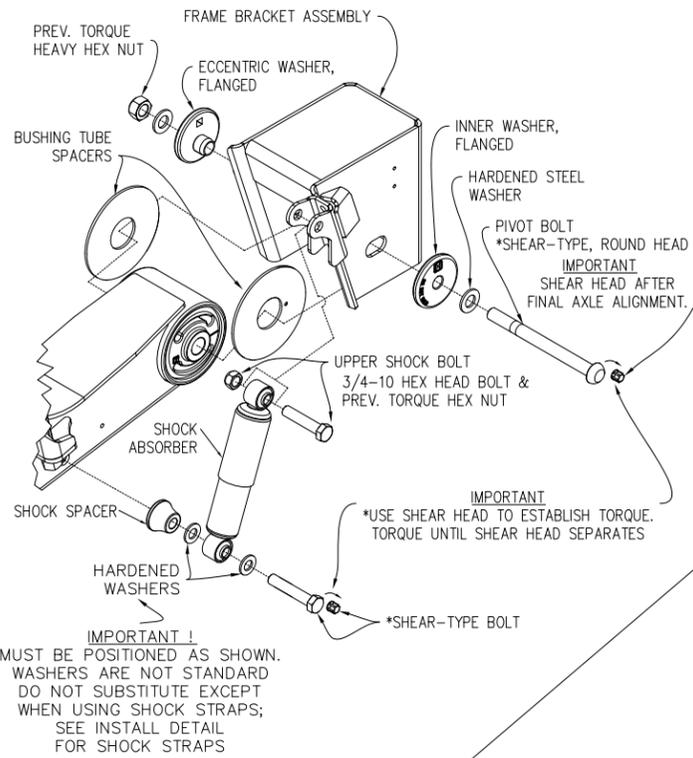


**HARDWARE INSTALL DETAIL FOR UNASSEMBLED SUSPENSIONS**



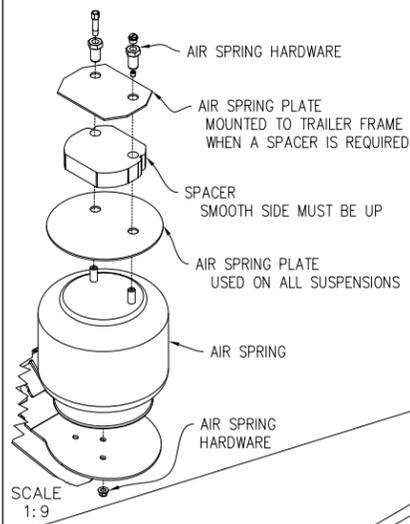
**TORQUE SPECIFICATIONS**

DESCRIPTION	SIZE	TORQUE (FT LB)
SHOCK BOLTS, UPPER	3/4-10	210-235
AIR SPRING NUTS, UPPER	3/4-16	80-100
AIR SPRING NUTS, LOWER	1/2-13	25-35
**AIR SPRING BOLTS, LOWER	1/2-13	40-50

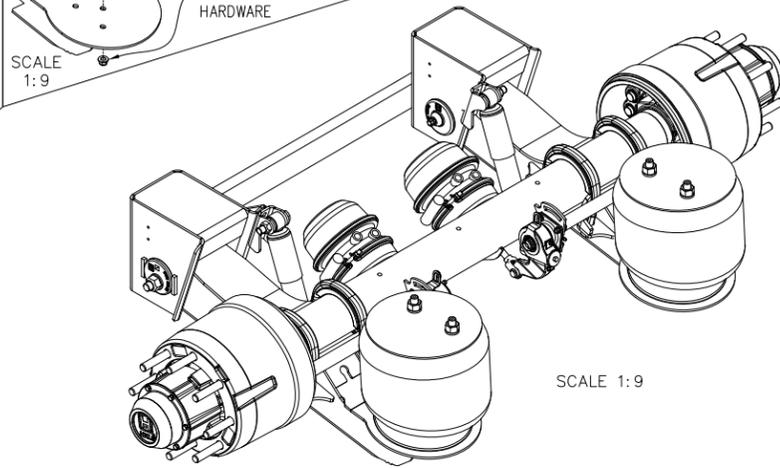
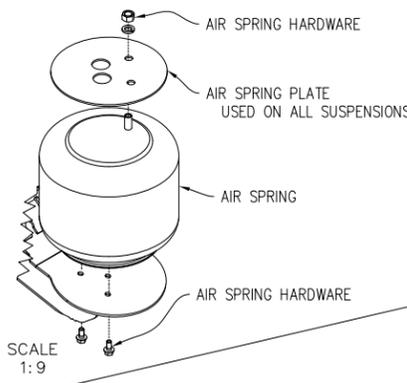
\*\*SINGLE COMBO STUD ROTATED AIR SPRING ONLY

**AIR SPRING INSTALLATION DETAIL**

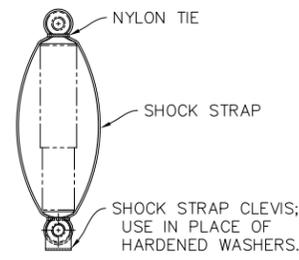
**DUAL COMBO STUD AIR SPRINGS (STD.)**



**SINGLE COMBO STUD ROTATED AIR SPRING (OPTIONAL)**



**INSTALL DETAIL FOR SHOCK STRAPS**



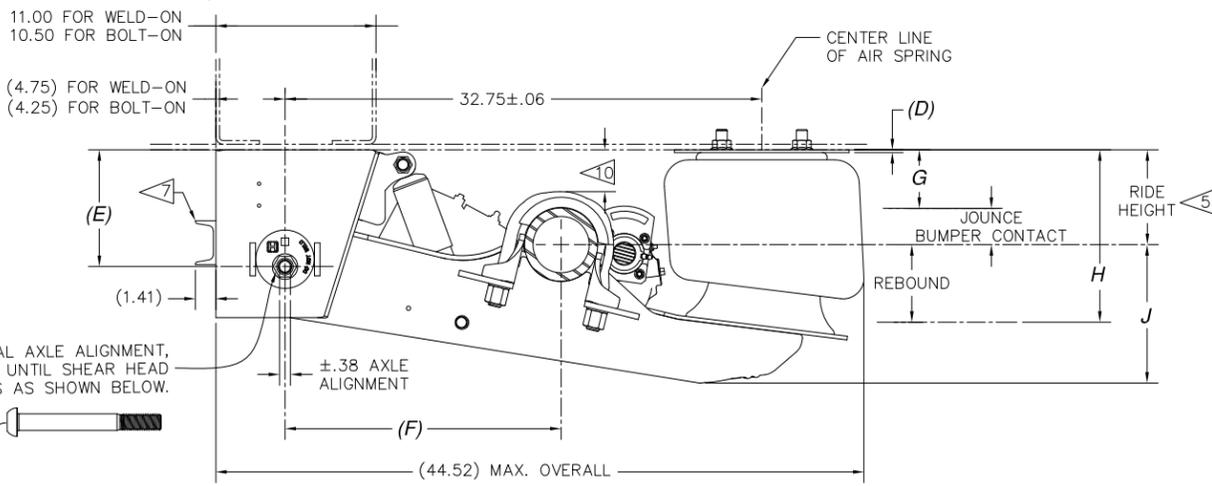
**NOTES:**

- SEE L1073 FOR INFORMATION ON ASSEMBLY, WELDING PROCEDURE, AND ALIGNMENT.
- SEE SERVICE MANUAL FOR INFORMATION CONCERNING MAINTENANCE PROCEDURE.
- SEE PAGES 4 & 6 FOR REQUIRED CROSSMEMBER LOCATIONS AND MOUNTING DETAILS. ACTUAL SIZE AND SHAPE MAY VARY WITH TRAILER DESIGN. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE STRUCTURAL ADEQUACY OF TRAILER FRAME AND CROSSMEMBERS.
- SEE L1182 FOR HEIGHT CONTROL KIT OPTIONS.
- SEE PAGE 2 FOR ALLOWABLE RIDE HEIGHT RANGES.
- CONTACT HENDRICKSON TRAILER COMMERCIAL VEHICLE SYSTEMS FOR SUSPENSION WEIGHT. SEE PAGE 3 FOR FRAME BRACKET BRACING REQUIREMENTS.
- SEE PAGE 2 FOR TABULATED DIMENSIONS.
- GRAPHICS SHOWN ARE REFERENCE OF A CXU AT 6.5" RH 12.25" BRAKES S-CAMS REAR WITH 245/70R17.5 TIRES. SEE PAGE 2 FOR GRAPHIC REFERENCE OF S-CAMS FORWARD.
- DO NOT ROUTE ITEMS THROUGH THIS AREA DUE TO MINIMAL BEAM TO FRAME CLEARANCE.
- SEE PAGE 5 FOR BOLT-ON MOUNTING PATTERN & INSTALLATION DETAILS.
- WHEN PAIRING WITH A HTZUS SLIDER SEE D-28439 HTZUS INSTALLATION DRAWING.

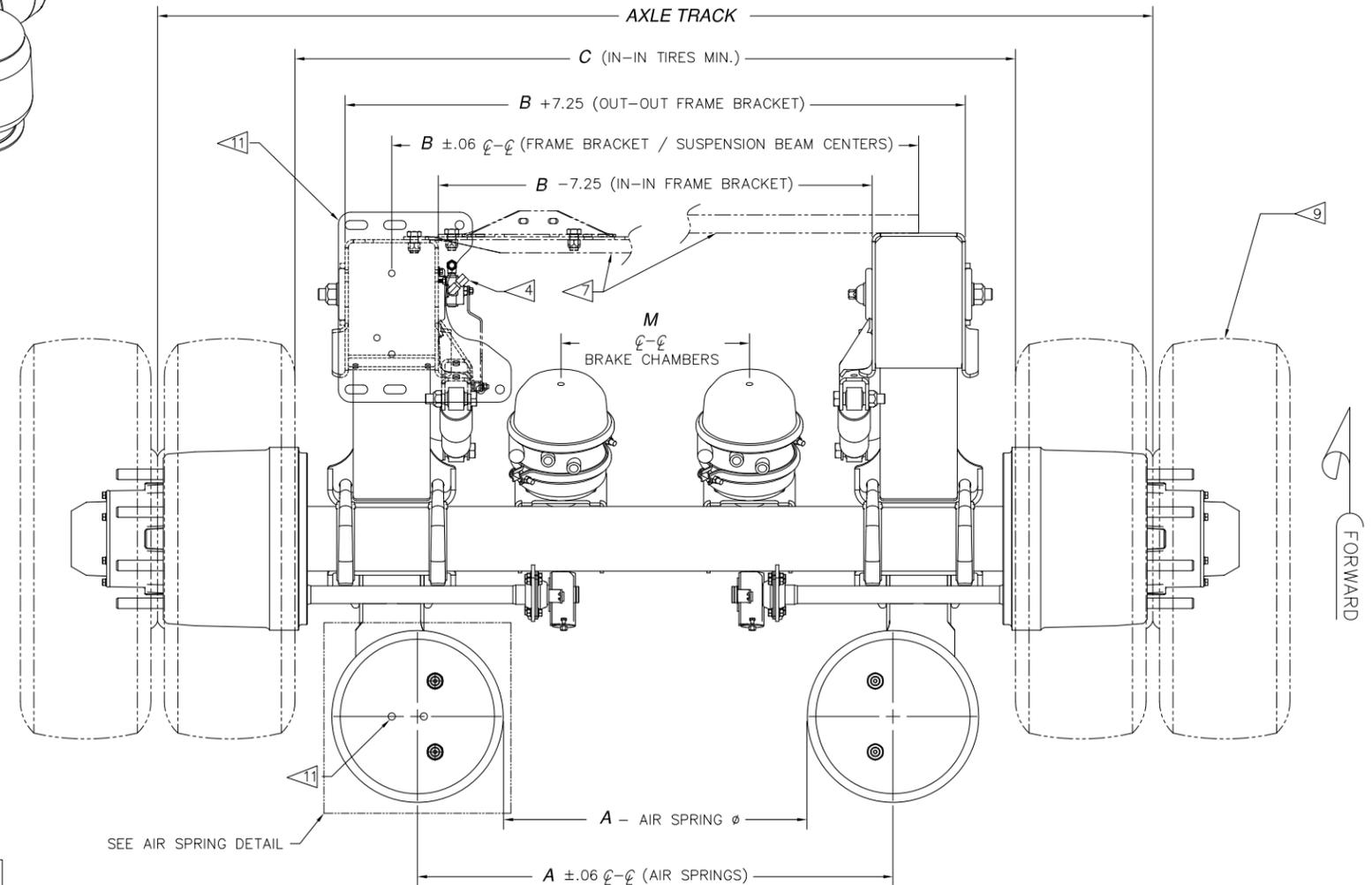
**CAUTION**

**CLEARANCE SPECIFICATIONS:**

- 1.0 INCH MINIMUM REQUIRED BETWEEN TOP OF TIRE AND BOTTOM OF TRAILER STRUCTURE WHEN AXLE IS AT FULL JOUNCE.
- 2.0 INCHES MINIMUM REQUIRED BETWEEN INSIDE OF TIRE AND TRAILER STRUCTURE FOR LATERAL MOVEMENT.
- 1.0 INCH MINIMUM CLEARANCE MUST BE MAINTAINED AROUND AIR SPRING WHEN IT IS AT MAXIMUM DIAMETER.

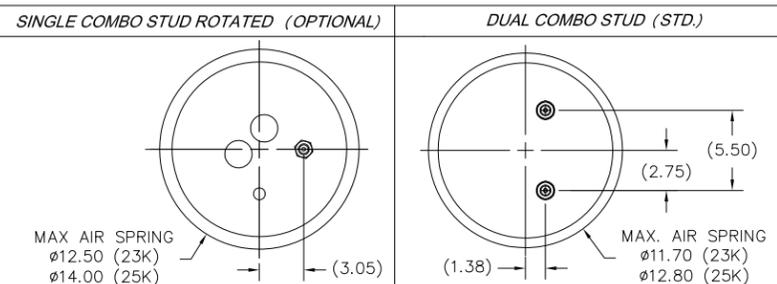


SEE PAGE 2 FOR TABULATED DIMENSIONS SHOWN ABOVE.



SEE PAGE 2 FOR TABULATED DIMENSIONS SHOWN ABOVE.

**AIR SPRING DETAIL**



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**STANDARD TRAVEL**

	RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	D	E	F	G	H	RIDE HEIGHT TOLERANCE LIMITS	
										MIN.	MAX.
WELD-ON	5.5	2.1	4.8	1.6	.188	8.000	18.86	3.5	10.3	5.5	7.25
	6.5	3.1	3.8	2.6	.188	8.000	18.97	3.5	10.3	5.5	7.25
	7.5	3.2	5.5	2.7	.188	10.000	18.86	4.5	13.0	7.5	10.0
	9.0	4.7	4.0	4.2	.188	10.000	18.97	4.5	13.0	7.5	10.0
BOLT-ON	5.5	1.7	5.2	1.3	.250	8.375	18.86	3.7	10.7	5.5	7.25
	6.5	2.7	4.2	2.3	.250	8.375	18.97	3.7	10.7	5.5	7.25

**LIMITED JOUNCE TRAVEL**

	RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	D	E	F	G	H	RIDE HEIGHT TOLERANCE LIMITS	
										MIN.	MAX.
WELD-ON	6.5	1.7	3.8	1.3	2.250	8.000	18.97	4.7	10.3	6.5	7.25
	7.5	1.9	5.5	1.5	2.250	10.000	18.86	5.6	13.9	7.5	10.75

**AXLE TRACK**

	71.5	77.5				
DIMENSION <b>A</b>	31.00	33.00	34.25	35.00	37.00	
DIMENSION <b>B</b>	35.00	37.00	38.25	39.00	41.00	
DIMENSION <b>C</b>	46.50	48.50	49.75	50.50	52.50	

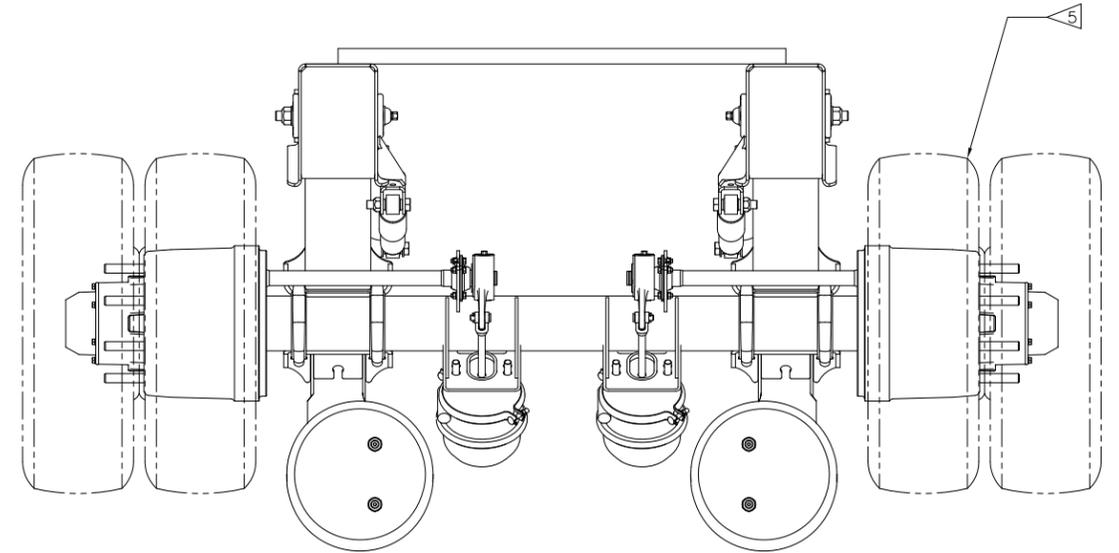
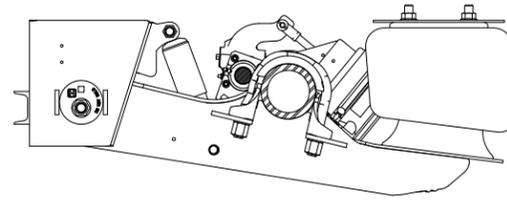
**GROUND CLEARANCE**

TO CALCULATE GROUND CLEARANCE, SUBTRACT "J" FROM LOADED TIRE RADIUS.

RIDE HEIGHT	J
5.5	9.05
6.5	9.49
7.5	8.97
9.0	9.73

**BRAKE CHAMBER CENTERS**

DIMENSION <b>M</b> PER BRAKE SIZE	AXLE TRACK	71.5		77.5			
	DIMENSION <b>B</b>	35.00		37.00 -OR- 38.25 -OR- 39.00	41.00		
	SPINDLE TYPE	HP	HN	HP	HN	HP	HN
12.25" X 7.5"	9.42	8.89	N/A	N/A	14.67	14.89	
16.5" X 7" -OR- 16.5" X 8.63	9.00	8.75	10.50	10.25	15.00	14.75	



S-CAMS FORWARD VIEWS  
SCALE 1:8

**NOTES:**

1. JOUNCE AND REBOUND DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.
2. DIMENSIONS "G" & "H" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.  
RIDE HEIGHT - JOUNCE = "G"  
RIDE HEIGHT + REBOUND = "H"
3. FOR OPTIMUM SUSPENSION PERFORMANCE ALL SUSPENSIONS ON A TRAILER SHOULD BE AT DESIGNED RIDE HEIGHT WHEN THE TRAILER IS LOADED. TRAILERS WITH FLEXIBLE FRAMES REQUIRE SPECIAL ATTENTION TO MAKE SURE THEY OPERATE WITHIN THE RIDE HEIGHT TOLERANCE LIMITS, BOTH EMPTY AND LOADED. OPERATION OUTSIDE OF THE MAXIMUM AND/OR MINIMUM RIDE HEIGHT TOLERANCE LIMITS CAN REDUCE RIDE QUALITY AND SHORTEN SUSPENSION LIFE.
4. VARIATION IN RIDE HEIGHT BETWEEN LIKE SUSPENSIONS MAY RESULT IN UNEQUAL LOADING OF THE AXLES.
5. GRAPHICS SHOWN ARE REFERENCE OF A CXU AT 6.5" RH 12.25" BRAKES S-CAMS FORWARD WITH 245/70R17.5 TIRES. SEE PAGE 1 FOR GRAPHIC REFERENCE OF S-CAMS REAR.

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TRAILER COMMERCIAL VEHICLE SYSTEMS  
2070 INDUSTRIAL PLACE S.E., CANTON, OH 44707-2600 U.S.A.

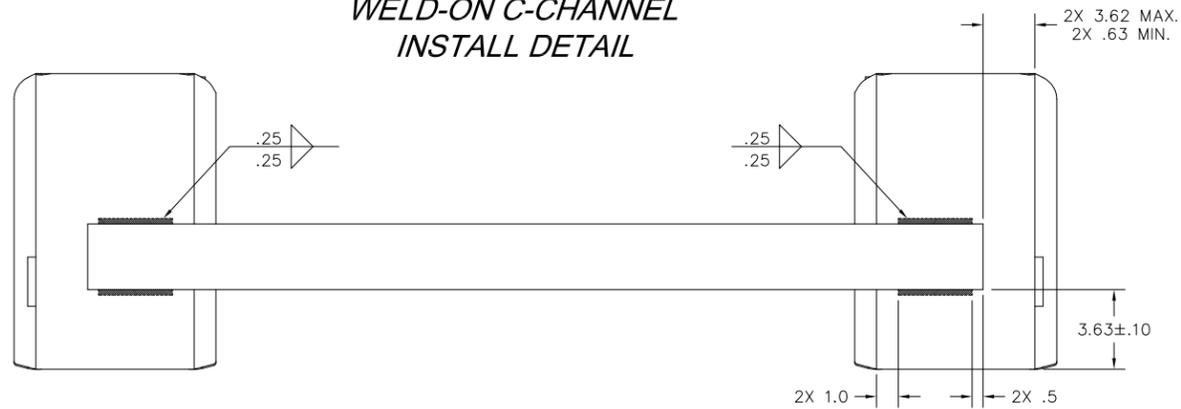
UNLESS OTHERWISE NOTED: TOLERANCES ARE:	5	31664	JRH	08-03-18	DRAWN BY	S. BIRKEY	03-22-17
DIMENSIONS ARE:	4	31520	JRH	04-17-18	CHK'D BY	J. HOFER	
.X: ±		3	30263	JRH	01-10-18		
.XX: ±		2	30434	JRH	08-22-17	APPD BY:	K. ERDMANN
ANGULAR: ±					BY	DATE	

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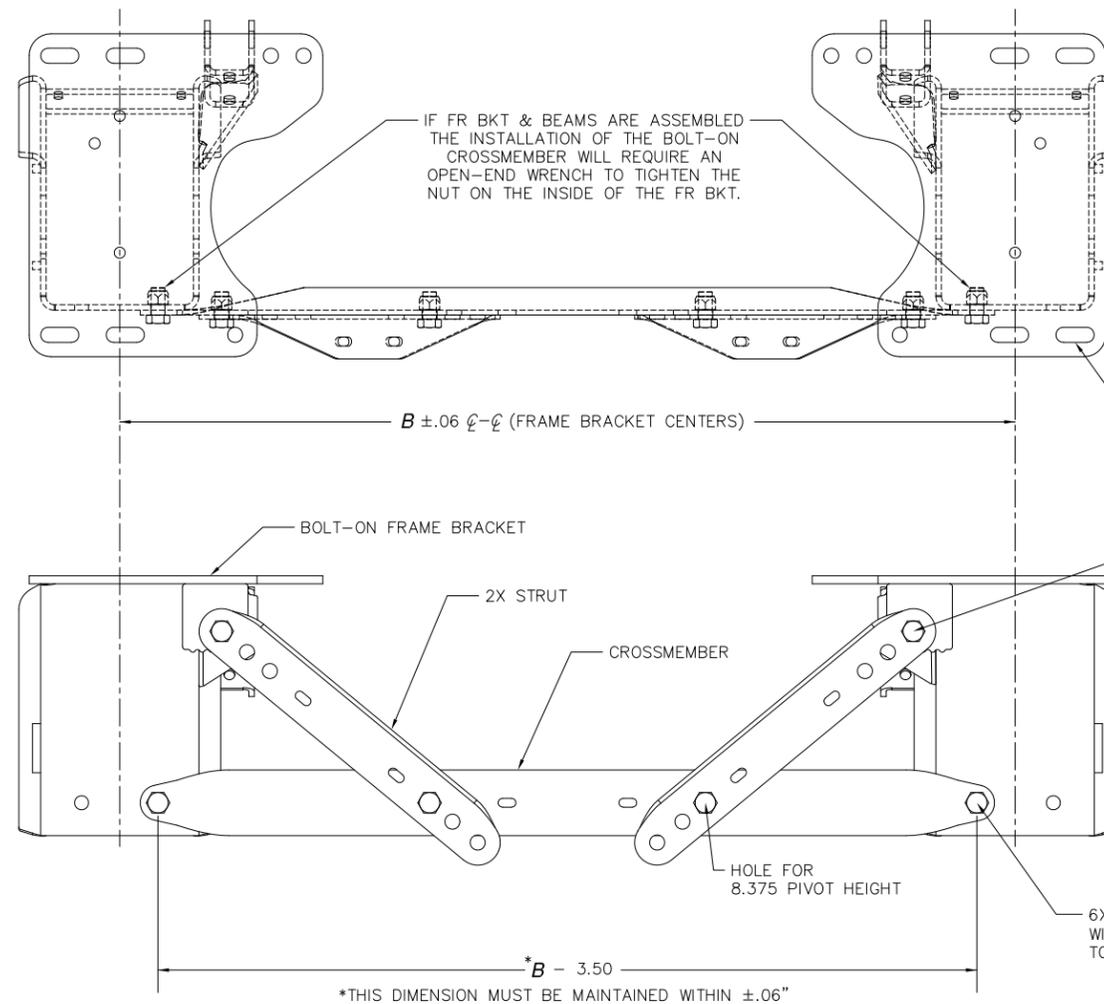
CONNEX™ CXU  
INSTALLATION DRAWING

SCALE	1:4	SIZE	D	PAGE	2 OF 6
D-38070					

**WELD-ON C-CHANNEL  
INSTALL DETAIL**



**BOLT-ON CHANNEL & STRUTS  
INSTALL DETAIL**



**INSTALLATION SEQUENCE:**

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME AND LOOSELY INSTALL MOUNTING BOLTS USING HARDENED WASHERS AT ALL SLOTTED HOLE LOCATIONS.
2. LOOSELY INSTALL CROSSMEMBER, USING 5/8" MOUNTING HOLES ON FRONT OF FRAME BRACKETS.
3. LOOSELY INSTALL STRUTS, USING 5/8" MOUNTING HOLES IN FRAME BRACKET GUSSET AND CROSSMEMBER.
4. TORQUE CROSSMEMBER MOUNTING BOLTS AND STRUT MOUNTING BOLTS.
5. TORQUE FRAME BRACKET MOUNTING BOLTS.

HARDENED WASHERS (PER ASTM F436) ARE REQUIRED FOR ALL SLOTTED HOLE LOCATIONS

ATTACH STRUT TO FRAME BRACKET GUSSET USING THIS HOLE IN STRUT ONLY. HOLES USED FOR CROSSMEMBER WILL VARY WITH PIVOT HEIGHT.

6X 5/8 HEX HEAD CAP SCREW WITH PREVAILING TORQUE NUTS. TORQUE TO 190±20 FT-LB.

**NOTES:**

1. PATTERN DENOTES WELD PLACEMENT.
2. SEE L577 INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION ON FRAME BRACKET AND CROSSMEMBER WELDING PROCEDURES
3. SEE PAGE 2 FOR TABULATED DIMENSIONS.

**CAUTION**

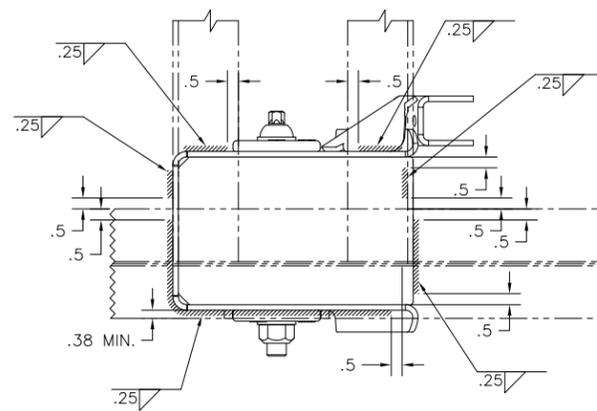
**FRAME BRACKET SUPPORT REQUIREMENTS**

- A) ALL CONNEX CXU SUSPENSIONS REQUIRE FRAME BRACKET SUPPORT.
- B) IF FRAME BRACKET SUPPORT IS NOT PURCHASED FROM HENDRICKSON THEN IT IS THE RESPONSIBILITY OF THE SUSPENSION INSTALLER TO PROVIDE AN EQUIVALENT SUPPORT.

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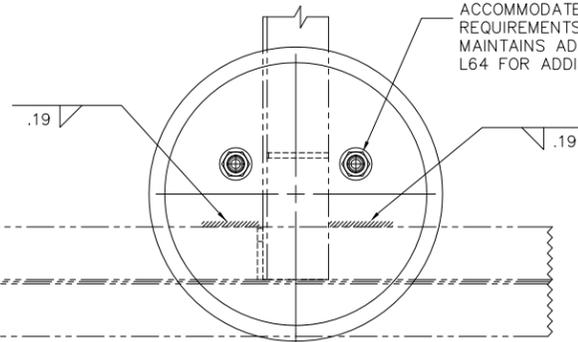
SUGGESTED WELD-ON ATTACHMENT DETAIL

FRAME BRACKET  
WELD-ON WINGLESS



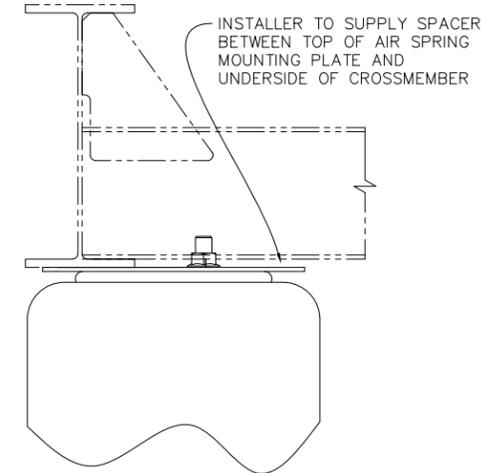
AIR SPRING PLATE  
DUAL COMBO STUD (STD.)

AIR SPRING STUDS MAY BE ROTATED ABOUT AIR SPRING CENTER TO ACCOMMODATE INDIVIDUAL FRAME REQUIREMENTS, PROVIDED CUSTOMER MAINTAINS ADEQUATE SUPPORT. SEE L64 FOR ADDITIONAL INFORMATION.



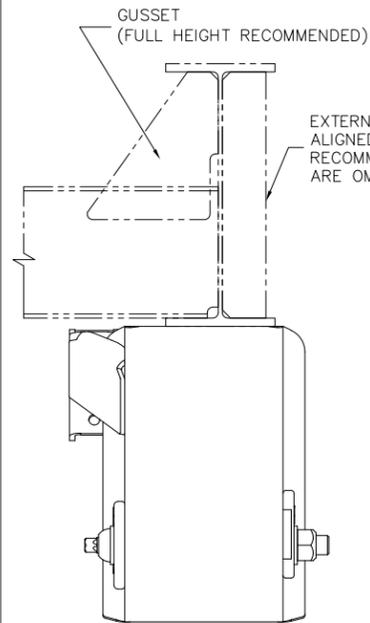
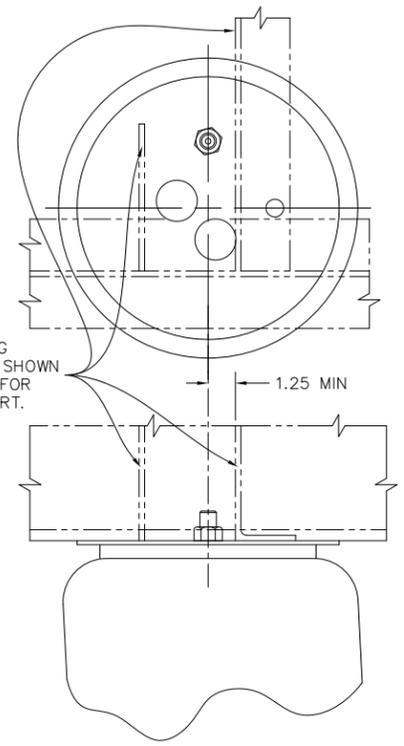
MOUNTING PLATE  
SHAPE WHEN  
SPACER IS  
REQUIRED

NECESSARY TO PROVIDE  
CLEARANCE FOR MOUNTING  
NUTS AND SOCKET WRENCH

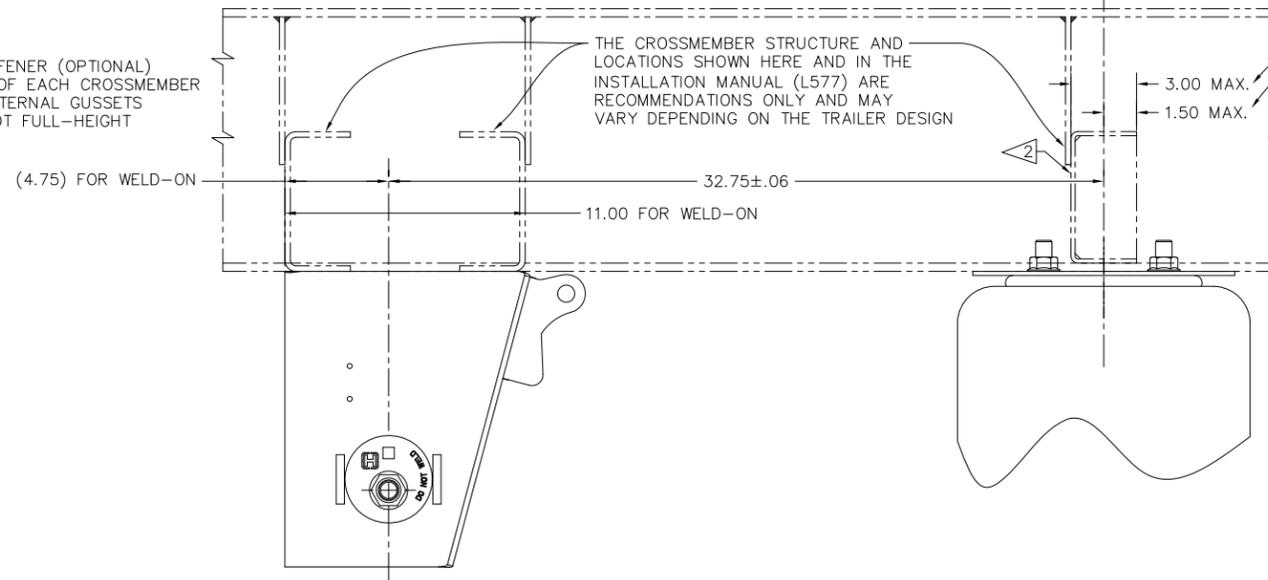


OPTIONAL  
SINGLE COMBO STUD ROTATED  
DETAIL

LOCATE AIR SPRING  
CROSSMEMBER AS SHOWN  
AND ADD GUSSET FOR  
ADDITIONAL SUPPORT.



EXTERNAL WEB STIFFENER (OPTIONAL)  
ALIGNED WITH WEB OF EACH CROSSMEMBER  
RECOMMENDED IF INTERNAL GUSSETS  
ARE OMITTED OR NOT FULL-HEIGHT



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NOTES:

1. // PATTERN DENOTES WELD PLACEMENT
2. CROSSMEMBER AND/OR GUSSETS MUST ADEQUATELY SUPPORT UPPER AIR SPRING PLATE. 20,000 LBS. CAN BE EXERTED THROUGH AIR SPRING BUMPER
3. FOR FRAME BRACKET OVERHANG SEE PAGE 6 FOR SUGGESTED METHOD OF SUPPORT
4. SEE L64 TRAILER SUSPENSION SYSTEMS WELDING PROCEDURES FOR ADDITIONAL INFORMATION ON FRAME BRACKET, CROSS MEMBER, UPPER SHOCK BRACKET AND AIR SPRING MOUNT WELDING PROCEDURES.

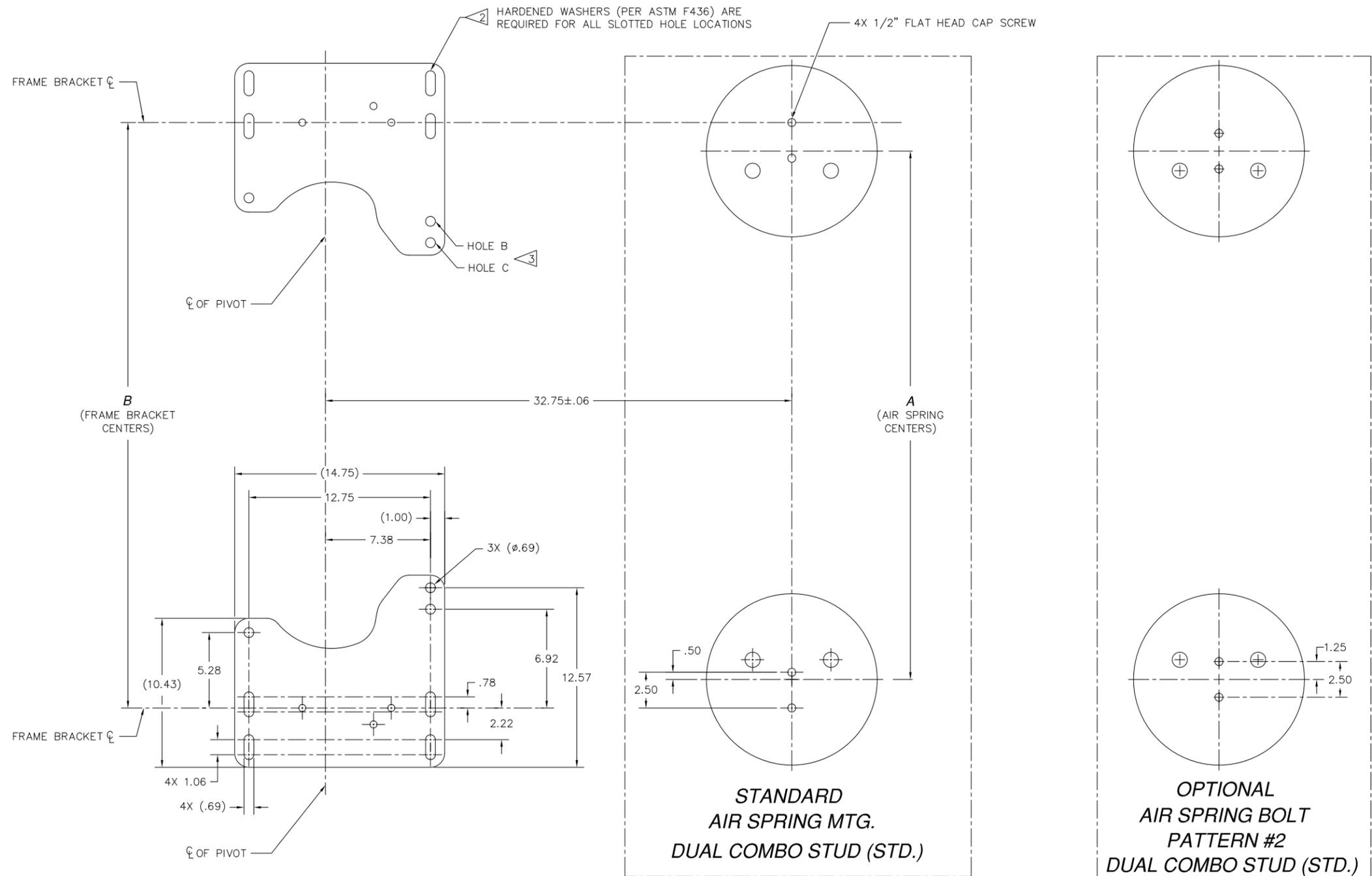


UNLESS OTHERWISE NOTED: TOLERANCES ARE:	5	31664	JRH	08-03-18	DRAWN BY	S. BIRKEY	03-22-17
DIMENSIONS ARE:	4	31520	JRH	04-17-18	CHKD BY	J. HOFER	
XX: ±	3	30263	JRH	01-10-18	APPD BY:	K. ERDMANN	
XXX: ±	2	30434	JRH	08-22-17	REV. ECN NO.	BY	DATE
ANGULAR: ±							

CONNEX™ CXU  
INSTALLATION DRAWING

SCALE	1:4	SIZE	D	PAGE	4 OF 6
					D-38070

# BOLT-ON MOUNTING PATTERN & INSTALLATION DETAIL



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**NOTES:**

- HENDRICKSON STANDARD BOLT PATTERN SHOWN; ALL SLOTS & HOLES REQUIRE  $\frac{5}{8}$ " FASTENERS.
- HARDENED WASHERS (PER ASTM F436) ARE REQUIRED FOR ALL SLOTTED HOLE LOCATIONS
- NOTE THAT ONLY HOLE B OR C NEED TO BE UTILIZED
- SEE PAGE 2 FOR TABULATED DIMENSIONS.

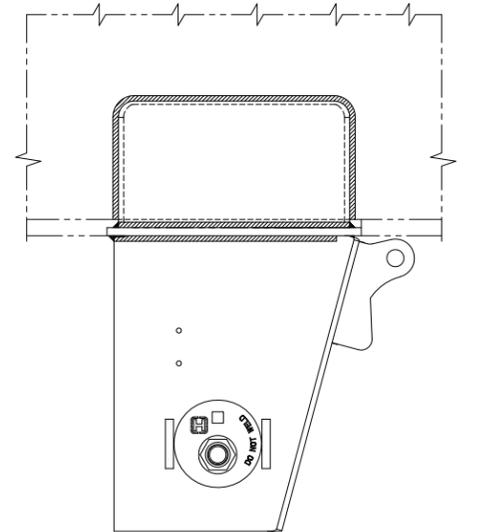
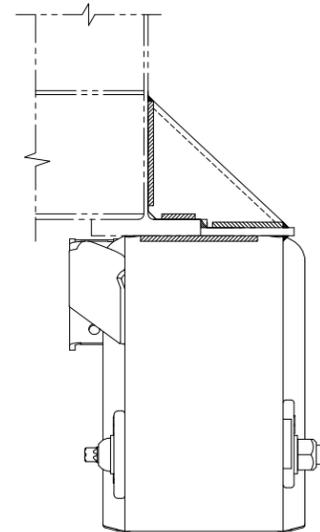
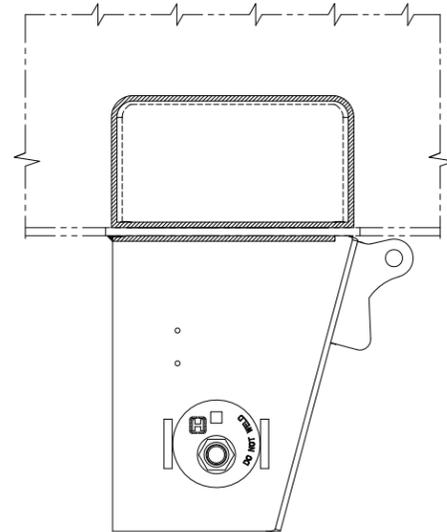
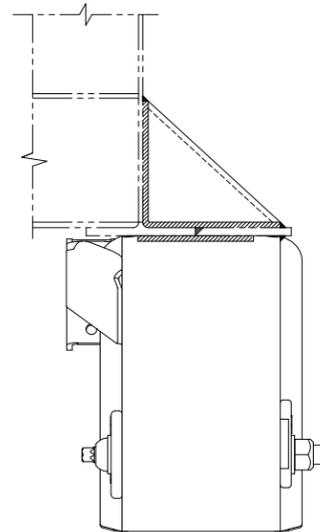
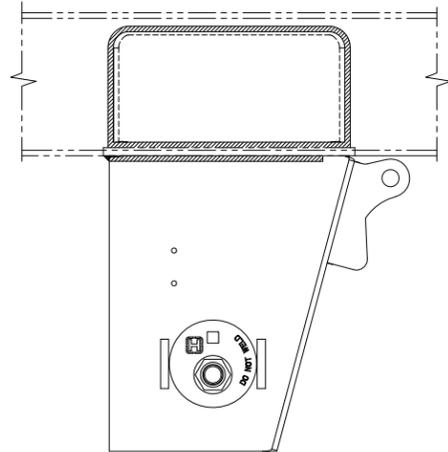
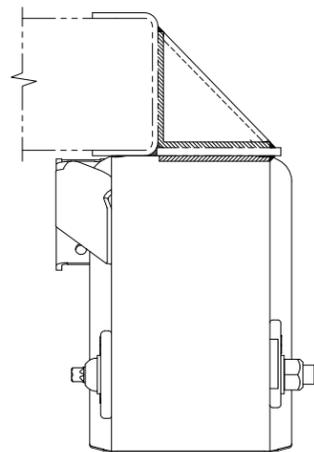
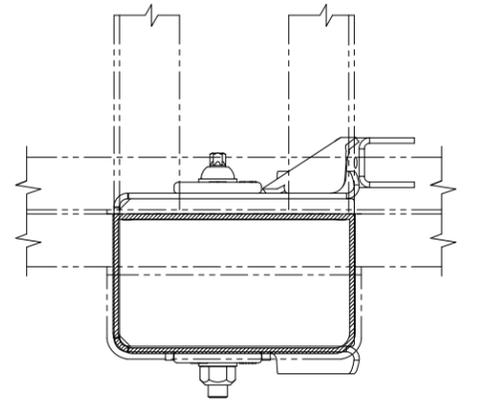
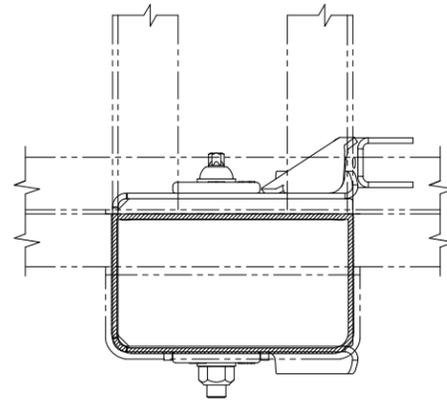
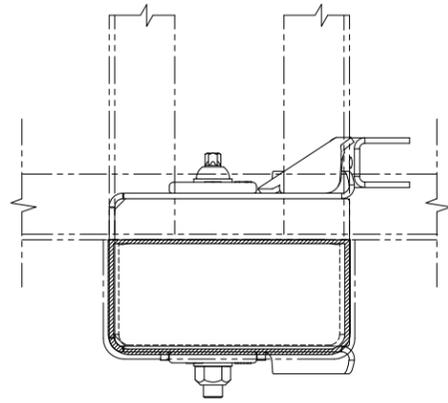


UNLESS OTHERWISE NOTED: TOLERANCES ARE:	5	31664	JRH	08-03-18	DRAWN BY	J. HOFER	06-23-17
DIMENSIONS ARE:	4	31520	JRH	04-17-18	CHKD BY	C. RADCLIFF	
INCHES:	3	30263	JRH	01-10-18	APPD BY:	K. ERDMANN	
ANGULAR:	2	30434	JRH	08-22-17	BY	DATE	
3RD ANGLE PROJECTION							

CONNEX™ CXU  
INSTALLATION DRAWING

SCALE	1:4	SIZE	D	PAGE	5 OF 6
DRAWING No.	D-38070				

SUGGESTED METHOD OF SUPPORTING  
FRAME BRACKET OVERHANG



CHANNEL

THIN FLANGE I-BEAM

THICK FLANGE I-BEAM

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- NOTES:  
1. PATTERN DENOTES WELD PLACEMENT.

 TRAILER COMMERCIAL VEHICLE SYSTEMS 2070 INDUSTRIAL PLACE S.E., CANTON, OH 44707-2600 U.S.A.	UNLESS OTHERWISE NOTED: TOLERANCES ARE:	DIMENSIONS ARE: INCHES	5 31664 JRH 08-03-18 4 31520 JRH 04-17-18 3 30263 JRH 01-10-18 2 30434 JRH 08-22-17	DRAWN BY: S. BIRKEY CHKD BY: J. HOFER APPD BY: K. ERDMANN	03-22-17	SCALE: 1:4 SIZE: D PAGE: 6 OF 6
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