CUSH GENERAL INSTALLATION NOTES, SEE CUSH SERVICE/INSTALLATION MANUAL

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, axles pacing, and axle GAWR.

2) It is the responsibility of the installer to determine the correct location of the suspension in order to provide the

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 ask eweight 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 members 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

4) It is the responsitivity of the suspension installation.

USTOMER TORQUE INSTRUCTIONS:

1) 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 loss of clamp load occurs. For proper joint clamping contact Cush for replacement fasteners.

5) CAUTION: Over-torquing fasteners could result in material failure.

Customer to torque fasteners on nut side, except Shear-off Bolt Head.			l.	(Ft·Lbs)		(N · m)	
General Fastener Torque Specs		Thread	Grade	Min.	Max.	Min	Мах.
Lower Tower Spacer Bolt/Nut	3/8	16-UNC	5/B	25	35	34	47
"B-Aligned" Ring Lock Bolt	1/2	13-UNC	5/B	25	35	34	47
Air Spring Bottom Mount TopLock Nut		13-UNC	5/B	50	60	68	81
Frame Mounting Bolt/Nut	1/2	13-UNC	8/C	100	120	136	163
Brake Chamber Mounting Nut		11-UNC	5/B	100	110	136	149
Cross-brace & Frame Mounting Bolt/Nut		11-UNC	8/C	170	210	230	285
Air Spring Top Mount Nylock Nut		16-UNF	5/B	40	50	54	68
Shock Mount Nut/Bolt		10-UNC	5/B	210	235	285	319
AudiTorx® Shear-off Bolt Head (SecureLok™ Nut)	7/8	9-UNC	8/C	550	600	746	813

INSTALLATION OF "TRAC-ALIGN" NOTES:

OVERVIEW: The "TRAC-Align" pivot joint features outside eccentric cam gear washer that cover the alignment slot. The "Trac-Align" was designed to give our customers the use of an eccentric cam adjustment. CAUTION: DO NOT APPLY ndercoating to the alignment area until after alignment and torque of the pivot bolt.

- Set the alignment gear at the neutral position. Be sure that the eccentric gear plate is clamped down flush against the hanger side and is not riding up the grounding nuts/bars.
 For adjustment use a breaker bar in the '\s'' square hole.
 The "Trac-Afgin" gives you 3/8" pivot movement fore and aft per hanger side. (see Installation Manual)
 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.
 After alignment, damp the joint per Cush torque specifications. After alignment, the suspension installer can weld the outside washer to the hanger side with 2 x 1/2" welds to prevent tampering & for off-road applications.

For Medium Length Cam Axles you must mount shocks before you mount brake chambers.

- AXLE WELDING NOTES, See Cush Procedure:
 WARNING: Review Cush Recommended Steel Welding Procedures

 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.
- or the best axle to beam weld joint use the following wire: AWS ER70S—6. Create the straight edge root pass to connect the axle to the trailing arm
- beam. Hit the axle seat down at the plug weld are to the axle to give you the best fit at these plugs. Weld the plugs with 1/2" fillets all around, you do not have to fill them
- 6. Finish the edge weld with your 3 pass 1/2" fillet.
- ORIGINAL-INSTALLATION INSPECTION NOTES, verify that:

 1) The installation clearance requirements have been met.

- 1) The installation clearance requirements have been met.
 2) The axles have been aligned properly.
 3) The suspension frame bracketry and air spring plate welds have been properly completed. per specifications
- 4) All suspension bolt torques are to Cush specifications.
- 5) The suspension ride height is set properly.

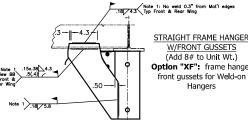
 6) The suspension can articulate freely through its entire travel and adequate component

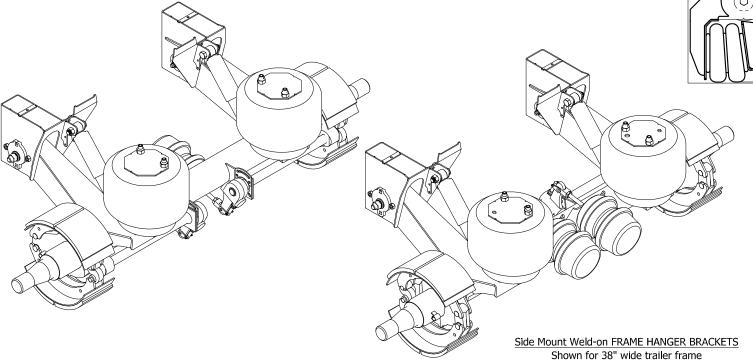
INSPECTION: 30-DAY, 90-DAY, & at every brake lining change.

- 1) Check installation clearance requirements.
 2) Check for any signs of wear or component interferences.
 3) Check suspension attachment welds for signs of problems.
 4) Check that all bolts are in place and securely torqued.
- 5) Check pivot bushings & clamping connections for problems.6) Check that the trailer is level.
- 7) Check thre wear that might indicate an alignment problem.

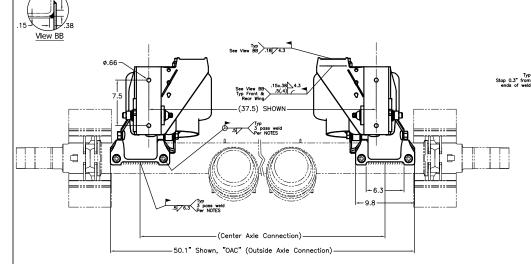
INSTALLATION CLEARANCE NOTES:
1) 0.75" minimum clearance must be maintained around air spring when it is at maximum

2) It is the responsibility of the installer to ensure that proper clearances exist at the tires: 1' minimum clearance required between top of thre and bottom of trailer structure when axie is at full jounce, 2" minimum clearance required between loside of tire and trailer frame structure for lateral movement, and there should be ample fore and aft clearances. 0.13" clearance is recommended between suspension beam and brake s-cam shaft.



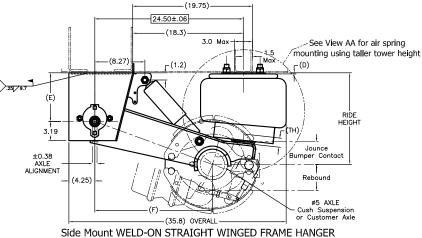


STRAIGHT FRAME HANGER Option "XF": frame hanger 46.50" Shown, "C" (Minimum In-In Tires)front gussets for Weld-on —41.6" Shown, "L" (Out—Out of Frame Hanger Brackets)—

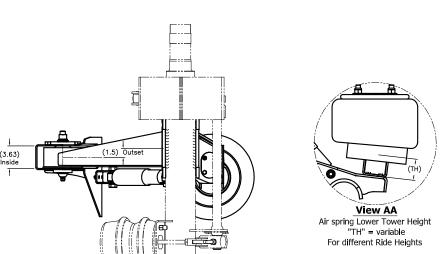


Note: Customer to support front of hanger with Cush Wing Gusset "XF" option or customer supplied 3" structural cross-member

		(-0.5")			Top	Hanger	Horz	Beam	WEIGHT
Weld-on	(In)	Bumper		(In)	Spacer	Pivot (P)	Pivot to	Tower	Suspensio
Suspension	RIDE	Deflection	(In)	BUMPER	Height	Height	Axle	Height	Strt-Win
Model_RH	HT	JOUNCE	REB'D	CONTACT	"D" (In)	"E" (In)	"F" (In)	"TH" (In)	Weld-on
CLP25TW_14	14	3.3	5.3	2.8	0.19	8	19.9	1.5	226
	14.5	3.8	4.8	3.3	0.19	8	19.8	1.5	226
	15	4.3	4.3	3.8	0.19	8	19.7	1.5	226
	15.5	4.8	3.8	4.3	0.19	8	19.6	1.5	226
	16	5.3	3.3	4.8	0.19	8	19.5	1.5	226
	16.5	5.8	2.8	5.3	0.19	8	19.4	1.5	226
CLP25TW_16	16	3.3	5.3	2.8	0.19	10	19.9	3.5	238
	16.5	3.8	4.8	3.3	0.19	10	19.8	3.5	238
	17	4.3	4.3	3.8	0.19	10	19.7	3.5	238
	17.5	4.8	3.8	4.3	0.19	10	19.6	3.5	238
·	18	5.3	3.3	4.8	0.19	10	19.5	3.5	238
	18.5	5.8	2.8	5.3	0.19	10	19.4	3.5	238



(E)=8" SideMount (p/n: **SW4**) Shown See Chart for Tabulated Dimensions Shown Above (Note: hanger must be supported by welding gussets to cross-members)



	37.5" Shown, "B" (Center of Frame Hanger Brackets) 33.4" Shown, "K" (In-In Frame Brackets) (10.5)
(15.5) Axle offset Std. dual offset wheels or single wheel no offset	(7.25) (6/14.1) 1.37 "A"-14.1"(Inside Springs) 31.0" Shown, "A"±0.06 (Center of Air Springs) 40.5" Shown, "CAC"="B"+3.63" (Center Axle Connection)

-71.5" Shown, "T" (Axle Track, Std Dual Wheel)-

Track Width " T " (In)	Axle Track, Dual Wheel, Std Offset	71.5	77.5	83.5	
Dimension "A" (In)	Center of Air Springs	31.0	37.0	43.0	
Dimension "B" (In)	Center of Frame Hanger Bracke	37.5	43.5	49.5	
Dimension "C" (In)	Minimum In-In Tires		46.5	52.5	58.5
Dimension "K" (In)	In-In Frame Brackets	33.4	39.4	45.4	
Dimension "L" (In)	Out-Out of Frame Hanger Brackets		41.6	47.6	53.6
Dimension "AC" (In)	Air Chamber Centers Max	17.8	23.8	29.8	
Dimension "CAC" (In)	Center Axle Connection (3.0" offset)		40.5	46.5	53.1
Dimension "OAC" (In) Outside Axle Connection			50.1	56.1	62.1
DRAFTSMAN: jmk 12/12/12 !:	APPLICATION INSTALLATION SHEET		<u> </u>		<u> </u>

Dimension "OAC" (I	n)	Outside Axle Connection
DRAFTSMAN: jmk 12/12/12	::	APPLICATION INSTALLATION SHEET
CHECKED:	ΤЩ.	CushLite Performance 25K TopMount
RELEASED:	-	CushMate Axle Connection
	_	For 5/8" wall 5" Rd Axle Beam
APPROX. WEIGHT: See Chart	⊦	Weld-on Hanger, Rear Wing Gusset
MATERIAL: SEE PART DWGS.	1	TOLERANCE UNLESS

s the intellectual property of Cush Corp and is submitted only on a onfidential basis. The recipient agrees that no disclosure of this ormation will be made to a third CLP25TW-RH SPEC ush Corp. This design protected

This design covered by Cush Patent US7267348 & Patents Pending er U.S. Pub.L.106-102, 113 U.S. Stat.1338 (1999), and may be subject to