

TARPING SYSTEMS & ACCESSORIES

P/N 1127045 Rev. A

DBR Donovan Belt 'n Ratchet

READ BEFORE INSTALLING

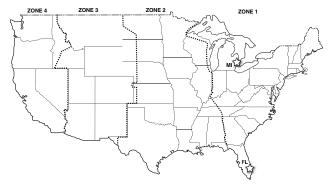
3353 SE GRAN PARK WAY STUART, FL 34997 PHONE 1-800-327-8287 FAX 772-287-0431 www.shurco.com

SHOP ONLINE: www.shopshurco.com

PREPAID FREIGHT POLICY. Shur-Co®, LLC will prepay freight on eligible orders* of Florida-manufactured Donovan products and tarp items shipped from our FL and MI branches that meet the dollar requirements for the shipping destinations specified below.

*Valid within the continental 48 states only. Applies to products purchased at standard pricing; any special pricing will void standard prepaid freight policy and will be addressed on a case-by-case basis. Does NOT apply to Bedliners or Shur-Co® Flatbed products.

INTO FL/MI: Freight prepaid on orders of \$2,500 or more or tarp-only orders of \$1,500 or more. INTO ZONES 1 & 2: Freight prepaid on orders of \$3,000 or more or tarp-only orders of \$2,500 or more. INTO ZONES 3 & 4: Freight prepaid on orders of \$6,000 or more or tarp-only orders of \$3,000 or more.



WARRANTY. We warrant all new products are free of defects in materials and workmanship.* This warranty is effective if products are properly installed and used for the purpose for which they were intended and applies to the original buyer only. Except as set forth above or in any product-specific warranty documentation, we make no other warranties, express or implied, including but not limited to warranties of merchantability of fitness for a particular use.

Returns of a product for warranty must be accompanied by a Return Merchandise Authorization number (RMA#), obtained by by calling Customer Service at 800-327-8287, and sent, freight paid by us, to Donovan, 3353 SE Gran Park Way, Stuart, FL 34997. All products returned without an RMA# will be refused. When we issue the RMA#, we will also issue a call tag to have

U.P.S. (or other freight company) pick up the product. C.O.D. returns not accepted. We will pay no storage fees for a warranty product return prior to pick by us or the freight company. If a warranty product return is scheduled to be picked up by us, we will pick up the product at our earliest convenience. If a product returned is found, in our judgement, to be defective in material or workmanship, our obligation under this warranty is limited to the repair or replacement of the product, which will be made by us. Repair or replacement will be at our discretion, with replacements being made using current products performing in the equivalent function. Labor charges, other than those incurred at our factory, including, but not limited to, any labor to install a repaired or replacement product, are not covered under this warranty. All expenses associated with delivering defective products to our factory and delivering repaired or replacement products from our factory to the owner will be paid by us.

If the product returned is found, in our judgement, to be non-warrantable, the owner will be contacted to authorize repair work, purchase of a replacement product or return of the product, all of which will be at the owner's expense. Payment authorization must be received by us before any non-warrantable product is repaired, replaced or returned. All expenses associated with delivering the repaired non-warrantable product, a replacement product or the non-warrantable product from our factory to the owner will be paid by the owner.

In no event will we be liable for any damages of any kind to person, product or property, including but not limited to indirect, incidental, special, consequential or punitive damages, or damages for loss of profits or revenue, even if we have been advised of the possibility of such damages. There are no warranties for used products or products that have been repaired, altered, modified or subjected to misuse, negligence or accident. We will not repair or replace products that fail or malfunction due to ordinary wear and tear, except as expressly noted in a product-specific warranty. Use of non-Shur-Co®, LLC parts in conjuction with Shur-Co®, LLC products will void this product warranty.

*Certain products have specific warranties that differ from this warranty, for example motors and electronics. Product-specific warranty documentation is available for these items. In the event of a conflict between this warranty and a product-specific warranty, the product-specific warranty will govern.

RETURN POLICY. All sales final. See WARRANTY above for return details.

OTHER. All prices, product listings, sizes, weights and manufacturing details are subject to change without notice. No person is authorized to modify the foregoing conditions of sale whatsoever.

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SHUR-CO® of TEXAS

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SHUR-CO® UK, Ltd.

Unit 41 Rochester Airport Estates Laker Rd., Rochester, Kent ME1 3QX Ph +44 (0)1795.473499 Fax +44 (0)871.272.8278

For more info, log on to our website:

www.donovan-tarps.com

MESSAGE TO OWNERS

Thank you for buying this tarping system from Donovan™. We appreciate your confidence in our products. Please read and thoroughly understand this manual before installing and/or operating this system.

Pay particular attention to important safety and operating instructions, as well as warnings and cautions. The hazard symbol is used to alert users to potentially hazardous conditions and is followed by caution, warning or danger messages.

Failure to READ AND FOLLOW INSTRUCTIONS could result in failure of your tarping system and/or personal injury. Your trailer requirements may, however, call for minor variations to these instructions.

Please inspect your tarping system periodically. Repair or replace worn or damaged parts to your system.

QUESTIONS? CALL OUR HELP LINE:

1-800-327-8287

MON-FRI 8 AM-5 PM EASTERN TIME

SAFETY

We at Donovan™ are concerned with your safety and the safety of all those operating this system. Therefore, we have provided safety decals at various locations on your tarping system. Keep decals as clean as possible at all times. Replace any decal that has become worn or damaged, painted over or otherwise difficult to read. Replacement decals are available through Donovan™ dealers.

SAFETY INSTRUCTIONS

- 1. Always wear safety glasses during installation.
- 2. Keep body and clothing clear of moving parts.
- 3. Do not walk on or stand on end caps.
- 4. Return bows to secure position after operation.
- 5. Use only OSHA-approved ladders or scaffolding during installation process.
- 6. Close tarp securely before traveling at highway speed.
- 7. No other use of this system is authorized, except as designed.

RUST PREVENTION

To prevent rust, paint all exposed metal, such as weld seams and/or metal exposed by grinding or cutting, with corrosion-resistant paint.

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TOOLS REQUIRED

- 1. Welder
- #3 Phillips Insert Bit or #3 Phillips Screw Driver (use with 13/64" drill bit)
- 3. #2 Phillips Screw Driver Bit
- 4. Air or Electric Wrench w/9/16" Socket
- 5. 9/16" Combination Wrench
- 6. 3/8" Drill
- 7. 3/16" Drill Bit
- 8. 13/64" Drill Bit
- 9. 1/4" Drill Bit
- 10. 5/16" Drill Bit (for 3/8" self-tapping screws)
- 11. 3/8" Drill Bit (for 3/8" cap screws)
- 12. 13/32" Drill Bit
- 13. Band Saw or Hack Saw
- 14. Grinder
- 15. Hammer
- 16. C-Clamps
- 17. Tape Measure

Hardware Identification





1704743 - Self-Drilling Screw - #10 x 1/2"





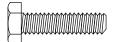
1700398 - Self-Drilling Screw - 1/4" x 3/4"





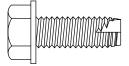
1704768 - Self-Drilling Screw - 1/4" x 3/4"





1700381 - Cap Screw - 1/4" x 1"





1700400 - Self-Tapping Screw - 3/8" x 1"





1700408 - Hex Nut - 1/4"





1700407 - Hex Nut - 3/8"





1700436 - Lock Washer - 1/4"





1700434 - Lock Washer - 3/8"





1701176 - Flat Washer - 3/8"

NOTE: Wherever 3/8" x 1" self-tapping screws **3** are used with lock washers and nuts, drill 13/32" holes. Self-tapping screws used without washers and nuts require a minimum wall thickness of 3/16". Drill 5/16" holes.

TARP INSPECTION

Tarp Length. Determine tarp length with slight tension applied. Compare actual tarp length with length stated on sheet attached to tarp. If tarp length does not match length on sheet, do not proceed. Call your local dealer or Donovan™ Customer Service at 1-800-8287.

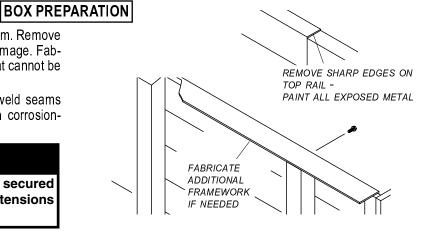
Prepare your box before installing your tarping system. Remove or grind any sharp edges smooth to prevent tarp damage. Fabricate additional framework if top rails have gaps that cannot be repaired.

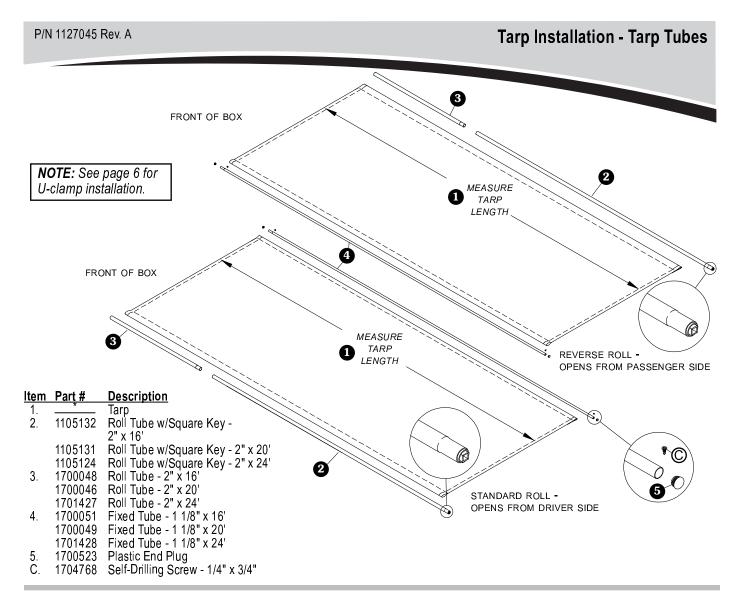
To prevent rust, paint all exposed metal, such as weld seams and/or metal exposed by grinding or cutting, with corrosion-resistant paint.

A

CAUTION

Box extensions (tip tops), if used, must be secured to truck box. System could blow off if box extensions are not secured to box.



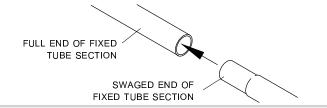


STEP 1: Open tarp and stretch tight. Measure and compare with tarp length specified on sheet attached to tarp. Do not proceed with installation if tarp length doesn't match length specified on sheet. Call Donovan™ or your local dealer for alterations or a replacement tarp.

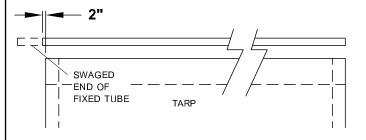
NOTE: Tarps cannot be returned at Donovan's expense beyond this point. Damaged tarps may be returned for repair or replacement at owner's expense.

FIXED TUBE

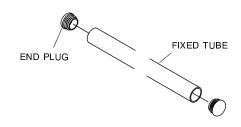
STEP 2: For boxes over 24', insert swaged end of fixed tube section into full end of second tube section. Align tubes, weld and grind smooth.



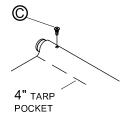
STEP 3: Cut fixed tube 2" longer than tarp, removing swaged end. Grind cut edge smooth.



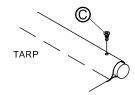
STEP 4: Install end plugs into ends of fixed tube.



STEP 5: Insert fixed tube into 4" tarp pocket. Extend tube 1" past tarp edge and secure with screw ...

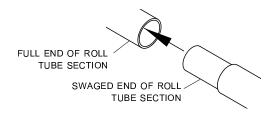


STEP 6: Stretch tarp along fixed tube and fasten second screw on other end of fixed tube.



ROLL TUBE

STEP 1: Insert swaged end of roll tube section into full end of second tube section. Align tubes, weld and grind smooth.

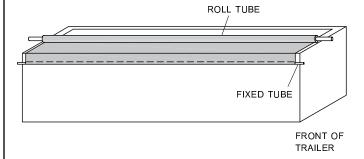


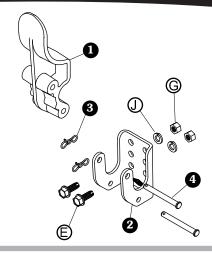
STEP 2: Insert roll tube into 5" tarp pocket with square key at rear of tarp.



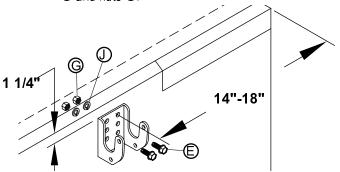
TIP: Inflate 5" tarp pocket with air chuck while inserting roll tube.

- STEP 3: Wind tarp completely around roll tube, then lift rolled-up tarp assembly onto fixed tube side of box.
- STEP 4: Center tarp on box, with fixed tube hanging over edge of box. Square up tarp and fixed tube.





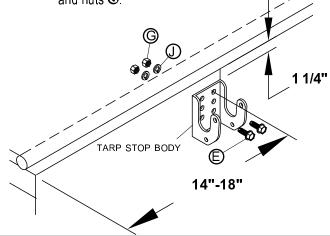
<u>ltem</u>	Part #	Description
1.	1705775	Easy-Off Aluminum (Cast)
		Tarp Stop Upright
2.	1100833	Easy-Off Tarp Stop Body
3.	1704380	Bowtie Cotter Pin
4.	1703604	Clevis Pin - 5/16" x 2 7/8"
E.	1700400	Self-Tapping Screw - 3/8" x 1"
G.	1700407	Hex Nut - 3/8"
J.	1700434	Lock Washer - 3/8"



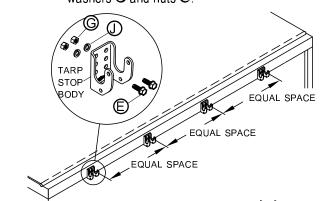
NOTE: See note under Hardware Identification on page 1 for drill size.

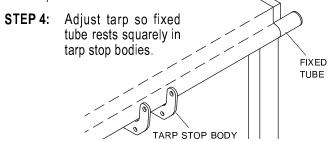
NOTE: Install tarp stop body on vertical surface. Fasten through pair of holes that best fit top rail configuration.

STEP 2: Square up tarp along length of box. Locate second tarp stop body 14" to 18" from rear edge of fixed tube and 1 1/4" below top of side rail. Mark and drill holes and fasten to box with screws (3), lock washers (4) and nuts (6).

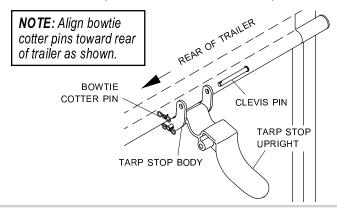


STEP 3: Equally space remaining tarp stop bodies. Mark and drill holes and fasten to box with screws ③, lock washers ④ and nuts ④.





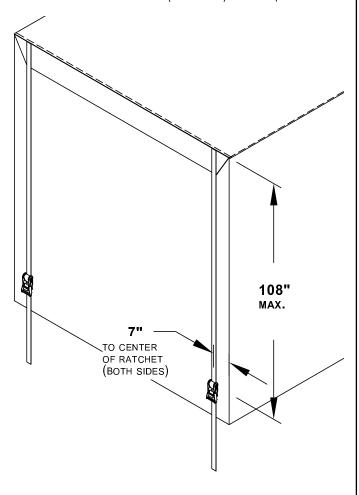
STEP 5: Fasten tarp stop uprights to tarp stop bodies with clevis pins. Secure with bowtie cotter pins.



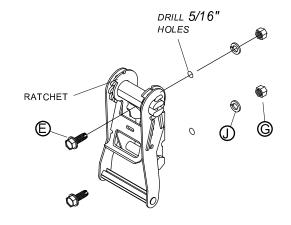
Tail Flap

P/N 1127045 Rev. A

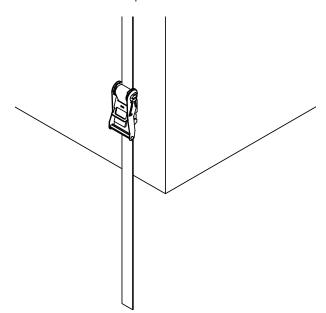
STEP 1: At rear of trailer, center ratchets 7" from each edge of trailer and 108" (maximum) below top of trailer.



STEP 2: Using holes in ratchets as guide, mark and drill 5/16" holes. Fasten ratchets to trailer with screws ③, washers ④ and nuts ⑥.

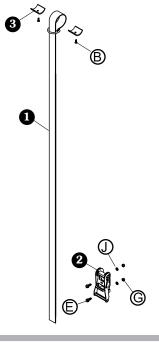


STEP 3: Slide straps through ratchets and tighten ratchets to secure rear flap.



STEP 4: Repeat steps 1, 2 and 3 at front of trailer.

P/N 1127045 Rev. A Hold Downs



 Item
 Part #
 Description

 1.
 1106774
 Strap Assembly - 9'

 2.
 1100457
 Ratchet - 2"

 3.
 1701354
 Plastic U-Clamp

 B.
 1700398
 Self-Drilling Screw - 1/4" x 3/4"

 E.
 1700400
 Self-Tapping Screw - 3/8" x 1"

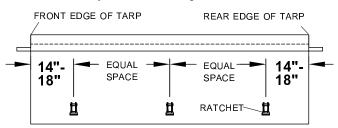
 G.
 1700434
 Hex Nut - 3/8"

 J.
 1700434
 Lock Washer - 3/8"

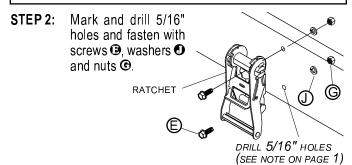
A CAUTION

Close tarp and secure ratchets before driving vehicle to prevent tarp from blowing off.

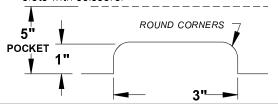
STEP 1: Locate first ratchet 14" to 18" from rear edge of tarp at convenient operating height. Locate second ratchet 14" to 18" from front edge of tarp at same height. Equally space remaining ratchets.



NOTE: Align ratchets with tarp stops on opposite side of box.

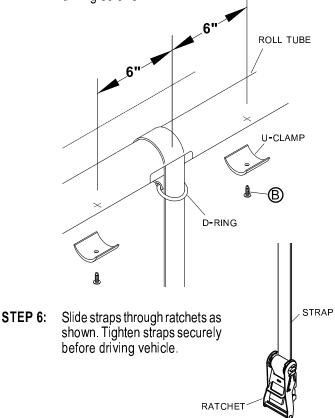


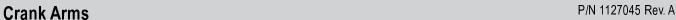
STEP 3: Cut 1" x 3" slots along bottom of 5" roll tube tarp pocket directly above ratchets. Round corners of slots with scissors.

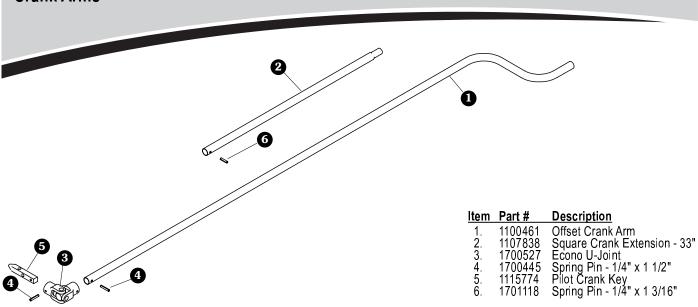


STEP 4: Extend roll tube 4" past farthest obstruction on rear of box. Cut front of roll tube to extend past front of tarp. Grind cut edge smooth.

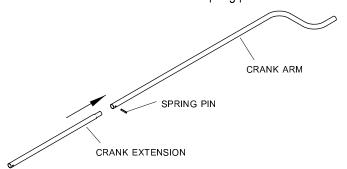
STEP 5: Mark U-clamp locations on both sides of cables or straps, 6" from center. Install U-clamps with self-drilling screws ①.



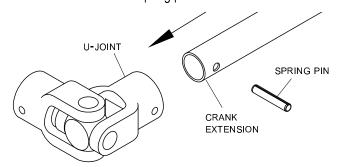




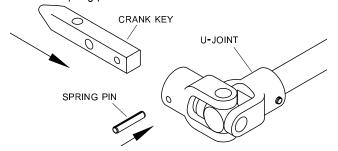
STEP 1: (Optional) Insert crank extension into crank arm. Fasten with 1/4" x 1 3/16" spring pin.



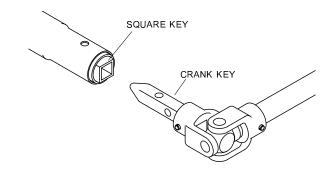
STEP 2: Insert crank arm/extension into U-joint. Secure with 1/4" x 1 1/2" spring pin.



STEP 3: Insert crank key into U-joint. Secure with 1/4" x 1 1/2" spring pin.

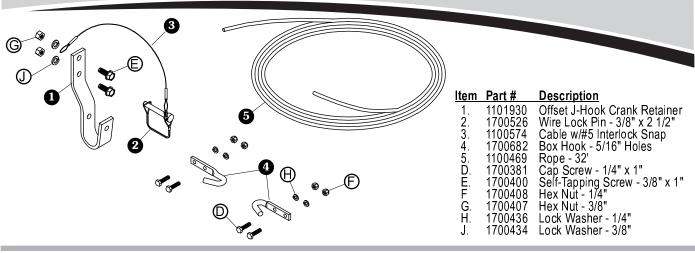


STEP 4: To roll tarp open, insert crank key into square key on roll tube at rear of box. Remove crank arm after opening tarp.

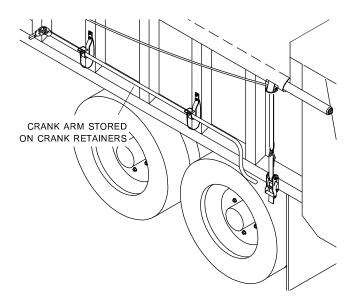


Removable crank operation: Open tarp with removable crank arm, remove crank arm and close tarp with rope. Store crank arm on box.

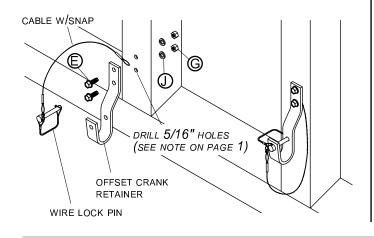
P/N 1127045 Rev. A Removable Crank



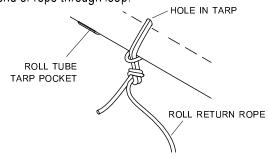
STEP 1: Locate and align crank retainers in convenient location to store crank arm.



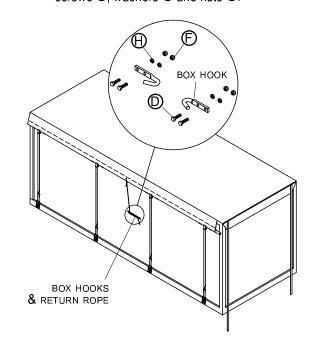
STEP 2: Mark and drill holes and fasten crank retainers to side of box with screws ③, lock washers ④ and nuts ⑥. Fasten cable between crank retainer and box.



STEP 3 Melt hole in tarp at center of box. Tie loop in end of rope return. Thread loop through hole and pull loose end of rope through loop.



STEP 4: Locate box hooks to prevent interference with ratchet operation. Mark and drill 3/16" holes and fasten with screws ①, washers ① and nuts ③.



STEP 5: Wrap return rope around box hooks for storage while tarp is closed.

The Donovan™ Belt' n Ratchet system is designed to provide years of reliable service. Follow installation instructions, maintenance schedule and operating instructions provided to receive years of service from your DBR system. Incorrect operation or lack of maintenance can severely impair operation of the system and cause premature tarp and cable wear.

Maintenance Schedule

Perform the following procedures every 2 to 4 weeks:

- 1. Inspect tarp repair any tears, cuts or worn areas.
- 2. Inspect hardware securely tighten any loose fasteners.

Operating Instructions - Manual Crank

To uncover load:

- 1. Release all hold-down straps from ratchets.
- Unwrap rope return from storage hooks.
- 3. Remove crank from crank retainers and insert square key into square end of roll tube.
- 4. Turn crank clockwise (counter-clockwise for reverse roll) until tarp has rolled up against tarp stops.
- 5. Detach crank from roll tube and place crank back into crank retainers.

To cover load:

- 1. Pull rope return to roll tarp closed.
- 2. Store rope return by wrapping rope around storage hooks.
- 3. Connect hold-down straps to ratchets and ratchet straps down until tarp is correctly tensioned.

Operating Instructions - Fixed Crank

To uncover load:

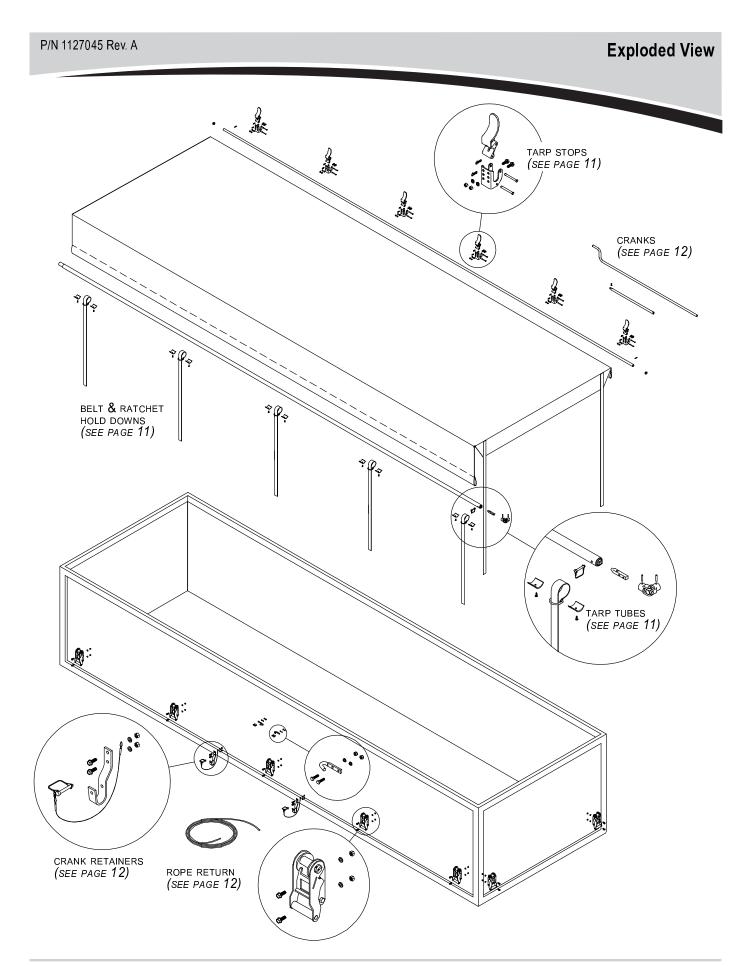
- 1. Release all hold-down straps from ratchets.
- 2. Release crank from crank retainer.
- 3. Turn crank clockwise (counter-clockwise for reverse roll) until tarp has rolled up against tarp stops.
- 4. Place crank back into crank retainer.

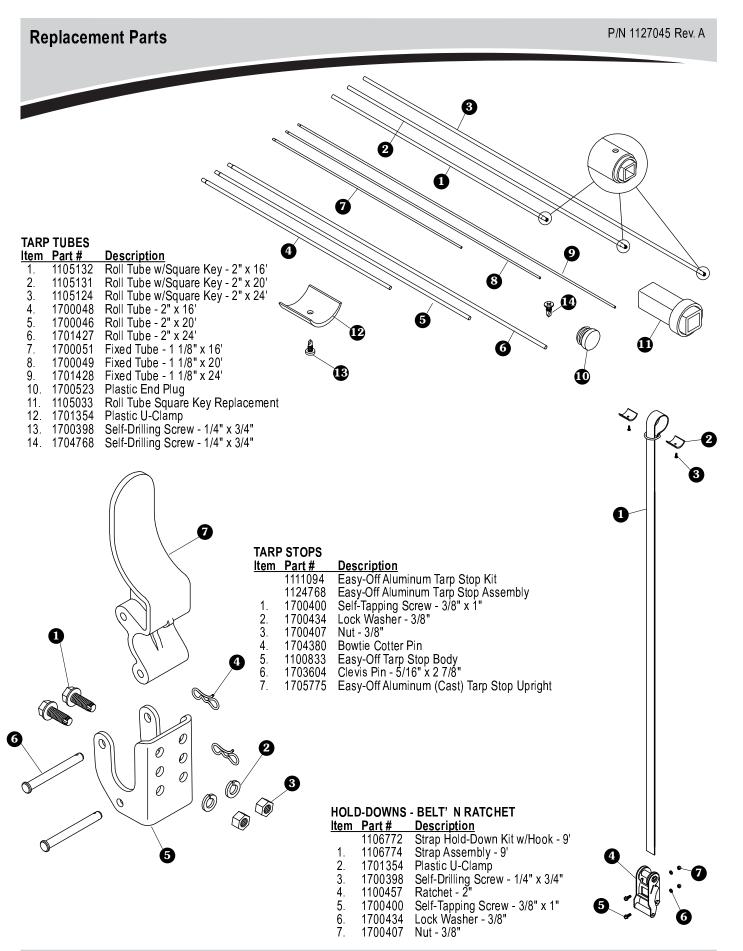
To cover load:

- 1. Release crank from crank retainer.
- 2. Turn crank counter-clockwise (clockwise for reverse roll) until tarp is hanging over edge of trailer, completely unrolled.
- 3. Place crank back into crank retainer.
- 4. Connect hold-down straps to ratchets and ratchet straps down until tarp is correctly tensioned

Close cover at all times except when loading or unloading to extend the life of your DBR system.

Open cover while unloading box. Unloading box with cover closed will create a vacuum which could damage your system.





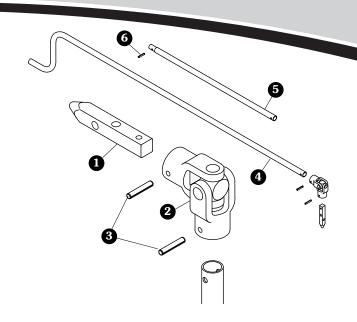
CRANK ARMS

<u>Item</u>	Part #	<u>Description</u>
	1100061	Standard Belt 'n Ratchet Crank Arm Kit
	1101500	Long Belt 'n Ratchet Crank Arm Kit
1.	1115774	Pilot Crank Key

1700527 Econo U-Joint

1700445 Spring Pin - 1/4" x 1 1/2" 3. 1100461 Offset Crank Arm 1107838 Square Crank Extension - 33"

6. 1701118 Spring Pin - 1/4" x 1 3/16"



CRANK RETAINERS

 Item
 Part #
 Description

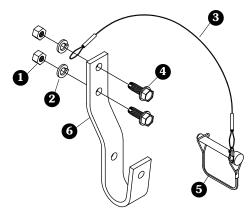
 1101929
 Offset Crank Retainer Kit

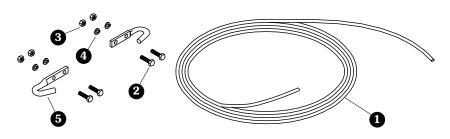
 1.
 1700407
 Nut - 3/8"

 2.
 1700434
 Lock Washer - 3/8"

1100574 Cable w/#5 Interlock Snap 1700400 Self-Tapping Screw - 3/8" x 1" 1700526 Wire Lock Pin - 3/8" x 2 1/2"

1101930 Offset J-Hook





ROPE RETURNS Item Part

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	1100064	Rope Return Kit
1.	1100469	Rope - 32'
2.	1700381	Cap Screw - 1/4" x 1"
3.	1700408	Nuṫ - 1/4"
4.	1700436	Lock Washer - 1/4"
5.	1700682	Box Hook - 5/16" Holes

Description

MORE QUALITY PRODUCTS FROM DONOVAN

- Construction Products
 - Arm-Matic™
 - DuraPull™
 - Econo-Pull™
 - Turbo Tarp2™
 - 2000 Series
 - 5000 Series
 - Hammer™
 - Bullet™
 - $Flash^{TM}$
 - Long ArmTM

- **■** Waste Products
 - SWAT TM
 - The OxTM
 - Quick-Flip III™
 - Sidewinder™
 - Sidewinder™ 350
 - HyTower™ SL
 - HyTower™ DL
 - Double-Flip™
 - Belt and Ratchet

