JT's Strong Arm™ Travel Trailer

Installation and Owner's Manual

(For Aftermarket Applications)

JT's Strong Arm Travel Trailer Aftermarket Kit	
Part #	**Description**
191025	JT's Strong Arm Travel Trailer Jack Stabilizer

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Introduction

The JT Strong Arm™ Stabilizer System is a locking bracket system used to stabilize and eliminate chassis movement in travel trailers using a triangulation system attached to the coach's landing gear or jacks and frame. The JT Strong Arm Stabilizer system is intended to eliminate chassis movement in travel trailers. It should not be used for any other purpose.

Additional information about this product can be obtained from lci1.com/support or by downloading the free LippertNOW. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

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Google Play™ and Android™ are trademarks of Google Inc.

Safety

Read and fully understand all instructions within this manual and adhere to all safety labels.

⚠ WARNING

FAILURE TO ACT IN ACCORDANCE WITH THE FOLLOWING MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT OR PROPERTY DAMAGE.

⚠ WARNING

NEVER LIFT THE UNIT COMPLETELY OFF THE GROUND. LIFTING THE UNIT SO THE WHEELS ARE NOT TOUCHING THE GROUND WILL CREATE AN UNSTABLE AND UNSAFE CONDITION.

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER THE MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT OR PROPERTY DAMAGE.

⚠ CAUTION

ALWAYS WEAR EYE PROTECTION WHEN PERFORMING SERVICE OR MAINTENANCE TO THE TRAILER. OTHER SAFETY EQUIPMENT TO CONSIDER WOULD BE HEARING PROTECTION, GLOVES AND POSSIBLY A FULL FACE SHIELD, DEPENDING ON THE NATURE OF THE SERVICE.

⚠ CAUTION

MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION.

NOTE: If using the JT's Strong Arm™ Travel Trailer kit with Electric Stabilizer Jacks, an additional kit will be required for the foot pad. Use the Electric Stabilizer Jack Adapter Kit to attach your JT's Strong Arm Jack Stabilizers (sold separately) to your electric stabilizer jack foot pads. One plate goes on each side of the jack pad to allow electric jack to fully retract.

Electric Stabilizer Jack Aftermarket Adapter Kit	
Part #	**Description**
314597	Electric Stabilizer Jack Pad Adapter Kit

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Parts List

NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.

Letter	PN	Description	Qty
A	191014	Stabilizer Outer 1 1/4"	6
B	191015	Stabilizer Inner 1"	6
C	191012	T- Bolt, ⅜" - 16 x ¾"	6
D	118044	Nut, ⅜" - 16, Nylon Insert Lock Nut	30
E	135840	Flat Washer, ⅜"	48
F	155004	Bolt, ⅜" - 16 x 1 ½", Hex Cap Screw	18
G	191010	Bolt, ⅜" -16 x 1 ¼", Swing Bolt	6
H	191011	Bolt, ⅜" -16 x 4", Swing Bolt	6
I	191013	Stiffening Pad, 2 ¾" x 1 ¼"	6
J	191020	Spacer Mount, 4 ½" x 1 ½" x 1 ½"	4
K	191021	Bolt, 3/8" x 16 x 1, Hex Washer Head	8

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Resources Required

- Tape measure
- Felt-tip black marker
- Hammer
- Center punch
- Electric or cordless drill or screw gun
- ⅛" drill bit (for pilot holes)
- 5⁄16" drill bit
- ⅜" drill bit
- ½" "Uni-bit," or step bit, preferred—standard ½" drill bit acceptable
- Countersink bit (for deburring)
- 9⁄16" deep socket and ratchet
- 9⁄16" box end wrench
- ⅝" box end wrench
- 11⁄16" box end wrench
- Locking pliers
- 3"- 4" C-Clamp
- White grease
- Safety glasses
- Face shield
- Squeegee

Preparation

1. Make sure to park the trailer on solid, level ground.

2. Clear all jack landing locations of debris and obstructions.

3. Locations should be free of depressions.

4. When parking trailer on extremely soft surfaces, utilize load distribution pads under each jack.

5. People and pets should be clear of trailer while operating leveling system.

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER THE MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT OR PROPERTY DAMAGE.

Installation

Determine which style of jacks are installed on the chassis by comparing Figure 1 and 2 with what is installed on the unit.

If the chassis has scissor jacks **(Fig.1)** installed, proceed to the following section Installation for Scissor Jacks. If the chassis has electric stabilizer jacks **(Fig.2)** refer to the Installation for Electric Stabilizer Jacks section.

Fig.1

Fig.2

Installation for Scissor Jacks

1. Locate a cross-member rearward of the rear jacks at a minimum of 4" to a maximum of 18" for jacks mounted at an angle. For jacks mounted square with the chassis frame, use a minimum of 6" **(Fig.3)**.

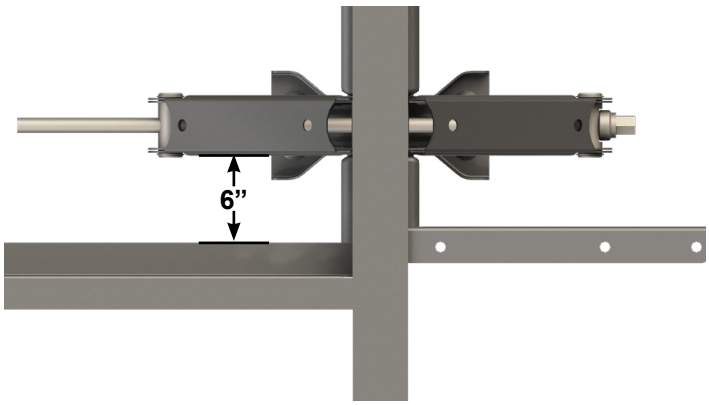

Fig.3

2. Under front half of chassis, locate a cross-member or center compartment with a steel floor from 6"- 18" from front of front jacks **(Fig.4)**.

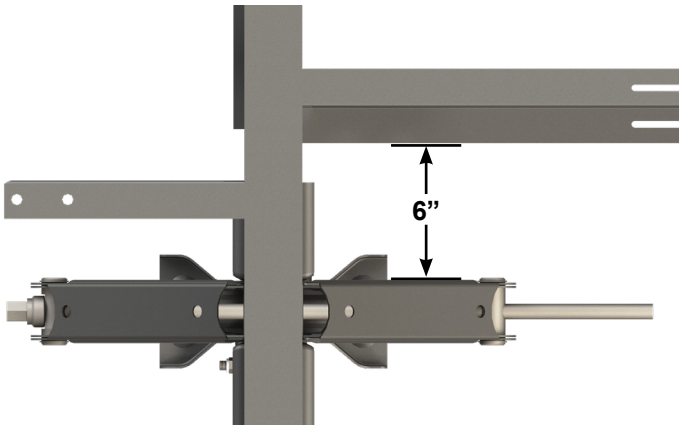

Fig.4

3. Starting with one of the front scissor jacks, remove the existing lower, inside pivot bolt; replacing with a ⅜"x 4" swing-bolt. Install swing-bolt from front-to-back with the shoulder of the swing-bolt to the front side of jack.

4. Place ⅜" washer and ⅜" - 16 nylon locking nut on threaded end of swing-bolt. Tighten enough so that the swing-bolt will only pivot by using a screwdriver for leverage. Ensure swing-bolt tab is positioned horizontally.

5. Remove the existing lower, outside pivot bolt; replacing with 4" swing-bolt. Install swing bolt from rear-to-front with shoulder of swing-bolt to rear of the jack **(Fig.5)**.

Fig.5

6. Place a ⅜" washer and ⅜" locking nut on threaded end of swing-bolt and tighten as explained in Step 4. Position swing-bolt tab vertically

7. Repeat Steps 3-6 for opposite front jack.

8. Apply white grease to the threads of two "T" bolts and partially thread them into the top holes of the outer stabilizer tubes.

9. Remove inner stabilizer tube from assembly and discard the plastic shipping bag. Reassemble stabilizer tubes with the inner tube sticking out past the end of the outer tube by 1" **(Fig.6)**.

Fig.6

10. Tighten "T"-bolts until snug. To ensure proper installation, make sure the warning labels are facing outward and right-side up. The T-bolts should also be on the top side of the stabilizers.

11. Repeat Steps 9 and 10 for opposite side.

12. Fully retract the front scissor jacks.

13. Attach the clevis end of the stabilizer inner tube to the swing-bolt tab on the front side of the jack using a ⅜" - 16 x 1 ½" bolt with a ⅜" washer on the top and bottom of the tab and a ⅜" locking nut **(Fig.6)**. Tighten nut until tight. Repeat this step on the opposite side.

14. Insert a ⅜" x 1 ¼" swing-bolt into a spacer mount and secure with a ⅜" washer and ⅜" locking nut.

15. Attach assembled spacer mount to clevis end of the stabilizer outer tube using a ⅜" - 16 x 1 ½" bolt and a ⅜" washer on both sides of the clevis Tighten a ⅜" locking nut enough to allow the stabilizer to swivel by hand with some resistance. Repeat this step for the opposite side **(Fig. 7)**

16. Swing the stabilizer toward the center of the chassis and up to the cross-member identified in Step 2. Make sure that the front of the spacer mount is parallel to front of cross-member and the mounting holes are centered front-to-back on the cross-member **(Fig.8)**.

Fig.7

Fig.8

17. With the spacer mount held against the cross-member, mark the mounting hole locations with a marker.

18. Center punch each location. Drill a ⅛" pilot hole at each mounting hole location. Drill out one of the mounting holes to 5⁄16"and tap either using a ⅜" - 16 tap or a ⅜" - 16 x 1" self-tapping bolt.

19. Lubricate as needed.

20. Remove tap or bolt and secure spacer mount with a ⅜"- 16 x 1" self-tapping bolt, taking care to keep the remaining pilot hole centered in the mounting hole of the spacer mount. Tighten bolt securely.

21. Drill remaining pilot hole to 5⁄16" and insert a ⅜"-16 x 1" self-tapping bolt and tighten. Repeat this step for opposite side **(Fig.8)**.

Chassis Specific Instructions: "I" or "H" Beam

"I" or "H" beam (front-to-back) and Uninsulated

1. Measure from the rear side of the front scissor jack 30" and place a mark on the bottom of the main rails.

2. Measure the bottom flange of the main rails and divide by four, for center of mounting hole.

3. Center punch at the intersection of the lines and drill an 1/8" pilot hole.

4. Drill out the pilot hole to 3/8" and deburr.

5. Secure a stiffening pad to bottom of the main rail flange using a 3/8" x 1 ¼" swing-bolt, a 3/8" washer, and a 3/8" locking nut. The edge of the stiffening pad should be parallel to the edge of the main rail flange.

6. Drill remaining mounting hole and secure with a 3/8"-16 x 1 ½" bolt, 3/8" washer, and 3/8" locking nut. Repeat this step for opposite side **(Fig. 9)**.

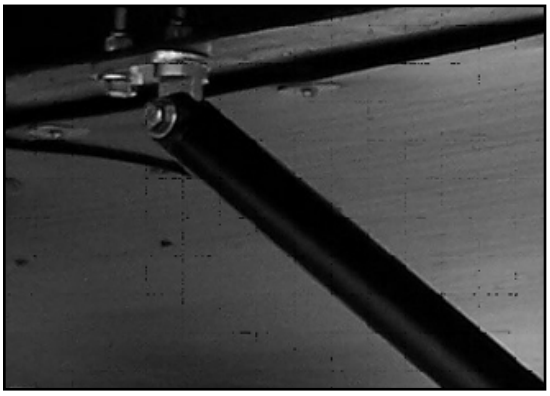

Fig.9

"I" or "H" beam main rails or tubular frames and/or insulated.

1. Measure from the rear side of the front scissor jack 27 ¾" and place a mark on the bottom of the main rails. Assemble a spacer mount as in Step 14.

2. Using the spacer mount as a template, mark the mounting holes by aligning one short edge with the 27 ¾" mark.

3. Make sure the spacer mount is parallel to the outside of the main rail flange. Center punch and drill an 1/8" pilot holes at each mounting hole location.

4. Drill out the hole closest to the front jacks to 5/16" and tap using either a 3/8" - 16 tap or 3/8" - 16 x 1" self-tapping bolt.

5. Lubricate as needed.

6. Secure spacer mount to bottom of rail flange with a 3/8"-16 x 1" self-tapping bolt, taking care to keep the remaining pilot hole centered in the mounting of the spacer mount.

7. Tighten bolt securely.

8. Drill the remaining pilot hole out to 5/16" and insert a 3/8" - 16 x 1" self-tapping bolt and tighten **(Fig.10)**. Repeat this step for opposite side **(Fig. 10)**.

Fig.10

9. Prepare "T" bolts as described in Step 8.

10. Remove inner stabilizer tube from assembly and discard plastic shipping bag. Reassemble stabilizer tubes with the inner tube sticking out past the end of the outer tube by 5".

11. Tighten "T" bolts until snug. To ensure proper installation, make sure the warning labels are facing outward and right-side up. The "T" bolts should also be on the top side of the stabilizers.

12. Attach the clevis end of the stabilizer inner tube to the swing-bolt tab on the rear side of the jack using a ⅜" - 16 x 1 ½" bolt with a ⅜" washer on the top and bottom of the tab and a ⅜" locking nut. Tighten nut until tight. Repeat this step on the opposite side.

13. Starting with one of the rear scissor jacks, remove the existing lower, outside pivot bolt; replacing with a ⅜" x 4" swing-bolt. Install swing-bolt from back-to-front with the shoulder of the swing-bolt to the rear side of jack. Place ⅜" washer and ⅜"-16 locking nut on threaded end of swing-bolt. Tighten enough so that the swing-bolt will only pivot by using a screwdriver for leverage. Make sure the swing-bolt tab is positioned horizontally.

NOTE: If scissor jacks are less than 2" wide, washers will be necessary on the swing bolt because the threads may not be long enough.

14. Prepare "T" bolts and stabilizer tubes as described in Steps 8-10. Repeat for opposite side.

15. After fully retracting rear scissor jacks, attach the clevis end of the stabilizer inner tube to the swing-bolt tab on the rear side of the jack using a ⅜"-16 x 1 ½" bolt with a ⅜" washer on the top and bottom of the tab and a ⅜" locking nut. Tighten nut until tight **(Fig.11)**. Repeat this step on the opposite side.

Fig.11

Chassis Specific Instructions: C-Channel

C-Channel cross-members and no underbelly

1. Attach a ⅜" x 1 ¼" swing-bolt to the clevis end of the stabilizer outer tube with a ⅜"-16 locking nut and ⅜" washers.

2. Tighten nut enough to allow the swing-bolt to point upwards.

3. Rotate stabilizer tube toward center of chassis and up to cross-member identified in Step 2.

4. Mark where center of swing-bolt meets the center of the cross-member front-to-back on the bottom of the cross-member.

5. Align a stiffening pad with the outer hole centered on the mark for the center of the swing-bolt.

6. Clamp the stiffening pad to the cross-member with a pair of locking pliers and drill mounting holes with a ⅜" bit.

7. Secure stiffening pad to the cross-member with a ⅜" x 1 ¼" bolt, ⅜"-16 locking nut, and ⅜" washer in the inside mounting hole.

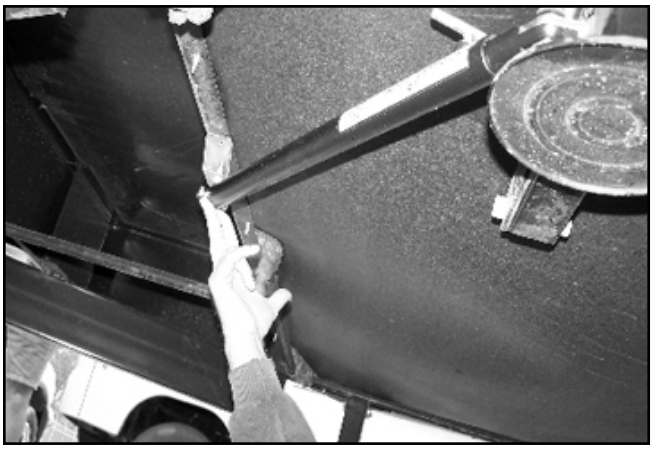

Fig.12

8. After removing the locking pliers, attach swing-bolt to remaining mounting hole with a ⅜" locking nut and washer **(Fig.12)**.

9. Repeat for the opposite side.

C-Channel with tubular cross-members and/or with underbelly

1. Prepare spacer mount as described in Step xx. Rotate stabilizer tubes toward center of chassis and upward to cross-member identified in Step xx.

2. Using the spacer mount as a template, mark the mounting holes by aligning one short edge with the center of the cross-member. Make sure the spacer mount is parallel to the edge of the rear cross-member.

3. Center punch and drill an ⅜" pilot hole at each mounting hole location.

4. Drill out the hole closest to the rear jacks to 5⁄16" and tap using either a ⅜"-16 tap or ⅜"-16 x 1" self-tapping bolt.

5. Lubricate as needed.

6. Secure spacer mount to bottom of rear cross-member with a ⅜"-16 x 1" self-tapping bolt, taking care to keep the remaining pilot hole centered in the mount-ing of the spacer mount.

7. Tighten bolt securely.

8. Drill the remaining pilot hole out to 5⁄16" and insert a ⅜"-16 x 1" self-tapping bolt and tighten.

9. Repeat for the opposite side.

Operation

Scissor Jack Extend

1. Level your trailer side-to-side.

2. Lower the front of the trailer 3/4" lower than the rear.

3. Lower and set rear jacks evenly.

4. Tighten the T-Bolts on the two rear Strong Arm Jack Stabilizers.

5. Raise the front of the trailer to make it level front-to-back.

6. Tighten T-Bolts on the four front Strong Arm Jack Stabilizers.

Scissor Jack Retract

1. Level your trailer side-to-side.

2. Lower the front of the trailer 3/4" lower than the rear.

3. Lower and set rear jacks evenly.

4. Tighten the T-Bolts on the two rear Strong Arm Jack Stabilizers.

5. Raise the front of the trailer to make it level front-to-back.

6. Tighten T-Bolts on the four front Strong Arm Jack Stabilizers.

Electric Stabilizer, Jack Extend

1. Level your trailer side-to-side.

2. Lower the front of the trailer 3/4" lower than the rear.

3. Lower and set rear jacks evenly.

4. Tighten the T-Bolts on the two rear Strong Arm Jack Stabilizers.

5. Raise the front of the trailer to make it level front-to-back.

6. Tighten T-Bolts on the four front Strong Arm Jack Stabilizers.

7. Briefly press the electric jack switch so the jacks slightly lift the front of the trailer. This eliminates the play (movement) at the bolts and bolt holes between the stabilizers and the trailer.

Electric Stabilizer Jack Retract

1. Level your trailer side-to-side.

2. Lower the front of the trailer 3/4" lower than the rear.

3. Lower and set rear jacks evenly.

4. Tighten the T-Bolts on the two rear Strong Arm Jack Stabilizers.

5. Raise the front of the trailer to make it level front-to-back.

6. Tighten T-Bolts on the four front Strong Arm Jack Stabilizers.

7. Briefly press the electric jack switch so the jacks slightly lift the front of the trailer. This eliminates the play (movement) at the bolts and bolt holes between the stabilizers and the trailer.

Electric Stabilizer Jack Pad Adapter Kit

⚠WARNING

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Electric Stabilizer Jack Pad Aftermarket Adapter Kit

Letter	PN	Description	Qty
AA	314597	Electric Stabilizer Jack Pad Adapters	4

Resources Required

- Cordless or Electric Drill or Screw Gun
- Assorted drill bits
- Screwdriver
- 9⁄16" wrench

Installation

1. Remove the fastening hardware **(Fig. 13A)** that holds the foot pad **(Fig. 13B)** onto the jack **(Fig. 13C)**.

NOTE: Set hardware aside for later reuse.

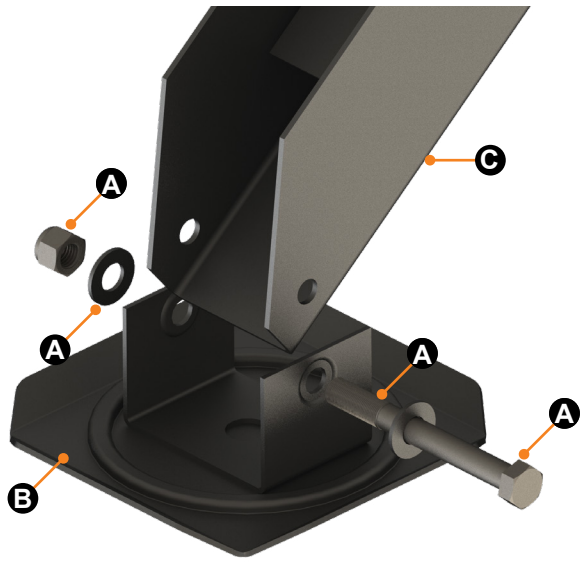


Fig.13

2. Align adapter plates **(Fig. 14A)** to holes in foot pad. Place the smaller half down and on the outside of footpad brackets **(Fig.14B)**.

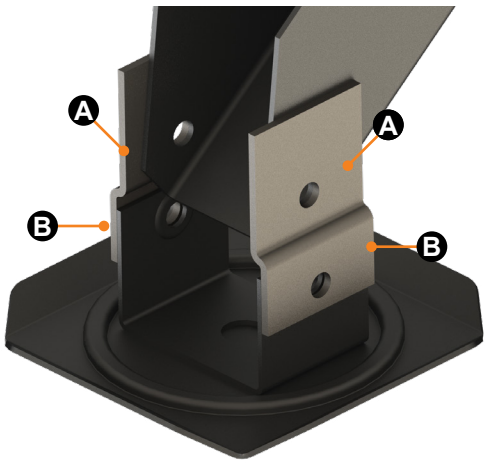


Fig.14

3. Loosely install ⅜" - 16 x 4" swing bolt **(Fig.15A)**, two ⅜" SAE flat washers **(Fig. 15B)**, a ⅜" - 16 nylon lock nut **(Fig. 15C)** and a ⅜" - 16 lift handle **(Fig15D)** to attach the adapter plates to foot pad.

NOTE: Adapter plate holes may need to be enlarged using either a ⅜" or $^{25}⁄_{64}$" drill bit.

4. Tighten swing bolt enough so that it will only pivot by using a screwdriver for leverage.

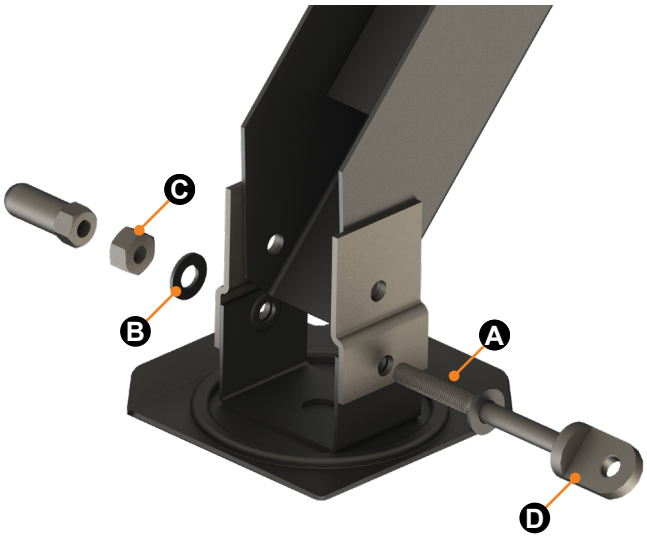


Fig.15

5. Reinstall previously removed fastener hardware (step 1) into the top hole of the adapter plate and through the jack arm **(Fig. 16A)**. Tighten bolt until tight.

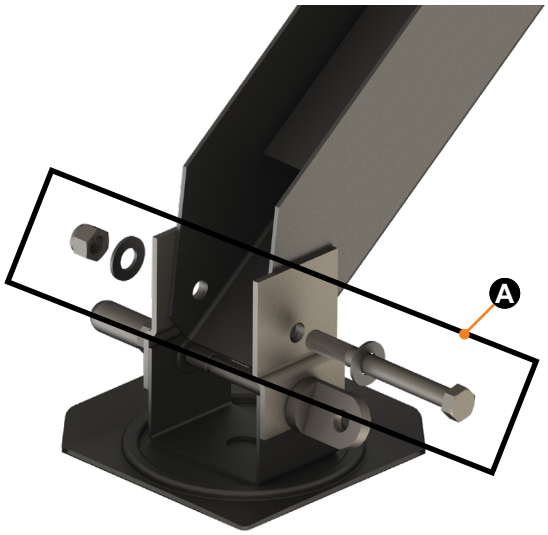


Fig.16

6. Attach JT Strong Arm Stabilizer **(Fig. 17A)** to the swing bolt.

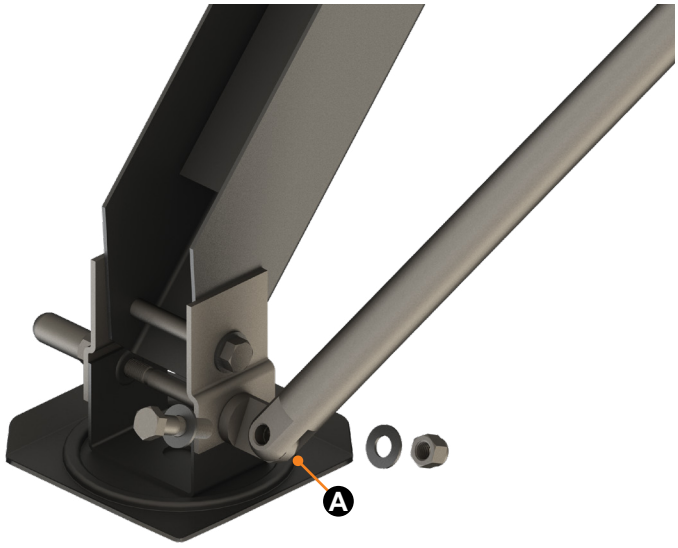


Fig.17

7. Align stabilizer mounting holes over the swing bolt mounting hole.

8. If necessary, use screwdriver to adjust orientation of swing bolt hole with stabilizer holes.

9. Sandwich stabilizer arm over swing bolt.

10. Install ⅜" SAE washer onto ⅜" 16 bolt.

11. Install bolt assembly through the stabilizer arm and swing bolt.

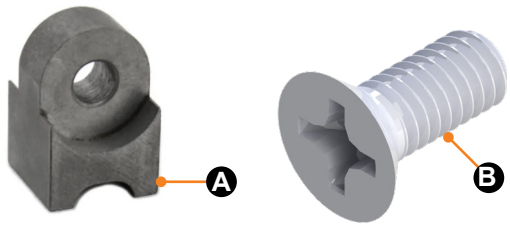
12. Install another ⅜" SAE flat washer onto the bolt and secure assembly with a ⅜" - 16 nylon lock nut.

13. Tighten lock nut until tight.

Hydraulic Jack Adapter Lugs

This is an optional kit to be used when installing JT Strong Arm to units with hydraulic jacks.

Parts List



Hydraulic Jack Adapter Lugs (314592)			
Letter	Part #	Description	Qty
A	196233	Hydraulic Jack Adapter Lugs	2
B	427963	Screw	2

Resources Required

- Cordless or electric drill or screw gun
- Appropriate drive bits
- Appropriate drill bits
- Bolts
- Liquid thread locker
- Non-permanent marking device

NOTE: For most applications, three (3) kits (six (6) lugs) will be necessary unless repairing/reinstalling an individual footpad.

Preparation

Prior to installation, prepare surface of footpad for lug installation. Wipe footpad clean of hydraulic fluid.

Each footpad requires a different number of lugs.

Footpad	Number of Lugs
Front	2
Back	1

Installation

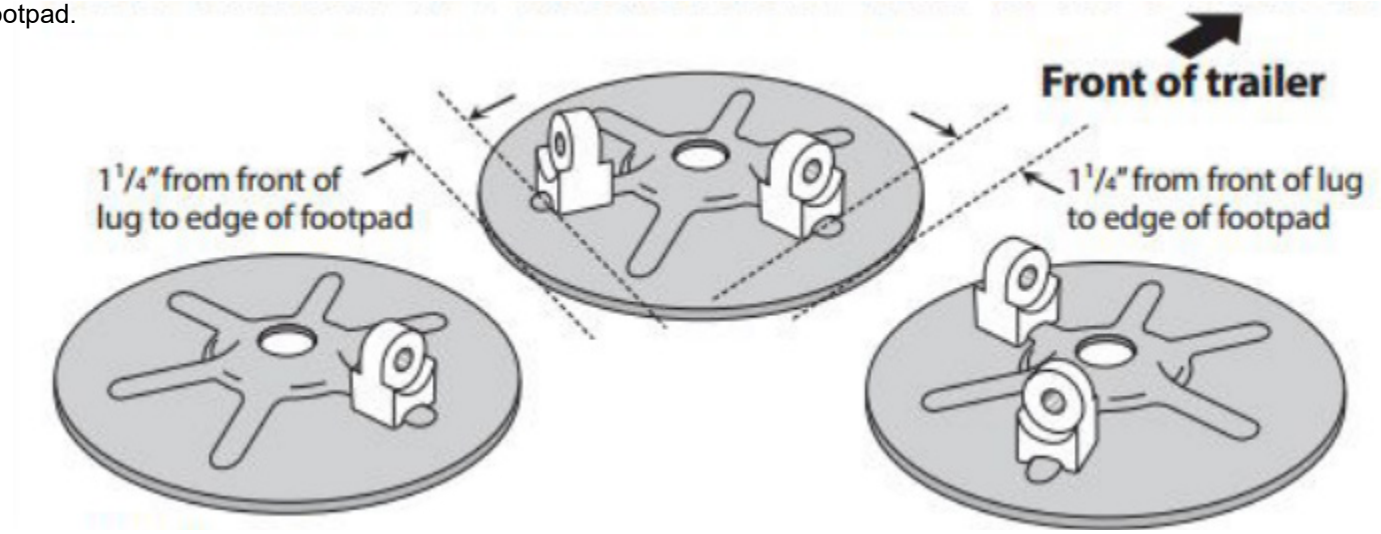
1. Measure 1 1/4" from the edge of the footpad inward and onto one of the star points on top of the footpad. The front face of the lug will be placed here with the back of the lug continuing to move inward.

2. Use a non-permanent marking device (such as a pencil) to mark lug locations.

3. Using a cordless or electric drill or screw gun, drill a 3/8" hole under the footpad.

4. Bolt lugs to footpad using a liquid thread locker on the bolts.

NOTE: The best practice is to bolt footpads using provided screws. However, users with an advanced skill level and using best safety and welding practices may choose to weld the lugs and footpads.



NOTE: Fourth back footpad not shown.

Maintenance

Using a clean and dry cloth, periodically wipe the Strong Arms with water to remove any salt or debris. Then wipe dry.

Notes

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