

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) CUSTOMER TO OBTAIN ALL FASTENER INSTRUCTIONS: the correct location of the fasteners, and the fasteners and torque specifications to be used. The rated capacity of any of the fasteners is shown in the suspension drawing sheets. Failure to follow these instructions may result in suspension failure and injury to personnel.
- 3) The suspension is designed for use on a trailer. The suspension is not designed for use on a vehicle that is subject to high speed, high load conditions. Failure to follow these instructions may result in suspension failure and injury to personnel.
- 4) The suspension is designed for use on a trailer. Failure to follow these instructions may result in suspension failure and injury to personnel.

MODEL: CTO	Fastener Torque Specs	Size	Thread	Grade	(F*Lbs)		(Nm)	
					Min.	Max.	Min.	Max.
	Air Spring Bottom Mount Nut	1/2	13-UNC	5/B	25	35	34	47
	Break Chamber Mounting Nut	5/8	11-UNC	5/B	100	110	136	149
	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
	TRAC-ALIGN Pivot Bolt & Nut	7/8	14-UNF	8/C	550	600	746	813

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.

INSTALLATION OF "TRAC-ALIGN" NOTES:

OVERVIEW: The "TRAC-ALIGN" pivot joint features outside eccentric cam gear washer that cover the alignment slot and adjust forward and aft on the outside of each hanger. After alignment, clamp the pivot bolt per Cush torque specifications. No welding is required on this joint after alignment; the suspension installer can weld the gear washer to the hanger side with 1/2" welds to prevent tampering.

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

- 1) The pivot bolts of the "TRAC-ALIGN" should be tight enough to hold the joint together but loose enough to permit rotation of the eccentric cam gear.
- 2) Set the eccentric cam gear indicator at 6 o'clock, the neutral position.
- 3) Measuring from the trailer's kingpin, determine the alignment of the axle.
- 4) To align the axle rotate the eccentric cam gear of one side of the suspension to get the axle to within 1/16".
- 5) After achieving proper alignment of the forward axle, torque the fasteners.
- 6) Align, to within 0.06" tolerance, any additional axles to the forward axle per this method.

INSTALLATION NOTES:

- 1) Measure trailing arm centers and track to verify your requirements.
- 2) DO NOT APPLY undercoating to the suspension until after completing the alignment. Undercoating will effect clamp load of the pivot connection fastener and can damage the hardware.
- 3) Mount hangers onto trailer frame per suspension drawing sheets.
- 4) Place plastic washers on both sides of bush inner metal and insert spacer collars into bush inner sleeve.
- 5) Measure for fitup then mount Cushride trailing arm/axle assembly into suspension hangers.

NOTE: If the assembly fits tightly, it may be necessary to spread the hangers. DO NOT GRIND material from suspension components.

- 6) Place "Cush-Align" gear washer, with indicator in neutral position, and insert pivot bolt/washer from outside.
- 7) Mount pivot washer/nut and torque joint for a snug fit.
- 8) Adjust "Cush-Align" for proper axle tracking.
- 9) Torque bushing pivot bolts per Cush torque specifications and install jam nuts.
- NOTE: Before tightening the pivot connection fasteners, be sure that the spacer collars are against the bushing inner metal and hanger side. Failure to follow these procedures and/or properly torque the pivot fasteners at this time can result in a failed pivot connection and a loss of warranty coverage!
- 10) Install air springs and shocks per suspension drawing sheets.

- 1) Check installation clearance requirements.
- 2) Check for any signs of wear or component interferences.
- 3) Check suspension attachment mounting 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.

ORIGINAL-INSTALLATION INSPECTION NOTES: verify that:

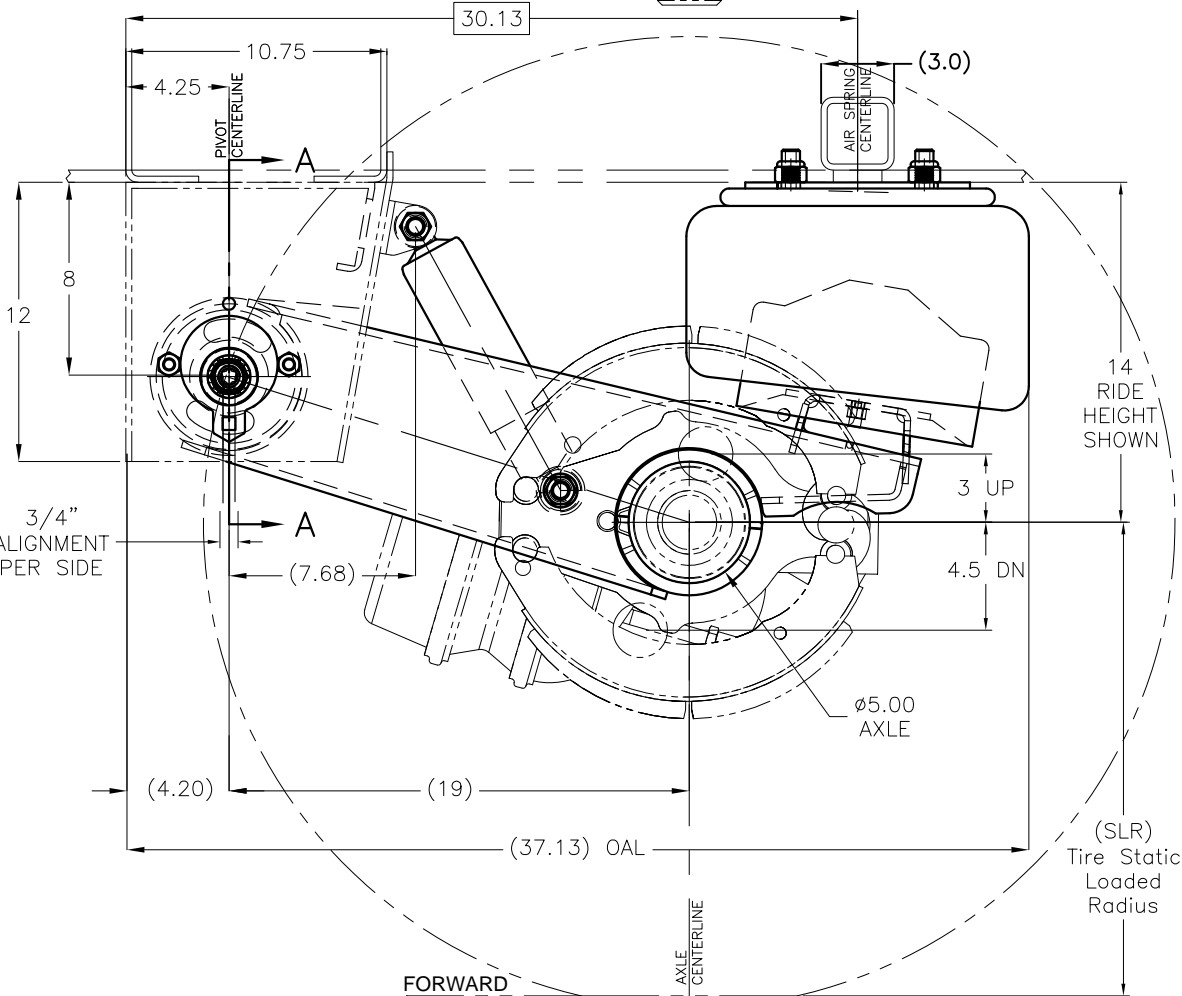
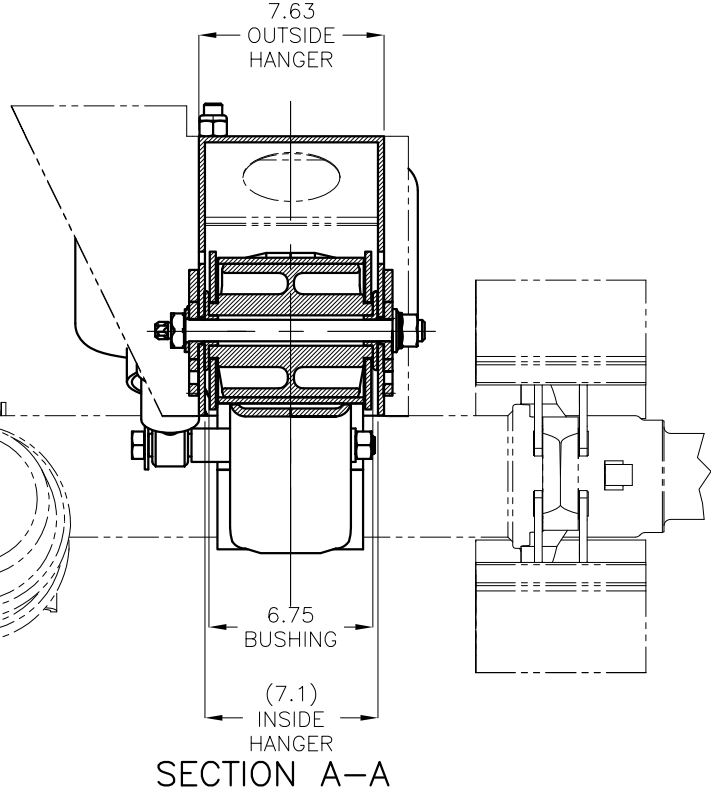
- 1) The installation clearance requirements have been met.
- 2) The axles have been aligned properly.
- 3) The suspension frame bracketry and air spring plate mountings have been properly completed per specifications.
- 4) All suspension bolt torques are to Cush specifications.
- 5) The suspension ride height is set properly.
- 6) The suspension can articulate freely through its entire travel and adequate component clearances have been provided.

RIDE HEIGHT VARIABLES

"R"	"UP"	"DN"
14.0*	3.0	4.5
14.5	3.5	4.0
15.0	4.0	3.5

*GEOMETRY SHOWN

Hanger shown as reference only, customer to supply hanger and structural support for hanger. Customer to weld on alignment nuts for Cush Trac-Align both sides of hanger.



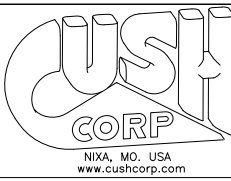
DRAFTSMAN: JMK 02/22/11
 CHECKED: .
 RELEASED: .
 WEIGHT: #
 MATERIAL: SEE PART DWGS.
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APPLICATION INSTALLATION SHEET
 Cush Topmount Dana-fit "RF"
 25,000# Gross Suspension Weight Rating
 14" NOMINAL RIDE HEIGHT
 H-Beam and parts (No Hangers)

TOLERANCE UNLESS OTHERWISE STATED:
 .x = +/- .12
 .xx = +/- .062
 .xxx = +/- .031
 ANGLES = +/- 1°

SHEET 1 OF 2
 SCALE: A-SIZE 1:8, B-SIZE 1:4, D-SIZE 1:4
 THIS REV: .

PROJECT NO: 10046
 PART/DRAWING NO: CTRF-25DW4W-H



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