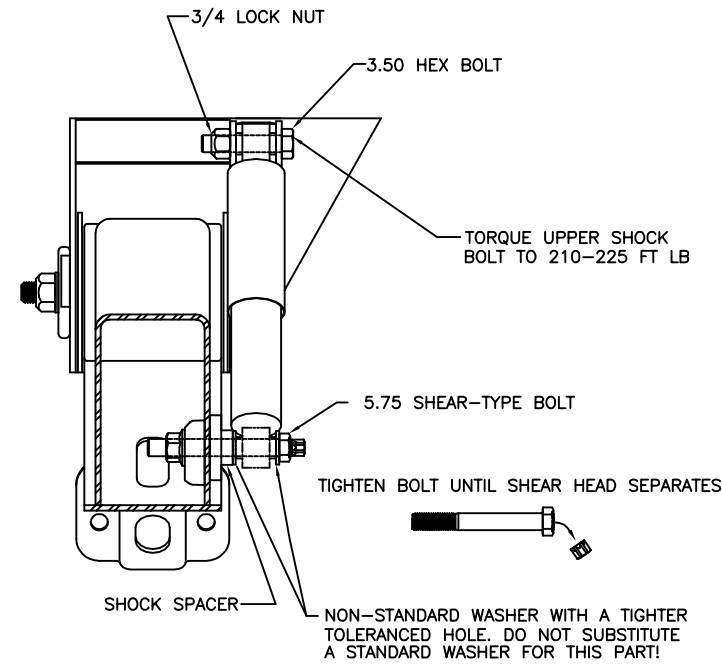


NOTES:

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. REQUIRED CROSSMEMBER LOCATIONS ARE SHOWN. ACTUAL SIZE AND SHAPE MAY VARY WITH TRAILER DESIGN. IT IS THE RESPONSIBILITY OF THE SUSPENSION INSTALLER TO ENSURE STRUCTURAL ADEQUACY OF TRAILER FRAME AND CROSSMEMBERS.
5. SEE L1182 FOR HEIGHT CONTROL KIT OPTIONS.
6. SEE PAGE 3 FOR C-CHANNEL REQUIREMENTS.
7. FOR NON HENDRICKSON SLIDER, THE OPTION OF NONE FOR FRAME ATTACHMENT SHOULD BE SELECTED. THE SUSPENSION WILL BE SHIPPED WITHOUT FRAME BRACKETS AND AIR SPRING MOUNTING PLATES. THE SFK CONTAINS FRAME BRACKETS AND AIR SPRING MOUNTING PLATES. THIS KIT IS PURCHASED SEPARATELY AND SHIPPED DIRECTLY TO THE SLIDER MANUFACTURER.
8. NOTE SPECIAL AIR SPRING MOUNTING FOR 30K SUSPENSIONS.
9. SEE D-29431 FOR DIMENSIONS AND CROSSMEMBER LOCATIONS.
10. FOR BOLT-ON MOUNTING PATTERNS, SEE DRAWING D-26651.



O.E.M. INSTALLED SHOCK BOLT KIT

CAUTION

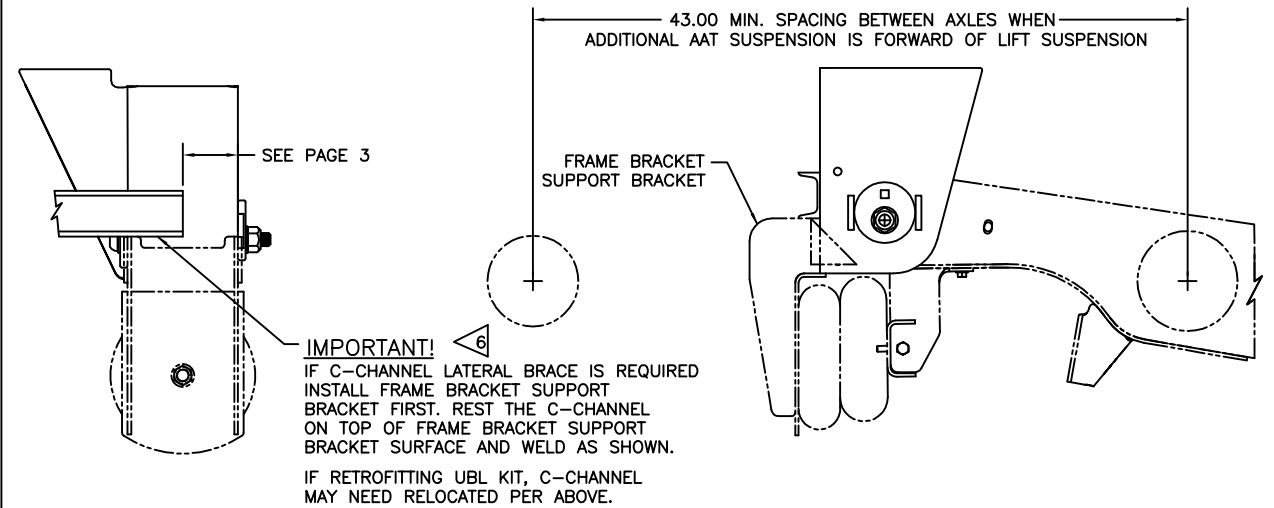
CLEARANCE SPECIFICATIONS:

- 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.
- d) SEE "30K AIR SPRING MOUNTING" VIEW FOR MINIMUM AIR SPRING BEAD PLATE CLEARANCE FOR 30K SUSPENSIONS.

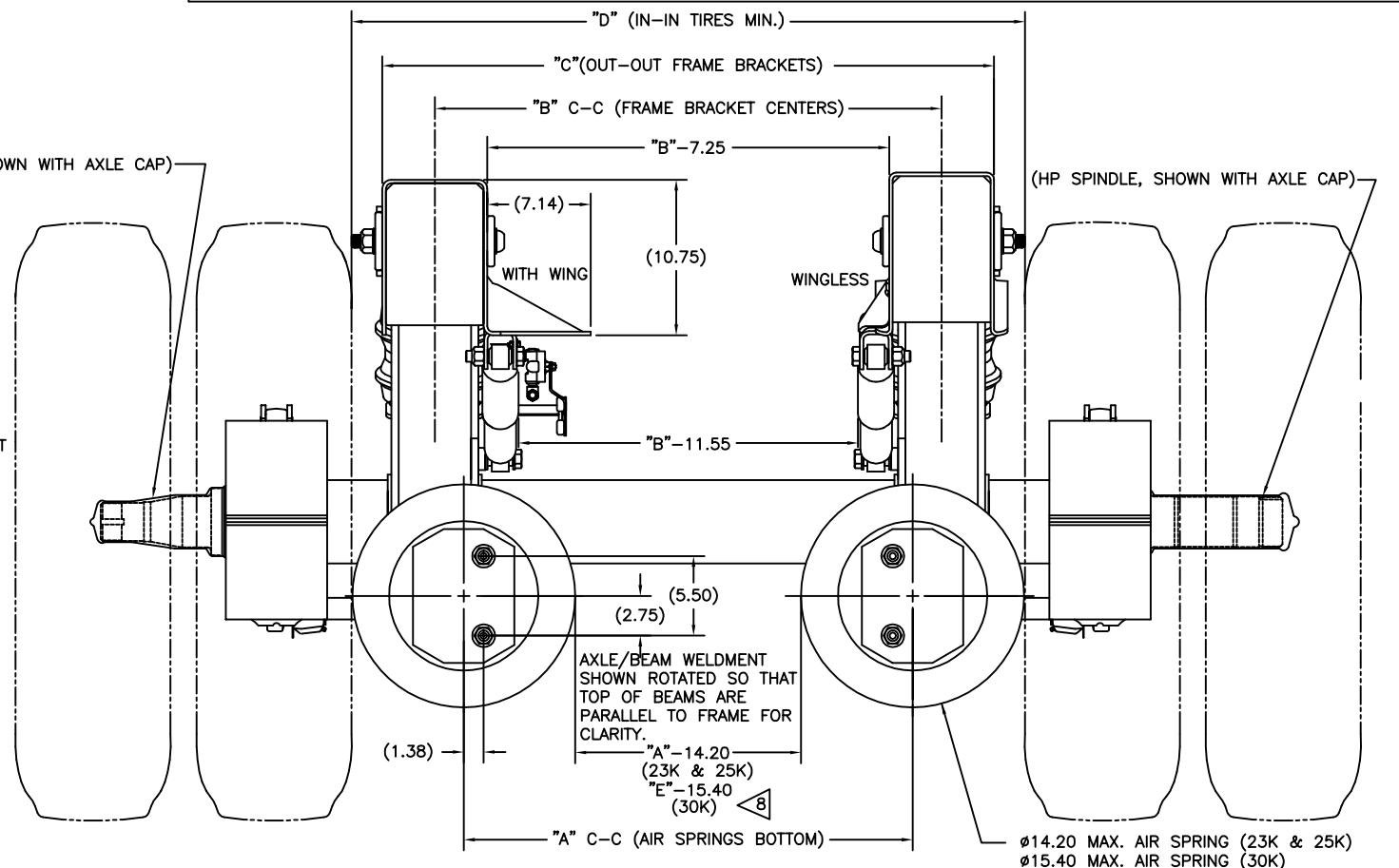
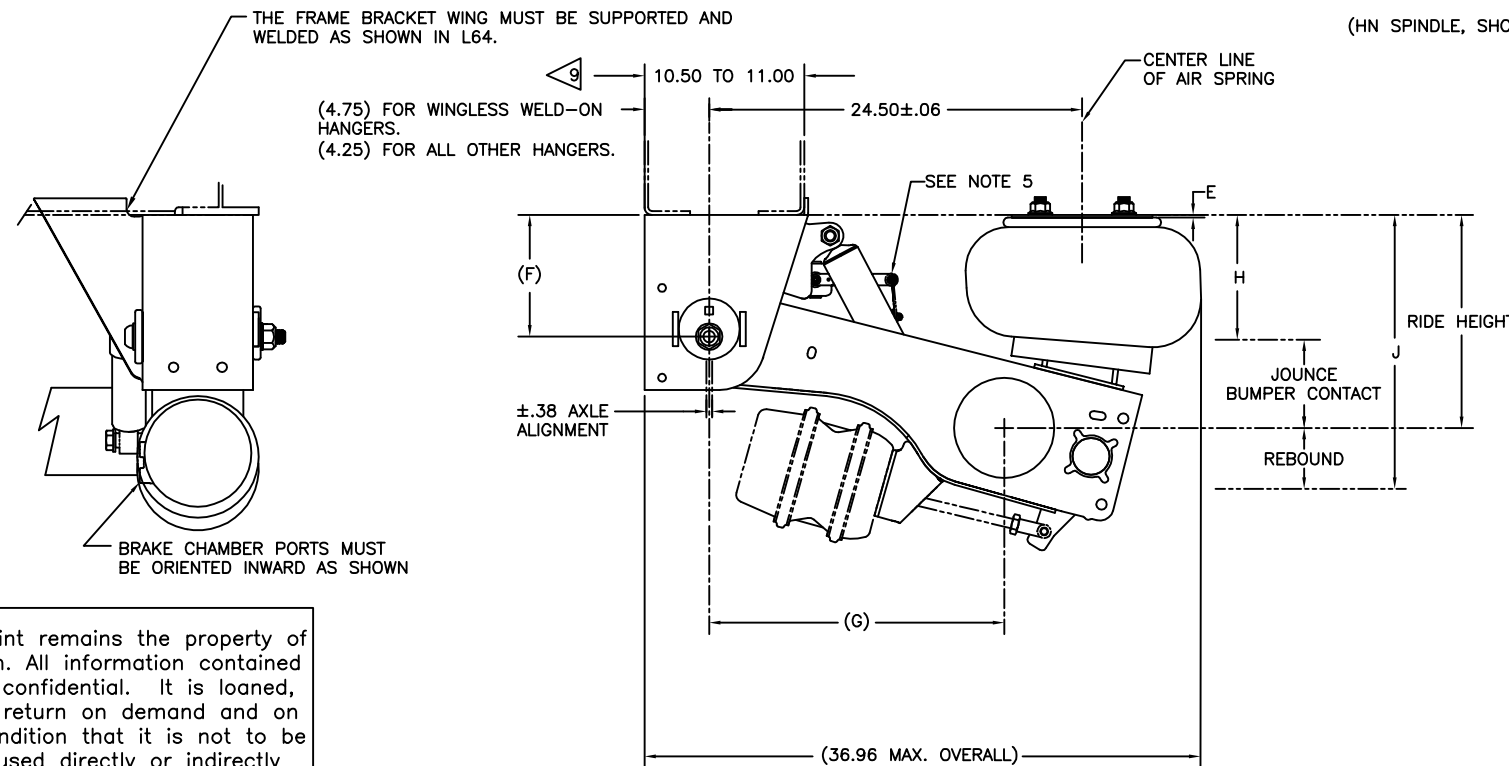
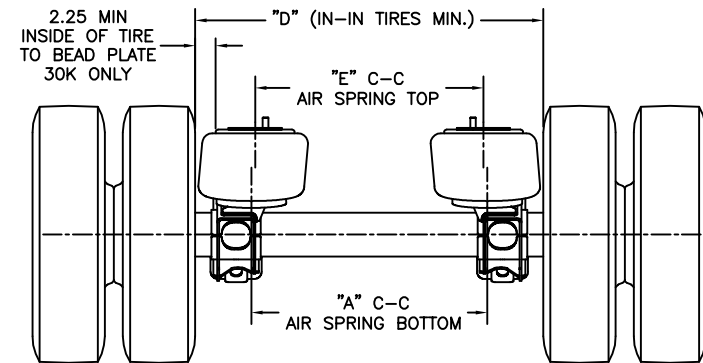
MODEL	23K & 25K					30K				
	71.5	73.0	77.5	83.5	85.0	71.5	73.0	77.5	83.5	85.0
TRACK WIDTH	71.5	73.0	77.5	83.5	85.0	71.5	73.0	77.5	83.5	85.0
DIMENSION "A" (IN)	31.00	32.50	37.00	43.00	44.50	31.00	32.50	37.00	43.00	44.50
DIMENSION "B" (IN)	35.00	36.50	41.00	47.00	48.50	35.00	36.50	41.00	47.00	48.50
DIMENSION "C" (IN)	42.25	43.75	48.25	54.25	55.75	42.25	43.75	48.25	54.25	55.75
DIMENSION "D" (IN)*	46.50	48.00	52.50	58.50	60.00	46.50	48.00	52.50	58.50	60.00
DIMENSION "E" (IN)	31.00	32.50	37.00	43.00	44.50	30.00	31.50	36.00	42.00	43.50

*Contact Hendrickson Engineering for direction when Tire Spacing is less than the charted values

C-CHANNEL REQUIREMENT WHEN USING UNDER BEAM LIFT ASSEMBLY



30K AIR SPRING MOUNTING



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SEE PAGE 2 FOR TABULATED DIMENSIONS SHOWN ABOVE

AAT 23K DIMENSIONS									
RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	E	F	G	H	J	
STANDARD TRAVEL									
13.5	3.1	5.4	2.5	.19	8.0	19.5	10.4	18.9	
14.0	3.6	4.9	3.0			19.4			
15.0	3.7	3.9	3.2			19.0	11.3		
16.0	3.8	4.8	3.2	.94	10.0	19.4	12.2	20.8	
17.0	3.8	3.8	3.2	.19		19.0	13.2		
18.0	3.8	4.8	3.3	.94		19.4	14.2		
19.0	3.9	3.8	3.3	2.06	12.0	19.0	15.1	22.8	
LIMITED REBOUND TRAVEL									
14.0	3.6	3.6	3.0	.19	8.0	19.4	10.4	17.5	
16.0	3.8	3.3	3.2	.94	10.0		12.2	19.3	
18.0	3.8	3.3	3.3		12.0		14.2	21.3	
HIGH CONTROL TRAVEL									
13.5	2.7	5.9	2.2	.19	10.0	20.0	10.8	19.4	
14.0	3.2	5.4	2.7			19.9			
15.0	3.4	4.4	2.8			19.7	11.6		
16.0	3.5	5.7	2.9	.94	12.0	19.9	12.5	21.7	
17.0	3.5	4.7	2.9	.19		19.7	13.5		
LIMITED JOUNCE TRAVEL									
14.0	2.7	4.9	2.2	.19	8.0	19.4	11.3	18.9	
15.0	2.8	3.9	2.3	1.31		19.0	12.2		
16.0	2.8	4.8	2.2	.19		10.0	19.4		13.2
17.0	2.9	3.8	2.3	1.31	19.0	14.1	20.8		

AAT 23K ZMD DIMENSIONS									
RIDE HEIGHT	JOUNCE	BUMPER CONTACT	REBOUND	E	F	G	H	J	
STANDARD TRAVEL									
14.0	3.2 ⁽¹²⁾	2.8 ⁽¹²⁾	4.3	.19	8.0	19.4	10.8 ⁽¹²⁾	18.3	
15.0	3.4	3.0 ⁽¹²⁾	4.5	.19		19.0	11.6	19.5	
16.0	3.1 ⁽¹²⁾	2.7 ⁽¹²⁾	5.2 ⁽¹²⁾	1.31		10.0	19.4	12.9 ⁽¹²⁾	21.2
17.0	3.4 ⁽¹²⁾	3.1	4.2 ⁽¹²⁾	.19	19.0		13.6 ⁽¹²⁾		

AAT 25K DIMENSIONS									
RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	E	F	G	H	J	
STANDARD TRAVEL									
13.5	2.9	5.4	2.3	.19	8.0	19.5	10.6	18.9	
14.0	3.4	4.9	2.8			19.4			
15.0	3.6	3.9	3.0			19.0	11.5		
16.0	3.6	4.8	3.0	.94	10.0	19.4	12.5	20.8	
17.0	3.6	3.8	3.1	.19		19.0	13.5		
18.0	3.7	4.8	3.1	.94		12.0	19.4		14.4
19.0	3.7	3.8	3.2	2.06	12.0	19.0	15.4	22.8	
LIMITED REBOUND TRAVEL									
14.0	3.4	3.6	2.8	.19	8.0	19.4	10.7	17.6	
16.0	3.6	3.3	3.0	.94	10.0		12.5	19.3	
18.0	3.7	3.3	3.1		12.0		14.4	21.3	
HIGH CONTROL TRAVEL									
13.5	2.6	5.9	2.0	.19	10.0	20.0	11.0	19.4	
14.0	3.1	5.4	2.5			19.9			
15.0	3.2	4.4	2.7			19.7	11.9		
16.0	3.3	5.7	2.7	.94	12.0	19.9	12.8	21.7	
17.0	3.3	4.7	2.7	.19		19.7	13.8		
LIMITED JOUNCE TRAVEL									
14.0	2.6	4.9	2.0	.19	8.0	19.4	11.4	18.9	
15.0	2.7	3.9	2.1	1.31		19.0	12.3		
16.0	2.6	4.8	2.1	.19		10.0	19.4		13.4
17.0	2.7	3.8	2.2	1.31	19.0	14.3	20.8		

AAT 25K ZMD DIMENSIONS									
RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	E	F	G	H	J	
STANDARD TRAVEL									
14.0	3.2	4.3	2.8	.19	8.0	19.4	10.8	18.3	
15.0	3.4	4.5	3.0			19.0	11.6	19.5	
16.0	3.1	5.2	2.7			1.31	10.0	19.4	12.9
17.0	3.4	4.2	3.1	.19	19.0	13.6			
18.0	3.4	5.3	3.1	.94	12.0	19.4	14.6	23.3	
19.0	3.5	4.3	3.2	2.06		19.0	15.5		

AAT 30K DIMENSIONS									
RIDE HEIGHT	JOUNCE	REBOUND	BUMPER CONTACT	E	F	G	H	J	
STANDARD TRAVEL									
13.5	2.9	5.4	2.3	.19	8.0	19.5	10.6	18.9	
14.0	3.4	4.9	2.8			19.4			
15.0	3.6	3.9	3.0			19.0	11.5		
16.0	3.6	4.8	3.0	.94	10.0	19.4	12.5	20.8	
17.0	3.6	3.8	3.1	.19		19.0	13.5		
18.0	3.7	4.8	3.1	.94		12.0	19.4		14.4
19.0	3.7	3.8	3.2	2.06	12.0	19.0	15.4	22.8	
HIGH CONTROL TRAVEL									
13.5	2.6	5.9	2.0	.19	10.0	20.0	11.0	19.4	
14.0	3.1	5.4	2.5			19.9			
15.0	3.2	4.4	2.7			19.7	11.9		
16.0	3.3	5.7	2.7	.94	12.0	19.9	12.8	21.7	
17.0	3.3	4.7	2.7	.19		19.7	13.8		
LIMITED JOUNCE TRAVEL									
14.0	2.6	4.9	2.0	.19	8.0	19.4	11.4	18.9	
15.0	2.7	3.9	2.1	1.31		19.0	12.3		
16.0	2.6	4.8	2.1	.19		10.0	19.4		13.4
17.0	2.7	3.8	2.2	1.31	19.0	14.3	20.8		

NOTES:

- SEE L600 FOR SUSPENSION WEIGHT.
- SEE L1073 FOR RIDE HEIGHT RANGE.

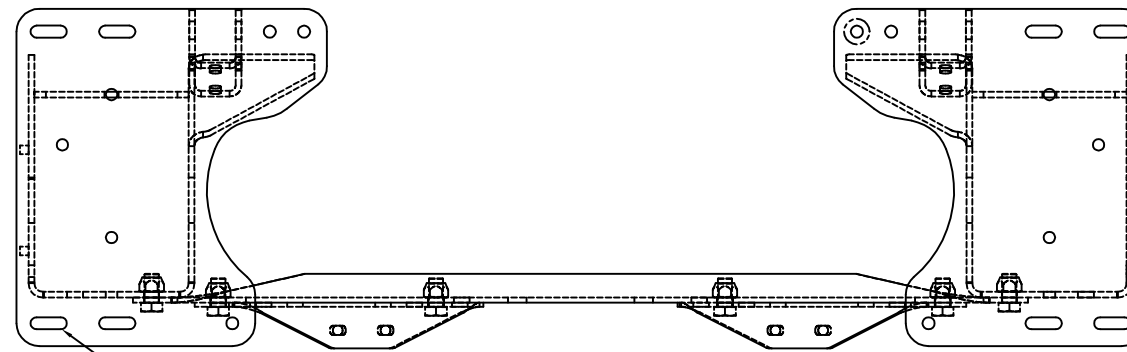
3 JOUNCE AND REBOUND DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.

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

- RIDE HEIGHT - JOUNCE = "H"
RIDE HEIGHT + REBOUND = "J"

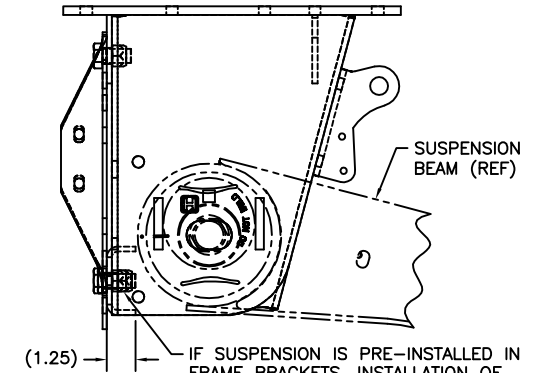
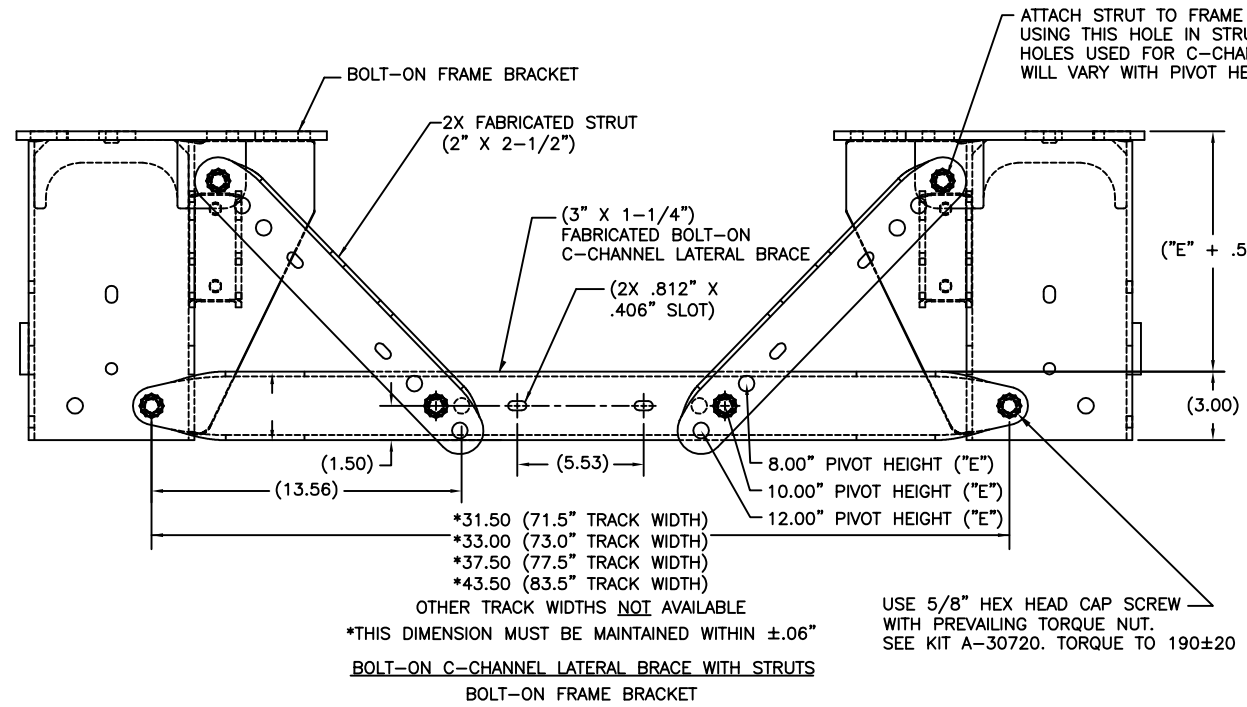
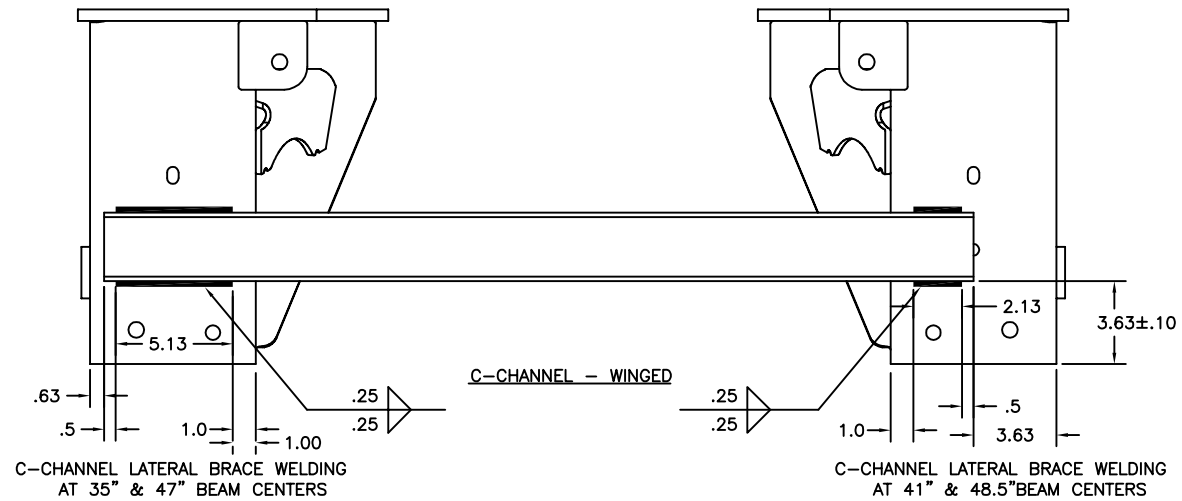
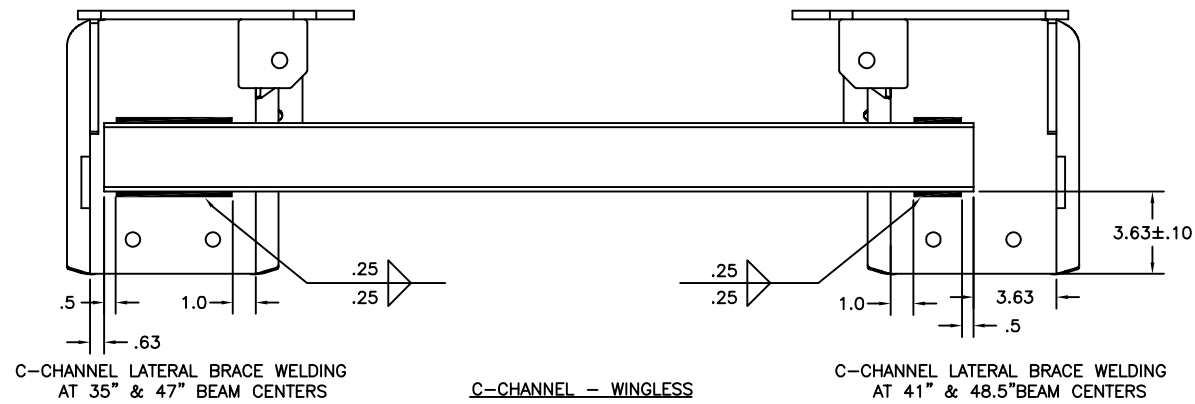
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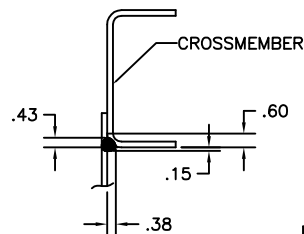


INSTALLATION SEQUENCE:

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME AND LOOSELY INSTALL MOUNTING BOLTS USING HARDENED WASHERS AT ALL SLOTTED HOLE LOCATIONS.
2. INSTALL C-CHANNEL LATERAL BRACE, USING 5/8" MOUNTING HOLES ON FRONT OF FRAME BRACKETS.
3. INSTALL STRUTS, USING 5/8" MOUNTING HOLES IN FRAME BRACKET GUSSET AND C-CHANNEL LATERAL BRACE.
4. TIGHTEN C-CHANNEL LATERAL BRACE MOUNTING BOLTS AND STRUT MOUNTING BOLTS, IF PRESENT.
5. TIGHTEN FRAME BRACKET MOUNTING BOLTS.



USE 5/8" HEX HEAD CAP SCREW WITH PREVAILING TORQUE NUT. SEE KIT A-30720. TORQUE TO 190±20 FT-LB.

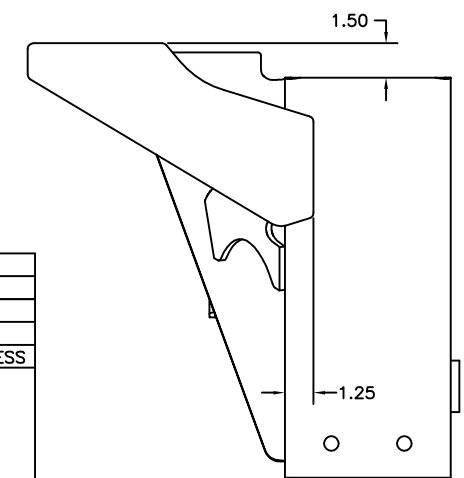


VIEW A
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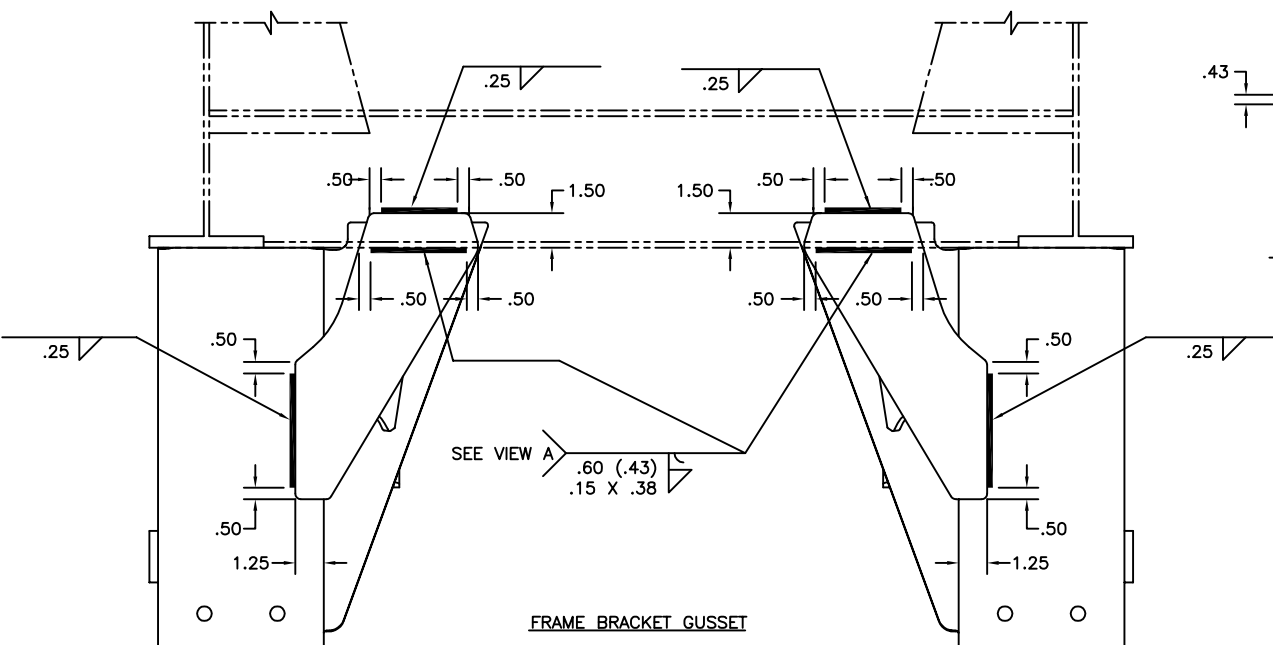
FRAME BRACKET BRACING					
SUSPENSION CAPACITY--	AAT 23K, 25K, AND 30K				
FRAME ATTACHMENT--	WELD-ON		BOLT-ON		
HIGH CONTROL--	YES* -OR- NO		NO		YES
FRAME BRACKET STYLE--	WINGED	WINGLESS	WINGED	WINGLESS	WINGED -OR- WINGLESS
RIDE HEIGHT	13.5	FRAME BRACKET GUSSET REQUIRED	C-CHANNEL REQUIRED	C-CHANNEL REQUIRED	C-CHANNEL REQUIRED
	14.0				
	15.0				
	16.0				
	17.0				
18.0					
19.0					

* HIGH CONTROL IS NOT AVAILABLE IN 18 AND 19 RIDE HEIGHTS.

IT IS THE RESPONSIBILITY OF THE SUSPENSION INSTALLER TO PROVIDE AN EQUIVALENT FRAME BRACKET SUPPORT IF THE FRAME BRACKET BRACING IS NOT PURCHASED FROM HENDRICKSON.



VIEW B
SCALE: .25=1.00
FOR SOME UBL INSTALLATIONS



FRAME BRACKET GUSSET

AAT 23K RAISED CENTER AXLE DIMENSIONS									
RIDE HEIGHT	JOUNCE	BUMPER CONTACT	REBOUND	E	F	G	H	J	
STANDARD TRAVEL									
13.5	3.1	2.5	5.4	.19	8.0	19.5	10.4	18.9	
14.0	3.6	3.0	4.9			19.4			
15.0	3.7	3.2	3.9			19.0			11.3
16.0	3.8	3.2	4.8	.94	10.0	19.4	12.2	20.8	
17.0	3.8	3.2	3.8	.19		19.0	13.2		
18.0	3.8	3.3	4.8	.94		19.4	14.2		
19.0	3.9	3.3	3.8	2.06	12.0	19.0	15.1	22.8	
LIMITED REBOUND TRAVEL									
14.0	3.6	3.0	3.6	.19	8.0	19.4	10.4	17.5	
16.0	3.8	3.2	3.3	.94	10.0		12.2	19.3	
18.0	3.8	3.3	3.3		12.0		14.2	21.3	
HIGH CONTROL TRAVEL									
13.5	2.7	2.2	5.9	.19	10.0	20.0	10.8	19.4	
14.0	3.2	2.7	5.4			19.9			
15.0	3.4	2.8	4.4			19.7			11.6
16.0	3.5	2.9	5.7	.94	12.0	19.9	12.5	21.7	
17.0	3.5	2.9	4.7	.19		19.7	13.5		

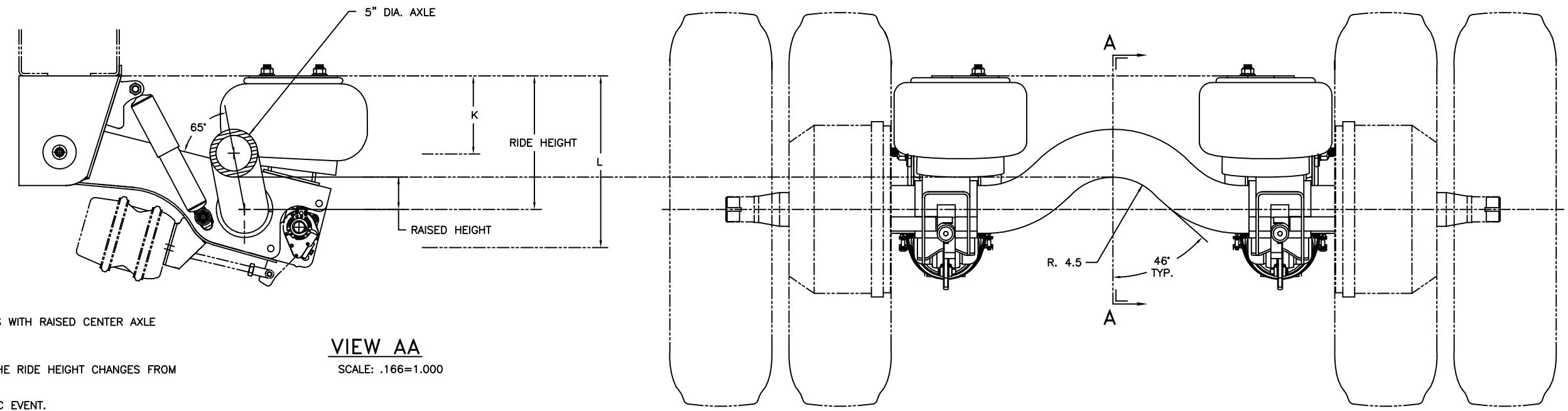
AAT 25K RAISED CENTER AXLE DIMENSIONS									
RIDE HEIGHT	JOUNCE	BUMPER CONTACT	REBOUND	E	F	G	H	J	
STANDARD TRAVEL									
13.5	2.9	2.3	5.4	.19	8.0	19.5	10.6	18.9	
14.0	3.4	2.8	4.9			19.4			
15.0	3.6	3.0	3.9			19.0			11.5
16.0	3.6	3.0	4.8	.94	10.0	19.4	12.5	20.8	
17.0	3.6	3.1	3.8	.19		19.0	13.5		
18.0	3.7	3.1	4.8	.94		19.4	14.4		
19.0	3.7	3.2	3.8	2.06	12.0	19.0	15.4	22.8	
LIMITED REBOUND TRAVEL									
14.0	3.4	2.8	3.6	.19	8.0	19.4	10.7	17.6	
16.0	3.6	3.0	3.3	.94	10.0		12.5	19.3	
18.0	3.7	3.1	3.3		12.0		14.4	21.3	
HIGH CONTROL TRAVEL									
13.5	2.6	2.0	5.9	.19	10.0	20.0	11.0	19.4	
14.0	3.1	2.5	5.4			19.9			
15.0	3.2	2.7	4.4			19.7			11.9
16.0	3.3	2.7	5.7	.94	12.0	19.9	12.8	21.7	
17.0	3.3	2.7	4.7	.19		19.7	13.8		

RAISED HEIGHT			
RIDE HEIGHT	AT RIDE HEIGHT	AT FULL JOUNCE (K)	AT FULL REBOUND (L)
AAT 23K AND 25K RAISED CENTER AXLE DIMENSIONS			
STANDARD TRAVEL			
13.5	3.3	3.2	3.4
14.0	3.3	3.2	3.4
15.0	3.4	3.3	3.4
16.0	3.3	3.2	3.4
17.0	3.4	3.3	3.4
18.0	3.3	3.2	3.4
19.0	3.4	3.3	3.4
LIMITED REBOUND TRAVEL			
14.0	3.3	3.2	3.4
16.0	3.3	3.2	3.4
18.0	3.3	3.2	3.4
HIGH CONTROL TRAVEL			
13.5	3.1	3.0	3.4
14.0	3.2	3.0	3.4
15.0	3.3	3.1	3.4
16.0	3.2	3.0	3.4
17.0	3.3	3.1	3.4

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AAT 23K RAISED CENTER AXLE ZMD DIMENSIONS									
RIDE HEIGHT	JOUNCE	BUMPER CONTACT	REBOUND LIMITER ENGAGEMENT	MAXIMUM DYNAMIC REBOUND	E	F	G	H	J
STANDARD TRAVEL									
14.0	3.2 [Ⓞ]	2.8 [Ⓞ]	2.2	4.3	.19	8.0	19.4	10.8 [Ⓞ]	18.3
15.0	3.4	3.0 [Ⓞ]	2.4	4.5	.19		19.0	11.6	19.5
16.0	3.1 [Ⓞ]	2.7 [Ⓞ]	3.2 [Ⓞ]	5.2 [Ⓞ]	1.31	10.0	19.4	12.9 [Ⓞ]	21.2 [Ⓞ]
17.0	3.4 [Ⓞ]	3.1	2.2 [Ⓞ]	4.2 [Ⓞ]	.19		19.0	13.6 [Ⓞ]	
LIMITED REBOUND TRAVEL									
14.0	3.2 [Ⓞ]	2.8 [Ⓞ]	2.2	4.3	.19	8.0	19.4	10.8 [Ⓞ]	18.3
16.0	3.1 [Ⓞ]	2.7 [Ⓞ]	1.9	4.0	1.31	10.0		12.9 [Ⓞ]	20.0

AAT 25K RAISED CENTER AXLE ZMD DIMENSIONS									
RIDE HEIGHT	JOUNCE	BUMPER CONTACT	REBOUND LIMITER ENGAGEMENT	MAXIMUM DYNAMIC REBOUND	E	F	G	H	J
STANDARD TRAVEL									
14.0	3.2	2.8	2.2	4.3	.19	8.0	19.4	10.8	18.3
15.0	3.4	3.0	2.4	4.5	.19		19.0	11.6	19.5
16.0	3.1	2.7	3.2	5.2	1.31	10.0	19.4	12.9	21.2
17.0	3.4	3.1	2.2	4.2	.19		19.0	13.6	
LIMITED REBOUND TRAVEL									
14.0	3.2	2.8	2.2	4.3	.19	8.0	19.4	10.8	18.3
16.0	3.1	2.7	1.9	4.0	1.31	10.0		12.9	20.0

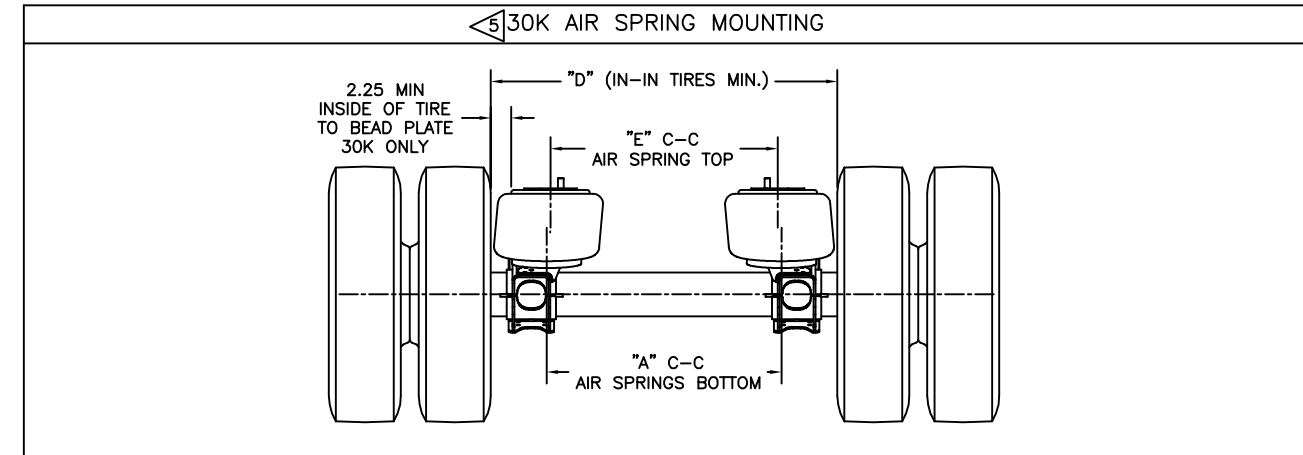


VIEW AA
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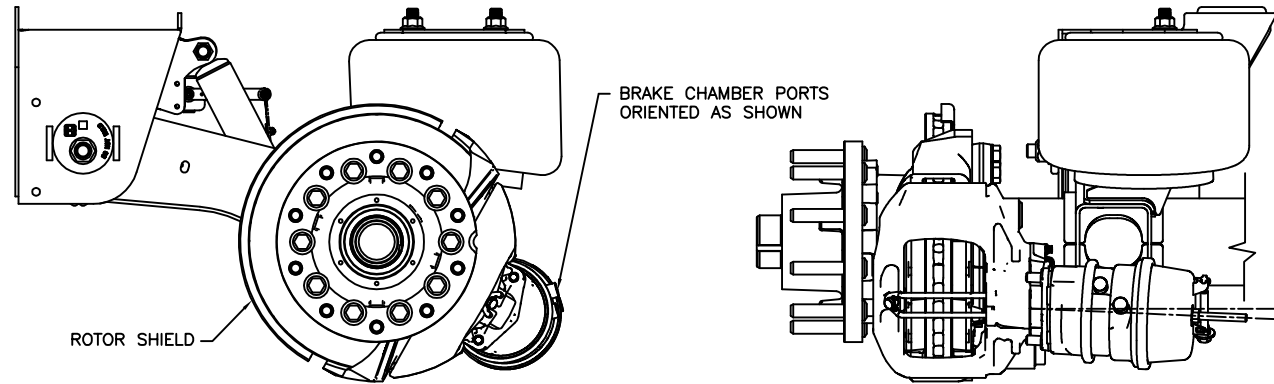
- NOTES:
- THIS PAGE IS FOR AAT 23K AND 25K SUSPENSIONS WITH RAISED CENTER AXLE OPTION.
 - SEE L1065 FOR SUSPENSION WEIGHT.
 - JOUNCE AND REBOUND DIMENSIONS CHANGES AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.
 - MAXIMUM DOWNWARD TRAVEL OF AXLE IN A DYNAMIC EVENT.
 - DIMENSIONS "H" & "J" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.
 - RIDE HEIGHT - JOUNCE = "H"
RIDE HEIGHT + REBOUND = "J"

NOTES:

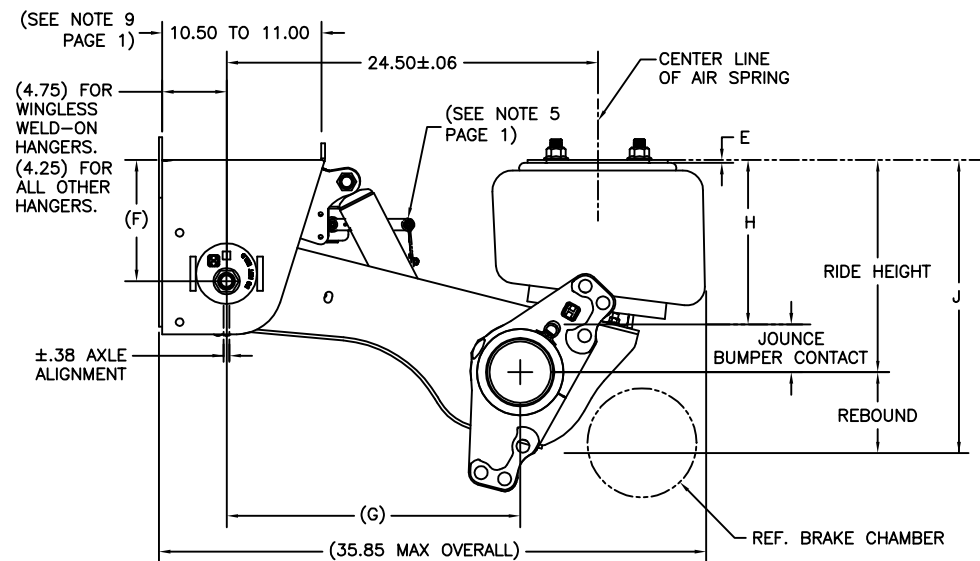
1. THIS PAGE IS FOR AAT 23K, 25K, AND 30K SUSPENSIONS WITH AIR DISC BRAKES OPTION.
 2. MERITOR WABCO PAN22 BRAKE CALIPERS AND GUNITE DUCTILE IRON HUBS WITH GUNITE ROTORS REPRESENTED IN GRAPHICS.
 3. NOT ALL HUB/ROTOR OPTIONS ARE AVAILABLE WITH ALL BRAKE OPTIONS.
 4. AIR DISC BRAKES COMPATIBLE WITH 22.5" OR 24.5" TIRES ONLY.
5. NOTE SPECIAL AIR SPRING MOUNTING FOR 30K SUSPENSIONS.



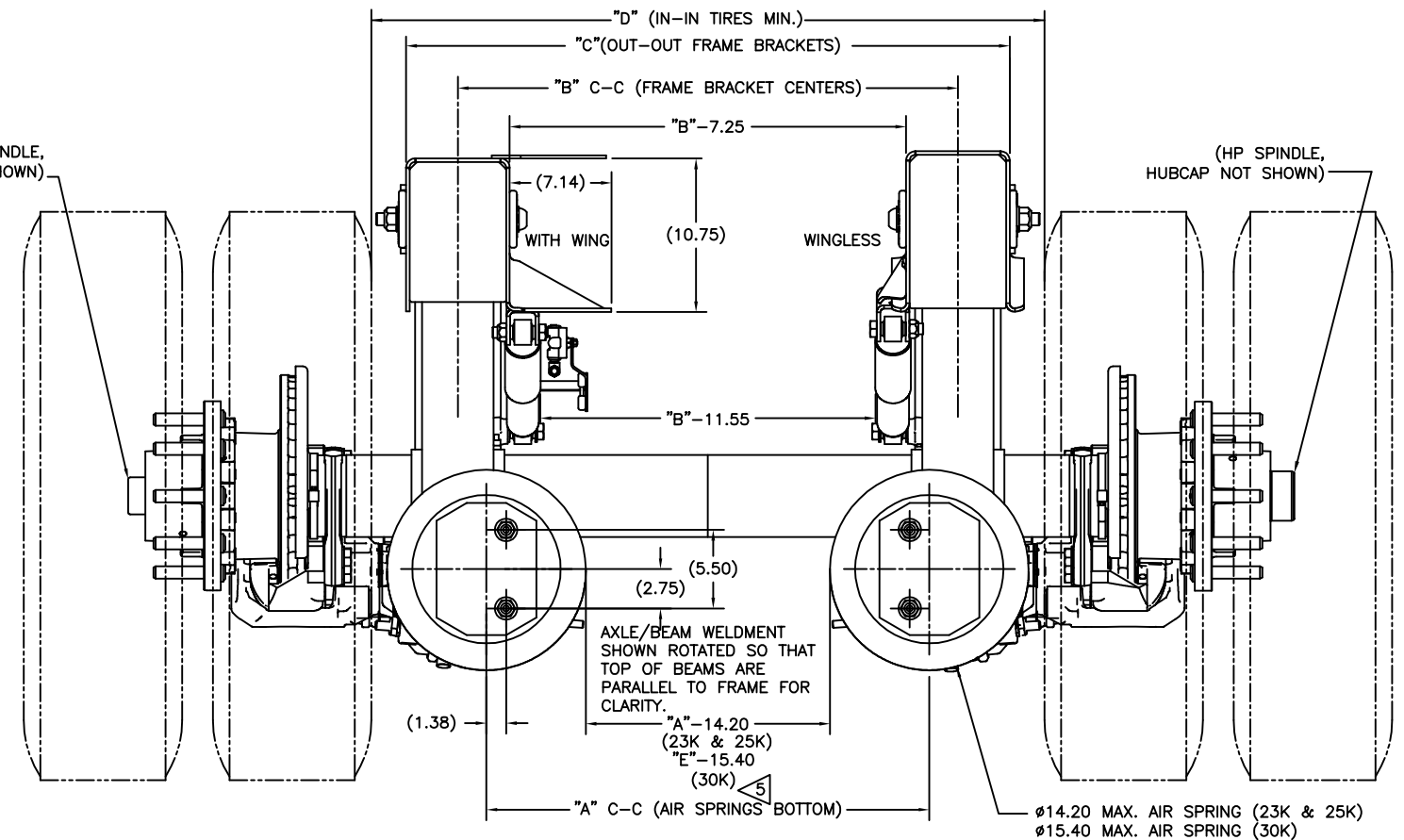
REFERENCE VIEWS WITH BRAKE CALIPERS, BRAKE CHAMBERS, HUB/ROTORS, AND ROTOR SHIELDS INSTALLED



NOTE: BRAKE CHAMBERS MAY BE ORIENTED AT AN ANGLE OR PERPENDICULAR TO CALIPER DEPENDING ON BRAKE MODEL



(HN SPINDLE, HUBCAP NOT SHOWN)



AIR DISC BRAKES ONLY

SEE PAGE 1 AND 2 FOR TABULATED DIMENSIONS AND NOTES

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H. HENDRICKSON

TRAILER COMMERCIAL VEHICLE SYSTEMS
2020 INDUSTRIAL PLACE SE., CANTON, OH 44707-2802, U.S.A.

UNLESS OTHERWISE NOTED:	12	33091	DLD	10/2/19	DRAWN BY	C. RADCLIFF	5/27/10
TOLERANCES ARE:	11	31876	PBA	09/13/18	CHKD BY	C. ANDERSON	
INCHES:	10	31448	DLD	05/23/18	APP'D BY	K. CARR	
MILLIMETERS:	9	26252	ZAG	01/27/17			
ANGULAR: ± 0.5°							
3RD ANGLE PROJECTION							
DIMENSIONS ADHERE TO ANSI Y14.5M-1982	REV.	ECN NO.	BY	DATE			

INTRAAX® AAT
INSTALLATION DRAWING

SCALE: 1:166=1.000
SIZE: D
PAGE: 3 OF 5
D-30815