INSTALLATION INSTRUCTIONS

Smart Tarp System

SYSTEM SHOWN WITH OPTIONAL REAR SKIRT

ATTENTION **Dealer/Installer: This instruction manual MUST be delivered with the smart tarp system.**

Document #: **STIPM-100**
Revised: 08/19/24 WLH

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Installation

WARRANTY, TOOLS, TROUBLE SHOOTING & PARTS

Warranty Disclaimer & Owner Manual

WARRANTY DISCLAIMER AND LIMITATION OF REMEDIES

Items sold by Vango, are warranted to be free from defects in material and workmanship for an indefinite period, provided said items are used in accordance with Vango's recommendations and usages. Vango's liability is limited to the repair of or replacement in kind of, at the sole option of merlot. Any items proved defective, provided the allegedly defective items are returned to Vango prepaid. The warrantees expressed above are in lieu of and exclusive of all other warrantees.

There are no other warrantees expressed or implied, except as stated herein. There are no implied warrantees of merchantability or fitness for purpose, which are specifically disclaimed. Vango's liability for breach of warranty as herein stated is the exclusive remedy, and in no event shall Vango be liable or responsible for incidental or consequential damages, even if the consequential damage has been made known to Vango.

Note: panels are not covered by the warranty disclaimer. Exclusion: damage caused by wind, tornado, hurricane, and floods including acts beyond our control such as acts of god are not covered by said warranaty.

OWNER'S MANUAL & INSTALLATION INSTRUCTIONS

Operating cautions and recommendations

- Tarping system must be opened when loading and unloading. Bows will be damaged if tarping system is not fully opened when unloading.
- Tarping system must be fully extended or retracted when vehicle is in motion.
- Anti-lift guides will be supplied and must be installed.
- Do not use the tarping system as a means of leveling the load.
- Electrical systems are equipped with a direct drive motor. If any obstruction occurs during operation, inspect the system for interference along the bow end slide area.

Caution: the smart tarp system will have a longer life span if the system is cranked fully to the back of the body when loaded and empty (the handle should always be locked so there is tension on the tarp). Tie downs or antilift guides must be used. Tie downs must be used for tarping systems over 24 ft. Failure to do so can result in tarp shifting, damage, or loss. Failure to comply with these cautions may result in premature wear and damage to the system and void the warranty.

Notice: if installing on a trailer with a radius front, your smart tarp kit will include a starter panel

Required Tools


Safety Glasses and Gloves


Screw Gun: 3/8" & 5/16" nut drive


Power Drill


Allen Keys


Drill bits: 3/8" & 3/8" x 12"


Hammer


Open End Wrenches: 7/16", 3/4" & 1-1/8"


Sockets: 9/16" & 1/2"


NOTE: 1-1/2" Hole Saw is required when application is inside cabshield.

Preparing to Install Your Smart Tarp

For the smart tarp to work properly, you must have a level surface for the bows to ride on. Be sure the side rails are level from the front to the rear of the dump body. It may be necessary to add boards on the sides to accomplish this. An aluminum angle accessory is available for installations where the boards are worn or rough. This angle is attached to the top boards using self-tapping screws. Also, check inside bed near riding surface for sharp edges, long bolts, etc. which could cause the tarp to get caught up. Cut long bolts off at the nuts.

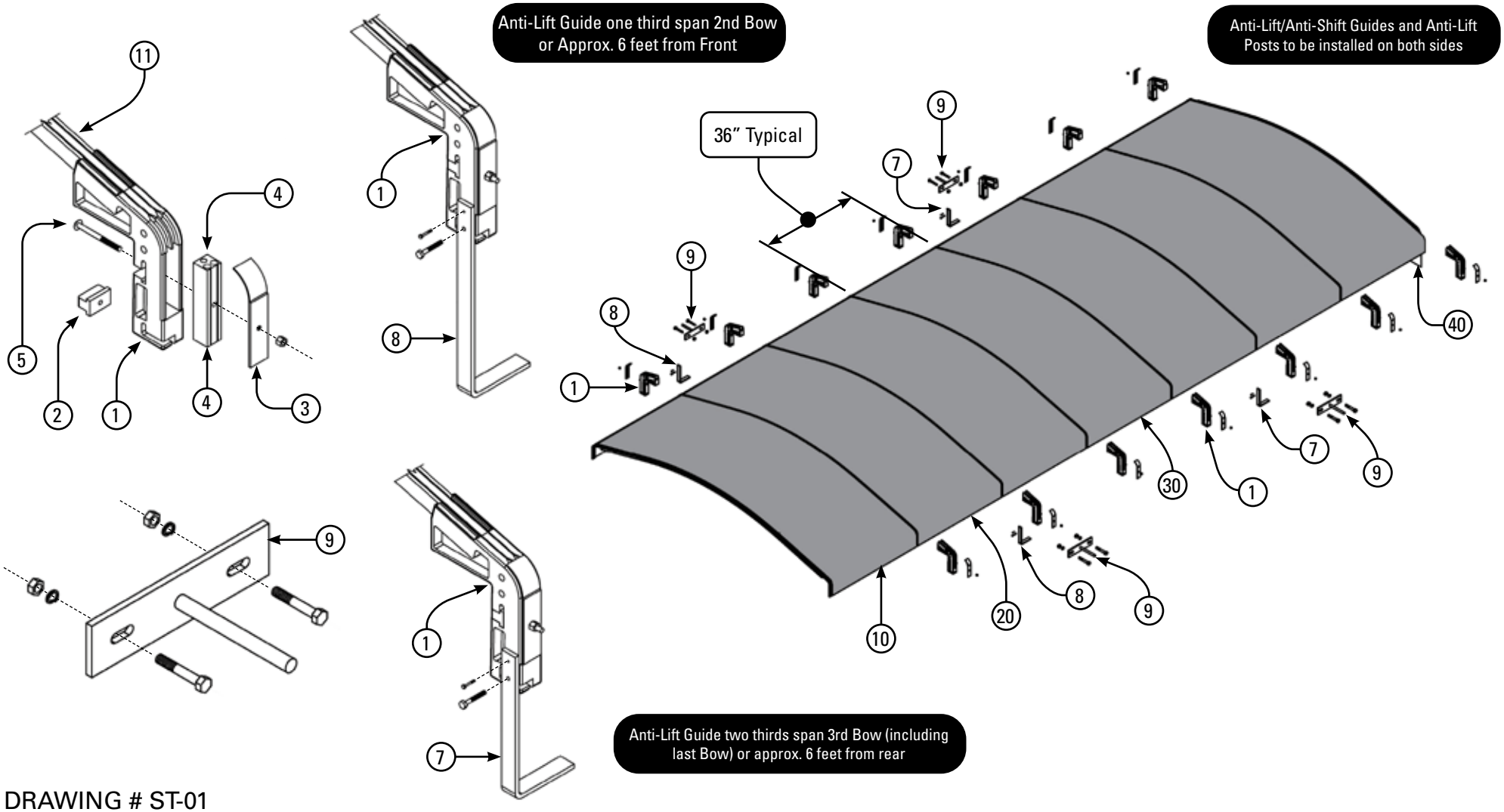
CAUTION: TO AVOID INJURY WHILE INSTALLING YOUR SMART TARP OR REPLACING PARTS, IT IS VERY IMPORTANT TO WORK FROM A LADDER OR PLATFORM THAT IS SAFE AND ON STABLE GROUND. DO NOT WORK FROM A TRUCK BODY LADDER, TIE RAILS, ETC.

Troubleshooting

Problem	Causes	Solution
Excessive wear of bow ends.	1. Cable too tight. 2. Cable too loose. 3. Cable too high. 4. Tarp too long. 5. Tarp not fully extended/retracted while in motion.	Make adjustments in accordance with installation manual. Note: Excessive bow end wear is a sign of something seriously wrong or improper installation. If problem persists after checks have been made, call Vango at 1-800-443-TARP (8277).
Tarp is wind whipped.	1. Tarp too long. 2. Tarp not fully extended/retracted while in motion.	Shorten tarp according to instructions.
Tarp not cranking forward/backward in a straight line.	Last bow is out of alignment.	Align last bow perpendicular to truck body/trailer.
	Cable tension is unequal.	Adjust cables at rear pulleys making sure the two cables have equal tension.
System will not move when cranked.	Blocked by obstruction.	Remove obstruction.
	Front shaft bent or out of alignment.	Replace front shaft. Check the grease bearings. **If problem persists, check to see if all the bow ends are flush against the bows.**
Cable coming out of bow ends or jumping off front pulleys.	1. Cable too tight. 2. Pulleys misaligned.	Adjust cable and pulleys per installation instructions.
Panels separating from bows.	1. Tarp not fully extended (closed) /retracted (open) and locked into place while in use. 2. Tarp too long.	If tarp is too long, shorten tarp according to instructions.

NOTES:

Vinyl Panels, Bow, and Bow Ends



DRAWING # ST-01

Vinyl Panels, Bow, and Bow Ends

BOW & BOW END

MK	PART #	# REQ.	BILL OF MATERIAL DESCRIPTION
---	ST-AB100		BOW END ASSY. (INCLUDES BOW END, T, & CAP INSERT)
1	ST-AB101		BOW END
---	ST-AB101WRL		WIRE ROPE LUBE
2	ST-AB102		BOW END "T"
3	ST-AB103		BOW END CAP
4	ST-AB104		ALUMINUM INSERT FOR BOW END
5	ST-AB105		NUT AND BOLT FOR CAP
7	ST-AB106S		ANTI-LIFT GUIDE - SHORT (REAR)
8	ST-AB106L		ANTI-LIFT GUIDE - LONG (REAR)
9	PT-AB106S		ANTI-LIFT/ANTI - SHIFT - SHORT (FRONT/MIDDLE)
11	PT-AB108		SMART TARPS BOW

ST-VRP 108

SMART TARP PANELS

VSP = VINYL STARTER PANEL
VAP = VINYL ADJUSTER PANEL
VRP = VINYL REGULAR PANEL
VTP = VINYL TAIL PANEL

BL = BLACK
RD = RED
BU = BLUE
GN = GREEN
Consult factory for other available or custom colors.

PANEL NOMENCLATURE

All panel widths 36" unless otherwise noted. Panel width must be confirmed when ordering.
Panel color must be provided when ordering. Consult factory for custom rear skirt option.

VINYL STARTER

MK	PART #	# REQ.	BILL OF MATERIAL DESCRIPTION
10	ST-VSP108		36" X 112" X 6" RISE BOW

VINYL ADJUSTER PANEL

MK	PART #	# REQ.	BILL OF MATERIAL DESCRIPTION
20	ST-VAP108		36" X 112" X 6" RISE BOW

VINYL REGULAR PANEL

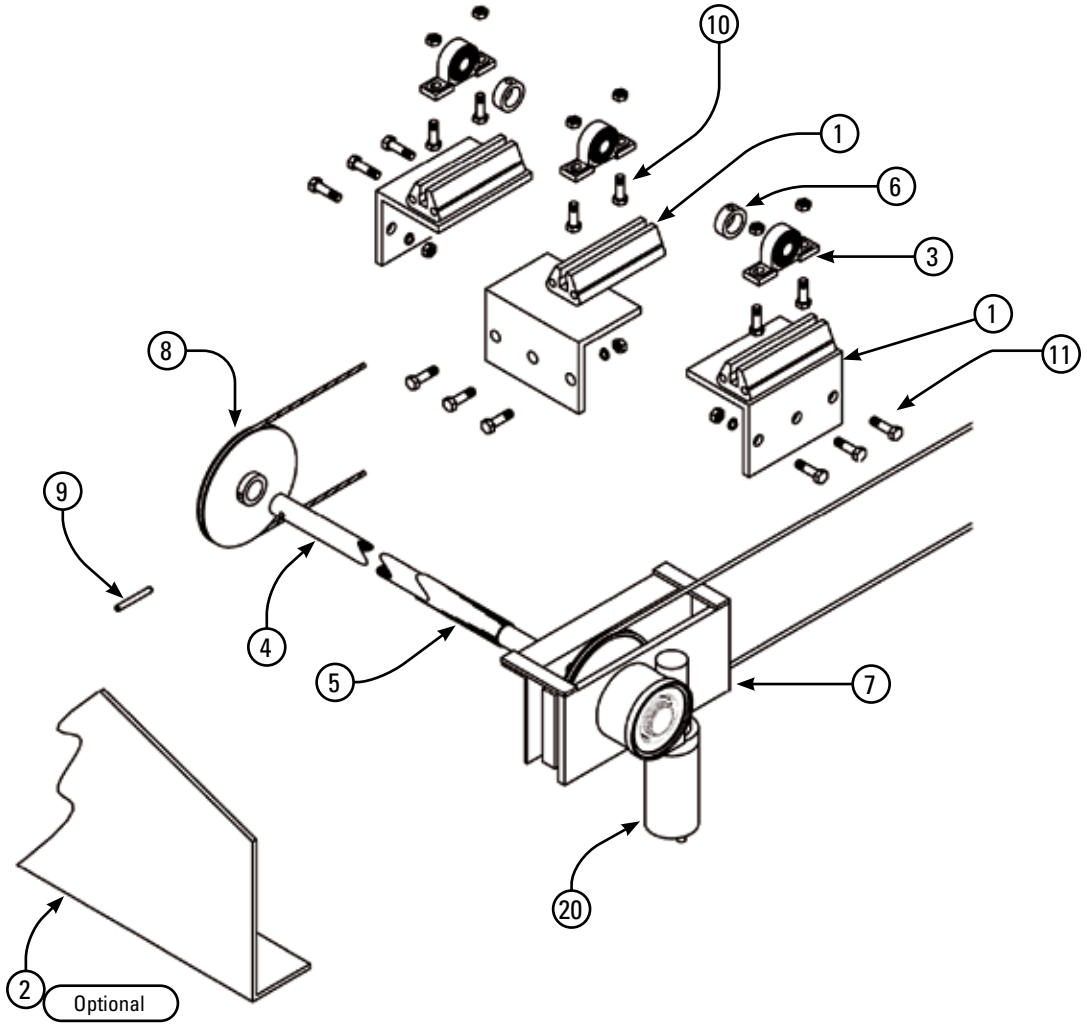
MK	PART #	# REQ.	BILL OF MATERIAL DESCRIPTION
30	ST-VRP108		36" X 112" X 6" RISE BOW

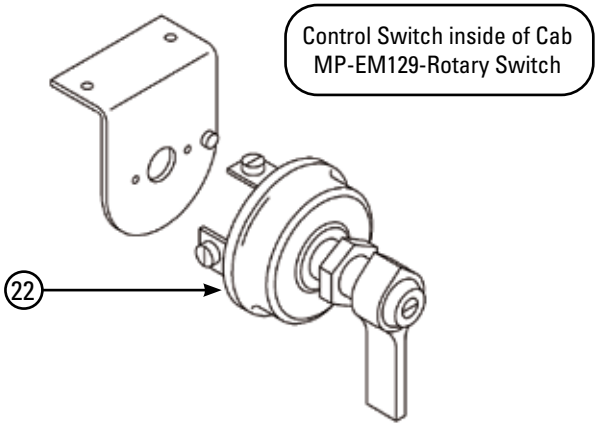
VINYL TAIL PANEL

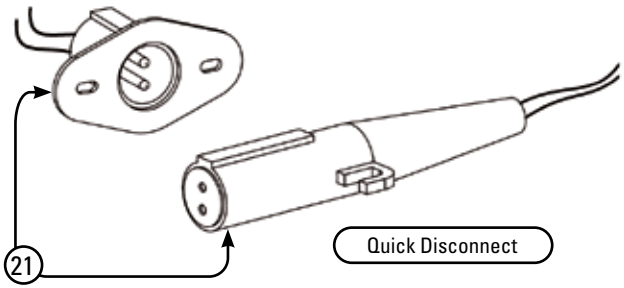
MK	PART #	# REQ.	BILL OF MATERIAL DESCRIPTION
40	ST-VTP108		11" X 112" X 6" RISE BOW

REV. 07/26/24 WLH

Front Shaft Arrangement Direct Drive System







DRAWING # ST-02

Front Shaft Arrangement Direct Drive System

FRONT SHAFT AND ACCESSORIES

MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
1	ST-FSA201	3			ALUMINUM SHAFT SUPPORT BRACKET		
1A	ST-FSA201A		2		ALUMINUM RAIL		5 ½
1B	ST-FSA201B		1		MOUNTING PLATE		
2	ST-FSA202	1			DEFLECTOR PLATE		
3	ST-FSA103	3			PILLOW BLOCK BEARING		
4	ST-FSA104	1			FRONT SHAFT		
5	ST-FSA105	2			SHAFT COVER		
6	ST-FSA106	2			LOCK COLLARS		
7	ST-FSA112	1			MOUNT BRACKET		
8	ST-FSA101	2			4" CABLE PULLEY		
9	ST-FSA109	2			5/16" BOLT		
10	ST-FSA110	6			BOLT, NUT, WASHER ASSEMBLY		
11	ST-FSA111	9			BOLT, NUT, WASHER ASSEMBLY		

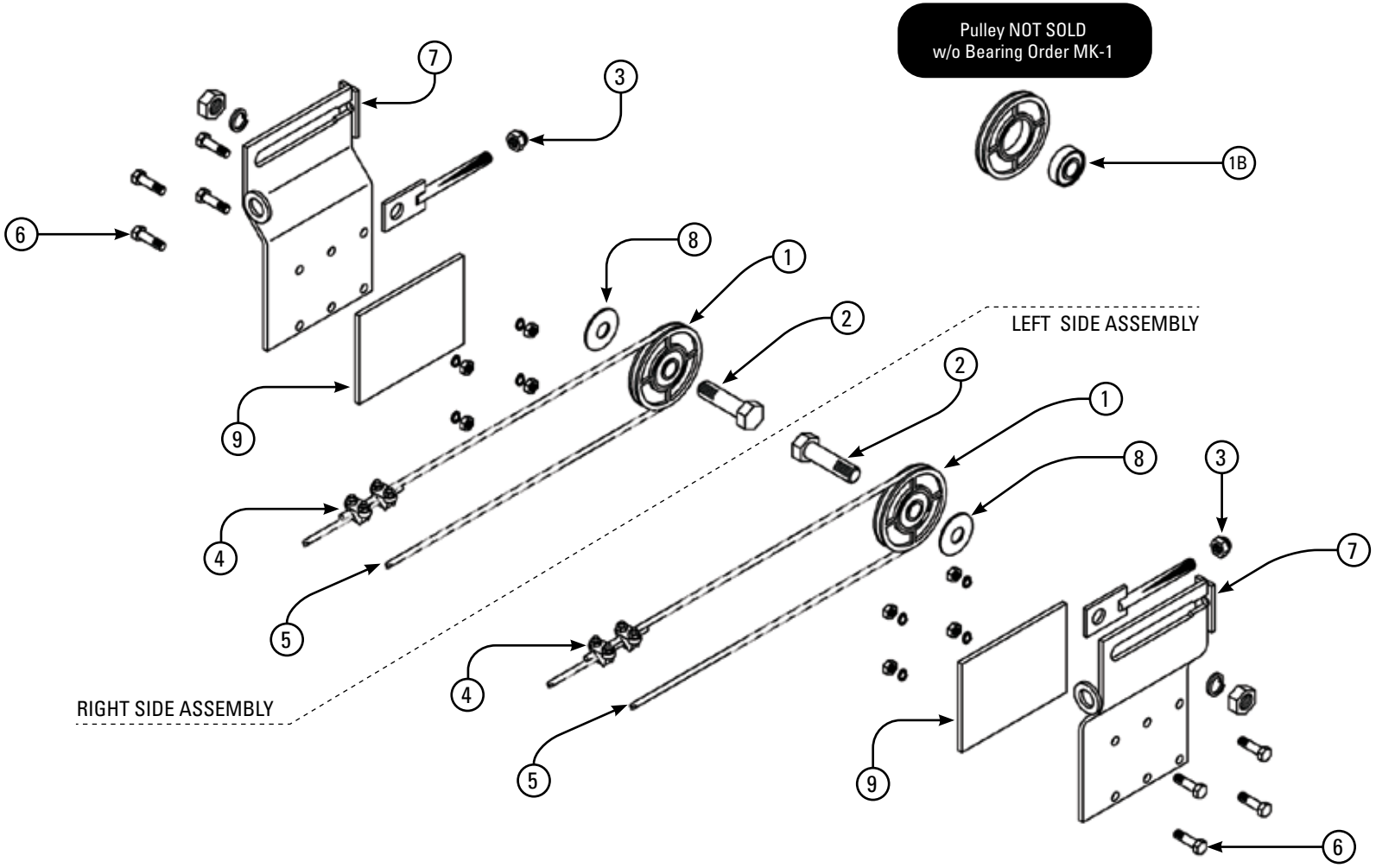
ELECTRIC MOTOR DRIVE

MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
20	MP-EM119	1			ELECTRIC MOTOR		
21	MP-EM127	1			QUICK DISCONNECT		
22	MP-EM129	1			ROTARY SWITCH		

PARTS NOT SHOWN:
MP-EM124 - BATTERY CONNECTOR
MP-EM125 - 50 AMP BREAKER
MP-EM126 - MOTOR CONNECTOR
MP-EM128 - WIRE / PER FOOT

REV. 08/19/24 WLH

Idler Pulley Assembly Standard Rear Bracket



DRAWING # ST-03

Idler Pulley Assembly Standard Rear Bracket

RIGHT REAR PULLEY ASSEMBLY

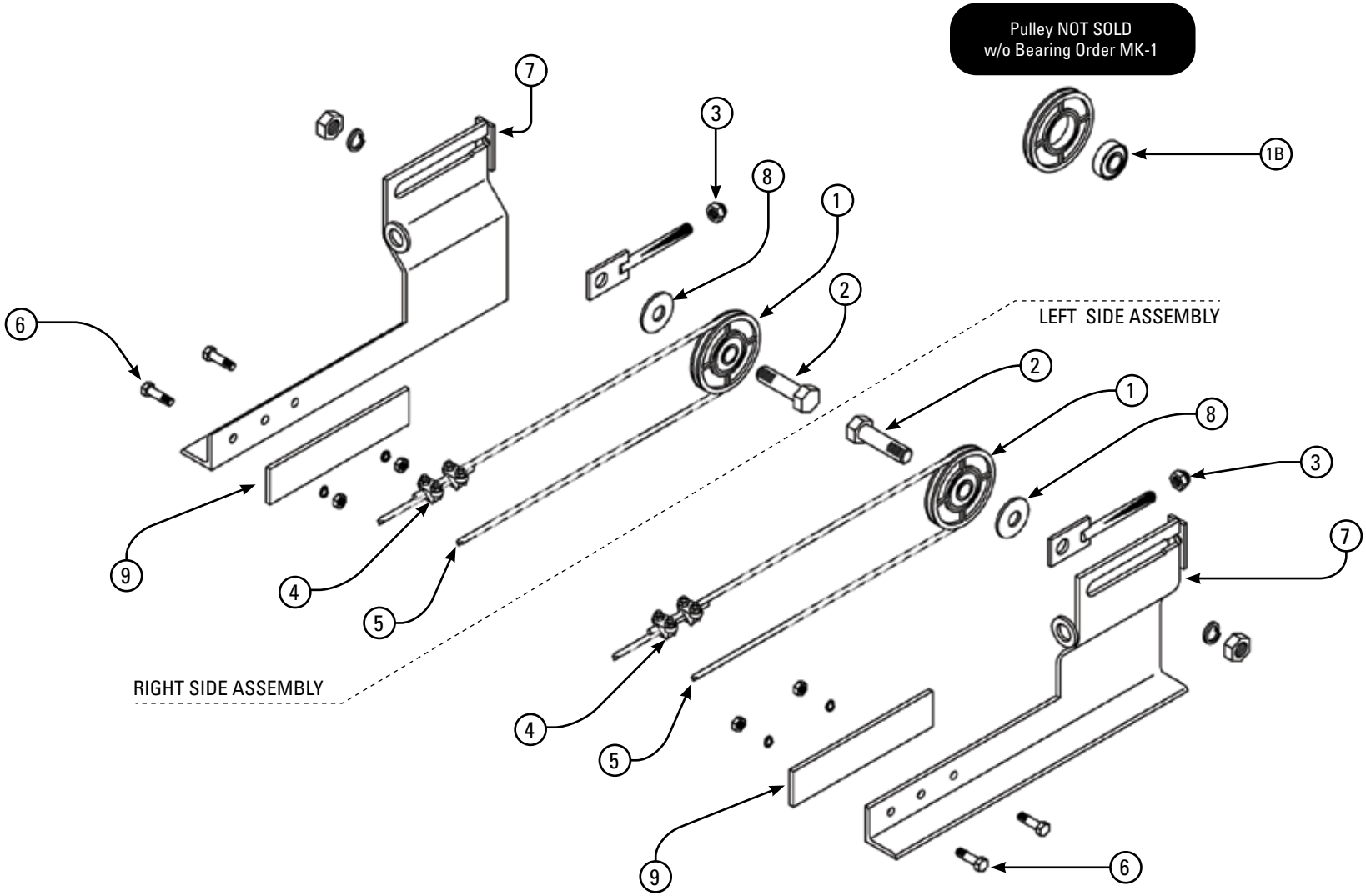
MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
---	ST-RPA100R	1			R.H. PULLEY ASSEMBLY - COMPLETE		
1	ST-RPA101		1		PULLEY WITH BEARING		
1A	ST-RPA101A			1	PULLEY - NO BEARING		
1B	ST-RPA101B			1	BEARING		
2	ST-RPA102		1		REAR PULLEY BOLT, WASHER, NUT		
3	ST-RPA103		1		SPANNER W/ LOCK NUT		
4	STS-RPA104		2		CABLE CLAMPS		
5	ST-RPA105G				GALVANIZED CABLE 1/4"		
5	ST-RPA105S				STAINLESS CABLE 1/4"		
6	ST-RPA106		3		BOLT, WASHER, NUT, ASSEMBLY		
7	ST-RPA107		1		RIGHT REAR BRACKET		
8	ST-RPA109		1		WASHER SPACER		
9	---	1			1/2" SPACER PLATE		

LEFT REAR PULLEY ASSEMBLY

MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
---	ST-RPA100L	1			L.H. PULLEY ASSEMBLY - COMPLETE		
1	ST-RPA101		1		PULLEY WITH BEARING		
1A	ST-RPA101A			1	PULLEY - NO BEARING		
1B	ST-RPA101B			1	BEARING		
2	ST-RPA102		1		REAR PULLEY BOLT, WASHER, NUT		
3	ST-RPA103		1		SPANNER W/ LOCK NUT		
4	STS-RPA104		2		CABLE CLAMPS		
5	ST-RPA105G				GALVANIZED CABLE 1/4"		
5	ST-RPA105S				STAINLESS CABLE 1/4"		
6	ST-RPA106		3		BOLT, WASHER, NUT, ASSEMBLY		
7	ST-RPA108		1		LEFT REAR BRACKET		
8	ST-RPA109		1		WASHER SPACER		
9	---	1			1/2" SPACER PLATE		

REV. 07/29/24 WLH

Idler Pulley Assembly Extended Rear Bracket



Idler Pulley Assembly Extended Rear Bracket

RIGHT REAR EXTENDED PULLEY ASSEMBLY

MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
---	ST-RPA100RE	1			R.H. EXTENDED PULLEY ASSEMBLY - COMPLETE		
1	ST-RPA101		1		PULLEY WITH BEARING		
1A	ST-RPA101A			1	PULLEY - NO BEARING		
1B	ST-RPA101B			1	BEARING		
2	ST-RPA102		1		REAR PULLEY BOLT, WASHER, NUT		
3	ST-RPA103		1		SPANNER W/ LOCK NUT		
4	STS-RPA104		2		CABLE CLAMPS		
5	ST-RPA105G				GALVANIZED CABLE 1/4"		
5	ST-RPA105S				STAINLESS CABLE 1/4"		
6	ST-RPA106		3		BOLT, WASHER, NUT, ASSEMBLY		
7	ST-RPA107E		1		EXTENDED RIGHT REAR BRACKET		
8	ST-RPA109		1		WASHER SPACER		
9	---	1			1/2" SPACER PLATE		

LEFT REAR EXTENDED PULLEY ASSEMBLY

MK	PART #	# REQ.			BILL OF MATERIAL / DESCRIPTION	LENGTH FT.	LENGTH IN.
---	ST-RPA100LE	1			L.H. EXTENDED PULLEY ASSEMBLY - COMPLETE		
1	ST-RPA101		1		PULLEY WITH BEARING		
1A	ST-RPA101A			1	PULLEY - NO BEARING		
1B	ST-RPA101B			1	BEARING		
2	ST-RPA102		1		REAR PULLEY BOLT, WASHER, NUT		
3	ST-RPA103		1		SPANNER W/ LOCK NUT		
4	STS-RPA104		2		CABLE CLAMPS		
5	ST-RPA105G				GALVANIZED CABLE 1/4"		
5	ST-RPA105S				STAINLESS CABLE 1/4"		
6	ST-RPA106		3		BOLT, WASHER, NUT, ASSEMBLY		
7	ST-RPA108E		1		EXTENDED LEFT REAR BRACKET		
8	ST-RPA109		1		WASHER SPACER		
9	---	1			1/2" SPACER PLATE		

REV. 07/29/24 WLH

INSTALLATION

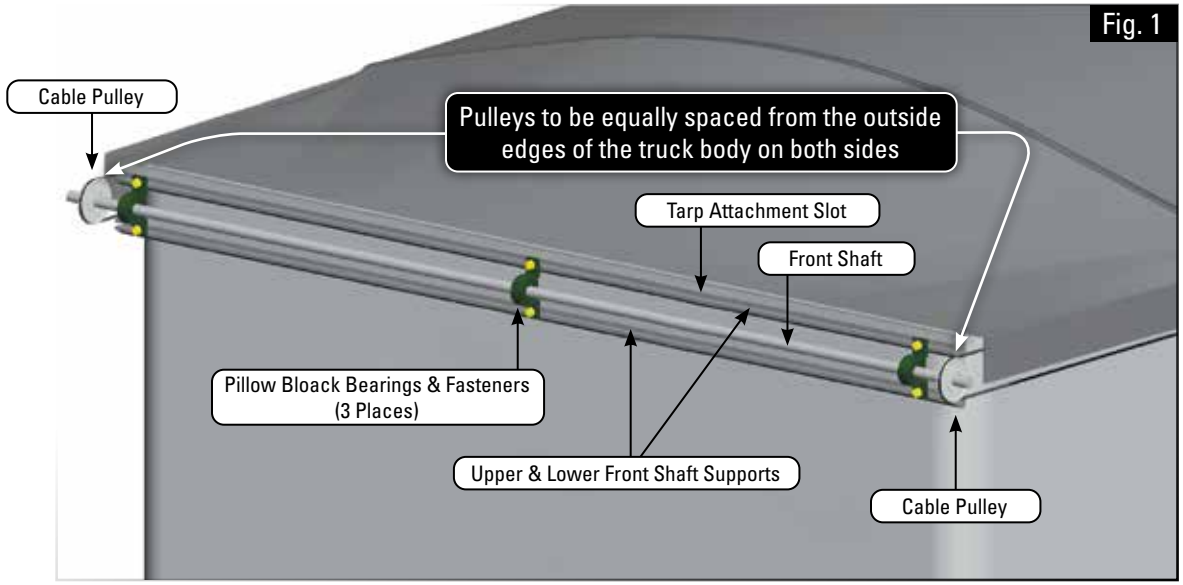
Installing the Front Shaft Assembly

METHOD A - Installing on a Radius (Rounded) Front Dump Trailer (Fig. 1).

Note: Depending on the type of dump trailer / dump body you have, there are 2 methods to install the front shaft.
Note: Each shaft gets fastened in 3 places with a total quantity of 6 bolts. Bolt sizes are 3/8" diameter x 2-1/2" long or 3/8" diameter x 3-1/2" long.

Parts you will need:

- Full Front shaft support
- Shaft (1)
- Shaft covers (2) if needed. (Use shaft covers for full weld on trailer dump body).
- 4" Cable pulley (2)
- 5/16" x 2-1/4" hex bolts (2)
- 1" Lock collars (2)
- Pillow block bearings (3)
- 3/8" x 2-1/2" hex bolts (6)
- 3/8" flat washers (12)
- 3/8" lock washers (12)
- 3/8" hex nuts (12)
- 3/8" x 1-1/2" hex bolts (6)
- Corner braces (2) if needed. (Use corner braces only when corner radius of dump body is 12" or more [not supplied]).



Installing the Front Shaft Assembly

Step 1 - Install Full Front Shaft Support: Locate the mid-point at the top-front of the dump body. Also, locate the mid-point of the front assembly. Align the mid-point of the front assembly with the mid-point of the dump body and clamp the front assembly in place so that the top of the cable pulley is 1" below the driver's side and passenger's side top rails of the dump body (Fig 2).

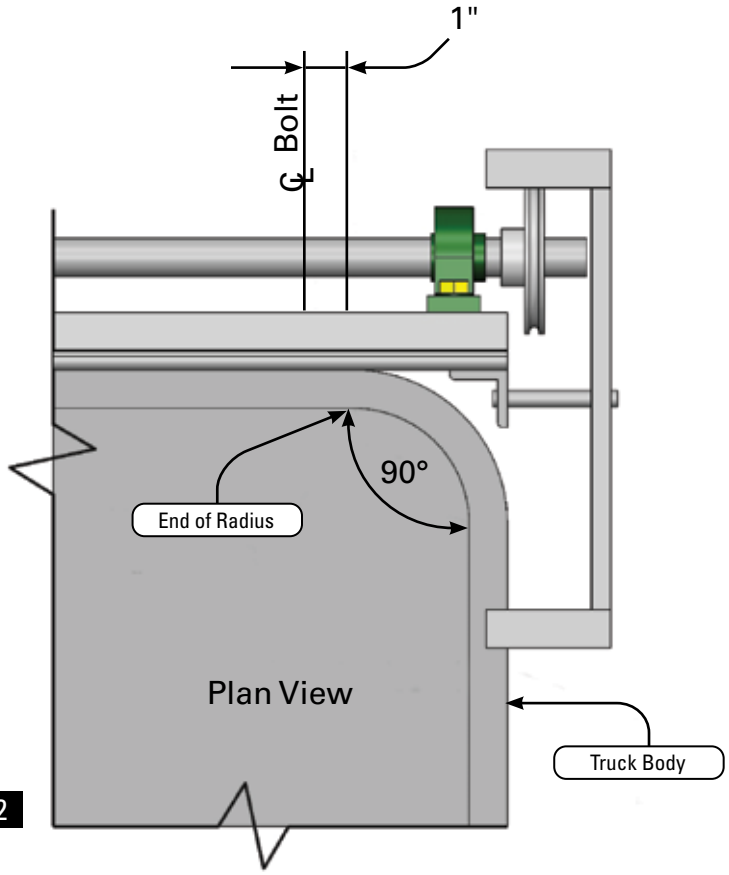


Fig. 2

Note: Electric front assembly installation may require a lifting device or the help of another person.
Note: The front assembly must be square with the side rails for the tarp to function properly. Place metal shims (not furnished) between the front assembly and the dump body to obtain squareness.

Installing the Front Shaft Assembly

Step 2: With the front assembly clamped and aligned, drill 3/8" holes through the front assembly and the front rail of the dump body.

Bolt the front assembly to the dump body using the 3/8" x 2-1/2" long bolts, flat washers, lock washers, and nuts. Be sure the shims, if needed are in position prior to tightening the fasteners.

If the corner radius of the dump body is greater than 12", install the corner braces (Fig. 3).

Step 3: Hold the driver's side brace in position against the side of the dump body and against the front assembly. The corner brace must be level with the dump body top rail. Select two locations where the rear of the corner brace can be fastened to the dump body by using self-tappers or welding.

Step 4: Repeat instruction in Step 3 on the passenger side.

Note: Slide starter panel in the full weld support before installing front cable pulley.

Step 5: Install pillow block bearings, then install starter panel (different than other panels). Install front shaft and then install shaft through bearings.

Step 6: Slide on a lock collar, shaft cover, and middle bearing, then another shaft cover and lock collar. Then slide into passenger side bearing. Install pulleys on each end of the shaft. Secure passenger pulley by using 5/16" hex bolt. Install electric motor.

Step 7: Align pulleys by measuring the same distance from cab shield. Slide lock collars tightly against bearings and secure by tightening Allen screw.

Step 8: Make certain all pillow block bearing bolts are secured tightly and grease all bearings. Install corner braces, if needed.

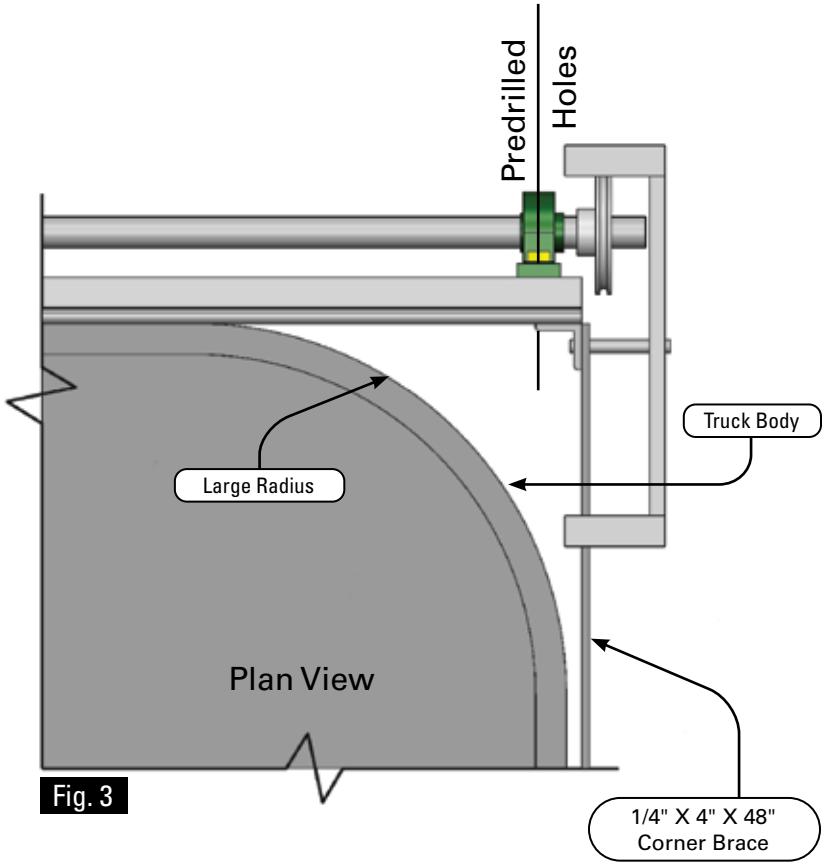


Fig. 3

CAUTION: The purpose of the corner brace is to prevent bending of the front assembly when tension is applied to the drive cables.

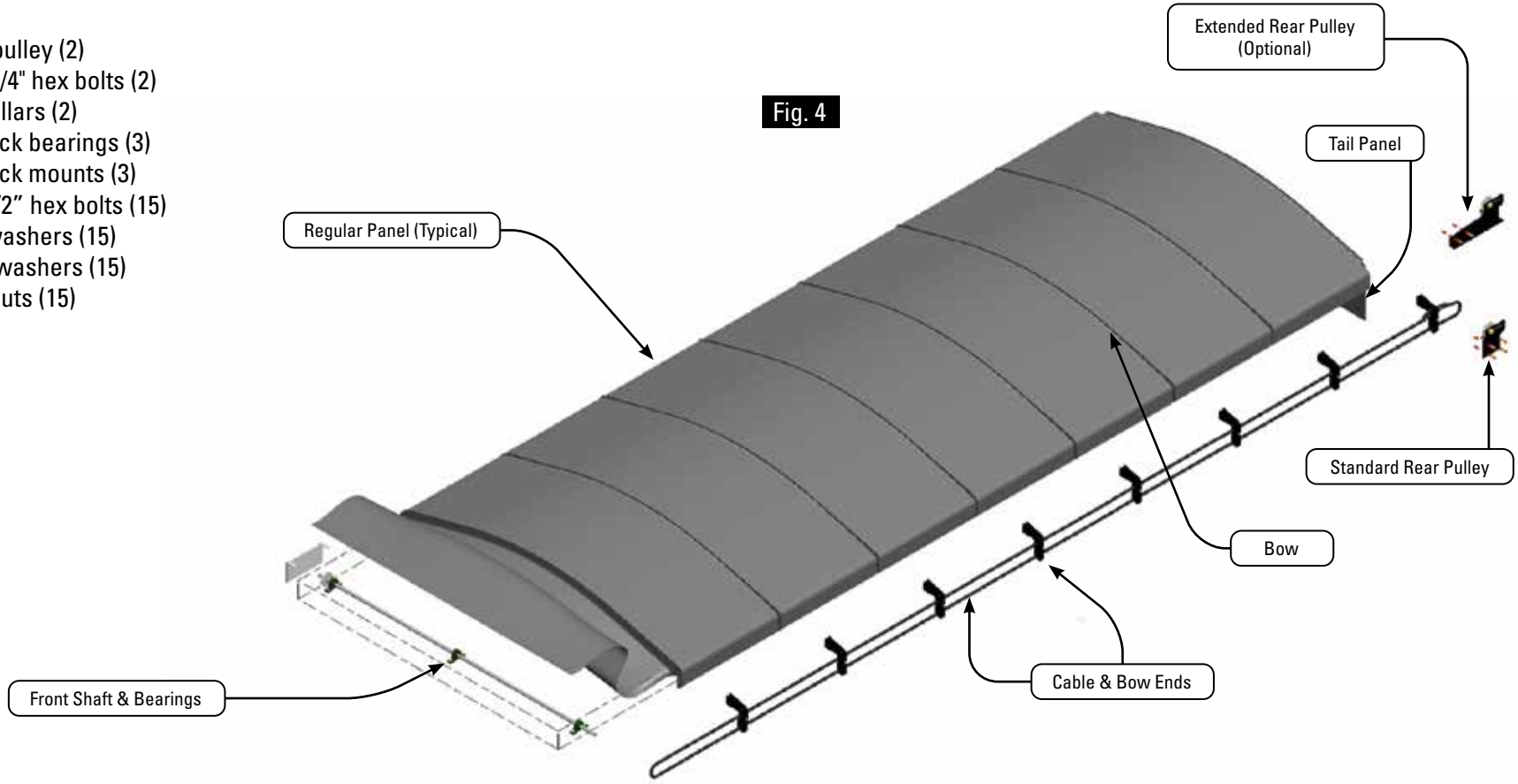
Installing Front Assembly

METHOD B - Installing Front Assembly Inside Cab Protector (Fig. 4)

Parts you will need:

- Shaft (1)
- 4" Cable pulley (2)
- 5/16" x 2-1/4" hex bolts (2)
- 1" lock collars (2)
- Pillow block bearings (3)
- Pillow block mounts (3)
- 3/8" x 1-1/2" hex bolts (15)
- 3/8" flat washers (15)
- 3/8" lock washers (15)
- 3/8" hex nuts (15)

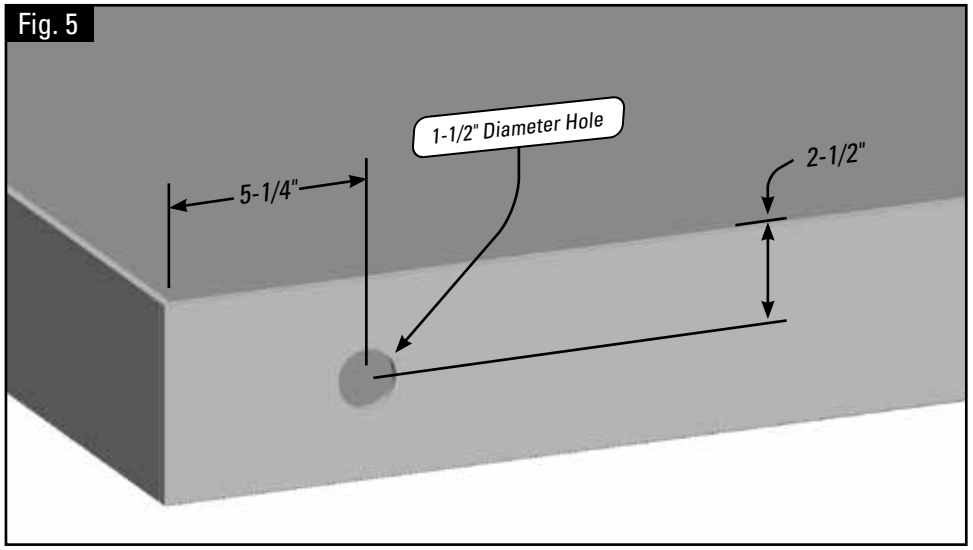
Fig. 4



Installing Front Assembly

Step 9: Make a center mark 2-1/2" down and 5-1/4" back from front of cab shield on driver's side. Make a 1-1/2" diameter hole by using a hole saw (Fig. 5).

Fig. 5



Step 10: Repeat Step 9 on passenger side.

Step 11: Bolt pillow block bearings on the 4" x 4" angle (provided) by using 1-1/2" bolts supplied. Now align center of bearing opening with the center of the 1-1/2" hole on the side of the cab shield. Using a 3/8" bit, drill through hole provided on 4" x 4" angle. Fasten with 1-1/2" bolts supplied.

Step 12: Repeat Step 11 on passenger's side. You are now ready to install the front shaft assembly.

Step 13: From inside the cab shield, feed the shaft through the driver's side pillow block bearing. Now slide the following onto shaft: a lock collar, middle pillow block bearing, another lock collar, and passenger side pillow block bearing.

Step 14: Install pulleys on each end of shaft. Secure the pulleys on the shaft using 5/16" bolt and nut on passenger side and 5/16" nut and bolt on driver's side. Align pulleys by measuring the same distance from cab shield on each side. Next, slide lock collars tightly against bearings and secure by tightening the Allen screw.

Note: Make sure all pillow block bearing bolts are secured tightly and grease all bearings.

Installing the Direct Drive Motor

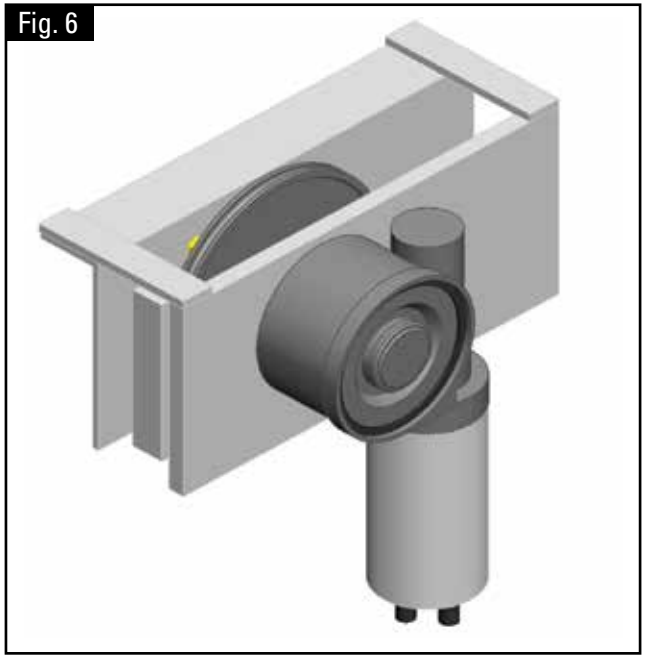
Step 1: Starting on the passenger side, feed shaft through flange bearing. Once shaft is though the passenger side flange bearing, slide on a lock collar, then the center bearing, then another lock collar. Once those are slid onto the shaft you can proceed to slide shaft through driver's side flange bearing. You will then install the passenger side pulley onto the shaft (hub facing in) using the 5/16: bolt supplied. After passenger side pulley is secured to the shaft, proceed to the driver's side.

Step 2: Drill pulley out with a 5/16" drill bit, then slide it onto the shaft (hub facing out). Next, mount the motor to the motor bracket using the grade 8, 5/16" x 1" bolts and nuts with a lock washer. Once motor is secured to motor bracket, connect it to the shaft. Slide the motor into the hollow end of the shaft, lining up the holes in the pulley motor and shaft. Secure motor and pulley using the grade 8, 5/16" x 2-1/4" bolt (Fig. 6). Once secure, equally space pulleys on both sides of cab protector.

Step 3: Once pulleys are equally spaced, slide lock collars over to each flange bearing and tighten Allen screws. Next, mount the pillow block bearing in the middle using the supplied hardware. Finally, grease all bearings.

Step 4: Once motor bracket is secured and pulleys are evenly spaced, proceed to installing passenger pulley bracket.

Fig. 6

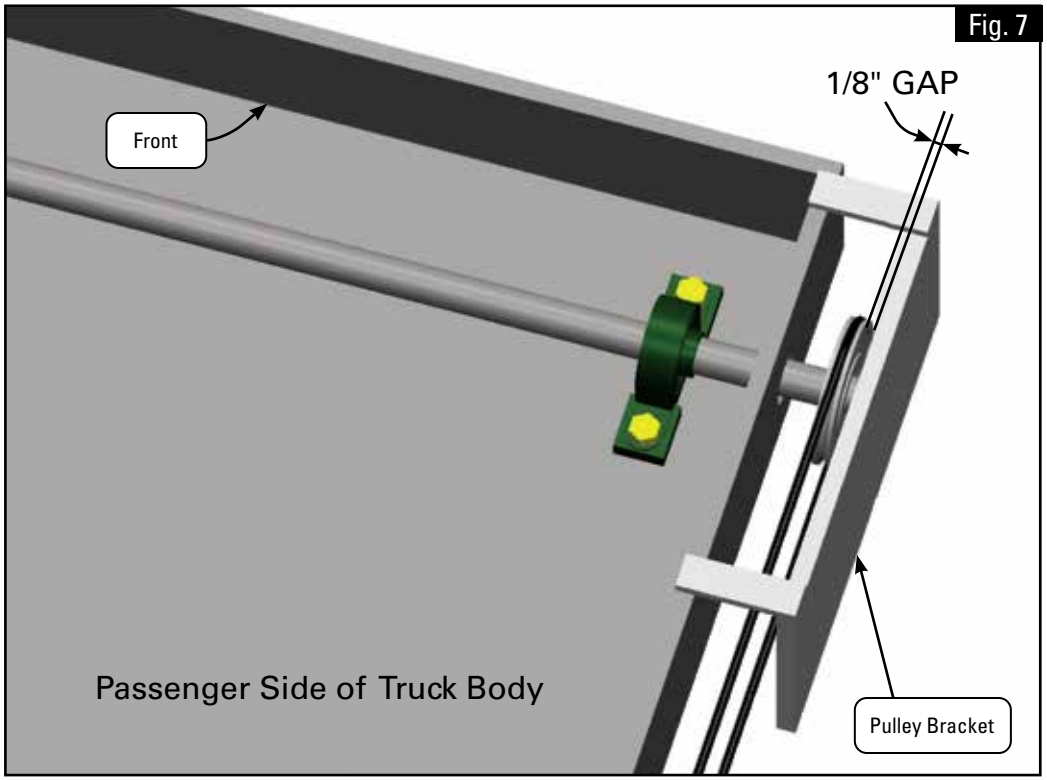


Installing the Passenger Pulley Bracket

Step 1: Measure on driver's side from front of cab protector to back of motor bracket.

Step 2: Proceed to passenger side and use same measurement from driver's side (Fig. 7).

Step 3: Mount bracket leaving an 1/8" of space between the shaft end and the bracket face.



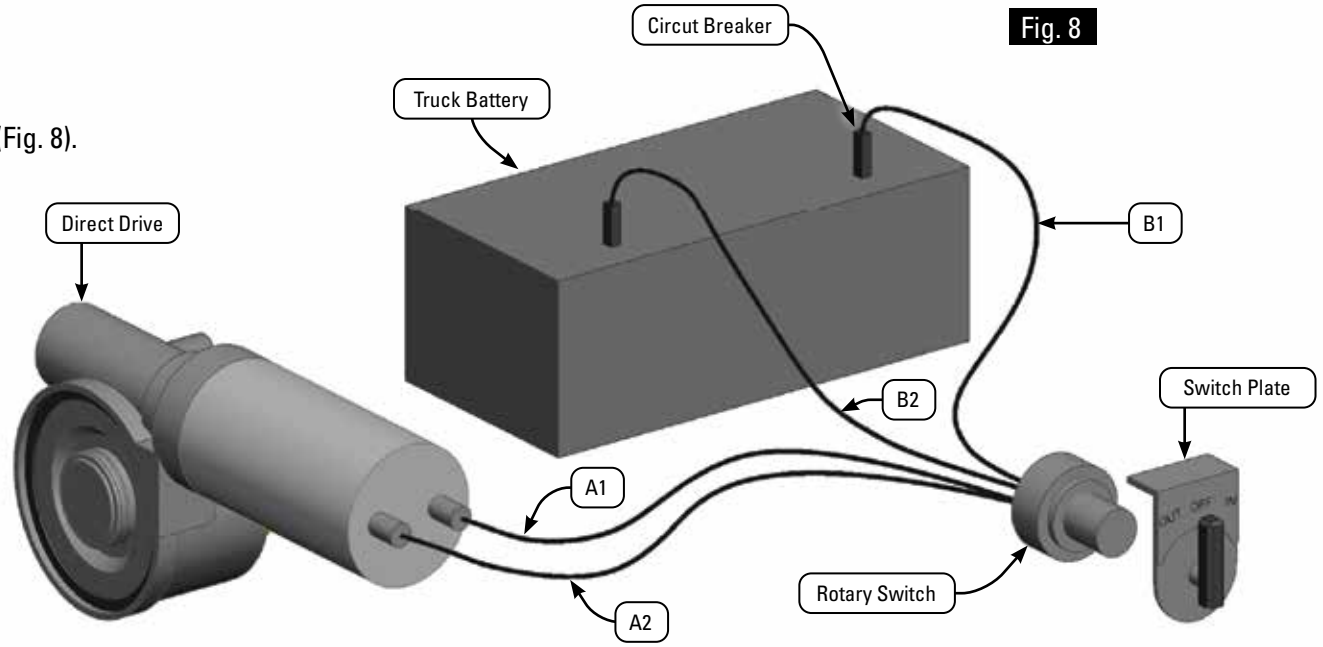
Installing the Electrical Controls

Parts you will need:

- Rotary switch package (1)
- #6 x 1/4" wire connectors (7)
- #6 x 3/8" wire connectors (1)
- #6 wire
- Circuit breaker
- Optional tractor-trailer connector (1)
- Quick disconnect (1)

Step 1: Peel decal and place on the switch plate (Fig. 8).

Fig. 8



Step 2: Find a convenient place on the driver's side of the truck or tractor, under the dashboard, to mount the switch plate. Using the switch plate as a template, mark and drill two holes for the sheet metal screws.

Step 3: Mount the switch plate using the two sheet metal screws.

Step 4: Remove the switch handle and fastening nut from the rotary switch. Pass the rotary switch's operating shaft through the hole in the switch plate from behind the plate. Replace the nut and tighten it to secure the switch to the plate. Replace the switch handle.

Installing the Electrical Controls

Step 5: Measure the wiring distance from the gearmotor to the rear pivot point of the body, then from the pivot point through the truck body to the switch in the cab. If possible, run the wiring along an existing wire harness. Add about 6 inches to this figure. Cut two pieces of #6 wire to this length. Mark one wire "A1," and mark the other wire "A2" (Fig. 9A).

Note: Use same method for a tractor-trailer as for a truck, and in addition, wire in the tractor-trailer connector (Fig. 9B).

Fig. 9A

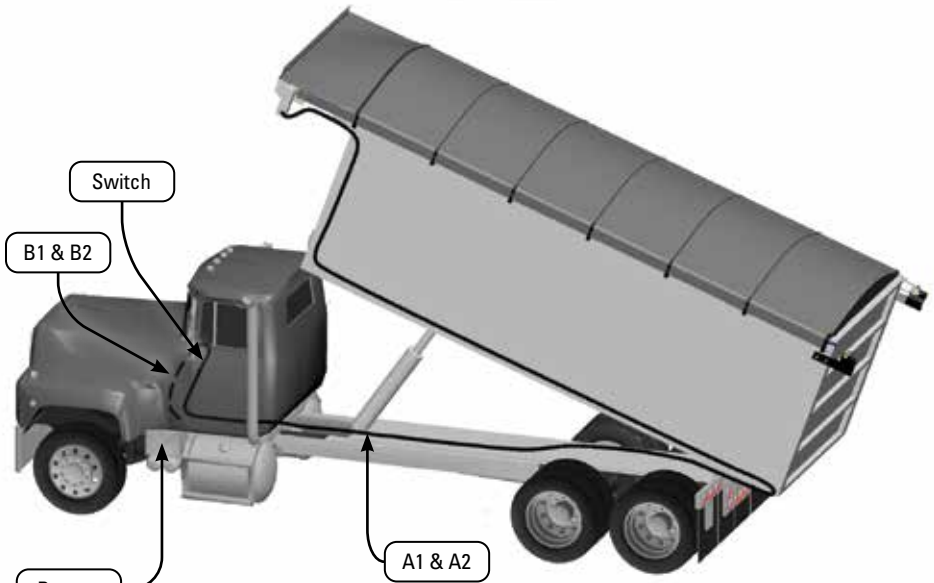
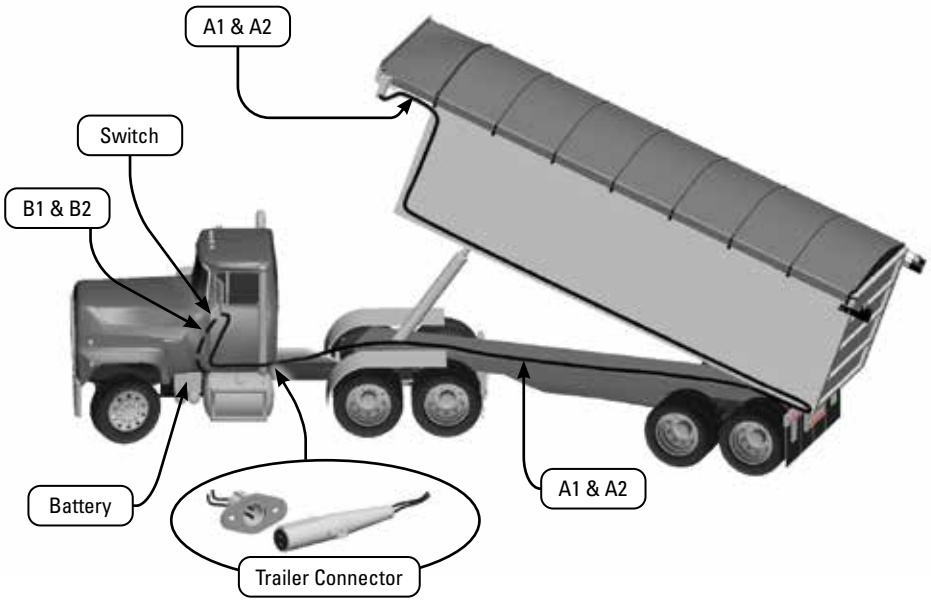


Fig. 9B



Installing the Electrical Controls

Step 6: Run the wiring from the gearmotor to the rotary switch, through the same places as existing wiring runs, and secure using wire ties provided. Make sure to protect the wiring throughout its entire length so that no piece of wiring is left exposed. Be cautious of sharp edges.

Step 7: Fasten #6 x 1/4" wire lugs onto the gearmotor ends of wires A1 and A2. Attach these two lugs to the screw terminals of the gearmotor. Do not allow the motor terminals to turn while tightening the nuts (refer to Fig. 8, 9A and 9B also for instructions 7 through 16).

Step 8: Fasten #6 x #10 wire lugs onto the switch ends of A1 and A2. Attach these two lugs to the marked terminals of the rotary switch.

Step 9: Measure the wiring distance between the rotary switch and the truck's battery. If possible, run the wiring along an existing wiring harness. Add about six inches to this figure. Cut two pieces of #6 wire to this length and mark them "B1" and "B2."

Step 10: Run wires B1 and B2 to the truck's battery.

Step 11: Fasten #6 x #10 wire lugs to the switch ends of wires B1 and B2. Connect these ends to the marked terminals on the rotary switch.

Step 12: Loosen the wire connections to the battery.

Step 13: Fasten a #6 x #10 wire lug to the battery end of wire B1 and fasten the #6 x 3/8" lug to wire B2.

Step 14: Connect the end of the circuit breaker with the 3/8" hole to the positive post of the battery. Tighten the battery connection.

Step 15: Connect wire B1 to the other end of the circuit breaker.

Step 16: Connect wire B2 to the negative side of the battery. Re-tighten the wire connections to the battery.

CAUTION: Since wires A1 and A2 are shorted when the rotary switch is in the OFF position, it is crucial that the wires be connected properly to the switch to avoid shorting B1 and B2.

Step 17: To test direction, momentarily flip the rotary switch to "OUT." The tarp should cover the dump body. Let the switch return to the center position. If the direction is not correct, reverse the wire connections at the gearmotor.

Installing the Rear Pulley Assemblies

Parts you will need:

- Rear pulley assembly, driver's side *
- Rear pulley assembly, passenger's side *
- 3/8" x 6" bolts (6)
- 3/8" hex nuts (6)
- 3/8" lock washers (6)
- 3/8" flat washers (6)
- 1/2" x 11" x 4" aluminum spacer plate (shim) cut to size as necessary

* Standard or optional extended rear pulley assemblies are installed in the same manner. Also, be sure cable pulley is in the forward position when installing cable. Regular pulleys are needed where oversized hinges or barn gates are installed on trailer.

Step 1: Clamp the driver's side rear pulley assembly to the rear of the dump body so that the top of the cable pulley is 7/8" below the top rail. The pulley should be positioned as far to the rear as possible to get maximum coverage of the dump area (Fig. 10).

Note: Mount Pulley the same way on the other side.

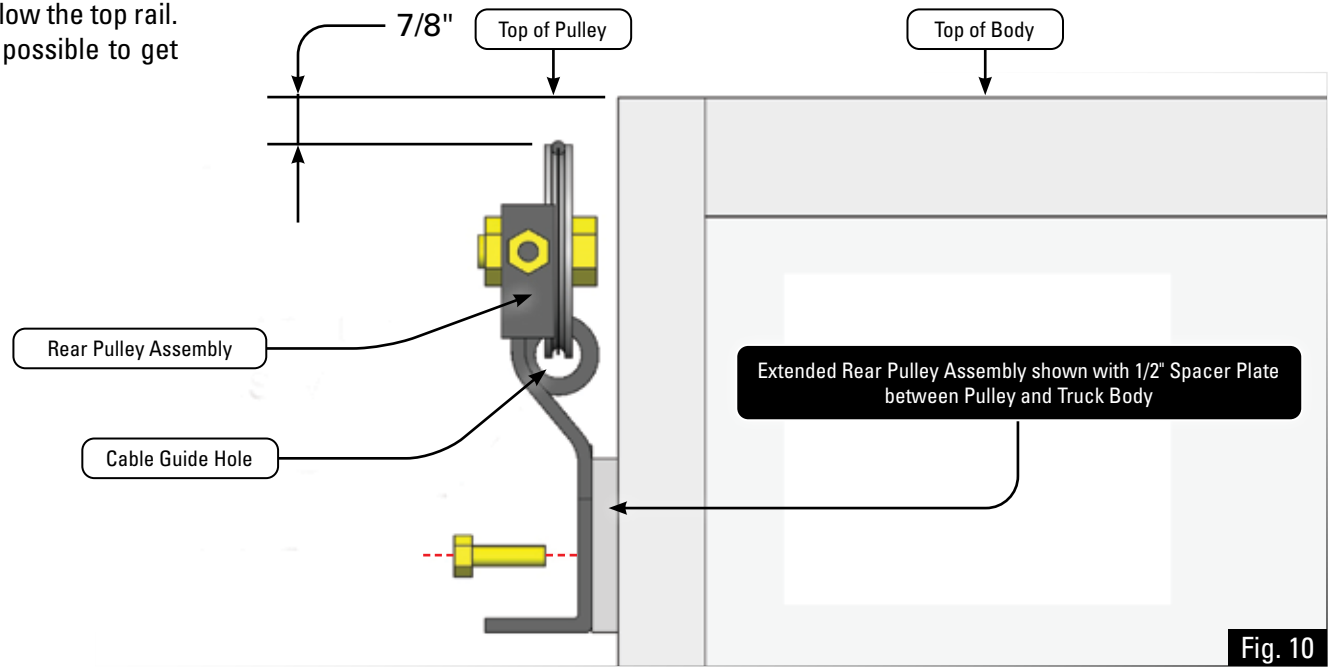


Fig. 10

Installing the Rear Pulley Assemblies

Step 2: When the pulley assembly is clamped in position, mark the location of the mounting holes using the predrilled holes in the bracket as a guide. Unclamp the pulley assembly and lay it aside temporarily.

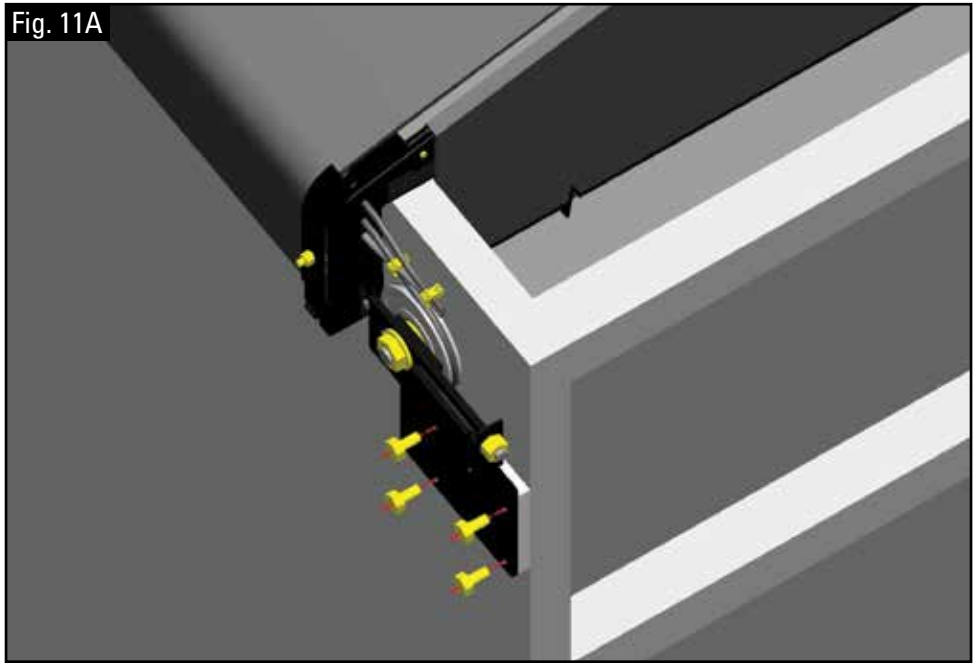
Step 3: Drill 3/8" holes through the dump body. Bolt the driver's side rear cable assembly into position using the 3/8" x 6" long bolts, flat washers, lock washers, and nuts provided. Cut off excess bolt length on inside. (Fig. 11A for regular rear pulley assembly; see Fig. 11B for extended rear pulley assembly).

Step 4: Repeat on passenger side.

Note: The width between the rear pulley assembly must be the same as the distance between the pulleys on the front assembly. Use aluminum shims supplied between the mounting bracket and the dump body to accomplish this.

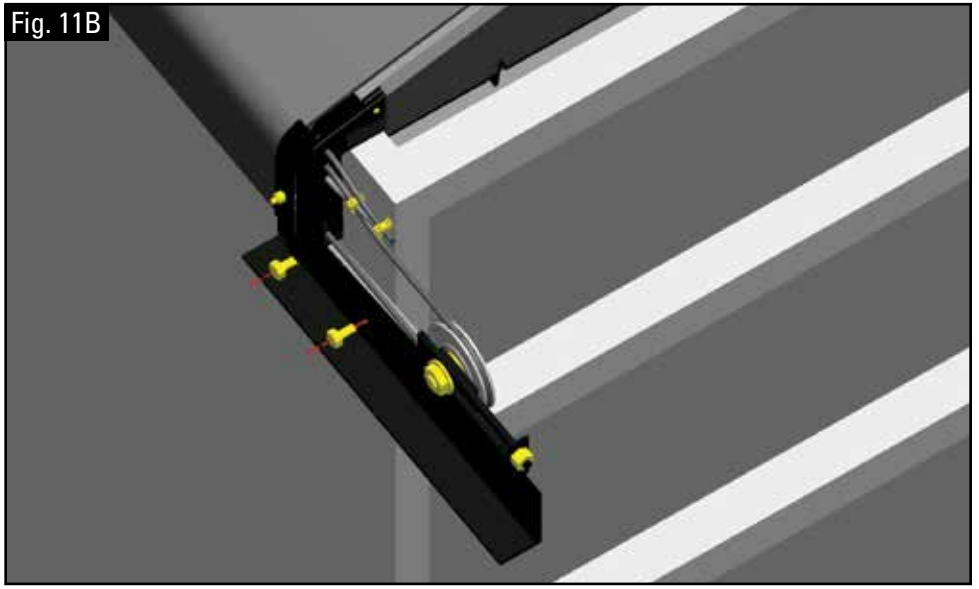
Regular Rear Pulley Assembly

Fig. 11A



Extended Rear Pulley Assembly

Fig. 11B



Note: The exact positions of holes and bolts are to be determined at time of installation. Mount spacer plate between pulley assembly and truck body.

Installing the Tarp Assemblies (Preassembled from factory)

If you are installing smart tarp on a radius front trailer, you should have already inserted starter panel in the front shaft support extrusion.

Note: All panels will be identical on square front truck bodies. On radius, front trailers, your kit will have a starter panel and an adjuster panel which are different than the other panels.

Parts included:

- Bows
- Bow ends
- Panels

Step 1: Bows, bow ends and panels will come preassembled unless specified otherwise when ordered (Fig. 12). If bows, bow ends and panels are not preassembled, please continue with steps 2 thru 5 (Fig. 13).

Step 2: Insert bow ends into bow making sure they are all installed all the way into the bow.

Step 3: Install anti-lift guides.

Step 4: Once bow ends are inserted into one end, you are now ready to slide panels in. Start with tail panels first, then slide in remaining panels by alternating with one panel and one bow until the last panel is in.

Step 5: Now insert the other side of bow ends. (note: trim plastic tubing even with end of tarp panel).

Step 6: You are now ready to lift tarp assembly to the top of the truck body, close to the front.

Fig. 12

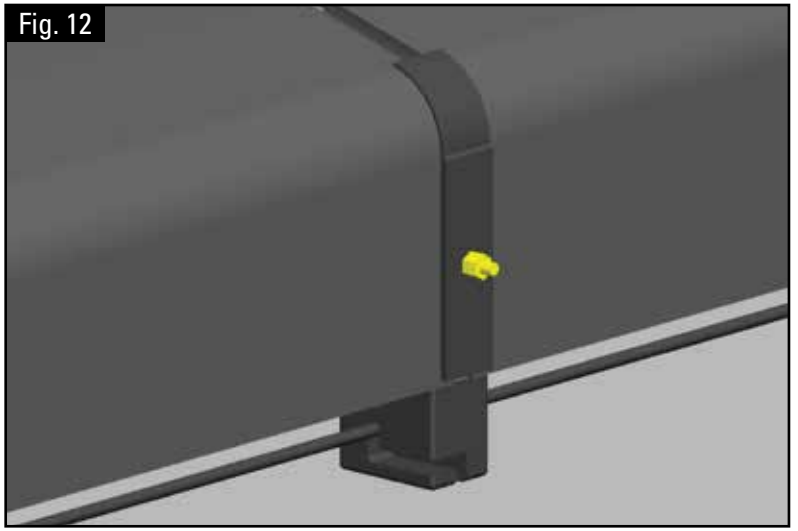
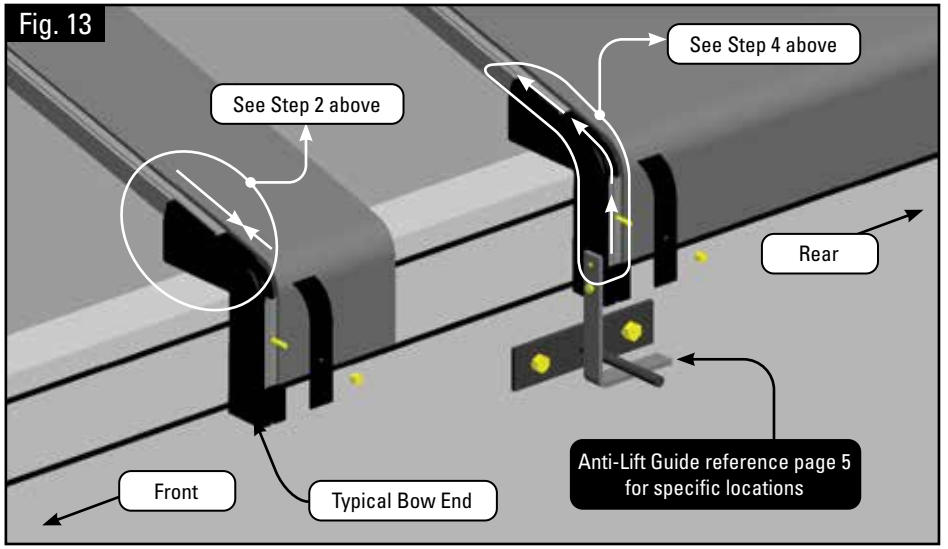


Fig. 13



Installing the Cable Assembly

Parts you will need:

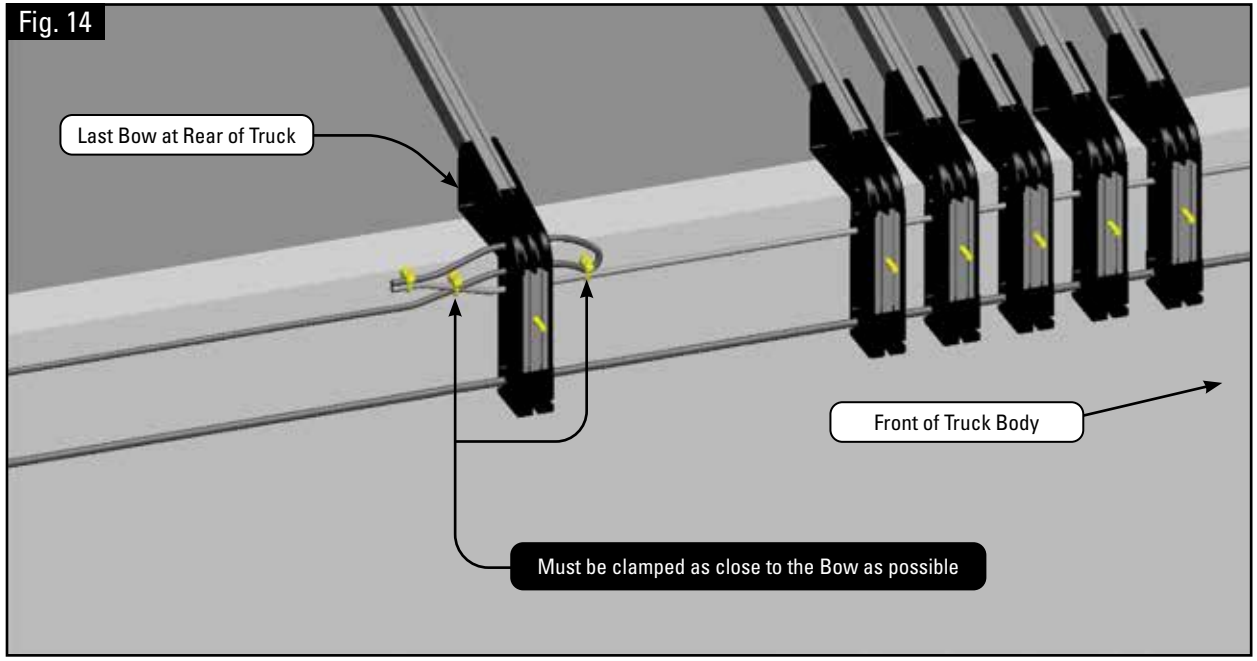
- Cables (2)
- Cable Clamps (6)

Step 1: Insert cable over rear pulley and through guide hole, and then over front pulley.

Step 2: Now run cable through bows until you reach last bow.

Step 3: Attach cable clamp nuts and tighten firmly up against the rear bow (Fig. 14).

Fig. 14



Step 4: Be sure the last bow is the same distance from the front of cab shield on both the driver's side and passenger's side or the system will not run evenly.

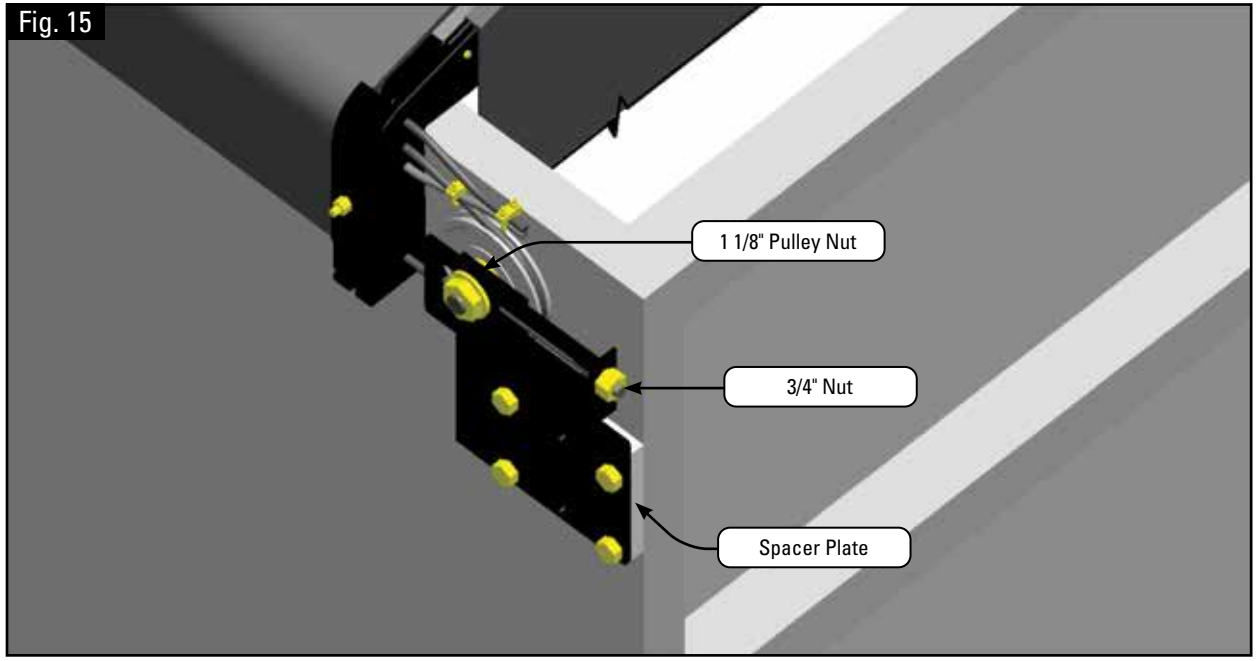
Tightening Cables

Step 1: Using a 3/4” wrench, turn tension nut until you can grab the cables 3 feet back from rear pulleys and touch them together (Fig. 15).

Step 2: Lock in place by tightening the pulley nut with a 1-1/8” wrench.

CAUTION: Do not over tighten. Damage may occur to the front shaft assembly.

Fig. 15



Installing the Smart Tarp on the Body

You are now ready to secure your tarp.

Step 1: Engage motor and run out tarp to within 4" of rear pulley.

Step 2: Now, go to the front and pull tarp forward until all slack is out between the bows.

Step 3: Fold first panel under and secure with flat stock or wind deflector (optional).

Step 4: Once panel is evenly spaced and wind deflector is installed, proceed to cutting panel around motor. Hold panel out over motor so it is taut. Now cut the panel leaving an inch past the motor bracket and cut to just behind the motor. Then make an angle cut to finish the cutting of the panel.

Step 5: After panel is cut, secure it with screws provided. Remember to fold panel under so the raw edge from cut is hidden (Fig. 16).

Step 6: For dump trailers, measure between first and second bow, and cut adjustment panel accordingly.

Note: When the tarp is fully closed, it is very important that the last bow be at least 3" from pulleys. The system must stay very taut. Damage will occur to the system if there is any slack between the bows.

Step 7: Install anti-lift posts, which are held in with wood bolts supplied. Leave 2" horizontal gap and 1/2" vertical gap between post and hold down guide (Fig. 17).

Fig. 16

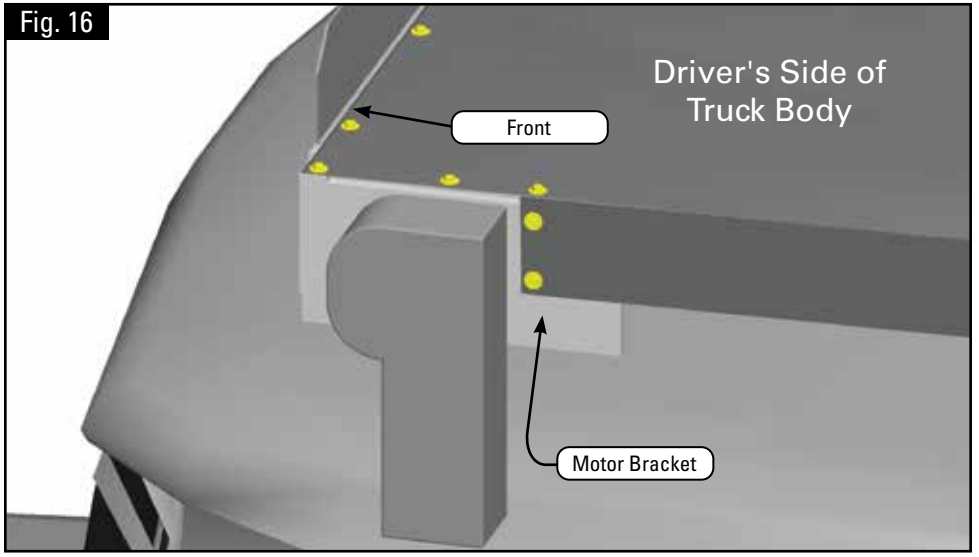


Fig. 17