

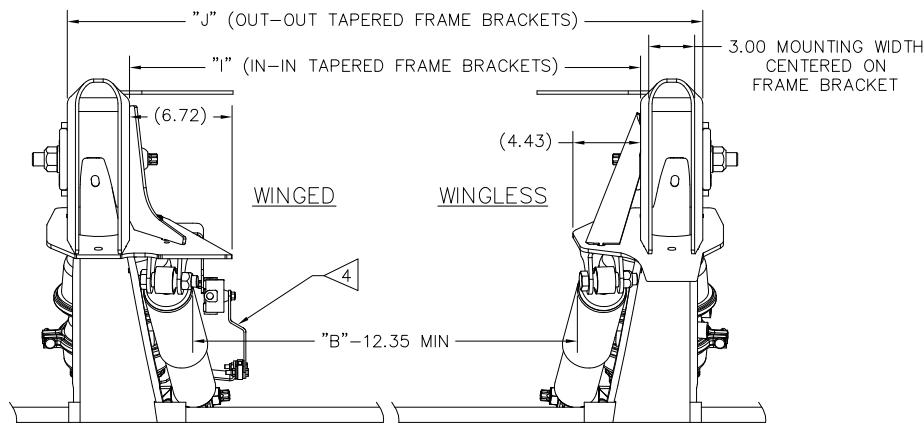
NOTES:

1. SEE L1073 FOR INFORMATION ON ASSEMBLY, WELDING PROCEDURE, AND ALIGNMENT.
2. SEE SERVICE MANUAL FOR INFORMATION CONCERNING MAINTENANCE PROCEDURE.
3. MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING PATENTS: OTHER PATENTS PENDING U.S. PATENT NOS. - 5,366,237 - 4,166,640.
4. SEE L1182 FOR HEIGHT CONTROL KIT OPTIONS.
5. SEE PAGE 3 FOR FRAME BRACKET FRONT GUSSET REQUIREMENTS.
6. DO NOT ROUTE ITEMS THROUGH THIS AREA FOR 9" AND LOWER RIDE HEIGHTS, DUE TO MINIMAL BEAM TO FRAME CLEARANCE.
7. SEE D-29431 FOR DIMENSIONS AND CROSSMEMBER LOCATIONS.
8. SEE D-25266 FOR INSTALLATION INSTRUCTIONS ON COMPONENTS THAT ARE COMMON BETWEEN DIFFERENT INTRAAX MODELS (PIVOT CONNECTION, AIR SPRINGS, SHOCK ABSORBERS, BRAKE CHAMBERS AND SLACK ADJUSTERS).
9. FOR BOLT-ON MOUNTING PATTERNS, SEE DRAWING D-26651.

CLEARANCE SPECIFICATIONS:

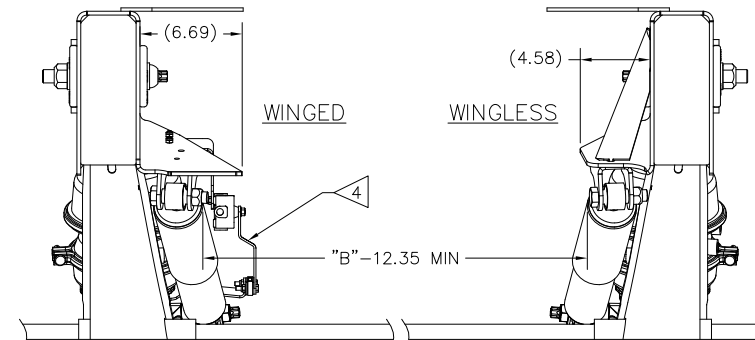
- a) 1.0 INCH MINIMUM CLEARANCE REQUIRED BETWEEN TOP OF TIRE AND BOTTOM OF TRAILER STRUCTURE WHEN AXLE IS AT FULL JOUNCE.
- b) 2.0 INCHES MINIMUM CLEARANCE REQUIRED BETWEEN INSIDE OF TIRE AND TRAILER STRUCTURE FOR LATERAL MOVEMENT.
- c) .75 INCH MINIMUM CLEARANCE MUST BE MAINTAINED AROUND AIR SPRING WHEN IT IS AT MAXIMUM DIAMETER.

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TAPERED WELD-ON FRAME BRACKETS

SHOWN WITH 10" PIVOT HEIGHT FRAME BRACKETS
DIMENSIONS SHOWN APPLY FOR 12" THRU 17" RIDE HEIGHTS ONLY
ALL DIMENSIONS SAME AS IN FULL TOP VIEW BELOW, EXCEPT AS NOTED

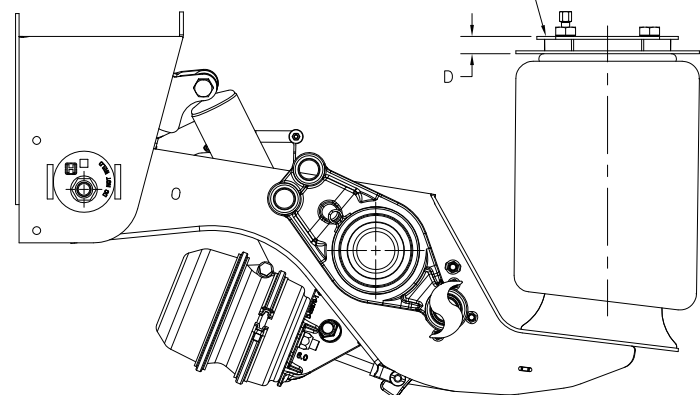
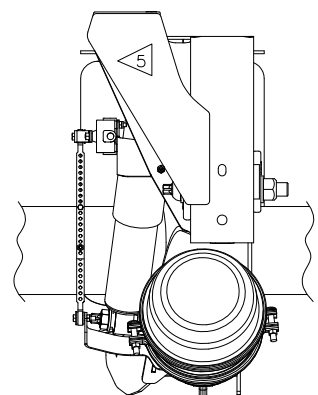


STRAIGHT WELD-ON FRAME BRACKETS

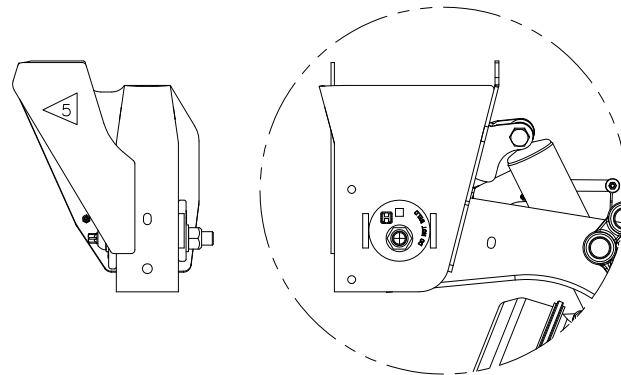
SHOWN WITH 10" PIVOT HEIGHT FRAME BRACKETS
DIMENSIONS SHOWN APPLY FOR 12" THRU 17" RIDE HEIGHTS ONLY
ALL DIMENSIONS SAME AS IN FULL TOP VIEW BELOW, EXCEPT AS NOTED

TRACK WIDTH (IN)	71.5	73.0	75.5	76.5	77.5	83.5	85.0
DIMENSION "A" (IN)	31.00	32.50	35.00	36.00	37.00	43.00	44.50
DIMENSION "B" (IN)	37.50	39.00	41.50	42.50	43.50	49.50	51.00
DIMENSION "C" (IN)	46.50	48.00	50.50	51.50	52.50	58.50	60.00
DIMENSION "I" (IN)	33.44	34.94	37.44	38.44	39.44	45.44	46.94
DIMENSION "J" (IN)	41.56	43.06	45.56	46.56	47.56	53.56	55.06
DIMENSION "K" (IN)	33.38	34.88	37.38	38.38	39.38	45.38	46.88
DIMENSION "L" (IN)	41.63	43.13	45.63	46.63	47.63	53.63	55.13

GROUND CLEARANCE	
OBTAIN GROUND CLEARANCE BY SUBTRACTING "J" FROM LOADED TIRE RADIUS.	
RIDE HT	"J"
6.5	9.43
7.5	9.54
8.0	9.58
9.0	9.67
12.0	9.61
14.0	9.61
15.0	9.89
16.0	9.61
17.0	9.89



WHEN DIMENSION "D" IS GREATER THAN .19", SEE D-25266 INTRAAX COMMON COMPONENTS DRAWING FOR PROPER ARRANGEMENT OF AIR SPRING MOUNTING HARDWARE

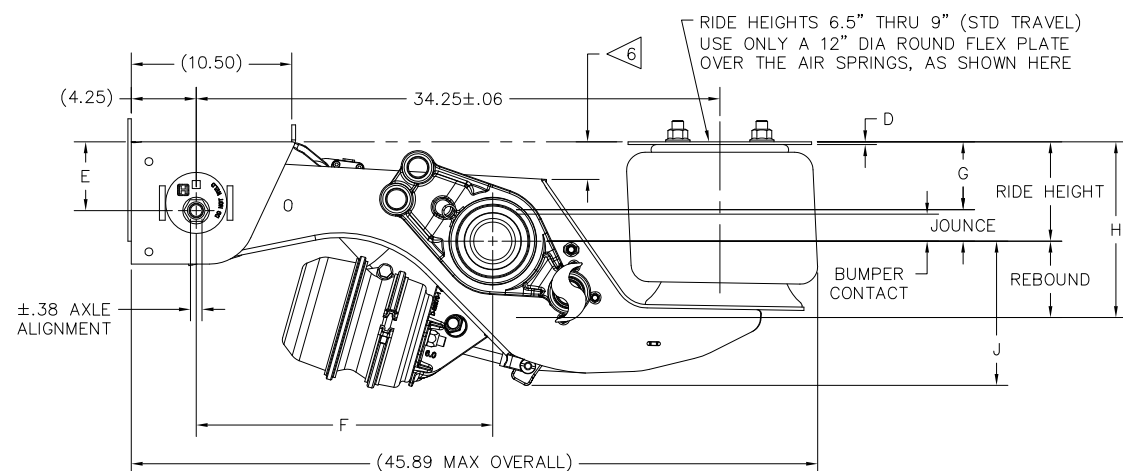
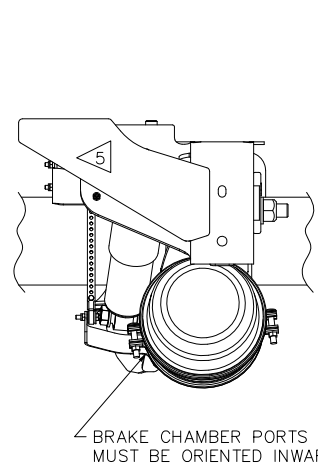


TAPERED, WINGED WELD-ON FRAME BRACKETS

SHOWN AT 14" RIDE HEIGHT

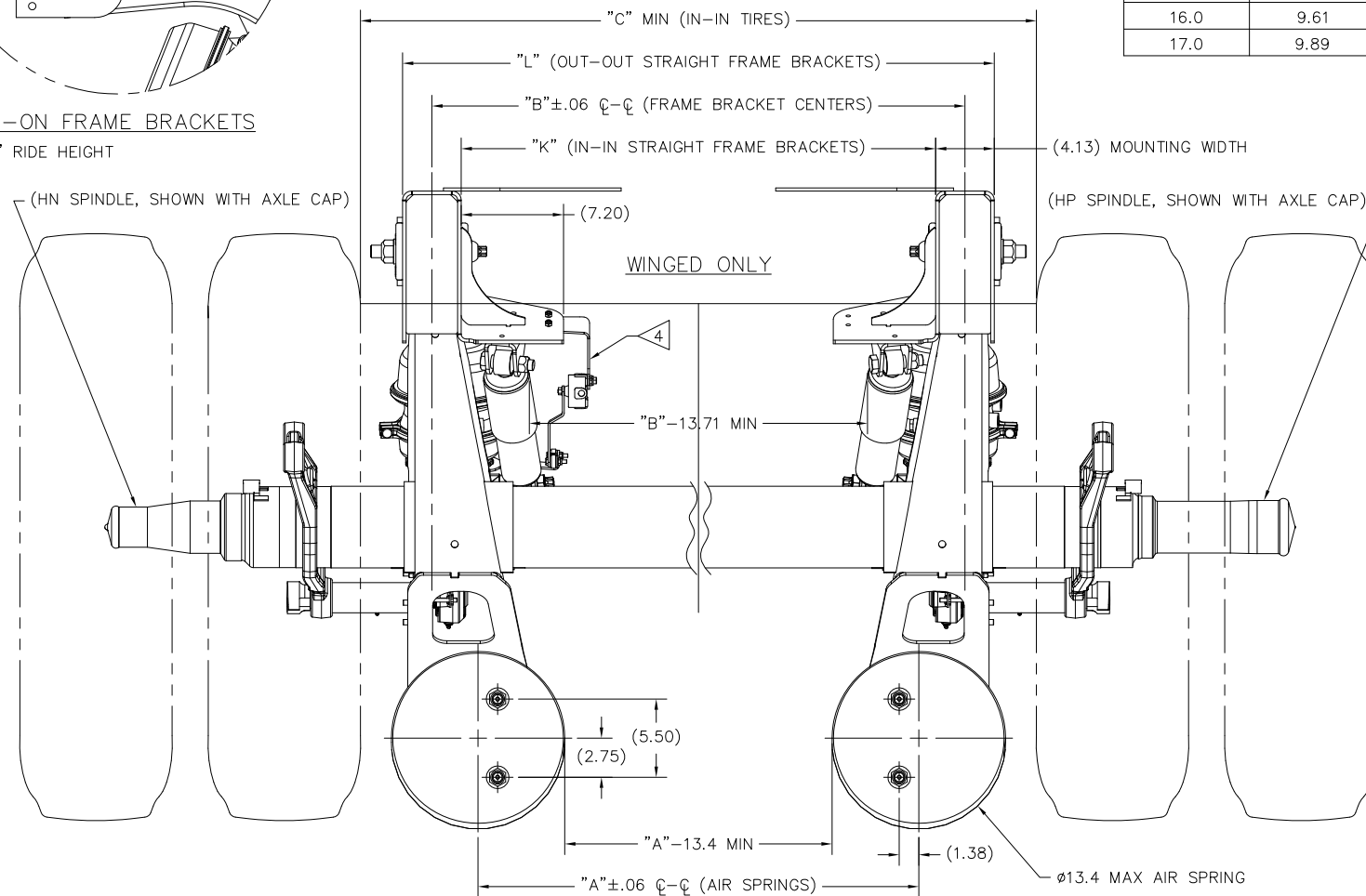
STRAIGHT, WINGED WELD-ON FRAME BRACKETS

SHOWN AT 14" RIDE HEIGHT
ALL NON-TABULATED DIMENSIONS SAME AS IN 6.5" RIDE HEIGHT VIEW, BELOW



STRAIGHT, WINGED WELD-ON FRAME BRACKETS

SHOWN AT 6.5" RIDE HEIGHT
SEE PAGE 2 FOR TABULATED DIMENSIONS SHOWN ABOVE



STRAIGHT WELD-ON FRAME BRACKETS

SHOWN WITH 4.5" PIVOT HEIGHT FRAME BRACKETS, FOR 6.5" THRU 9" RIDE HEIGHTS ONLY

RIDE HT					D	E	F			
	JOUNCE	REBOUND W/FRONT SHOCKS	REBOUND W/REAR SHOCKS	BUMPER CONTACT				G	H W/FRONT SHOCKS	H W/REAR SHOCKS

WELD-ON

STANDARD TRAVEL

6.5	2.1	5.0	4.7	1.7	.19	4.5	19.4	4.4	11.5	11.2
7.5	3.1	4.0	3.7	2.7	.19	4.5	19.3	4.4	11.5	11.2
8.0	3.6	5.2	4.4	3.2	.19	4.5	19.2	4.4	13.2	12.4
9.0	4.6	4.2	3.4	4.2	.19	4.5	19.0	4.4	13.2	12.4
12.0	5.1	4.5	3.2	4.7	.19	8.0	19.1	7.0	16.5	15.2
14.0	5.6	4.3	3.9	5.3	1.13	10.0	19.1	8.4	18.3	17.9
15.0	5.3	3.3	4.1	4.9	3.50	10.0	18.9	9.7	18.3	19.1
16.0	5.4	4.3	4.0	5.0	3.50	12.0	19.1	10.6	20.3	20.0
17.0	5.7	3.3	3.0	5.3	4.81	12.0	18.9	11.3	20.3	20.0

LIMITED JOUNCE TRAVEL

8.0	2.9	5.2	4.4	2.5	1.50	4.5	19.2	5.1	13.2	12.4
9.0	3.5	4.2	3.4	3.1	2.25	4.5	19.0	5.6	13.2	12.4
12.0	3.9	4.5	3.2	3.5	2.25	8.0	19.1	8.1	16.5	15.2
14.0	4.3	4.3	3.9	3.9	3.50	10.0	19.1	9.7	18.3	17.9
15.0	4.3	3.3	4.1	3.9	5.31	10.0	18.9	10.7	18.3	19.1
16.0	4.4	4.3	4.0	4.0	5.31	12.0	19.1	11.6	20.3	20.0
17.0	4.3	3.3	3.0	3.9	7.31	12.0	18.9	12.7	20.3	20.0

NOTES:

1. SEE L729 FOR SUSPENSION WEIGHT

JOUNCE, REBOUND AND BUMPER CONTACT DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.
 JOUNCE, REBOUND AND BUMPER CONTACT DIMENSIONS FOR WELD-ON SUSPENSIONS ARE FROM TRAVEL STUDY DRAWING D-27476 (STRAIGHT WELD-ON).
 JOUNCE DIMENSIONS FOR BOLT-ON SUSPENSIONS ARE FROM TRAVEL STUDY DRAWING D-30134 (BOLT-ON CLASSIC).
 REBOUND AND BUMPER CONTACT DIMENSIONS FOR BOLT-ON SUSPENSIONS ARE FROM TRAVEL STUDY DRAWING D-30132 (SIDE-MOUNT BOLT-ON).

DIMENSIONS "G" & "H" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.

4. "G" = RIDE HEIGHT - JOUNCE.
 "H" = RIDE HEIGHT + REBOUND.

DIMENSION SHOWN IS FOR BOLT-ON CLASSIC FRAME BRACKET, WHICH USES .38 THICK MOUNTING PLATE.
 ADD .12 INCH FOR SIDE-MOUNT BOLT-ON FRAME BRACKET, WHICH USES .50 THICK MOUNTING PLATE.

AIR DISC ONLY AVAILABLE WITH REAR SHOCKS

7. SEE L1073 FOR RIDE HEIGHT RANGE LITERATURE

RIDE HT					D	E	F			
	JOUNCE	REBOUND W/FRONT SHOCKS	REBOUND W/REAR SHOCKS	BUMPER CONTACT				G	H W/FRONT SHOCKS	H W/REAR SHOCKS

BOLT-ON

STANDARD TRAVEL

6.5	2.0	4.9	4.7	1.6	.25	4.63	19.4	4.5	11.4	11.2
7.5	3.0	3.9	3.7	2.6	.25	4.63	19.3	4.5	11.4	11.2
8.0	3.5	5.1	4.4	3.1	.25	4.63	19.2	4.5	13.1	12.4
9.0	4.5	4.1	3.4	4.1	.25	4.63	19.0	4.5	13.1	12.4
12.0	4.9	5.0	3.2	4.4	.25	8.38	19.2	7.2	17.0	15.2
14.0	5.4	4.8	3.9	5.0	1.19	10.38	19.2	8.6	18.8	17.9
15.0	5.1	3.8	4.1	4.7	3.56	10.38	19.0	9.9	18.8	19.1
16.0	5.2	4.8	4.0	4.8	3.56	12.38	19.2	10.8	20.8	20.0
17.0	5.4	3.8	3.0	5.0	5.06	12.38	19.0	11.6	20.8	20.0

LIMITED JOUNCE TRAVEL

8.0	2.8	5.1	4.4	2.4	1.56	4.63	19.2	5.2	13.1	12.4
9.0	3.4	4.1	3.4	3.0	2.31	4.63	19.0	5.6	13.1	12.4
12.0	3.7	5.0	3.2	3.3	2.31	8.38	19.2	8.3	17.0	15.2
14.0	4.1	4.8	3.9	3.7	3.56	10.38	19.2	9.9	18.8	17.9
15.0	4.0	3.8	4.1	3.6	5.56	10.38	19.0	11.0	18.8	19.1
16.0	4.1	4.8	4.0	3.7	5.56	12.38	19.2	11.9	20.8	20.0
17.0	4.0	3.8	3.0	3.6	7.56	12.38	19.0	13.0	20.8	20.0

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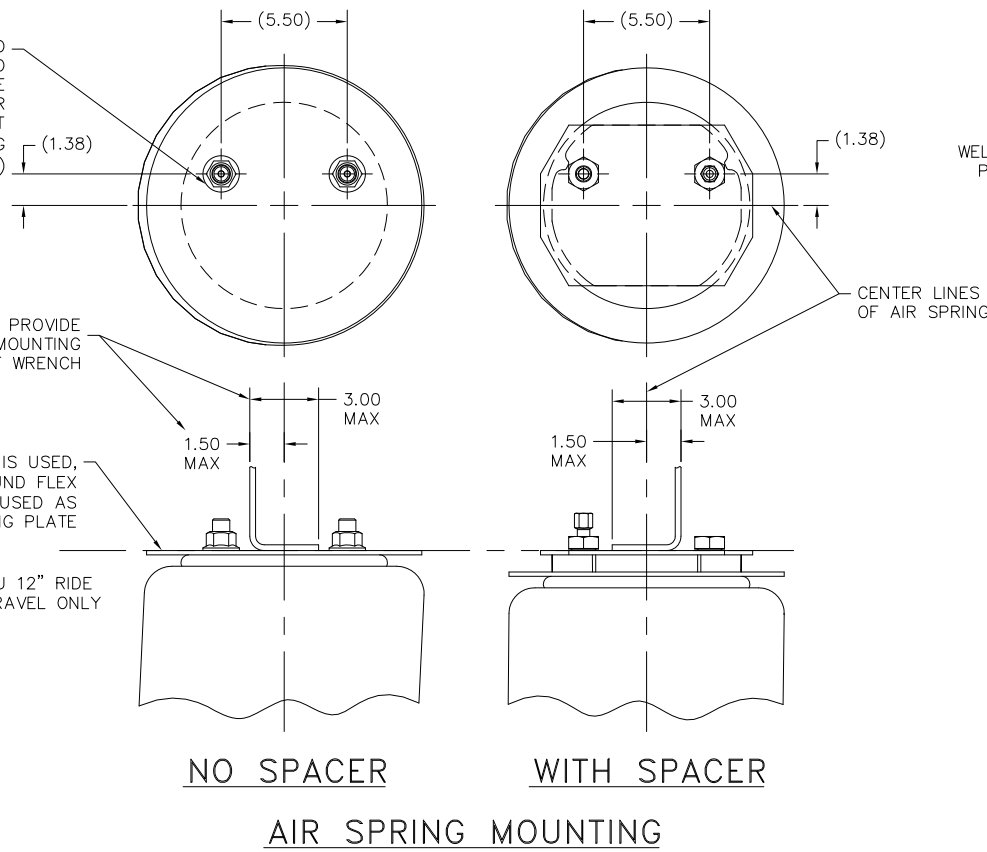
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AIR SPRING STUDS MAY BE ROTATED ABOUT AIR SPRING CENTER TO ACCOMMODATE INDIVIDUAL FRAME REQUIREMENTS, PROVIDED CUSTOMER MAINTAINS ADEQUATE SUPPORT (SEE AIR SPRING MOUNTING CHART FOR AVAILABLE OPTIONS)

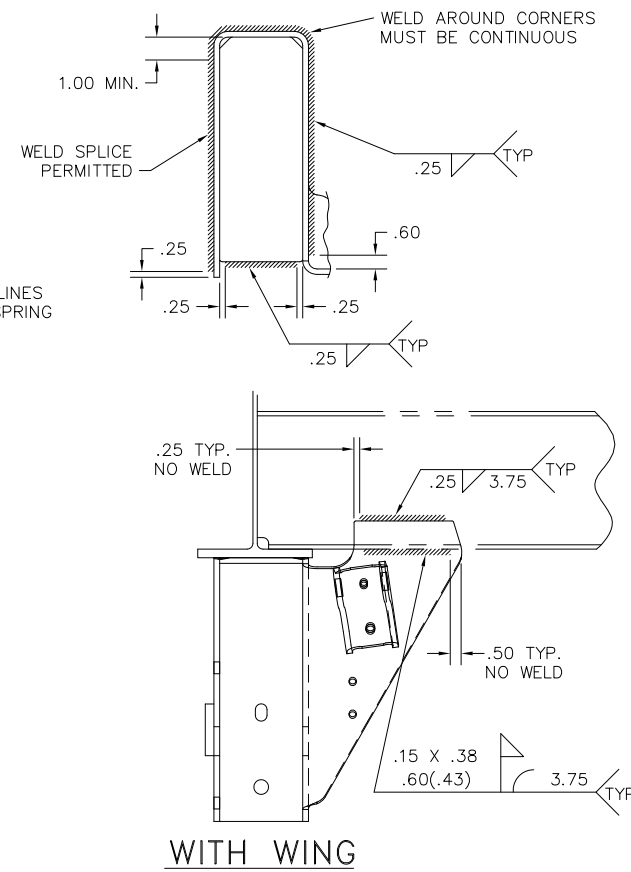
NECESSARY TO PROVIDE CLEARANCE FOR MOUNTING NUTS AND SOCKET WRENCH

WHEN NO SPACER IS USED, 12" DIAMETER ROUND FLEX PLATE IS TO BE USED AS AIR SPRING MOUNTING PLATE

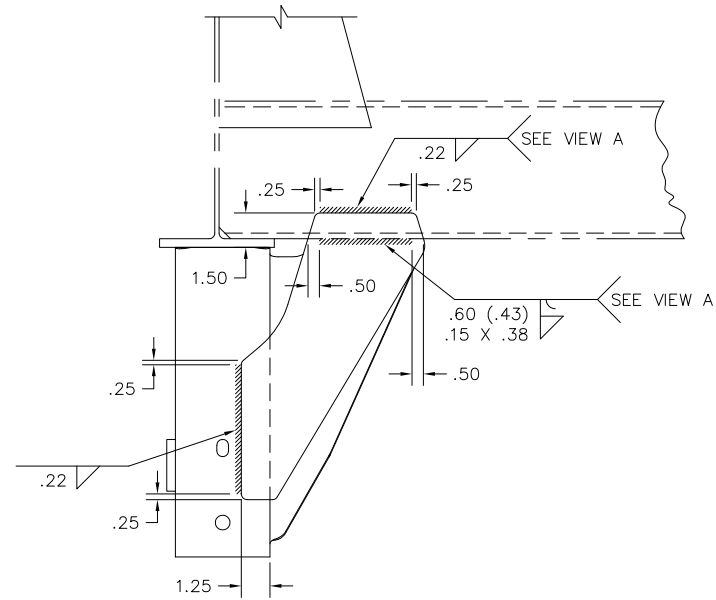
APPLIES TO 6.5" THRU 12" RIDE HEIGHTS, STANDARD TRAVEL ONLY



AIR SPRING MOUNTING

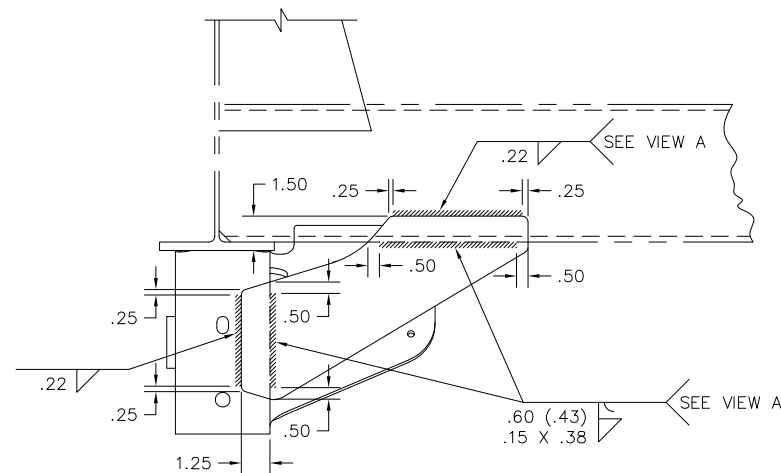


WELD FOR STRAIGHT FRAME BRACKETS



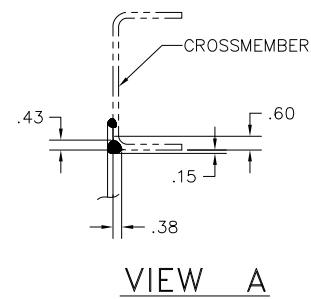
FRAME BRACKET FRONT GUSSET (UPRIGHT):

FOR 8" THRU 12" PIVOT HEIGHT, WINGED AND WINGLESS WELD-ON FRAME BRACKET USED ON 12" THRU 17" RIDE HEIGHTS, FOR STRAIGHT AND TAPERED FRAME BRACKETS

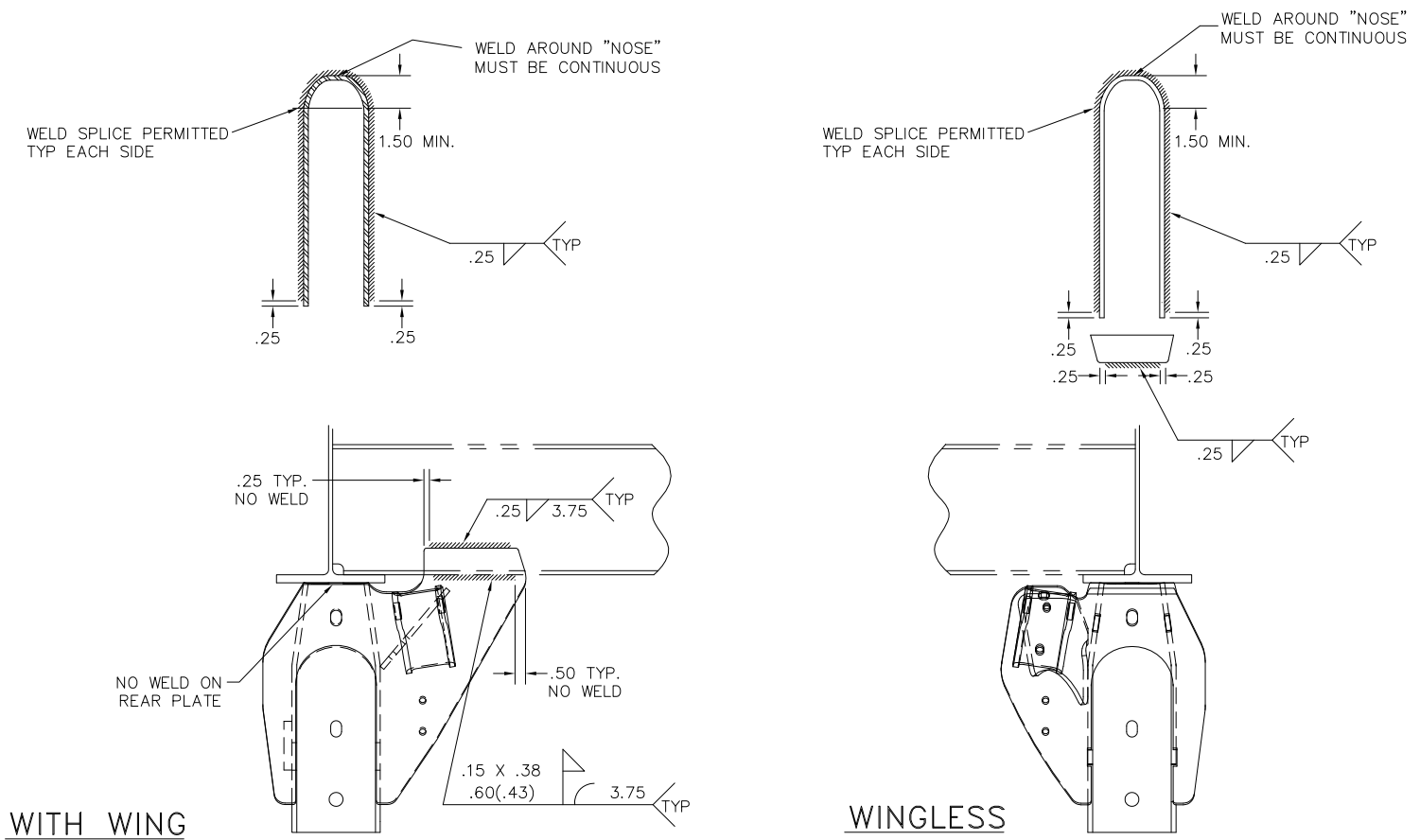


FRAME BRACKET FRONT GUSSET (ROTATED):

FOR 4.5" PIVOT HEIGHT, WINGED WELD-ON FRAME BRACKETS USED ON 6.5" THRU 9" RIDE HEIGHTS

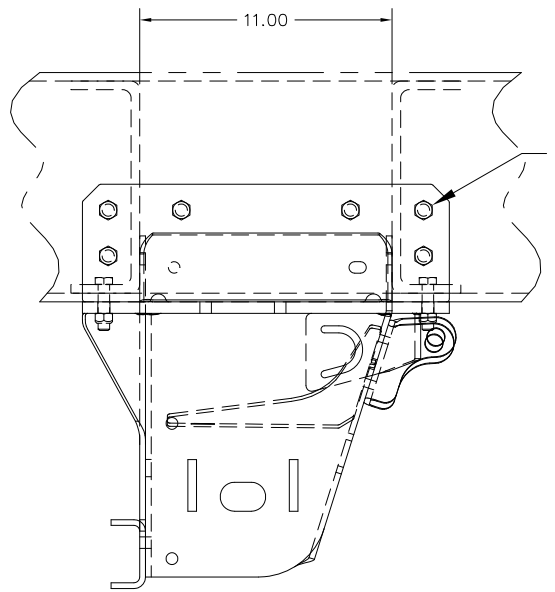
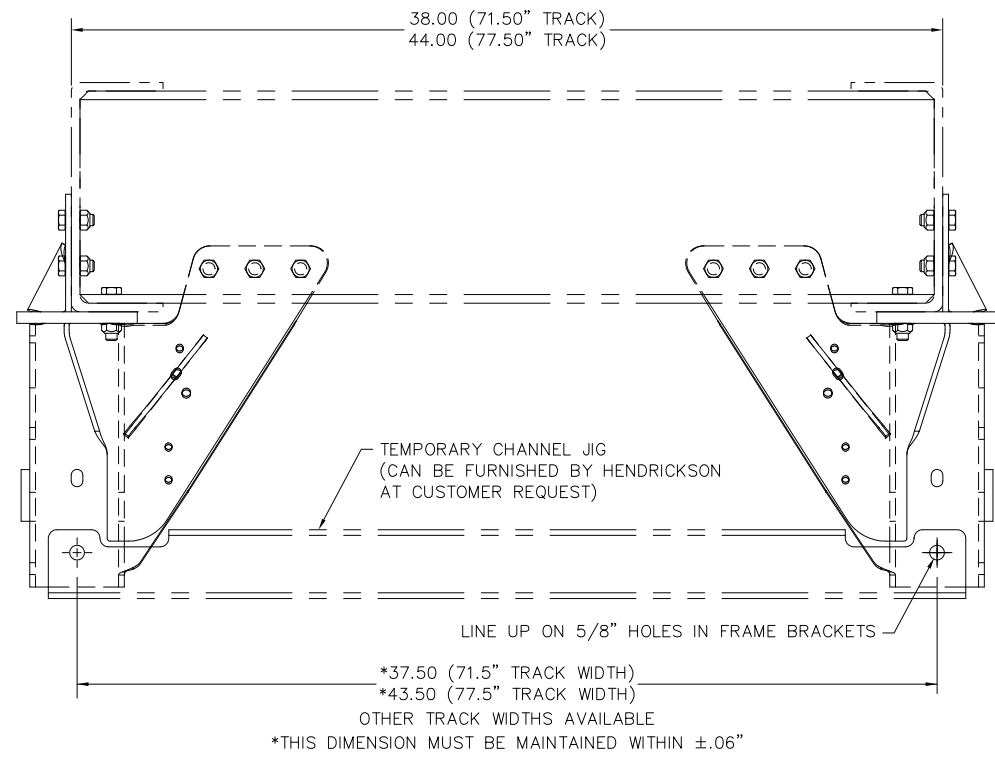


VIEW A



WELD FOR TAPERED FRAME BRACKETS

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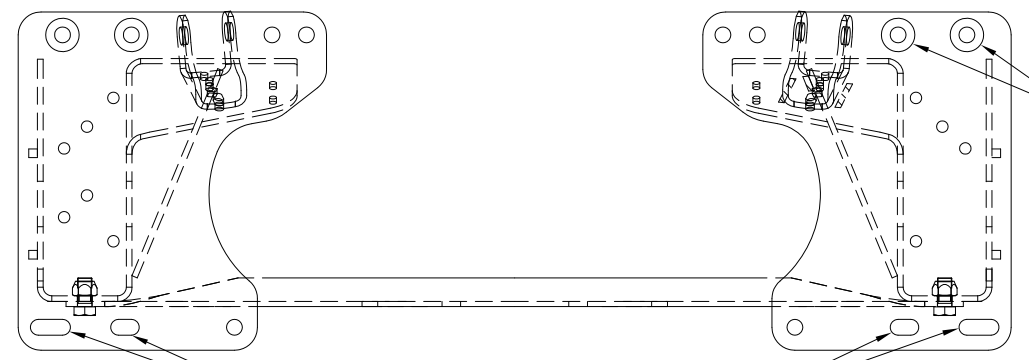


INSTALLATION SEQUENCE:

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME RAILS, AND LOOSELY INSTALL MOUNTING BOLTS.
2. PIN OR BOLT CHANNEL JIG INTO PLACE, AS SHOWN, USING 5/8" BOLTS OR PINS.
3. TIGHTEN BOLTS ATTACHING FRAME BRACKETS TO FRAME TRAILER FRAME RAILS.
4. MATCH DRILL WING GUSSET HOLES INTO TRAILER FRAME CROSSMEMBERS.
5. BOLT FRAME BRACKET WING GUSSETS TO TRAILER FRAME CROSSMEMBERS.
6. REMOVE BOLTS OR PINS FROM CHANNEL.

FRAME BRACKET INSTALLATION USING TEMPORARY CHANNEL JIG

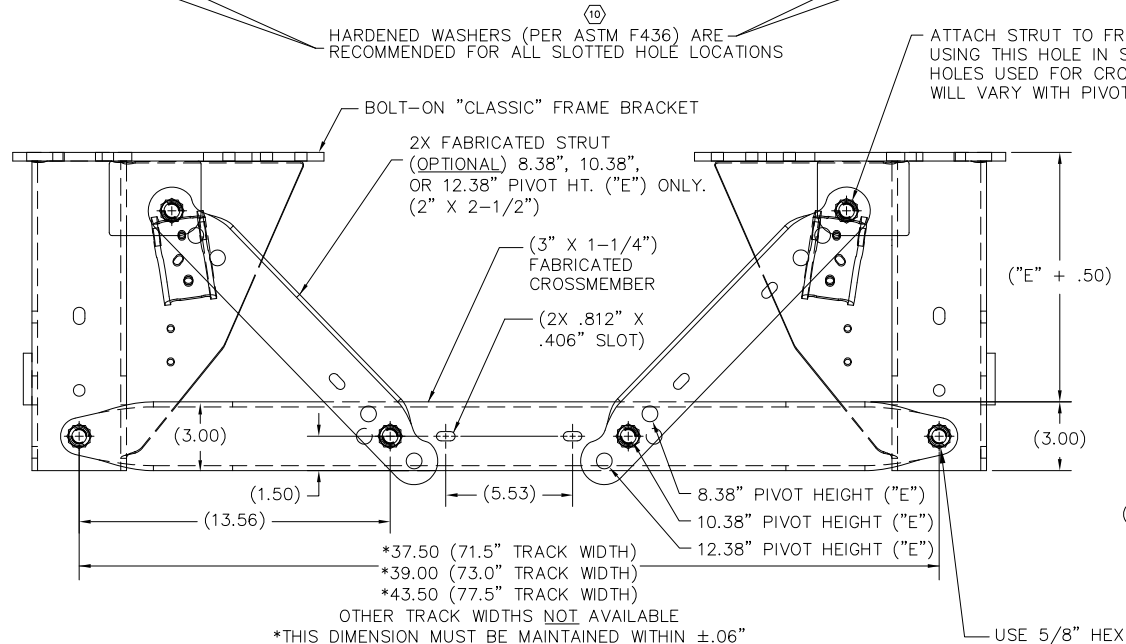
WINGED, SIDE-MOUNT BOLT-ON FRAME BRACKET
(REQUIRED TO MAINTAIN PROPER FRAME BRACKET SPACING AT PIVOT LEVEL)



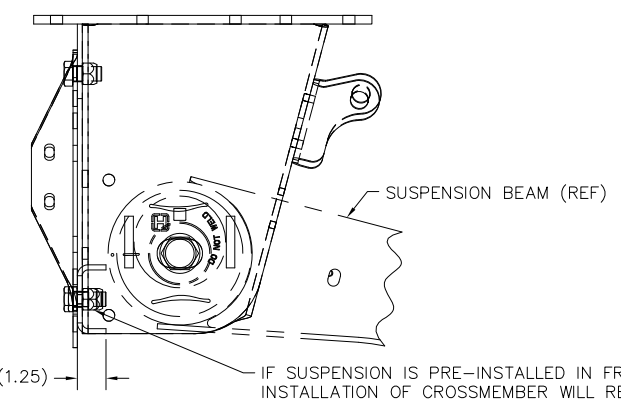
USE 82" FLAT HEAD SOCKET CAP SCREW WITH FLANGED PREVAILING TORQUE NUT IN THESE TWO HOLES ON EACH SIDE OF SUSPENSION. SEE KIT A-30476-1 (5/8") OR A-30476-2 (1/2"). TORQUE 1/2" FASTENERS TO 100±20 FT-LB. TORQUE 5/8" FASTENERS TO 190±20 FT-LB. THIS APPLIES TO 6.5 THROUGH 9.0 RIDE HEIGHTS FOR CLASSIC BOLT ON UNITS ONLY.

INSTALLATION SEQUENCE:

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME, AND LOOSELY INSTALL MOUNTING BOLTS USING HARDENED WASHERS AT ALL SLOTTED HOLE LOCATIONS.
2. INSTALL CROSSMEMBER, USING 5/8" MOUNTING HOLES ON FRONT OF FRAME BRACKETS.
3. (OPTIONAL) INSTALL STRUTS, USING 5/8" MOUNTING HOLES IN FRAME BRACKET GUSSET AND CROSSMEMBER. STRUTS AVAILABLE ON 12.0, 14.0, 15.0, 16.0 OR 17.0 RIDE HEIGHTS ONLY.
4. TIGHTEN CROSSMEMBER MOUNTING BOLTS AND STRUT MOUNTING BOLTS, IF PRESENT.
5. TIGHTEN FRAME BRACKET MOUNTING BOLTS.



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



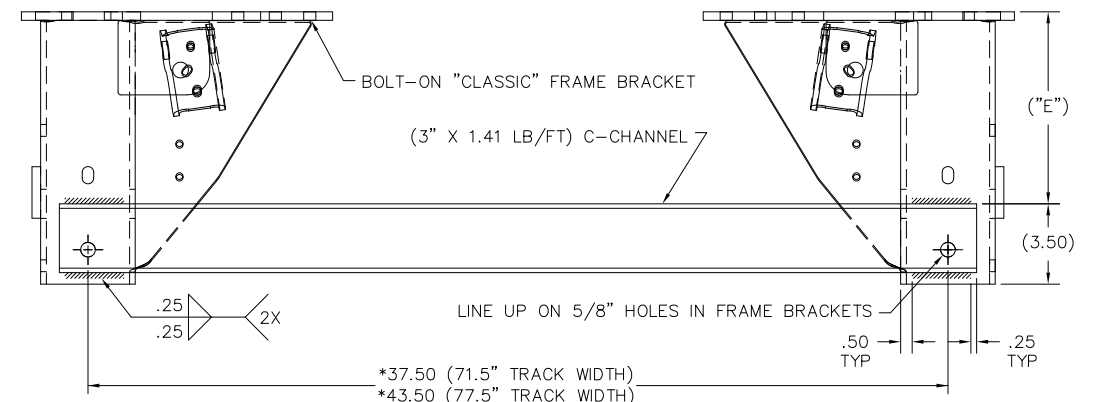
USE 5/8" HEX HEAD CAP SCREW WITH PREVAILING TORQUE NUT. (SEE KIT A-29822)[CROSSMEMBER ONLY] (SEE KIT A-30720)[CROSSMEMBER & STRUTS] TORQUE TO 190±20 FT-LB.

CROSSMEMBER INSTALLATION (BOLT-ON)

BOLT-ON "CLASSIC" FRAME BRACKET
(REQUIRED TO MAINTAIN PROPER FRAME BRACKET SPACING AT PIVOT LEVEL)

INSTALLATION SEQUENCE:

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME, AND LOOSELY INSTALL MOUNTING BOLTS USING HARDENED WASHERS AT ALL SLOTTED HOLE LOCATIONS.
2. PIN OR BOLT CHANNEL INTO PLACE, AS SHOWN, USING 5/8" BOLTS OR PINS.
3. WELD CHANNEL TO FRAME BRACKETS, AS SHOWN.
4. TIGHTEN FRAME BRACKET MOUNTING BOLTS.
5. REMOVE BOLTS OR PINS FROM CHANNEL.



BRACING CHANNEL INSTALLATION (WELD-ON)

BOLT-ON "CLASSIC" FRAME BRACKET
(REQUIRED TO MAINTAIN PROPER FRAME BRACKET SPACING AT PIVOT LEVEL)



UNLESS OTHERWISE NOTED: TOLERANCES ARE:	10	26252	ZAG	1/30/17	DRAWN BY	L. KEETON	01-09-07
.XX: ±	9	24413	D/D	7/21/15	CHKD BY	C. ANDERSON	
.XXX: ±	8	22168	RM	5/31/13	APPD BY	G. COPELAND	
ANGULAR: ±	7	20118	GDW	9/12/11			
DIMENSIONS ADHERE TO ANSI Y14.5M-1982	REV	ECN NO.	BY	DATE			

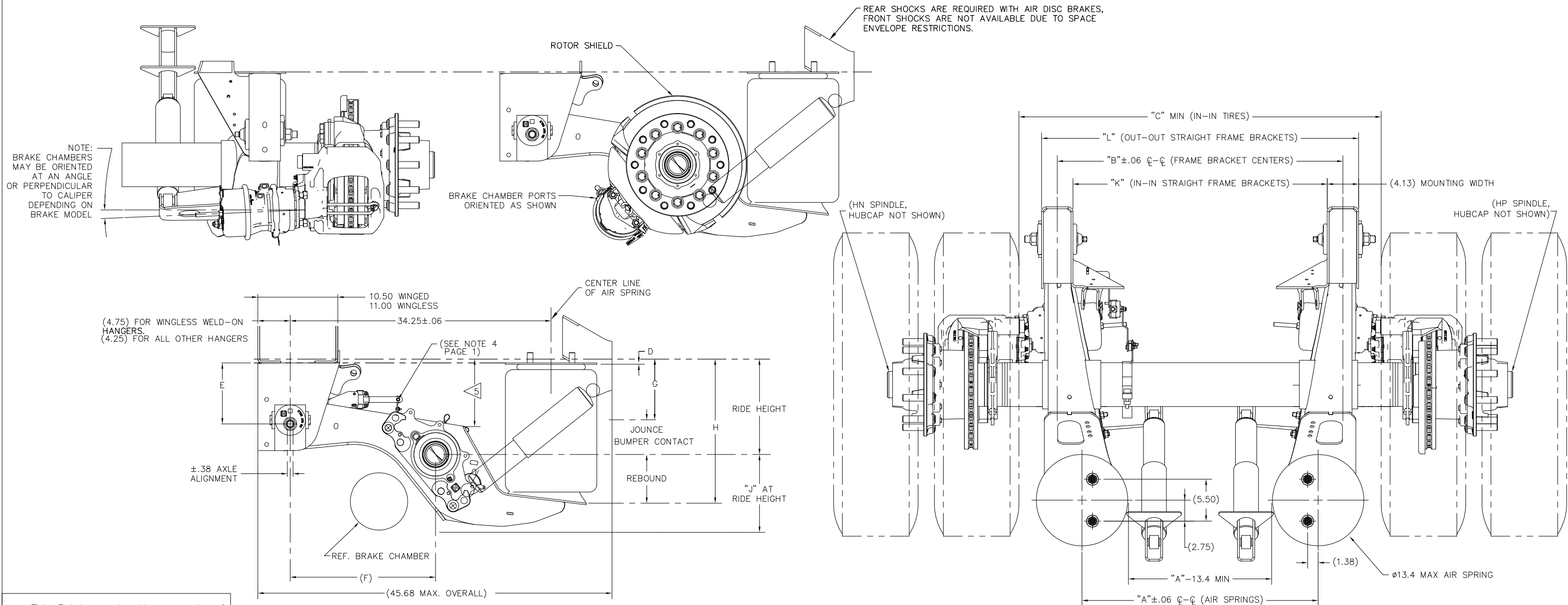
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INTRAAAX® AANL
INSTALLATION DRAWING

NOTES:

1. THIS PAGE IS FOR AANL 23K SUSPENSIONS WITH AIR DISC BRAKES OPTION.
2. MERITOR WABCO PAN22 BRAKE CALIPERS AND GUNITE DUCTILE IRON HUBS WITH GUNITE ROTORS REPRESENTED IN GRAPHICS.
3. NOT ALL HUB/ROTOR OPTIONS ARE AVAILABLE WITH ALL BRAKE OPTIONS.
4. AIR DISC BRAKES COMPATIBLE WITH 22.5" OR 24.5" TIRES ONLY.

5 DO NOT ROUTE ITEMS THROUGH THIS AREA FOR 9.0 INCH AND LOWER RIDE HEIGHTS DUE TO MINIMAL BEAM TO FRAME CLEARANCE.



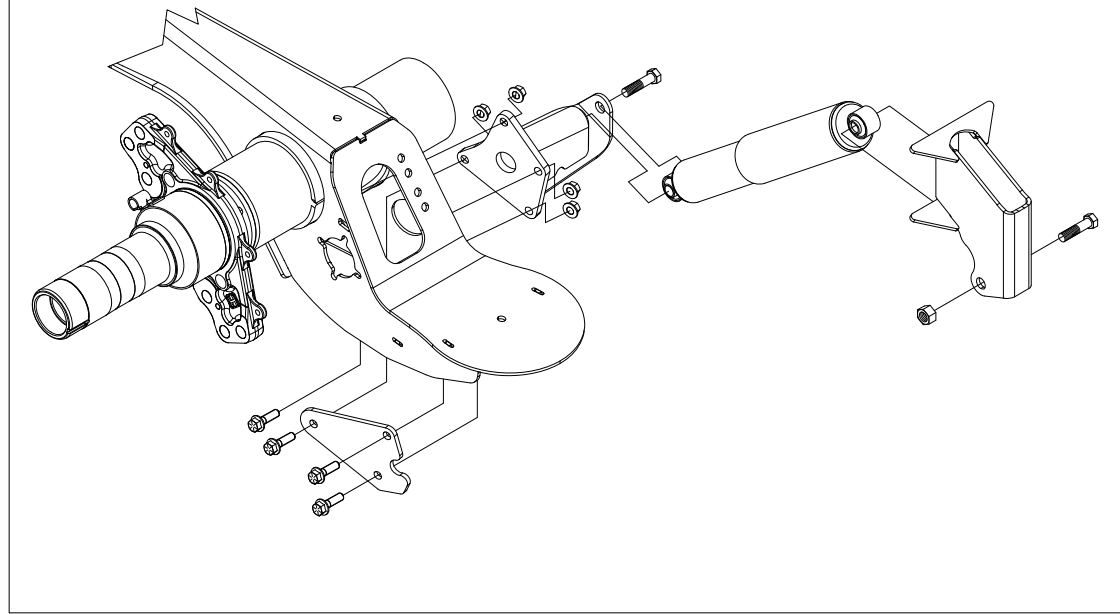
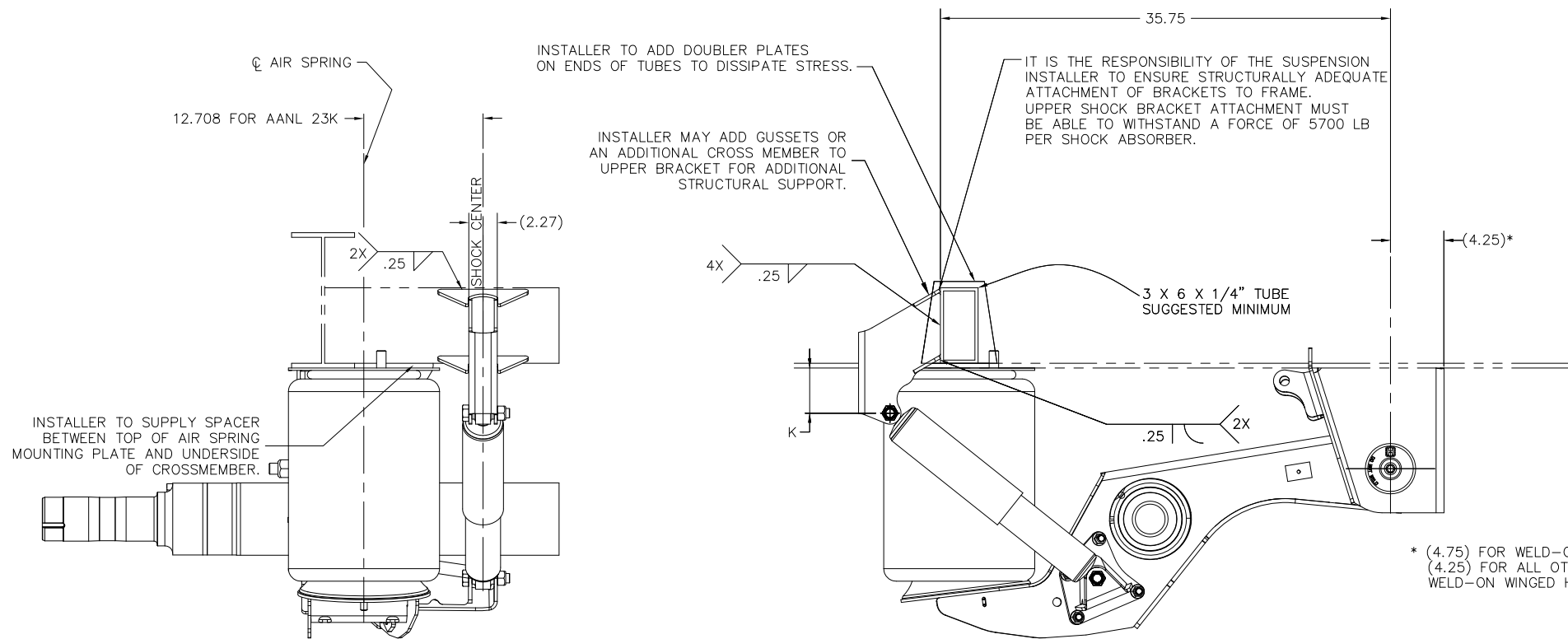
AIR DISC BRAKES ONLY

SEE PAGE 1, AND 2 FOR TABULATED DIMENSIONS AND NOTES

STRAIGHT WELD-ON FRAME BRACKETS
SHOWN WITH 4.5" PIVOT HEIGHT FRAME BRACKETS, FOR 6.5" THRU 9" RIDE HEIGHTS ONLY

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<p>TRAILER COMMERCIAL VEHICLE SYSTEMS 2070 INDUSTRIAL PLACE S.E., CANTON, OH 44707-2600 U.S.A.</p>	<p>UNLESS OTHERWISE NOTED: TOLERANCES ARE:</p> <p>INCHES X: ± .005 XX: ± .0025 XXX: ± .0015</p> <p>ANGULAR: ± .001</p>	<p>DIMENSIONS ARE:</p> <p>10 26252 ZAG 1/30/17 9 24413 DJD 07/21/15</p>	<p>DRAWN BY: D. DAGNALL 07-21-15 CHK'D BY: R. LEONARD APP'D BY: B. BREWER</p>	<p>THIS DRAWING IS THE CONFIDENTIAL PROPERTY OF HENDRICKSON</p>	<p>SCALE: .166=1.000 DRAWING No.:</p>	<p>SIZE: D PAGE: 5 OF 6</p>
	<p>INTRAAAX® AANL INSTALLATION DRAWING</p>			<p>D-29460</p>		



INSTALLER TO SUPPLY SPACER BETWEEN TOP OF AIR SPRING MOUNTING PLATE AND UNDERSIDE OF CROSSMEMBER.

INSTALLER TO ADD DOUBLER PLATES ON ENDS OF TUBES TO DISSIPATE STRESS.

INSTALLER MAY ADD GUSSETS OR AN ADDITIONAL CROSS MEMBER TO UPPER BRACKET FOR ADDITIONAL STRUCTURAL SUPPORT.

IT IS THE RESPONSIBILITY OF THE SUSPENSION INSTALLER TO ENSURE STRUCTURALLY ADEQUATE ATTACHMENT OF BRACKETS TO FRAME. UPPER SHOCK BRACKET ATTACHMENT MUST BE ABLE TO WITHSTAND A FORCE OF 5700 LB PER SHOCK ABSORBER.

3 X 6 X 1/4" TUBE SUGGESTED MINIMUM

* (4.75) FOR WELD-ON WINGLESS HANGERS ONLY. (4.25) FOR ALL OTHER HANGERS. WELD-ON WINGED HANGER IS SHOWN.

- ASSEMBLY PROCEDURE FOR REAR MOUNTED SHOCK**
1. SET SUSPENSION TO RIDE HEIGHT.
 2. LOCATE UPPER SHOCK BRACKET ACCORDING TO SHOWN DIMENSIONS AND WELD INTO PLACE. CROSSMEMBER MUST BE 6 X 3 X 1/4" MINIMUM TO WITHSTAND TORSION.
 3. BOLT LOWER SHOCK TOWER BRACKET TO BEAM USING 1/2-13 FLANGE BOLTS AND LOCKING FLANGE NUTS.
 4. BOLT TOP OF SHOCK TO UPPER BRACKET USING THE CLEVIS INDICATED FOR THE APPLICATION'S RIDE HEIGHT (SEE "REAR MOUNTED SHOCK" CHART). BOLT BOTTOM OF SHOCK TO LOWER SHOCK TOWER BRACKET. TIGHTEN ALL FASTENERS TO SPECIFIED TORQUE.

REAR MOUNTED SHOCK		
RIDE HEIGHT	CLEVIS P/N	DIM "K"
6.5	C-25420	3.59
7.5		
8	C-29967	.50
9		
12	C-25420	3.59
14	C-29967	.50
15		
16	C-25420	3.59
17		

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TORQUE SPECIFICATIONS		
DESCRIPTION	SIZE	TORQUE (FT-LB)
SHOCK ABSORBER BOLTS	3/4-10	210-235
LOWER SHOCK TOWER BOLTS	1/2-13	100-110