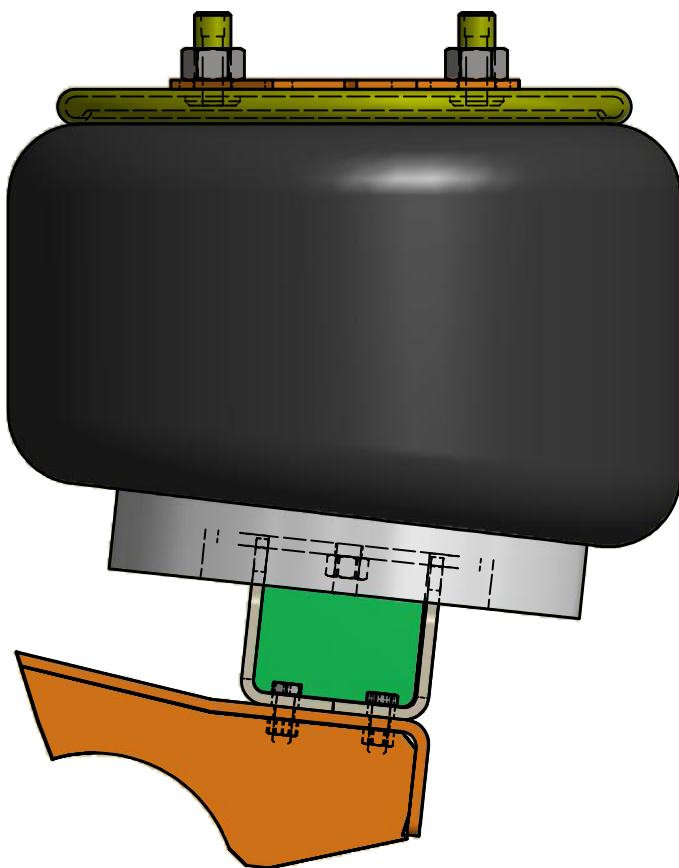


CUSH GENERAL INSTALLATION NOTES, SEE CUSH SERVICE/INSTALLATION MANUAL
INSTALLATION DISCLAIMER NOTES:
1) It is important that the proper Cush suspension is chosen for the trailer application. The following criteria must be considered when selecting a suspension: required suspension capacity, loaded frame-to-ground measurement, ride height, axle travel, 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.
CUSTOMER TORQUE INSTRUCTIONS:
1) *DUAL RATE PIVOT BUSHING JOINT SNUG FROM FACTORY. CUSTOMER TO TORQUE THIS JOINT TO SPECIFICATION AFTER AXLE ALIGNMENT.
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 loss of clamp load occurs. For proper joint clamping contact Cush for replacement fasteners.
5) CAUTION: Over-torquing fasteners could result in material failure.

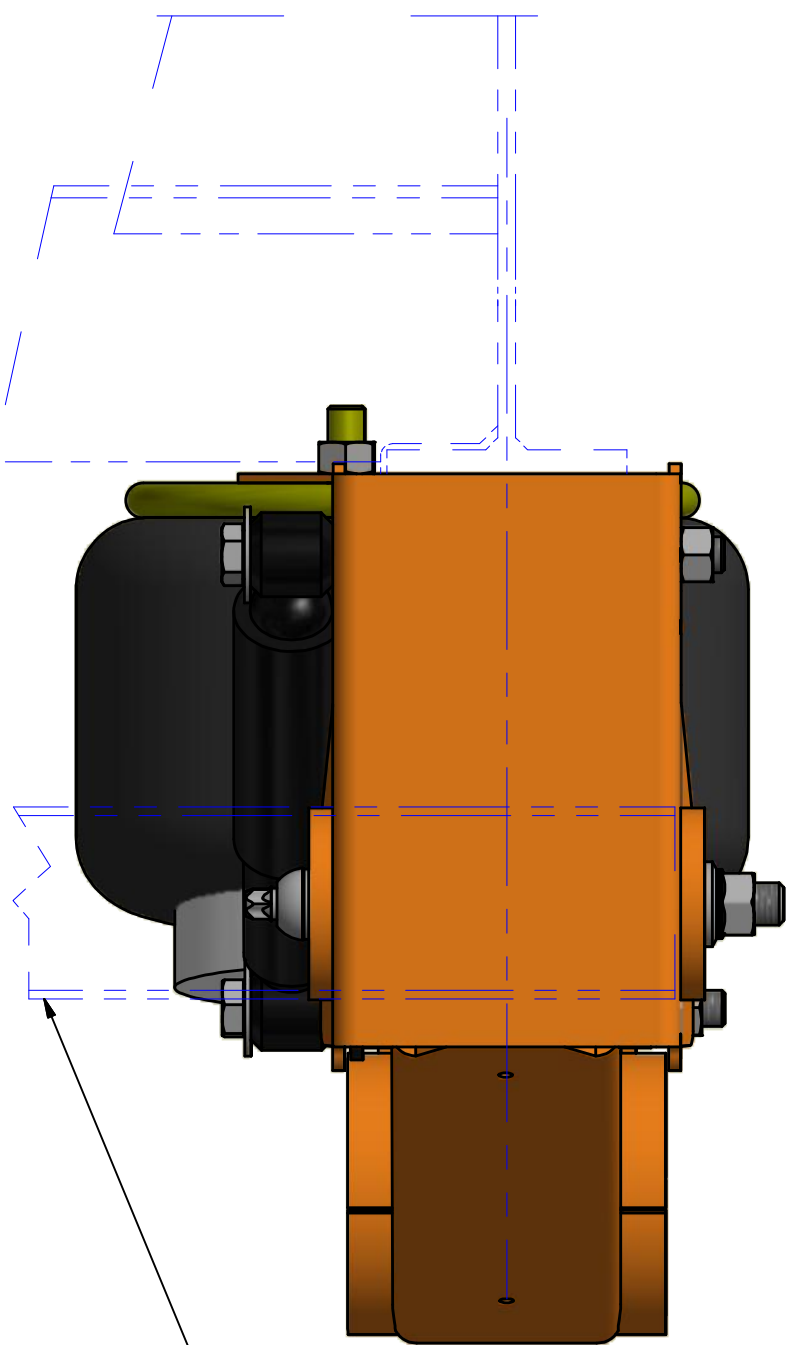
MODEL: CP25T				(Ft*Lbs)		(Nm)	
Fastener Torque Specs	Size	Thread	Grade	Min.	Max.	Min	Max.
Air Spring Tower Mount Nut	3/8	16-UNC	5/B	30	45	41	61
Air Spring Bottom Mount TopLock Nut	1/2	13-UNC	5/B	25	35	34	47
Air Spring Top Mount Nut	3/4	16-UNF	5/B	40	50	54	68
Shock Mount Nut/Bolt	3/4	10-UNC	5/B	210	235	285	319
Slot-Align Pivot Bolt & Nut	7/8	9-UNC	8/C	550	600	746	813

INSTALLATION OF "SLOT-ALIGN" NOTES:
OVERVIEW: The "SLOT-Align" pivot joint features outside eccentric cam gear washer that cover the alignment slo and gives the user a economical way to get axle alignment feature. CAUTION: DO NOT APPLY undercoating to the area until after alignment and torque of the pivot bolt.

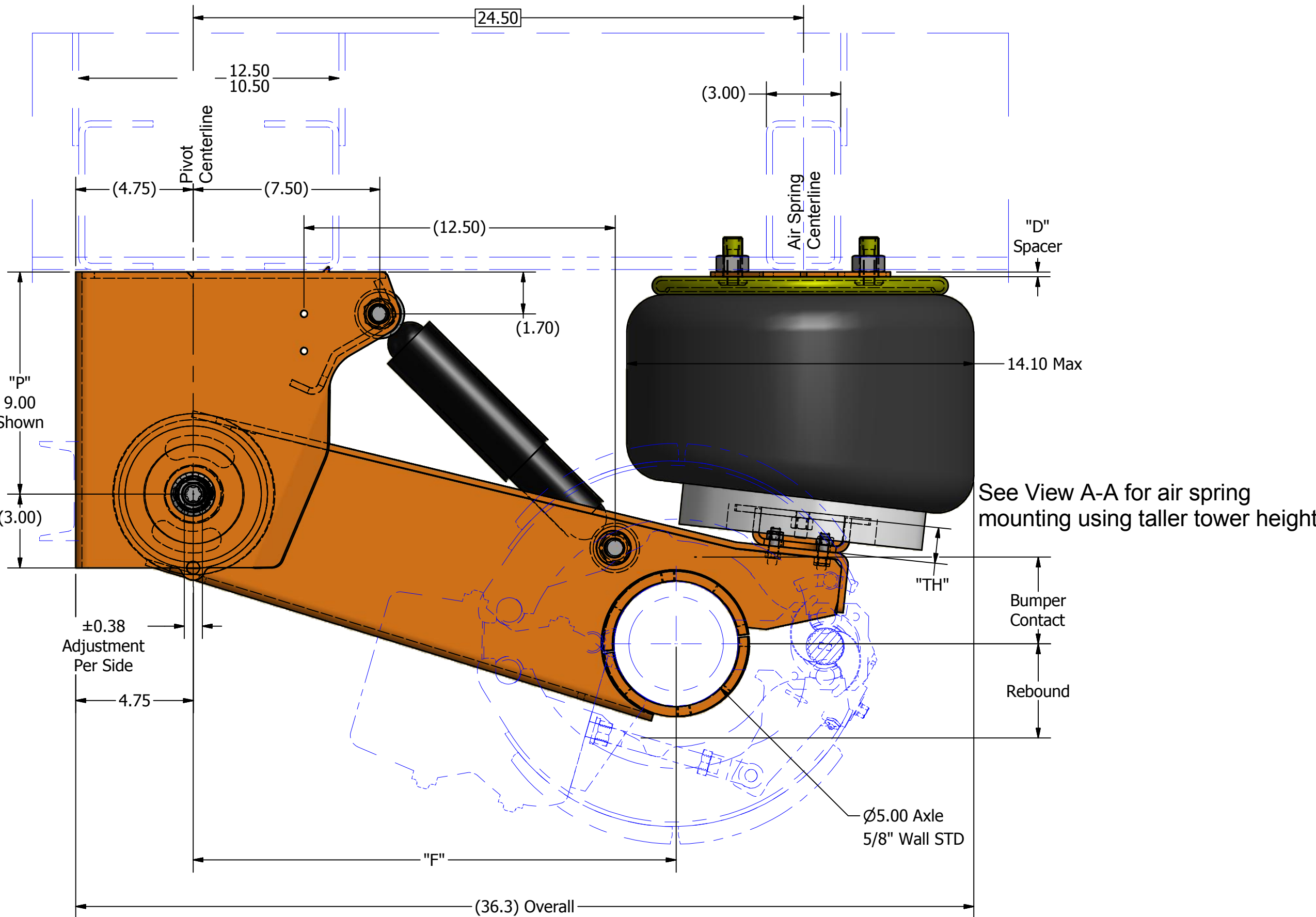
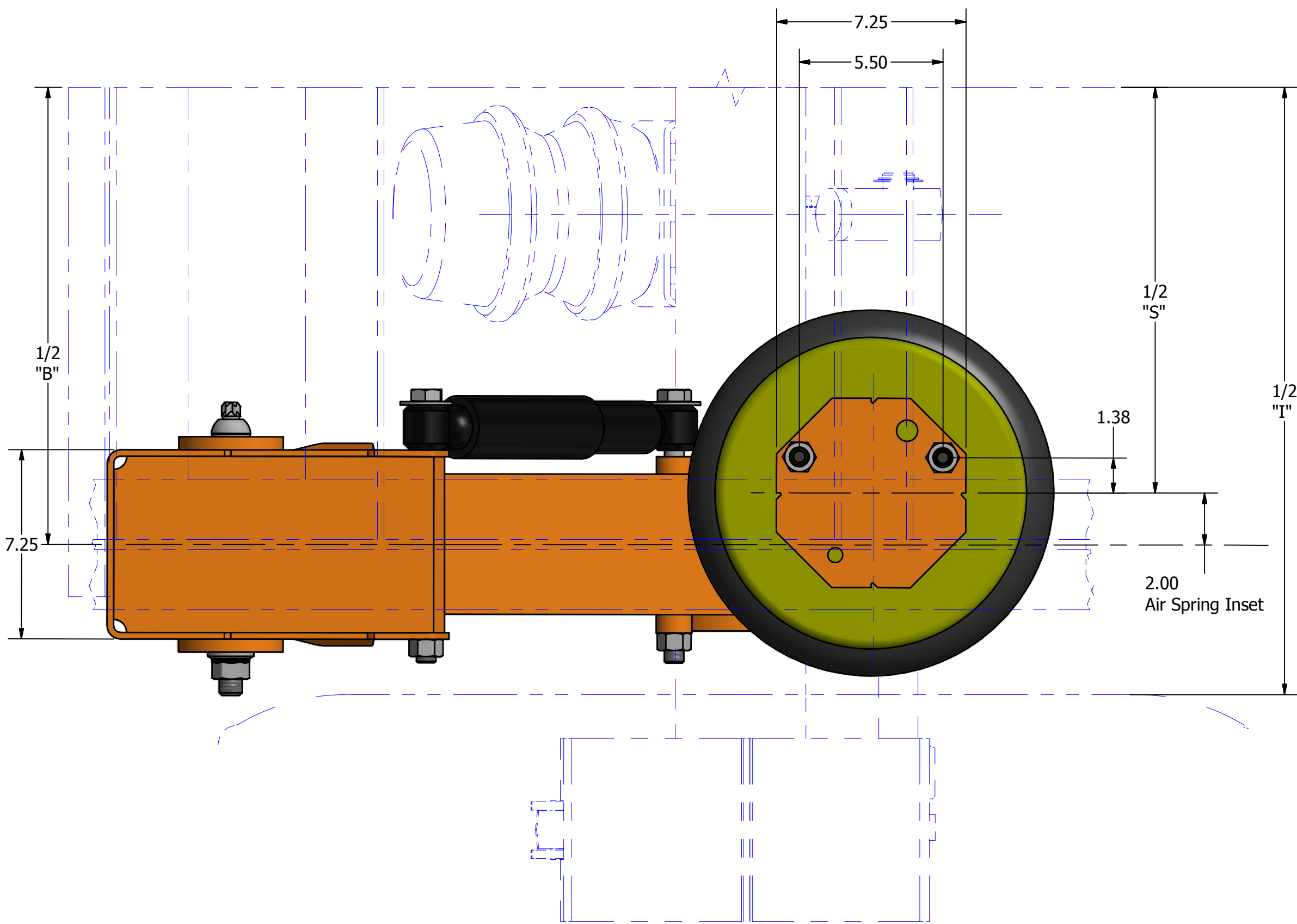
- With the pivot bolt loose.
- For adjustment, use a breaker bar or other to move the axle forward/rearward.
- The Slot gives you 3/8" pivot movement fore and aft per hanger side. You can use Cush tool W1235 for adjusting pivot gear on one side or both.
- To align the axle, move one side of the suspension to get the axle aligned. If needed, go to the other side of the suspension and move in the opposite direction to fully align the axle.
- After alignment, clamp the joint per Cush torque specifications. After alignment, the suspension installer can weld the outside washer to the hanger Top & Bottom of the gear with 1/2" welds to prevent tampering & for off-road applications. Do not weld on the sides of the gear.



View A-A
SCALE 1 / 4
Air Spring Lower Tower Height
"TH" = 3.5" Shown
for T17_16"/18"
Ride Heights



Front Cross-Member or
Hanger Support
Customer Furnished
See Options



DCN#	D	Fix Parts List to Show Correct Pivot Kit Sub-Assembly	3/18/15	DJW	CHK	APP
DCN#	C	Updated with Color Layout	1/9/15	DJW	CHK	APP
DCN#	B	Updated Hanger and Alignment Washers changed to Kit K0623	8/6/14	DJW	CHK	APP
DCN#	A	Changed To Hanger W1226	6/9/14	DJW	CHK	APP
DRAFTSMAN: DJW	12/5/2014	TITLE: Part List Installation Sheet Cush Performance TopMount Full Wrap 25000 Gross Suspension Weight Rating 14"/16" Ride Height Weld-On Wingless Hanger Mount				
CHECKED: CHK						
RELEASED: APP			Nixa, MO, USA PHONE: 417-724-1239 www.cushcorp.com			
WEIGHT: N/A						
MATERIAL:			PROJECT NO: 14208 SHEET: 1 OF 2 SCALE: A-SIZE: NTS B-SIZE: 1/X D-SIZE: 1/4			
All of the Information shown herein is the intellectual property of Cush Corp and is submitted only on a confidential basis. The recipient agrees that no disclosure of this information will be made to a third party without written consent of Cush Corp.		TOLERANCE UNLESS OTHERWISE STATED: .XX = +/- .062 .XXX = +/- .031				
		REVISIONS: +/- .176 ANGLES = +/- 1°				
		REV: D	PART/DRAWING NO: CP25TF-0(15/16/17)			

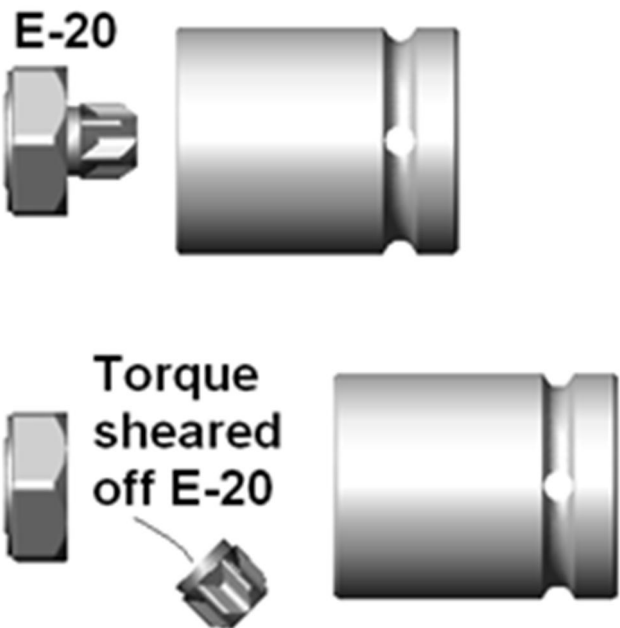
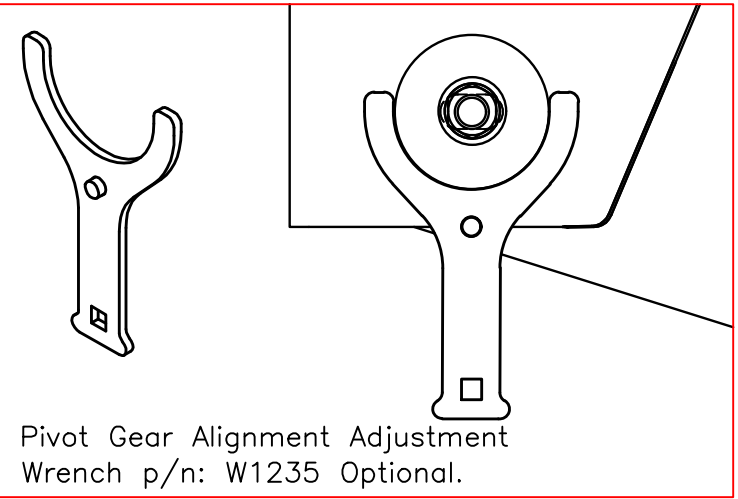
- ORIGINAL-INSTALLATION INSPECTION NOTES,** verify that:
- 1) The installation clearance requirements have been met.
 - 2) The axles have been aligned properly.
 - 3) The suspension frame bracketry and air spring plate welds have been properly completed per specifications.
 - 4) All suspension bolt torques 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 clearances have been provided.
- 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 tire wear that might indicate an alignment problem.

General Application Dimension Variables - Installation Clearance Notes Supersede all Common Variables Shown						
"B" Ref. Suspension Beam(Hanger) Centers	34	35	40	41	40	39
"S" Ref. Air Spring Centers (2" Inset/side)	30	31	36	37	36	35
"F" Ref. Axle Track	71.5"	71.5"	76.5"	77.5"	77.5"	77.5"
"C" Approx. Chamber Centers for 16.5" x 7" Brake	9.75	9.75	14.75	15.75	15.75	15.75
"T" Ref. Inside of Tires Min (Hanger Style)	46.5	46.5	51.5	52.5	52.5	52.5
Installation Clearance Notes						
1 0.75" minimum clearance must be maintained around air spring when it is at maximum diameter.						
2 It is the responsibility of the installer to ensure that proper clearances exist at the tires: 1" minimum clearance required between top of tire and bottom of trailer structure when axle is at full jounce, 2" minimum clearance required between inside of tire and trailer frame structure for lateral movement, and there should be ample fore and aft clearances. 0.25" clearance is recommended between suspension beam and brake's cam shaft.						

Part No.	(In)	Bumper		up	Top Spacer	Hanger Pivot	Horz Pivot to Axle	Beam Tower
Suspension Model & RH	HT	Deflection	Down	BUMPER CONTACT	Height "D"	Height "P" (In)	Height "F" (In)	Height "TH" (In)
CP25T15	14.0"	3.0"	5.5	2.75	0.18	9	19.7"	1.5
	14.5"	3.5"	5	3.25	0.18	9	19.5"	1.5
Shown:	15.0"	4.0"	4.5	3.75	0.18	9	19.4"	1.5
	15.5"	4.5"	4	4.25	0.18	9	19.2"	1.5
	16.0"	5.0"	3.5	4.75	0.18	9	19.0"	1.5
	16.5"	5.5"	3	5.25	0.18	9	18.8"	1.5
CP25T16	15.0"	3.0"	5.5	2.75	0.18	10	19.7"	2.5
	15.5"	3.5"	5	3.25	0.18	10	19.5"	2.5
	16.0"	4.0"	4.5	3.75	0.18	10	19.4"	2.5
	16.5"	4.5"	4	4.25	0.18	10	19.2"	2.5
	17.0"	5.0"	3.5	4.75	0.18	10	19.0"	2.5
	17.5"	5.5"	3	5.25	0.18	10	18.8"	2.5
CP25T17	16.0"	3.0"	5.5	2.75	0.18	11	19.7"	3.5
	16.5"	3.5"	5	3.25	0.18	11	19.5"	3.5
	17.0"	4.0"	4.5	3.75	0.18	11	19.4"	3.5
	17.5"	4.5"	4	4.25	0.18	11	19.2"	3.5
	18.0"	5.0"	3.5	4.75	0.18	11	19.0"	3.5
	18.5"	5.5"	3	5.25	0.18	11	18.8"	3.5

Fastener Torque Specs	Size	Thread	Grade	(Ft*Lbs)		(Nm)	
				Min.	Max.	Min	Max.
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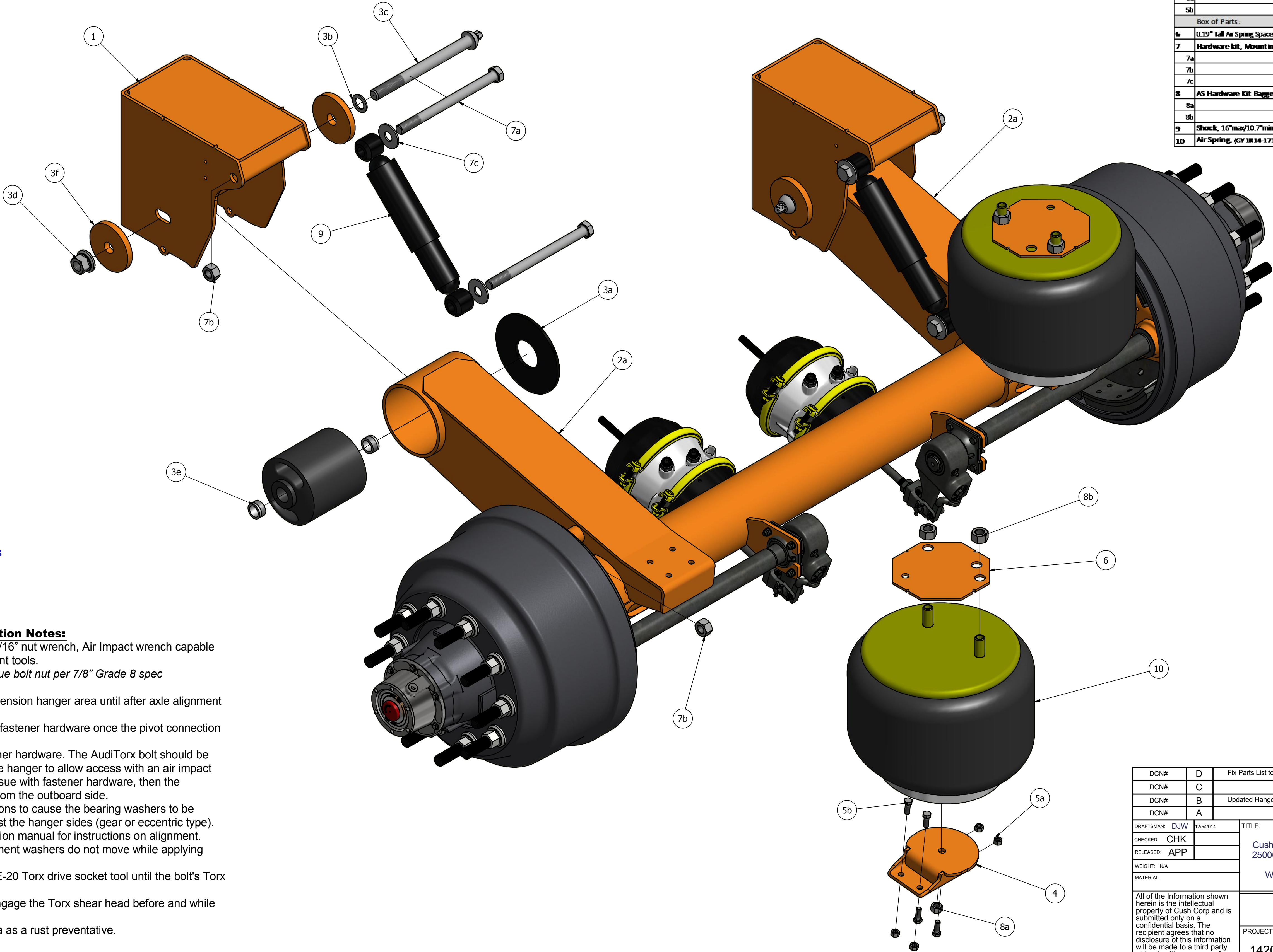
Item	Description: CP25TF15-S13103_Parts	Qty	Cush P/N:	Cush P/N:	Cush P/N:
1	Weld-on Hanger, x=4.75", 3/4" Slot Align	2	W1226	W1257	W1256
2	H-Beam Assembly of Beams and Aids	1	A0007-XXX		
2a	Universal beam weldment	2	AW1192		
2b	Aide wrap shell	4	B1149		
2c	Integrated aide per spec number	1	A0006-XXX		
3	Pivot Bushing Kit (Per Hanger)	2	K0623		
3a	Wear Washer, 0.25" thk	1	C0061		
3b	Washer 0.875" SAE Thru-Hard	1	H2101		
3c	AudiTorx HKCS 0.875"-9 UNC x 10 7/8" gr8S	1	H0124		
3d	Nut, Securolok Nut 0.875"-9 UNC	1	H1106		
3e	Bushing Insert, Reducer from 1.25" OD to 0.97" ID	2	T0063		
3f	4" OD Round Alignment Washer	2	F1184-50		
4	Air Spring Tower/Beam Spacer, 1.5" tall	2	W0776-1.5	W0776-2.5	W0776-3.5
5	Kit, Air Spring Tower Mounting	1	K0419		
5a	L'Nut, Toplock 0.375-16UNC	8	H1404		
5b	HKCS Bolt 0.375-16UNC x 1.0" Long	8	H0701		
Box of Parts:		Qty	Cush P/N:		
6	0.19" Tall Air Spring Spacer spacer Weld-on Plate	2	F0790		
7	Hardware kit, Mounting for Shocks	1	K0025		
7a	HKCS, 0.75-10unc x 10.0 7/8" Gd 5	4	H0225		
7b	Nut, center locking 0.75-10unc, grd C	4	H1201		
7c	Washer 3/4" ID, USS	4	H2203		
8	AS Hardware Kit Bagged Together	1	K0030		
8a	Toplock nut 0.5-13UNC	2	H1302		
8b	L'Nut, Nylock 0.75-16UNF	4	H1202		
9	Shock, 16"max/10.7"min (Gabriel85064)	2	C0226		
10	Air Spring, (GV 1814-171/Com11_10-SA-16P523/PS W01-358-8091)	2	C0064		



Performance Features
Non-Captured axle
7/8" Shear pivot bolt head for easy install
Industry standard bushings & shocks
Slot-Align axle adjustment of +/- .38" at hangers
(Optional Alignment Wrench Tool, W1235)
Integrated HCV mountings for ACK-0206
Available Options

***AudiTorx (E-20) Installation & Inspection Notes:**

- Required Materials: E-20 Torx socket, 1-5/16" nut wrench, Air Impact wrench capable of 600 ft*lbs (813 N*m) Minimum, alignment tools.
- If a Torx E-20 socket is not available, torque bolt nut per 7/8" Grade 8 spec (550-600ft*lbs)
- DO NOT APPLY undercoating to the suspension hanger area until after axle alignment and pivot bolt torque has been applied.
- Cush does not recommend reuse of pivot fastener hardware once the pivot connection is disassembled, use a new bolt and nut.
- Check for proper tire clearance with fastener hardware. The AudiTorx bolt should be installed from the inboard side of the frame hanger to allow access with an air impact when tires are on, if tire clearance is an issue with fastener hardware, then the shear-type bolt head should be installed from the outboard side.
- NOTE: Check for any flashing or obstructions to cause the bearing washers to be raised and not allow flush mounting against the hanger sides (gear or eccentric type).
- Check proper axle alignment, see installation manual for instructions on alignment.
- Snug the pivot fasteners so that the alignment washers do not move while applying initial torque, recheck alignment.
- Torque the shear-type pivot bolt with the E-20 Torx drive socket tool until the bolt's Torx head shears off.
- The E-20 Torx drive socket should fully engage the Torx shear head before and while applying torque.
- Apply paint to the sheared away Torx area as a rust preventative.



DCN#	D	Fix Parts List to Show Correct Pivot Kit Sub-Assembly	3/18/15	DJW	CHK	APP
DCN#	C	Updated with Color Layout	1/9/15	DJW	CHK	APP
DCN#	B	Updated Hanger and Alignment Washers changed to Kit K0623	8/6/14	DJW	CHK	APP
DCN#	A	Changed To Hanger W1226	6/9/14	DJW	CHK	APP
DRAFTSMAN:	DJW	12/9/2014	TITLE:			
CHECKED:	CHK		Part List Installation Sheet			
RELEASED:	APP		Cush Performance TopMount Full Wrap			
WEIGHT:	N/A		25000 Gross Suspension Weight Rating			
MATERIAL:			14"/16" Ride Height			
All of the Information shown herein is the intellectual property of Cush Corp and is submitted only on a confidential basis. The recipient agrees that no disclosure of this information will be made to a third party without written consent of Cush Corp.			TOLERANCE UNLESS OTHERWISE STATED: XX = +/- .062 FRACTIONS = +/- 1/16 XXX = +/- .031 ANGLES = +/- 1°			
PROJECT NO:	14208	SHEET: 2 OF 2	SCALE: A-SIZE: NTS B-SIZE: 1/X D-SIZE: 1/4	REV: D	PART/DRAWING NO: CP25TF-0(15/16/17)	



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