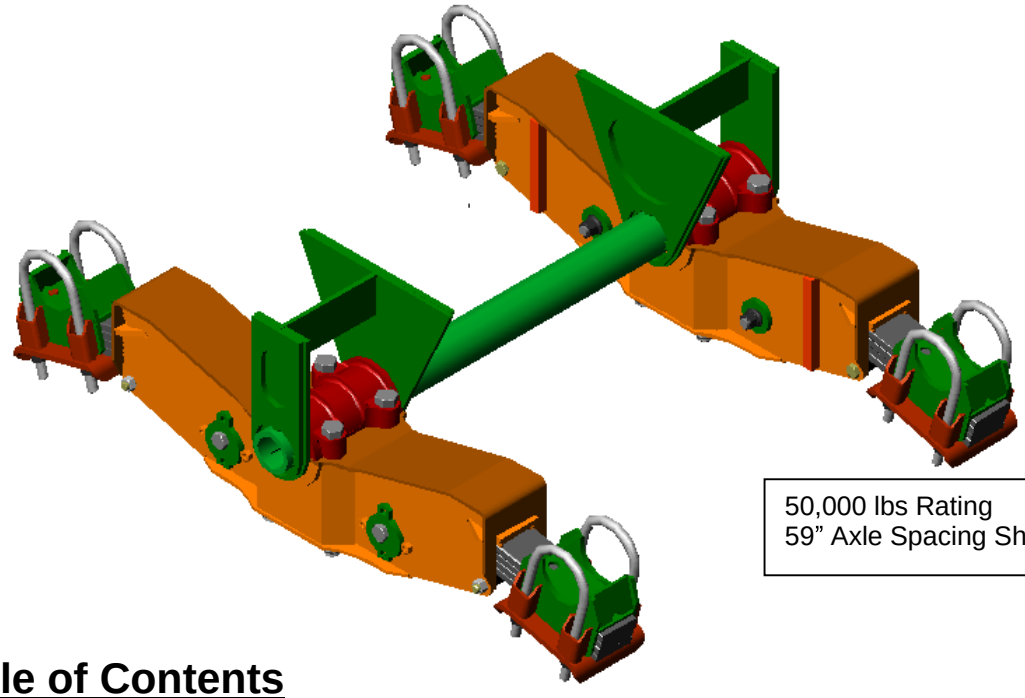
CUSH CORP

Mechanical Suspension Model: CushFLEX (CSP-CF)
Tandem Axle Independent Cantilever Springs
With Straddle-Mount Hanger
Suspension Installation & Product Service



50,000 lbs Rating
59” Axle Spacing Shown

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Model “CushFLEX” (CSP-CF) Description

This model is designed to work with 4” wide Cantilever bushing eyed springs. Independent cantilever springs allow more suspension articulation and a better ride than rigid walking beam or spring leaf walking beam single point suspension. These springs are rated per suspension capacity. The CushFLEX model is designed to have several advantage features over competitive units: Track-Align adjustment on the axle, heavy-duty hanger and rocker components, industry standard replacement pivot bushing, common replacement bolts, rubber or urethane trunion bushing, heavy-duty keeper sleeves, replaceable spring seat wear pads, low-profile compensator structure.

Installer Responsibility

INSTALLATION DISCLAIMER NOTES:

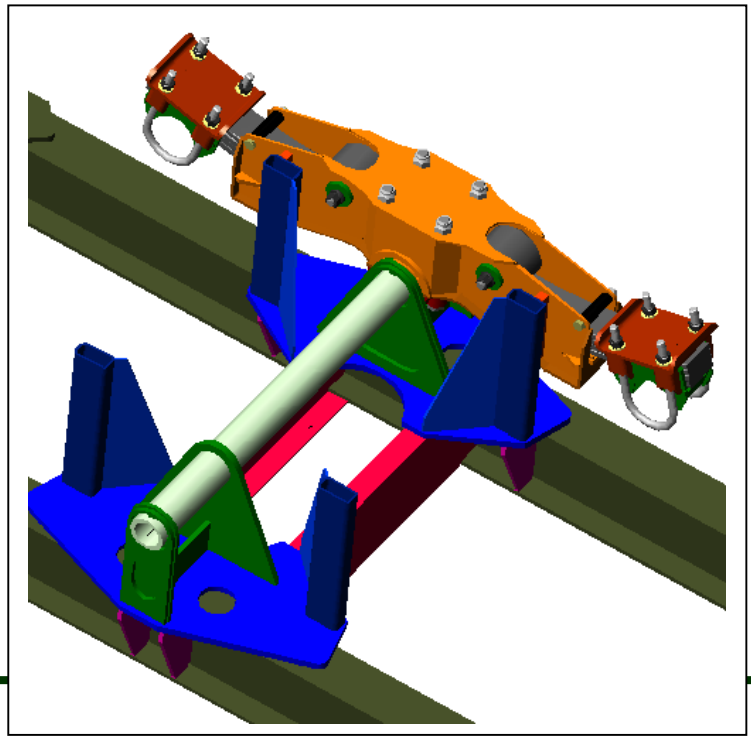
1) It is important that the proper Cush suspension is chosen for the trailer application. The following criteria must be considered when selecting a suspension: required suspension capacity, loaded frame-to-ground measurement, ride height, axle travel, axle spacing, and axle GAWR.

2) It is the responsibility of the installer to determine the correct location of the suspension in order to provide the proper trailer load distribution. The gross axle weight rating (GAWR) of each axle must not exceed the rated capacity of any of the components involved. The suspension capacity ratings are for suspension components and axle beam only.

3) Required cross member locations maybe shown. Actual size and shape may vary per trailer design. It is the responsibility of the suspension installer to ensure structural adequacy of the trailer frame and related cross members. Verify that the actual trailer cross member locations correspond with those specified on the suspension drawing.

4) It is the responsibility of the suspension installer to read the instructions on all the drawing sheets thoroughly before proceeding with a suspension installation.

5) If additional lateral support is needed for the suspension it is the responsibility of the suspension installer to install rub guides to support the appropriate load for your application. Contact Cush with questions about lateral support guides.

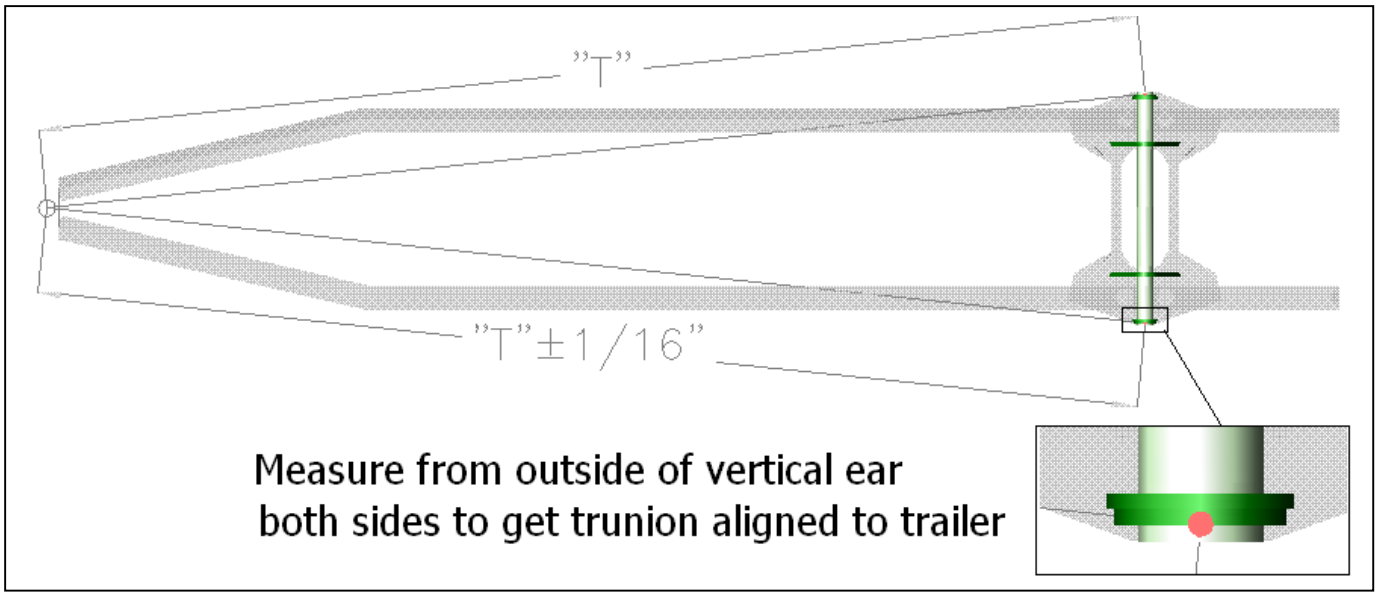


Inspection Schedule

The following inspection schedule is a guide to help with the preventative maintenance of your suspension system. Your mechanical suspension will provide many trouble free miles of service by using the information in this publication.

QC - "CushFLEX" Hanger Pre-Welding & Alignment

- Verify that you have the correct height and width straddle-mount hangers for your application.
- It will be easier to mount the straddle-mount hanger if you first remove all mounted components from the hanger set.
- Before welding the suspension straddle-mount trunion hanger to the frame you need to first measure that the center of the trunion tube is aligned to the kingpin of the trailer. Measure to the outer vertical hanger ear and not to the trunion tube. Also, verify that the trunion hanger is centered on the frame. **Note:** the straddle-mount trunion tube may not be centered on the hanger ears and this is why it is best to measure to the hanger ears.



QC - "CushFLEX" Original Inspection After Installation

When reviewing the suspensions on your trailer for the first time, check the following:

- The axles have been aligned properly.
- The suspension frame bracketry have been properly supported.
- Trailer is level
- All welds are of good and acceptable quality
- All fasteners are in place and securely torqued
- No component interferences are visible
- There should be 1" minimum clearance between top of tire and bottom of trailer structure when axle is at full jounce. If not a bump stop will need to be added.
- There should be 2" minimum clearance between inside of tire and trailer frame structure for lateral movement.
- There should be ample fore and aft clearances.

Daily Inspection
A quick visual inspection before operating the trailer will often detect obvious problems such as broken or loose parts.

"CushFLEX" 30-day Inspection
Check clearances around all moving suspension parts such as springs, tires, axle seats, u-bolts, fasteners, and compensator for any signs of wear, loosening, or component interferences.

Check each of the following:

- Fasteners – Not loose, broken or missing-retorque if needed
- Pivot Bushings – Not protruding, off-center, torn or worn
- Frame Hangers – Not worn, cracked, bent, or damaged
- Compensator – Not worn, cracked, bent, or broken
- Cantilever Springs – Not cracked, bent, out of alignment, or loose
- Axle Beam – Not cracked, bent, or broken
- Tires – No tire wear that might indicate an alignment problem.
- Axle Alignment – No pivot gear movement or inappropriate wear, axles tracking properly
- Trailer – Trailer not leaning, trailer frame suspension attachment structurally sound, no cracked or missing welds at suspension frame attachment.

"CushFLEX" 90-day Inspection and at every brake lining change
Thoroughly check all items checked at the 30-day inspection. Also check:

- All welded connections for signs of deterioration
- All frame attachment joints and pivoting or clamping joints for problems-retorque
- All spring eye bushings intact
- For any sagging or broken leaf springs

"CushFLEX" Axle Alignment Inspection
Check the "Cush-Align" connection for change of position at 30-day, 90-day, and every brake lining change. Re-align if necessary. Re-tack the alignment gear after adjustment to maintain position in heavy-duty applications.

Axle Inspection (general notes, see axle manufacture's service manual for details). Visually inspect the all axle components, seals, and hub caps for leaks and oil level every 6,000 miles (if oil bath type). Repair if necessary.

At 100,000 miles or 12 months, visually inspect seal and hub cap for contaminants, oil level, or leaks. Check the wheel bearing adjustment. Repair & retorque if necessary.

Suspension Maintenance Items

The Cush trailer suspension system is designed to minimize service issues. With proper maintenance, the life of your suspension system can be extended.

Caution Notes

- Trailer walk can occur due to loading, unloading, or damaged parts
- For safe loading and unloading, leave trailer attached to vehicle.
- Do not tow or pull on vehicle by suspension components.
- Fasteners that have been in service should never be reused, over-torqued, or lubricated.

Do not operate vehicle suspension with:

- Broken welds or metal parts
- Loose, broken, or missing fasteners or suspension components
- Loss of air pressure in brake system

Torque Specifications

It is the customer's responsibility to check and tighten fasteners to specified torque at installation, after the suspension has been in operation for 3000 miles, and at suspension inspection cycles. Failure to do so can result in loss of warranty.

CUSTOMER TORQUE INSTRUCTIONS:

2) It is the customer's responsibility to check and tighten fasteners to specified torque at installation, after the suspension has been in operation for 3000 miles, and at suspension inspection cycles. Failure to do so can result in loss of warranty.
3) Torque values given are specified for the fasteners in the condition supplied by Cush Corporation. DO NOT APPLY ANY ADDITIONAL LUBRICANTS.
4) CAUTION: Fasteners should never be reused if removed or complete loss of clamp load occurs. For proper joint clamping contact Cush for replacement fasteners.
5) CAUTION: Over-torquing fasteners could result in material failure.

Common Torque Specifications (Cush Trailer Safety and Inspection Sticker)

Suspensions
www.cushcorp.com

Customer to torque all fasteners!

General Fastener Torque Specs	Size	Thread	Grade	(Ft*Lbs) Min.	(Ft*Lbs) Max.	(Nm) Min	(Nm) Max.
Spring Keeper Mount Nut/Bolt	3/4	10-UNC	5/B	**210**	**235**	*285*	*319*
(25K) U-Bolt Nut	7/8	14-UNF	8/C	**475**	**525**	*644*	*712*
Pivot Nut (SecureLok/Securex)	7/8	9-UNC	8/C	**550**	**600**	*746*	*813*
Trunnion Cap Nut/Bolt (torque Nut)	1 1/8	7-UNC	8/C	**900**	**1000**	*1220*	*1356*

Alignment: Support vehicle to unload suspension, block compensators level, loosen spring eye pivots and spring keeper bolts, align vehicle, re-torque fasteners.
Torque: Check torque after "Break-In" period of approximately 1000 miles (1600 km). All bolts and nuts should be checked to insure recommended torque values per insp ection schedule. It is important that these settings be maintained at all times to insure trouble-free performance.

Customer Welding Notes:

- It is the responsibility of the suspension installer and vehicle designer to provide adequate vehicle frame design, gusset support in the area of suspension attachment, and proper securing method for the suspension system. The suspension installer has the responsibility to determine the proper welding parameters for the materials being used. For specifications of suspension component materials, contact Cush.
- Required vehicle support cross member locations may be shown. Actual size and shape may vary per trailer design. It is the responsibility of the suspension installer to ensure structural adequacy of the trailer frame and related cross members.
- No welding of any of the suspension components is permitted, except where specified by Cush.
- Any alteration of the suspension components or installation deviations must be approved, in writing, by Cush Corporation.

Recommended Steel Welding Procedures, If Required:

- WARNING: If these procedures and specifications are not followed, damage to the axle or suspension could result. The resulting axle or suspension damage could cause an accident, property damage, and/or serious injury.
- A welder qualified in 2G positions per ANSI/AWS D1.1-94 Section 5 Part C "Welder Qualification" must perform the welding.
- The specification below is for horizontal (2F) positioning.
- Suspension components and their mating parts must be at a minimum temperature of 60°F (15.5°C) and free from moisture, dirt, scale, paint, grease, and other contaminates.
- All welds must be performed in a flat, or horizontal, position.
  Achieve spray arc transfer with the following welding parameters:
- Standard Electrode: AWS E-7018 (Oven Dried), 0.125"DIA., 120-140 AMPS D.C., Electrode positive.
- Standard Wire: AWS ER-70S-6 or AWS ER-70S-3, 0.045"DIA
- Volts: 26-30 DCRP
- Current: 275-325 AMPS
- Wire Feed Speed: 380-420 Inches per Minute
- Electrode Extension: 0.75" to 1"
- Gas: 86%AR 14%CO2 at 30 to 35 CFH

Any deviation from these welding parameters must be of equal strength or approved by Cush Corporation in writing.

Warranty Note

If after review of the Cush Corp Warranty it is determined that there is a warranty issue and Cush Corp has been notified, then a **W**arranty **L**abor **A**llowance may be needed. The **WLA** for the following service items are shown with each itemized description. The service item descriptions include the obvious parts involved, other parts may be involved to complete the warranty repair. Shop per-hour labor rate allowances will not exceed standard industry averages for the work done. Warranty claims should be filed per the Cush Corp Warranty (publication P0202-01) with an itemized list of charges and copies of all available receipts. **NOTE:** Get written approval/warranty estimate from Cush Corp before working on item that you would like to submit for a warranty claim. Failure to do so may eliminate your warranty claim.

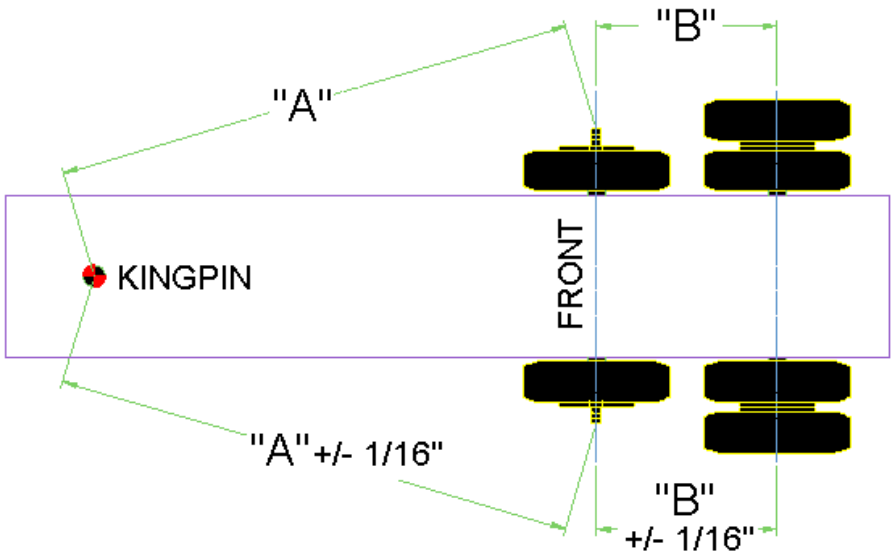
Suspension Service Items

Axle Alignment

Cush has several different alignment means available for different applications. Listed here are some general alignment guidelines and alignment procedures for the styles of Cush Alignment.

CAUTION: DO NOT APPLY undercoating to the pivot alignment area until after alignment and torque of the suspension pivot bolts.

- Check that the tire inflation pressure is correct on all tires.
- Alignment should be performed with the vehicle empty and the brakes released.
- On a level floor move the vehicle forward and back to straighten, make sure last movement is forward.
- Remove the outer tires and any other parts from under the chassis that obstruct the measuring distances between the kingpin and the axle ends. If you use a commercially available kingpin and axle spindle extenders or the edge of the wheel rim, you will not need to remove this equipment.
- Measuring from the trailer's kingpin, determine the alignment of the forward axle.
- After achieving proper alignment of the forward axle, torque the Cush Pivot fasteners per Cush torque specifications, see Cush Axle Alignment procedures in this manual.
- Align the next axle, to within 0.063" tolerance, & any additional axles to the forward axle per the proper alignment method. Use a commercially available alignment gauge or trammel bar if available (see Figure 2).



(Figure 2)

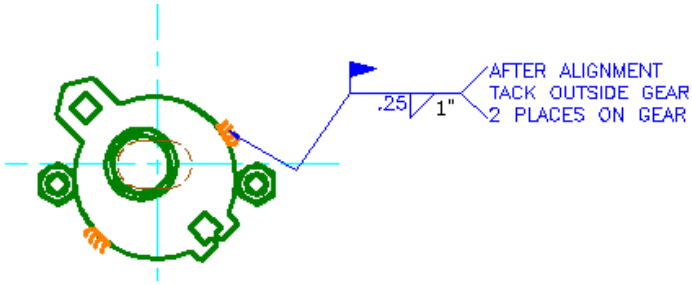
NOTE: Failure to follow the procedure for your axle alignment application and/or properly torque the pivot fasteners can result in a failed pivot connection and a loss of warranty coverage!

Cush Alignment on CushFLEX

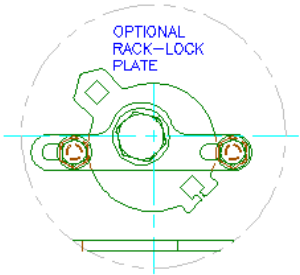
“Trac-Align” (1/2” alignment adjustment & optional locking rack)

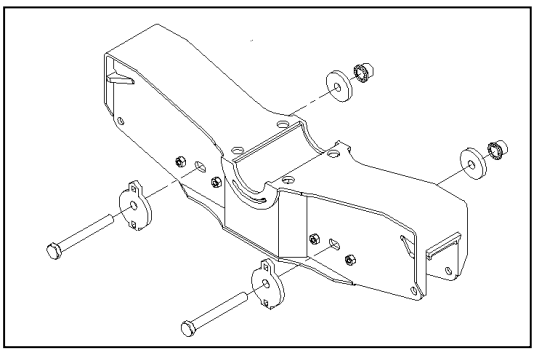
The “Trac-Align" was designed to give our customers extra pivot integrity with the addition of the **optional** locking rack and a more familiar alignment means with the use of an eccentric cam adjustment.

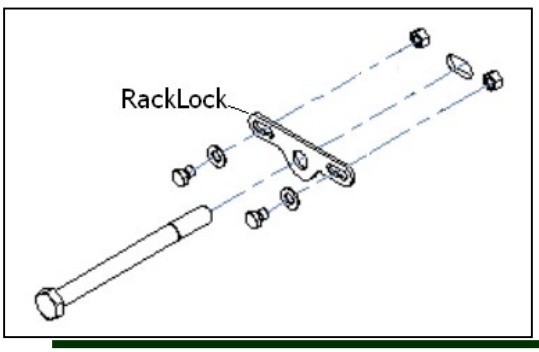
- After axle alignment, clamp the joint per Cush torque specifications.
- After torque of alignment fasteners, the suspension installer to weld the outside washer to the compensator side with 1" welds to prevent tampering & for off-road applications.



- An alternative to welding the alignment gears is to use optional add-on rack or ring locking plate that bolts into the alignment grounding nuts and secures the alignment gear.
- WARNING: After alignment, clamp the pivot bolt per Cush torque specifications. Torque the ½” rack lock bolts to 25 ft*lbs, loosen the rack lock bolts to realign pivot.





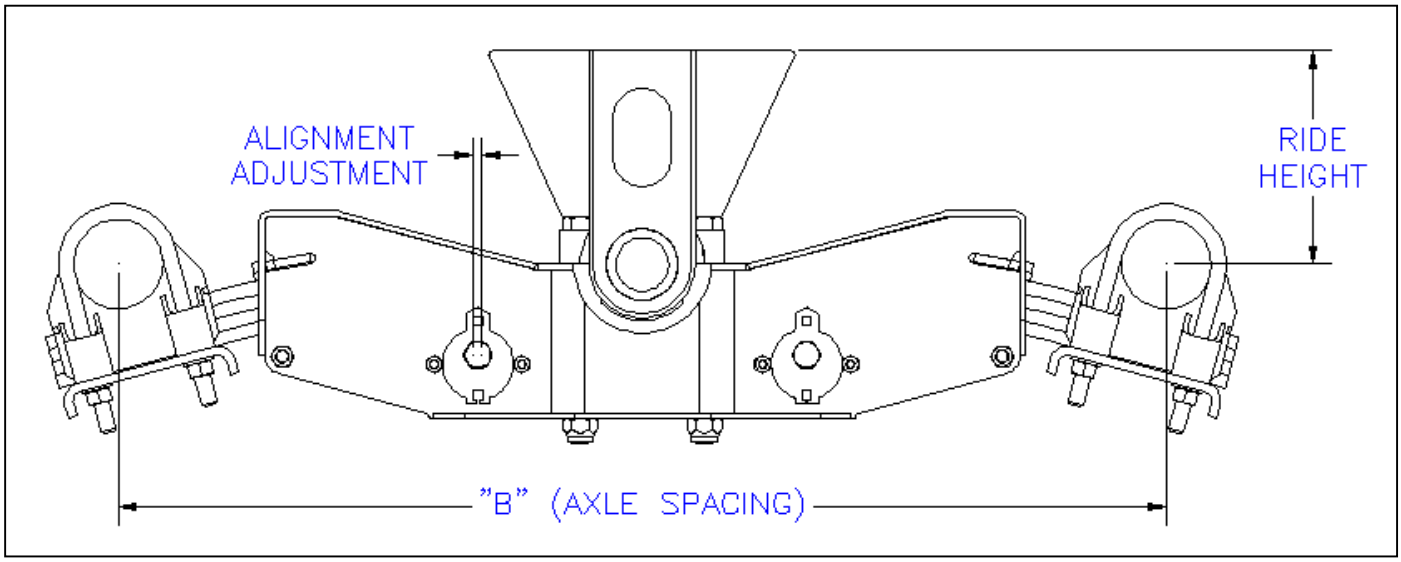


Adjusting the Alignme

- If realigning, loosen the rack lock bolts to allow eccentric cam movement. If gears are tack welded, grind off tacks.
- The eccentric cam gear should always have the indicator pointer to the top, so that the eccentric will be aligned with the grounding nuts properly.
- Set the alignment gear indicator tab at 12 o'clock, the neutral position. Optional: snug the rack lock bolts and pivot bolts of the "Trac-Align" to be tight enough to hold the joint together but loose enough to permit use of the eccentric cam adjustment. Be sure that the eccentric cam plate is clamped down flush against the hanger side and is not riding up the grounding nuts/bars or that there are any debris under the gear.
- For adjustment use a breaker bar in the ½” square hole
- The CushFLEX “Trac-Align” gives you 1/4” pivot movement fore and aft per pivot.
- To align the axle, rotate the alignment gear of one side of the suspension to get the axle aligned. If needed, go to the other side of the suspension and rotate the alignment gear in the opposite direction to fully align the axle.

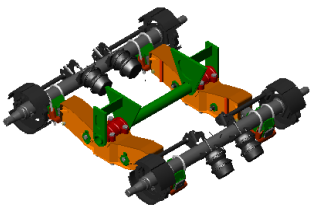
Axle Spacing

Cush has several different axle spacing's available for different applications. See your Cush installation drawing for your application.

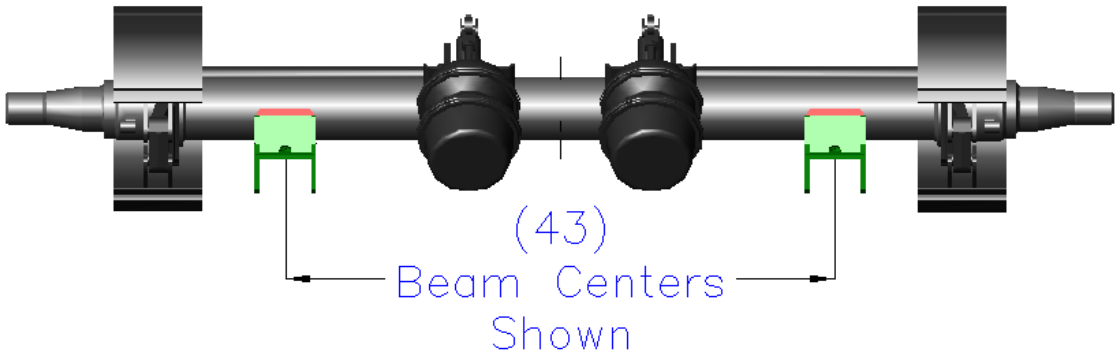


NOTE: The axle spacing will be measured with the trailer unloaded. The axle spacing and ride height will decrease as the suspension springs are loaded and defect up.

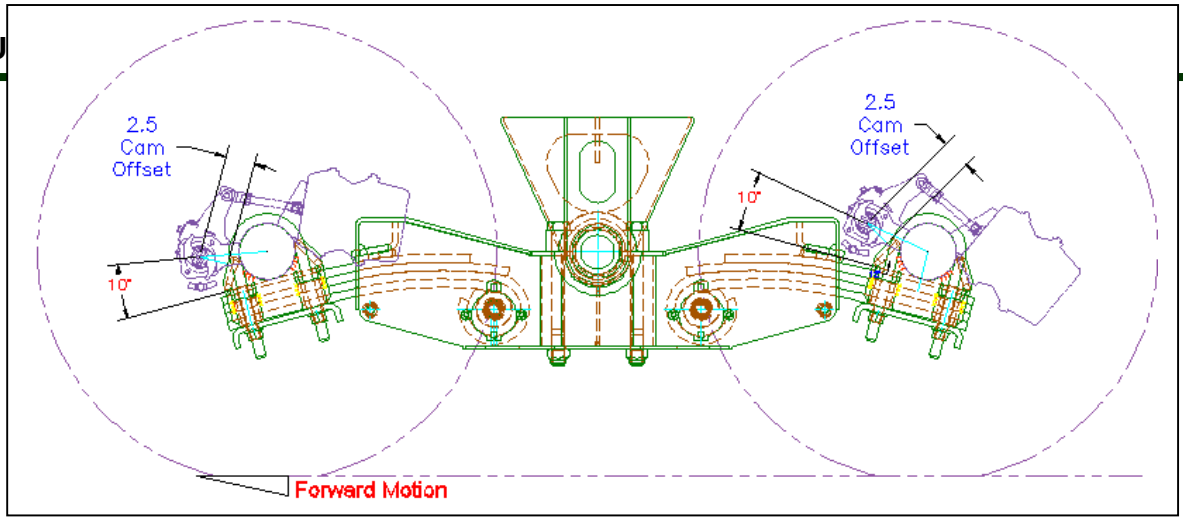
Axle Welding Installation Notes



- Customers may have different axle tracks and applications that will dictate the center spring beam spacing to mount the axle seat to the axle.
- Spring seats may be pre-welded to axles prior to assembling to other suspension components, see Cush installation drawings. Note cam-shaft clocking for welding axles.



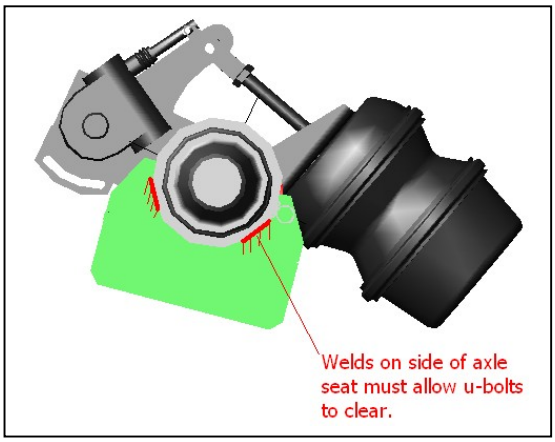
- Customers should also determine the clocking of the cam relative to the suspension axle seat. Customers may want to vary this per their application. Reference a typical installation of cams in the picture below.
- Note: Customers must check that cam/slack placement will not cause interference with trailer components causing part failures.



Cush Suspension to Axle Welding Procedures

RECOMMENDED STEEL WELDING PROCEDURES:
WARNING: If these procedures and specifications are not followed, damage to the axle or suspension could result. The resulting axle or suspension damage could cause an accident, property damage, and/or serious injury.
NOTE: A welder qualified in 2G position per ANSI/AWS D1.1-94 Section 5 Part C "Welder Qualification" must perform the welding.
NOTE: The specification shown below is for horizontal (2F) positioning.
1) Suspension components and their mating parts must be at a minimum temperature of 60°F(15.5°C) and free from moisture, dirt, scale, paint, grease, and other contaminates. (Pre-heat per axle manufacturer)
2) All welds must be performed in a flat, or horizontal, position. Clean welds between each pass.
Standard Wire: AWS ER-70S-6, 0.045"DIA
Volts: 26-30 DCRP
Current: 275-325 AMPS
Gas: 90%AR 10%CO2 at 30 to 35 CFH

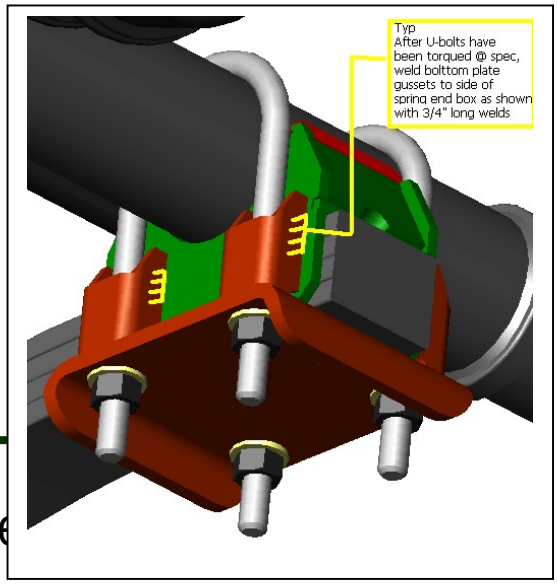
Note: Brake camshaft to be located according to axle manufacturer specifications & suspension/trailer model.



Use locating fixture or flat surface to space suspension axle seats and center axle. Check that axle seats are: parallel, square to axle, and perpendicular to axle.

- The suspension axle seat must be tight against the axle tube with no more that .063" gap at bottom.
- Weld sequence, size, and weld direction should be followed for proper installation.
- Back-weld .38" over the start/ends of all welds
- Fill all craters, avoid cold laps, and undercuts.
- Place 1/2" tack welds in the center forward of both suspension axle seats
- Position and weld rear root pass
- Do not wrap welds over axle seat ends, no weld .19" from ends
- Weld rear 2nd & 3rd cover pass
- Position & weld front root pass
- Weld front 2nd & 3rd cover pass
- Weld axle seat side welds

Note: Move back and forth to allow welds to cool and minimize distortion. You can skip in a “X” pattern for the axle welding.



U-BOLT INSPECTION & INSTALLATION NOTES

CAUTION! Do not apply any additional lubricants to the u-bolts, improper clamp loading can occur causing failure

Inspection

- Check each U-bolt threaded area for damage or burrs.
- After installation, an equal amount of thread should be visible beyond the head of the nut on each side of the U-bolt.

Installation

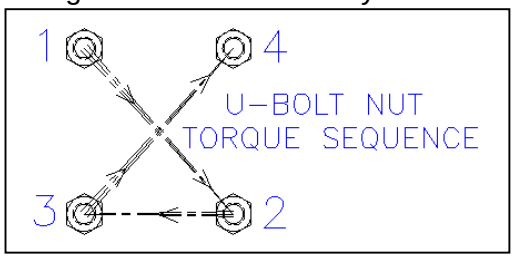
- U-Bolts should only be installed and torqued after completion of any axle welding. Allow sufficient axle cooling time before applying torque to u-bolts.

- Check that U-bolts fit properly in area, if U-bolt is to tight tap on top of U-bolt to hard surface to open up. Be careful that U-bolt installation does not damage threads.

- Snug all U-bolts evenly before applying clamping torque with hand wrench. Check that u-bolts are parallel and square to axle.

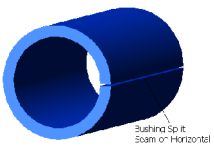
- Torque U-bolts in a three-step process to avoid an improperly clamped axle and resulting damage. Torque the u-bolts in an "**X**" pattern with each torque step (1-2-3-4). This allows the U-bolt to stretch and relax for the clamp to hold torque. Proper tightening will allow equal amount of tread above each nut.

- Use a calibrated torque wrench to get the proper setting for the size of U-bolt you are using:
  - **First Step-1/3 of Final torque**
  - **Second Step-2/3 of Final torque**
  - **Third Step-Final torque**



- After U-bolts have been torqued @ spec, weld bottom plate gussets sides to side of spring end box to secure that cantilever springs do not delaminate. Use ¾" long welds.

Trunion Pivot Component Replacement



The pivot of a trunion hanger on a mechanical suspension is the main link to connect the suspension to your trailer. This link provides a resilient connection that allows a walking beam or compensator to walk without excessive flexing. Re-bushing of a straddle-mount hanger suspension does not require a shop press. You must remove the walking beam and cap to get to the trunion bushing.

Disassembling Pivot Connection of an under-slung walking beam:

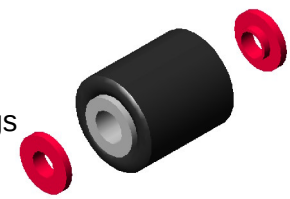
- On level ground, securely chock the tires and apply trailer parking brakes
- Support the trailer in a safe manner at a working height
- Support the weight of the walking beam underneath the center
- Remove tires so that you can lower walking beam with axles from trailer
- Loosen and remove trunion cap nuts, bolts, and trunion cap
- Inspect the trunion cap and throw away the nuts and bolts so you will use new trunion fasteners.
- Lower walking beam from trunion hanger
- Disassemble any other parts that interfere with lowering the assembly out of the suspension hangers
- Inspect trunion area for any metal damage that could tear a new bushing.
- Clean trunion area of any dirt or grime build-up.
- If is rubber, no lubrication needs to be added.
- If bushing is urethane, add a thin coating of silicone grease around trunion tube area. Urethane bushings are used to allow freer articulation of the walking beam.
- For rubber or urethane bushing, a new bushing might come without a slit: with a box knife cut a straight line on the bushing horizontal, place the bushing on the trunion tube with the slit on horizontal centerline and centered in hanger.
- Lift up walking beam and remount trunion cap by torquing bolts to specifications.

Spring Pivot Component Replacement

The pivot of the cantilever spring allows for more articulation and softer ride characteristics than a steel spring walking beam. This pivot bushing is made of rubber compound to effectively absorb loads and maintain its shape. In order to use standard off the shelf replacement components bushings may require insert reducers to allow for spacing offsets and to accommodate smaller bolts that can be properly torqued to their effective 90% of proof load.

Tools required: Shop wrenches, bushing press, bushing insertion tool per unit

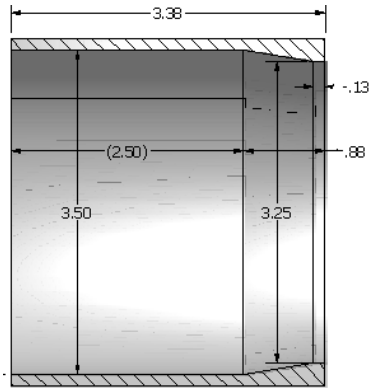
Disassembling Pivot Connection of Cantilever Spring”



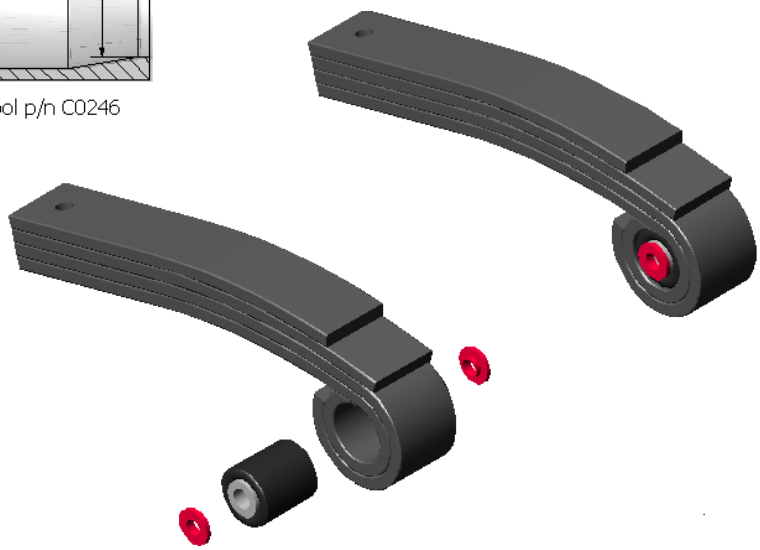
- On level ground, securely chock the tires and apply trailer parking brakes
- Support the trailer in a safe manner at a working height
- Support the weight of the walking beam underneath the center
- Remove tires from the side that you will be removing the cantilever springs
- Loosen and remove pivot hardware from spring side to be replaced
- Inspect pivot connection area of compensator after removing spring
- If spring is to be placed in shop press you will need to remove each from the axle connection: remove u-bolts, grind away axle seat connection welds between

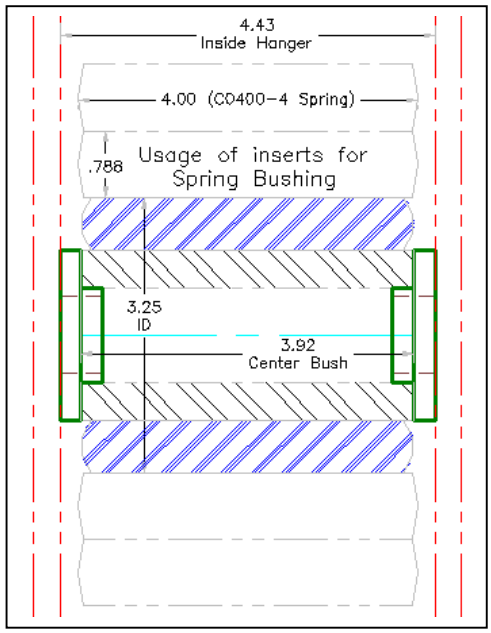
bottom seat and top seat, leave axle welds connecting top seat to axle in place, take apart axle seat top and bottom to be able to remove spring leaves from bottom seat dowel pin.

- Some models, remove the flanged inserts from the inner diameter of the bushing tube
- Take spring to shop press and remove old bushing
- Clean debris from spring eye cavity



Bushing Insert Tool p/n C0246





Bushing Replacement :

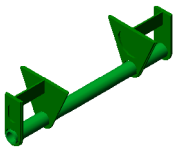
- Use Cush bushing replacement kit shown on parts explosion for your suspension, or contact Cush Corp for cross-reference.
- Lubricate outside of new Cush bushing and inside of spring eye bushing sleeve with proper rubber lubricant (P-80 or Ru-glyde)
- Put bushing into bushing insertion tool to reduce bushing from free OD to smaller OD of spring eye. Lubricate tool before placing bushing.
- Press in bushing, try to center inner metal bushing sleeve with the outer metal bushing housing, it may be necessary to push bushing thru a little and pull back to center rubber and inner metal sleeve.

Reassembling pivot connection:

- If required, replace the flanged inserts from to the inner diameter of the bushing tube sleeve
- If these inserts are loose and do not stay in place you may need to hold these inserts while guiding the spring into the compensator walking beam hanger.

Note: it is easier to do this with the compensator on the ground upside down and use gravity to lower the spring eyes into the compensator.

- Center the spring eye with inserts at the compensator pivot slot, use a tapered rod to assist.
- Gather the alignment gear hardware and new fasteners to remount the pivot.
- Hand tighten the pivot hardware to hold the position of all loose items
- If needed to spread the compensator hanger: using a hydraulic jack or other spreading device, spread open the compensator until flanges of flanged inserts enter the inside of the compensator, remove spreading device.
- Place adjustment gear per suspension drawing (Always use new fastener hardware)
- Using a wrench, move alignment gear pointers to nominal position
- Align axle with relation to the kingpin per Axle Alignment notes
- Torque all the fasteners to specification



Suspension Trunion Straddle-Mount Frame Hanger

Cush manufactures various hangers for different applications; because of this it would be best for you to contact Cush for an installation drawing per your application. On these drawings we may show recommended cross-member and support locations, your trailer manufacture may have an installation drawing for this. Failure to have the proper support in place can cause a reoccurring failure mode. If for some reason it is required to replace a frame hanger, please follow the guidelines below as a minimum safety procedure when repairing these items.

To replace welded frame hanger:

- Contact your trailer manufacturer or Cush Corp for replacement parts
- On level ground, securely chock the tires and apply trailer parking brakes
- Support the trailer in a safe manner at a working height
- Remove Tires as required
- Disassemble the pivot connection and any other parts that interfere with lowering the walking beam out of the suspension hanger
- Lower the assembly, check for any damaged or wear
- Check that the bushings are in usable condition
- Mark the hanger position on the frame side for reference
- Cut away the frame hanger and clean up the frame with grinder, do not gouge frame
- Raise the new hanger assembly to the frame and clamp hanger to frame squarely
- Align hanger assembly to kingpin (see Hanger Alignment notes)
- Weld hanger to frame per Cush Corp installation drawing
- Reassemble any other parts that were disassembled to lower assembly
- Align axles with relation to the kingpin (see Axle Alignment)
- Torque all the fasteners to specification
- Apply paint to prevent rust corrosion

Figure 4

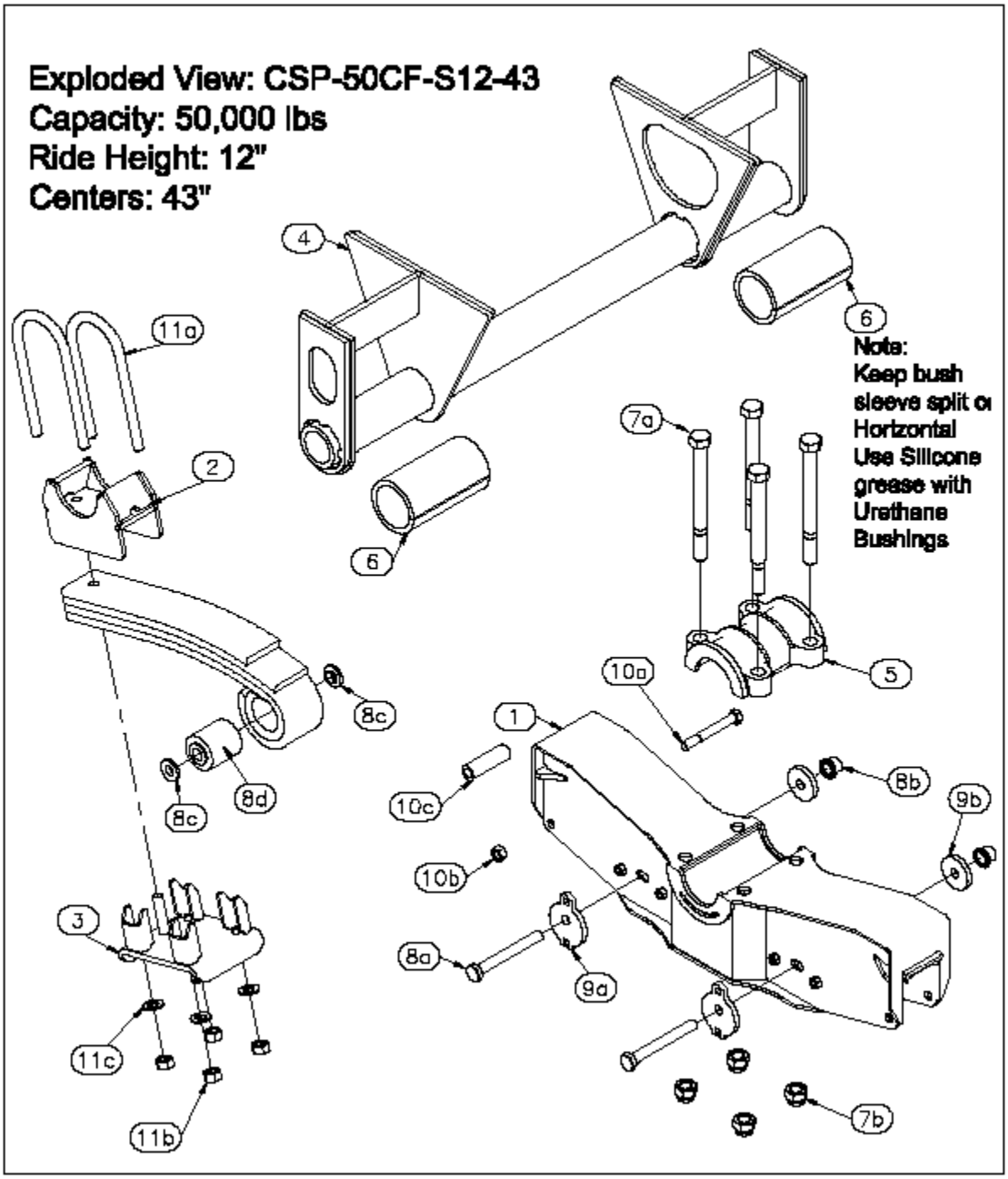

Exploded View: CSP-50CF-S12-43
Capacity: 50,000 lbs
Ride Height: 12"
Centers: 43"
Note:
Keep bush
sleeve split o
Horizontal
Use Silicone
grease with
Urethane
Bushings
4
6
11a
2
6
7a
5
10a
8c
1
8d
8c
10c
8b
9b
10b
3
8a
9a
11c
11b
7b

Table 4 for Figure 4: CSP-50CF-S12-43 Parts List

Item	Description: **CSP-50CF-S12-43**	Part Number	Qty
1	**Compensator Assembly for 59" Axle Spacing**	**W0682**	**2**
2	**Weld on Axle / Spring seat for 5" round**	**W0681**	**4**
3	**U-Bolt on Bottom Spring seat w/ dowel**	**W0680**	**4**
4	**Straddle Mount Trunion Hanger w/ 4" tube for 43" BC**	**W0683-12-43**	**1**
5	**Trunion Bushing Cap (Hutch Style 898-00)**	**C0402**	**2**
6a	**Rubber Trunion Bushing 9.125"Lg x 4"Id x 5"OD**	**C0403**	**2**
6b	**Urethane Trunion Bushing 9.125"Lg x 4"Id x 5"OD**	**C0405**	**2**
7	**Kit, Trunion Bolt w/Nuts**		**2**
7a	HHCS 1.125"-7 UNC x 12"lg grd8	H0136	4
7b	Nut 1.125"-7UNC Locking	H1109	4
8	**Pivot Bushing Kit (Per Spring Eye)**		**4**
8a	HHCS 0.875"-9 UNC x 7.5"lg grd8	H0135	1
8b	Nut, SecureLok Nut 0.875"-9 UNC	H1106	1
8c	Bushing Insert, .25" Spacer & Reducer from 1.125" OD to 0.9"ID	C0402	2
8d	Bushing 1.125"ID x 3.92"lg x 3.25" housing (3.45"OD Free Rubber)	C0250	1
9	**Trac-Align Pivot Alignment Kit (Per Spring Eye)**	**K0335**	**4**
9a	1/2" thk Alignment Gear, Eccentric w/Square (Outer)	F0552	1
9b	Round Alignment Gear, Fixture/Bearing Plate (Inner)	F0626	1
10	**Kit, Keeper Sleeve**		**4**
10a	HHCS, 0.75"-10 UNC x 6"lg, Grd 5	H0202	1
10b	Nut, Top-lock, 0.75"-10 UNC, grd C	H1201	1
10c	HD Keeper Sleeve 1.38"OD x .81"ID x 4.4"LG	T0035-4.4	1
11	**Kit, U-Bolt w/Nuts & Washers**		**4**
11a	U-Bolt, 7/8"-14UNF x 5" Round x 11.5" lg Gr 8	HU102	1
11b	Nut, 7/8"-14 UNF	H1101	2
11c	Washer 0.875" SAE Thru-Hard	H2101	2
12	**Ref-Cantilever Spring 4 leaf 50K style with eye (.78thk)**	**C0400-4**	**4**