

# FLASH TARPING SYSTEM

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# **BEFORE INSTALLATION BEGINS**

- READ AND UNDERSTAND OWNER'S MANUAL.
- UNPACK SYSTEM AND CHECK ALL PARTS AGAINST PACKING LIST. (PAGE 3 & 4 FOR A STRAIGHT ARM SYSTEM, PAGE 5 & 6 FOR A BENT ARM SYSTEM)

# PACKING LIST FLASH TARPING SYSTEM STRAIGHT ARM with NEW <u>CLAMSHELL</u> PIVOT MOUNTS (PART# 1470C)

#### 1477C COMPONENT BOX

- 1769 STRAIGHT PIVOT MOUNTS (2)
- 61L MOTOR, 12VOLT (1)
- 1888 CAST ELBOWS (2)
- 1769 PIVOT MOUNTS (2)

#### 2210C HARDWARE BOX

- 2285 BUMPER KIT
- 2984 PIVOT MOUNT ASSEMBLY
- 3270Z BEARING PLATE
- 3678Z BEARING PLATE WITH BEARING
- 4246 HEAD ASSEMBLY HARWARE
  - 520 ROLLERBAR HARDWARE
  - 2209 REAR CROSS PIECE HARDWARE
  - 4161 CAUTION LABEL

#### 1605C PIPE BUNDLE

- 1096 REAR CROSS PIECE
- 1473 ARM EXTRUSION, 150" DRILLED
- 3807R EXTRUDED ALUMINUM ROLLER BAR

#### 89 WIRE, 8 GA., 60 FEET

# FLASH TARPING SYSTEM - STRAIGHT ARM



NUMBER	PART #	DESCRIPTION
1	2365	Aluminum Roller Bar Assembly
2	3678Z	Bearing Plate with Bearing
3	3270Z	Bearing Plate
4	61G	12 Volt. Motor with cover
5	4278	12 Volt. Motor Cover
6	1473	150" Pivot Arm Straight
7	N/A	Clamshell Spring Enclosure with Pivot Mount
8	1076	Rear Cross Piece
9	1888	90º Die Cast Elbow
10	2285	Rubber Bumper Kit with Hardware (6")
11	3218B	Arm Rest Kit (Optional)

# PACKING LIST FLASH TARPING SYSTEM 30 DEGREE BEND ARM with NEW <u>CLAMSHELL</u> PIVOT MOUNTS (PART# 1657C)

#### 1477C30 COMPONENT BOX

- 1769 STRAIGHT PIVOT MOUNTS (2)
- 61L MOTOR, 12VOLT (1)
- 1888 CAST ELBOWS (2)
- 1767 PIVOT MOUNTS DRIVER SIDE
- 1768 PIVOT MOUNTS CURB SIDE

#### 2210C HARDWARE BOX

- 2285 BUMPER KIT
- 2984 PIVOT MOUNT ASSEMBLY
- 3270Z BEARING PLATE
- 3678Z BEARING PLATE WITH BEARING
- 4246 HEAD ASSEMBLY HARWARE
- 520 ROLLERBAR HARDWARE
- 2209 REAR CROSS PIECE HARDWARE
- 4161 CAUTION LABEL
- 1096 REAR CROSS PIECE
- 1700 FLASH BENT ARMS
- 3807R EXTRUDED ALUMINUM ROLLER BAR

89 WIRE, 8 GA., 60 FEET

# FLASH TARPING SYSTEM - 30° BENT ARM



NUMBER	PART #	DESCRIPTION
1	2365	Aluminum Roller Bar Assembly
2	3678Z	Bearing Plate with Bearing
3	3270Z	Bearing Plate
4	61G	12 Volt. Motor with cover
5	4278	12 Volt. Motor Cover
6	1700	30° Bent Pivot Arm
7	N/A	Clamshell Spring Enclosure with Pivot Mount
8	1076	Rear Cross Piece
9	1888	90º Die Cast Elbow
10	2285	Rubber Bumper Kit with Hardware (6")
11	3218B	Arm Rest Kit (Optional)

# FLASH INSTALLATION INSTRUCTIONS

### Choosing the mounting location

- 1. In general, the direct drive motor and rollerbar should be mounted on top of the cab shield and as far forward as possible so that the motor and pivot arms will be less likely to be damaged by loaders. However, if head assembly is mounted too far forward the pivot arms may interfere with the truck's doors.
- 2. Exceptions: <u>Trucks with vertical stacks.</u> Vertical stacks may be in the way of the pivot arms if the motor and rollerbar were to be mounted forward of the stack(s). Simply shortening or re-aligning the stack(s) may solve the problem. If the stack(s) still get in the way, it may be necessary to mount the motor and rollerbar to the rear of the stack(s). If there is not room to mount the motor and rollerbar on the cab shield behind the stacks, they will need to be mounted on top of the side board pockets at the front of the body.

**Installing the Bearing Plates** (Skip this step if you purchased the optional modular housing)

- 1. Once the mounting location has been determined, you may install the bearing plates using the 3/8" x 11/2" bolts, flat washers, and locknuts. (See fig. 7) You can also use the bearing plates as templates to drill the necessary mounting holes directly into the cab shield sides or other suitable location.
- If you chose to use the bearing plates as templates and mount system directly to the cab shield, remove the <sup>3</sup>/<sub>4</sub>" bearing from the passenger side bearing plate and bolt it in place on the cab shield. Note: The bearing plates or cab shield holes should be exactly opposite of each other to avoid the tarp rolling up unevenly.
- 3. Be sure there is enough clearance between the rollerbar and the cab shield to rollup the entire tarp.



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# Mounting the Direct Drive Motor and Rollerbar

- 1. Mount the motor to the bearing plate, cab shield or housing (See fig. 8C, bearing plate option shown).
- 2. Measure the distance from the inside of one bearing plate to the inside of the other bearing plate.
- 3. Cut the roller bar (on the end without the pre-drilled hole) one inch shorter than the length you measured in step 2.
- 4. Drill a 1/2" dia. hole, 3/4" from the end of the rollerbar you just cut. Start the hole in one of the smooth-sided slots, not a threaded slot (see fig 8D). Slide one end of the rollerbar over the motor output shaft and secure with a 5/16" carriage bolt, washer, and nut. (See fig. 8C)





Fig. 8D End view of roller bar

## Mounting the Direct Drive Motor and Rollerbar (continued)

5. Slide the extension shaft through the bearing plate, cab shield or housing and into the roller bar. Line up the holes in the roller bar with the hole in the extension shaft and secure with the 5/16" carriage bolt, washer, and nut. (See fig. 9, bearing plate option shown.)



# Fig. 9

# Wiring the Control Box

1. See the instructions provided with your Electrical switch kit for hooking up the electrical power to your system.

# **Pivot Mount and Flash Arm Installation**

1. To find the pivot point, pull one tape measure from point "A" and a separate tape measure from point "B". Next cross the tape measures at the bottom-middle of the truck body where the two measurements are equal – mark the spot beneath where they cross. This is your pivot point. (See fig. 10A)



• For bent arms, there are two pivot mounts (driver and passenger). The slot will be angled towards the back of the truck on each side when mounted correctly.

#### Pivot Mount and Flash Arm Installation (continued)

<u>NOTE:</u> The pivot mount orientation is critical to the proper operation of the system. Review drawings on the previous page prior to final installation of pivot mounts. <u>NOTE:</u> If you are welding on your pivot mounts, skip to step #3.

2. Bolting your pivot mount in place: Using the pivot mount as a guide to determine the hole position for mounting, ensure the center of the mounting plate is aligned with the pivot point as determined in step 1 on page 10. Drill two 9/16" holes in line with the center holes on the pivot mount on each side of the box (See fig. 11A). Bolt the pivot mounts to the box using the included ½" carriage bolts, flat washers, and lock nuts (the head of the bolt must be on the outside, and the washer and nut on the inside) (See fig. 11A).

# <u>CAUTION:</u> Failure to comply with these instructions could cause severe damage to the system and/or personal injury.

- 3. Welding your pivot mounts: Ensure center of mounting plate is aligned with pivot point as determined in step 1 on page 10. Weld securely in place.
- 4. Bolt two halves of clamshell together with 1/2" x 4" Bolt. Do not install springs at this time. (Fig. 11A)
- 5. Slide clamshell assembly on pivot mount shaft. (Fig. 11A)
- 6. Slide flash arm into clam shell. Do not bolt. (Fig. 11A)
- 7. Install 90 degree elbow into top of flash arm. Do not bolt in place. (Fig. 11B)



# **Pivot Mount and Flash Arm Installation (continued)**

**NOTE:** Rear cross piece should rest on back of truck so tarp will fully cover the load. Ensure the rear cross piece does not interfere with tailgate operation.

- 8. Move arm to front and rear of truck to determine length to cut arm. Disassemble arm, but leave clamshell assembled. Cut the same amount off both arms on end that will go into clamshell.
- 9. Draw a line 2 inches up from the end of the arm that will go into clamshell. Insert arm into clamshell until lower hole and line on arm align.
- 10. Mark location of all 4 holes in clamshell on arm. Repeat for other arm. Disassemble clamshell.
- 11. Drill a 7/16" hole at the marks you just made.

**NOTE:** Make sure that hook of spring is around bolt holding clamshells together.

12. Install clamshell, springs, spacer, and snap ring on pivot mount shaft and hold two halves of clamshell together with 1/2" x 4" Bolt and lock washer (see figure 12). Use Loctite on 1/2" bolt threads.



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# **Pivot Mount and Flash Arm Installation (continued)**

- Slide the pivot arms into clam shell and attach using 7/16"-14 x 2 3/4" bolts, and lock nuts (see figure 13A).
- 14. Check for binding or rubbing of the pivot arms against the sides of the box. Check both sides of the box, and adjust the pivot mounts or arms as necessary for clearance.

# Elbows and Rear Cross piece installation

- Insert the cross piece through the sewn pocket of the tarp, insert rubber bumpers onto the cross tube.
- Install cross piece and 90 degree cast elbows using 5/16" x 2 1/2" bolts, washers and lock nuts supplied (see fig 13B).
- 3. Slide rubber bumpers to impact areas. Once the rubber bumpers are positioned properly, use the 1/4" predrilled hole in the rubber bumper as a template to drill 1/4" hole through the center of rear cross piece. Use 1/4" X 3 1/2" bolt, 2 washers and lock nut) to secure the rubber bumper in place (see figure 13B). Drill hole horizontally with rear cross piece resting on back of truck body to ensure bolt will not catch on tailgate.



¼″ - 20 X 3 ½″ BOLT

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## Elbows and Rear Cross piece installation (continued)

- 4. Insert the other end of the tarp into center slot on the roller bar (see fig. 14). Center the tarp on roller bar and rear cross piece.
- 5. Operate system to ensure it works properly.
- 6. Verify all nuts and bolts are completely tightened on system.

Fig. 14 SLOT IN CENTER OF ROLLER BAR FOR INSTALLATION OF TARP

# Installing the Pivot Arm Rests (Optional)

- 1. Unwind the tarp so that the system is in the "covered" configuration.
- 2. Position the pivot arm rests so that upper arms are as level as possible and do not make contact with the tailgate or any other part of the dump body.
- 3. Weld or bolt pivot arm rests into place.



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