s full range of motion. The control box has secondary positive locking system in addition to brake handle. The control box sprocket is mounted inside of control box housing and has 20 teeth. The roller bar sprocket has 18 teeth. Both sprockets are to drive #40 chain.

TARP HOUSING ASSEMBLY

Tarp housing assembly will be preassembled with roller bar and sprocket for crank handle chain. 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.

PRODUCT DIAGRAMS

Diagram 1: Heavy duty ground level crank box with positive safety locking system

