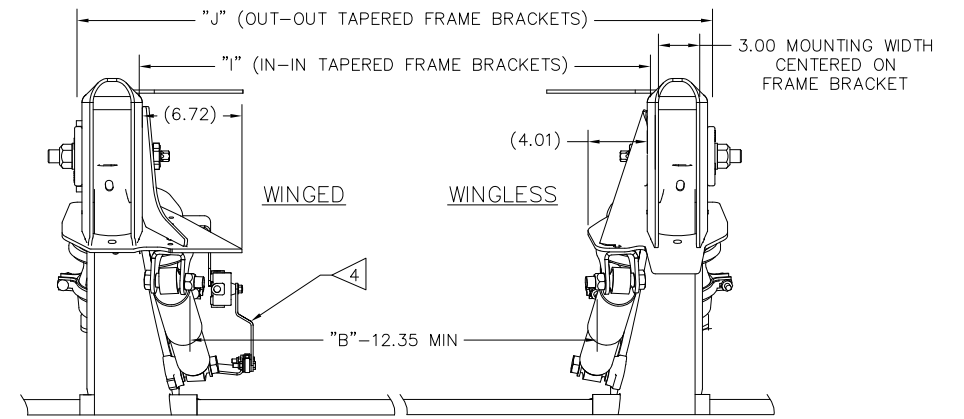


This Print remains the property of Hendrickson. All information contained thereon is confidential. It is loaned, subject to return on demand and on express condition that it is not to be copied or used directly or indirectly for any purpose other than the purpose for which it has been loaned to you.

- NOTES:**
- SEE L1073 FOR INFORMATION ON ASSEMBLY, WELDING PROCEDURE, AND ALIGNMENT.
 - SEE SERVICE MANUAL FOR INFORMATION CONCERNING MAINTENANCE PROCEDURE.
 - MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING PATENTS: OTHER PATENTS PENDING U.S. PATENT NOS. - 5,366,237 - 4,166,640
 - SEE L1182 FOR HEIGHT CONTROL KIT OPTIONS.
 - SEE PAGE 4 FOR FRAME BRACKET FRONT GUSSET REQUIREMENTS.
 - SEE D-29431 FOR DIMENSIONS AND CROSSMEMBER LOCATIONS.
 - 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).
 - FOR BOLT-ON MOUNTING PATTERNS, SEE DRAWING D-26651.

CLEARANCE SPECIFICATIONS:

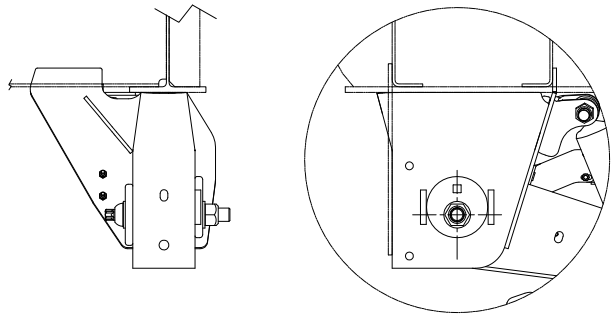
- 1.0 INCH MINIMUM CLEARANCE REQUIRED BETWEEN TOP OF TIRE AND BOTTOM OF TRAILER STRUCTURE WHEN AXLE IS AT FULL JOUNCE.
- 2.0 INCHES MINIMUM CLEARANCE REQUIRED BETWEEN INSIDE OF TIRE AND TRAILER STRUCTURE FOR LATERAL MOVEMENT.
- .75 INCH MINIMUM CLEARANCE MUST BE MAINTAINED AROUND AIR SPRING WHEN IT IS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



TAPERED WELD-ON FRAME BRACKETS

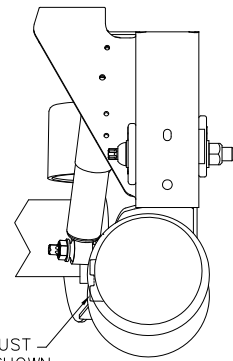
SHOWN WITH 10" PIVOT HEIGHT FRAME BRACKETS
DIMENSIONS SHOWN APPLY FOR 12" THRU 17" RIDE HEIGHTS ONLY
ALL DIMENSIONS SAME AS IN FULL TOP VIEW BELOW, EXCEPT AS NOTED

TRACK WIDTH (IN)	71.5	73.0	75.5	76.5	77.5	83.5
DIMENSION "A" (IN)	31.00	32.50	35.00	36.00	37.00	43.00
DIMENSION "B" (IN)	37.50	39.00	41.50	42.50	43.50	49.50
DIMENSION "C" (IN)	46.50	48.00	50.50	51.50	52.50	58.50
DIMENSION "J" (IN)	34.50	36.00	38.50	39.50	40.50	46.50
DIMENSION "J" (IN)	40.50	42.00	44.50	45.50	46.50	52.50
DIMENSION "K" (IN)	33.38	34.88	37.38	38.38	39.38	45.38
DIMENSION "L" (IN)	41.63	43.13	45.63	46.63	47.63	53.63



TAPERED WELD-ON FRAME BRACKET

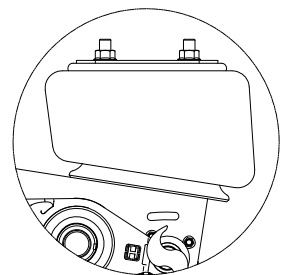
5 FRAME BRACKET FRONT GUSSET NOT SHOWN FOR CLARITY



BRAKE CHAMBER PORTS MUST BE ORIENTED INWARD AS SHOWN

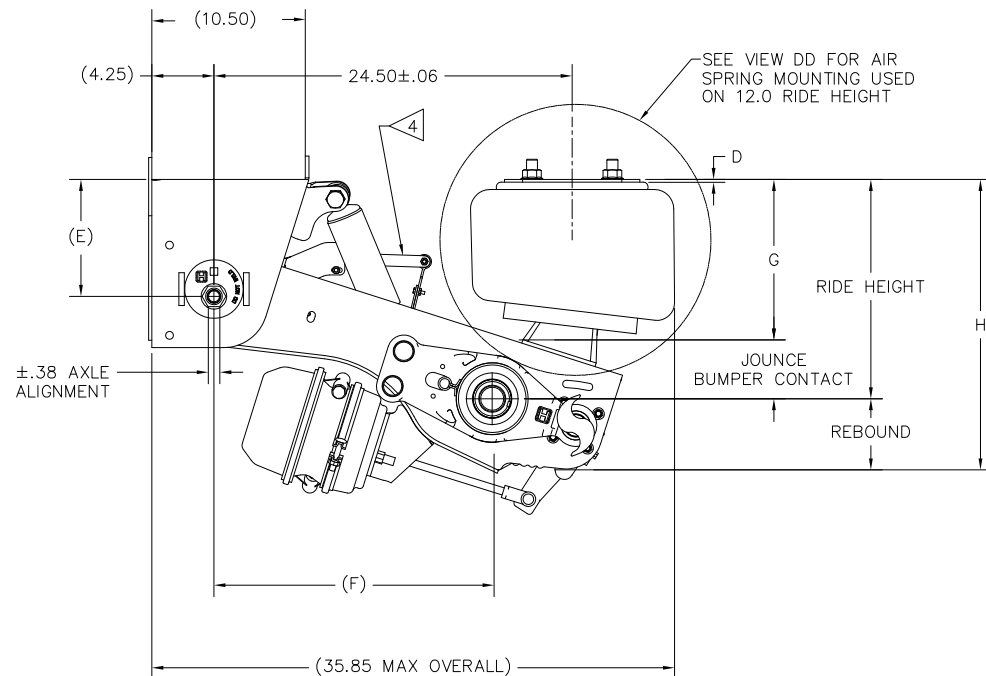
STRAIGHT WELD-ON FRAME BRACKET

5 FRAME BRACKET FRONT GUSSET NOT SHOWN FOR CLARITY.
SEE PAGE 2 FOR DIMENSIONS SHOWN ABOVE



VIEW DD

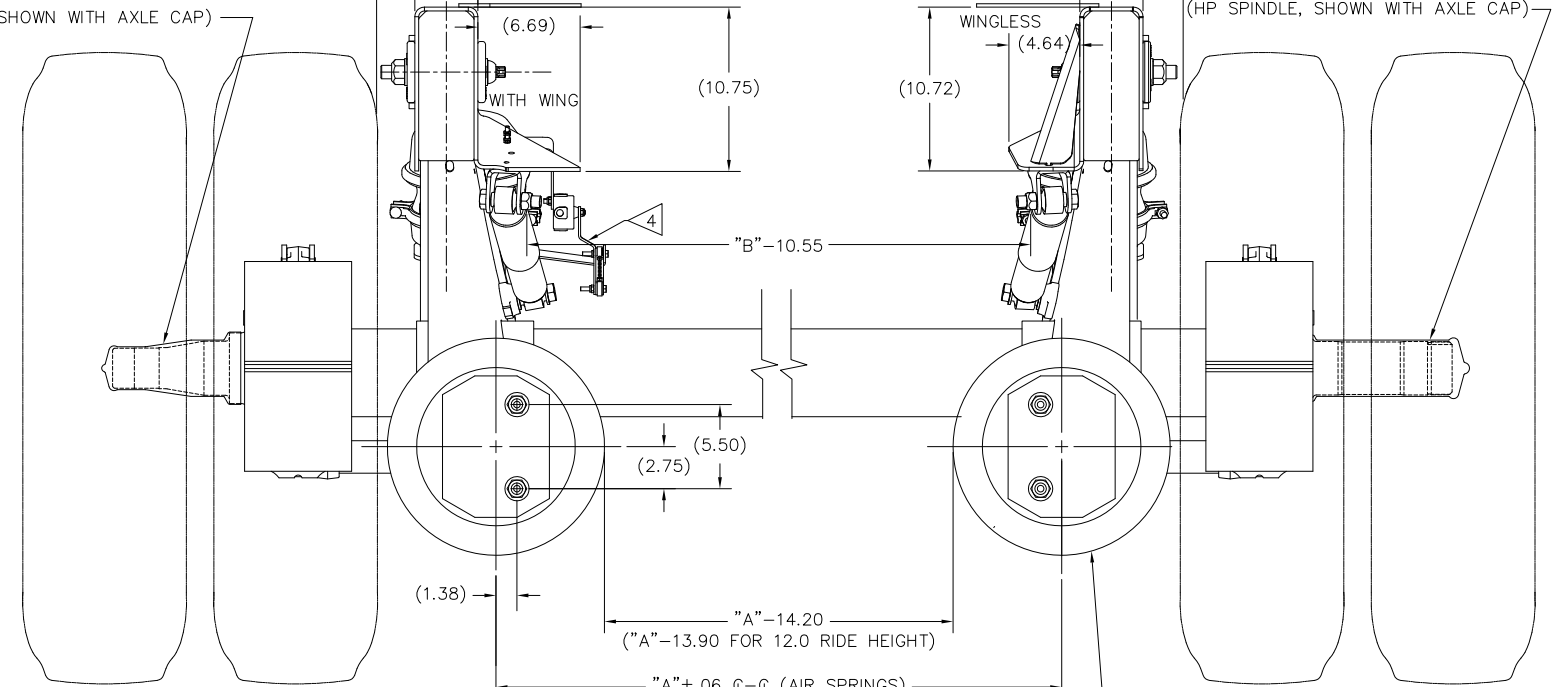
SCALE: .166=1.000
AIR SPRING MOUNTED TO TOP OF BEAM INSTEAD OF CAST PEDESTAL FOR 12.0 RIDE HEIGHT



WELD-ON FRAME BRACKET

SEE PAGE 2 FOR THE TABULATED DIMENSIONS SHOWN ABOVE

(HN SPINDLE, SHOWN WITH AXLE CAP)



STRAIGHT WELD-ON FRAME BRACKETS

Ø14.20 MAX. AIR SPRING
Ø13.90 MAX. AIR SPRING FOR 12.0 RIDE HEIGHT














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

UNLESS OTHERWISE NOTED: TOLERANCES ARE:	20	26252	244	1/21/82	DRAWN BY	P.BILLMAN	10-15-03
.XX: ±	10	25800	270	4/11/76	CHKD BY	K. GALIGHER	
.XXX: ±	10	24504	270	09/03/75	APPD BY	J.RUSHE	
ANGULAR: ±	127	22168	196	5/21/81			
DIMENSIONS ADHERE TO ANSI Y14.5M-1982 (REV.) ECN NO. BY DATE							




INTRAAX® AANT
INSTALLATION DRAWING

SCALE	SIZE	PAGE
.166=1.000	D	1 OF 4
DRAWING No.		D-28108

RIDE HT	 JOUNCE	 REB'D	 BUMPER CONTACT	D	E	F	 G	 H
WELD-ON								
STANDARD TRAVEL								
12.0	3.1	4.1	2.5	.19	8.0	19.9	9.0	16.1
13.5	3.1	5.6	2.5	.19	8.0	19.5	10.4	19.0
14.0	3.6	5.1	3.0	.19	8.0	19.4	10.4	19.0
15.0	3.6	4.1	3.0	.19	8.0	19.1	11.4	19.0
16.0	3.6	4.9	3.1	.19	10.0	19.4	12.4	20.9
17.0	3.7	3.9	3.1	1.31	10.0	19.1	13.3	20.9
LIMITED REBOUND TRAVEL								
14.0	3.6	3.8	3.0	.19	8.0	19.4	10.4	17.7
16.0	3.6	3.5	3.1	.19	10.0	19.4	12.4	19.5
HIGH CONTROL TRAVEL								
13.5	2.8	6.0	2.2	.19	10.0	20.0	10.7	19.5
14.0	3.3	5.5	2.7	.19	10.0	19.9	10.7	19.5
15.0	3.3	4.5	2.7	.19	10.0	19.7	11.7	19.5
16.0	3.4	5.4	2.8	2.06	12.0	19.9	12.6	21.4
17.0	3.3	4.4	2.8	3.31	12.0	19.7	13.7	21.4
LIMITED JOUNCE HIGH CONTROL TRAVEL								
14.0	2.8	5.5	2.2	.19	10.0	19.9	11.2	19.5
15.0	2.6	4.5	2.1	.19	10.0	19.7	12.4	19.5
16.0	2.9	5.4	2.3	2.06	12.0	19.9	13.1	21.4
17.0	2.9	4.4	2.3	3.31	12.0	19.7	14.1	21.4
ZMD								
14.0	3.3 ⁽²⁰⁾	4.5 ⁽²⁰⁾	3.0 ⁽²⁰⁾	.19	8.0	19.4	10.7 ⁽²⁰⁾	18.5 ⁽²⁰⁾
15.0	3.3	4.7	3.0	.19	8.0	19.1	11.7	19.7 ⁽²⁰⁾
16.0	2.9	5.4	2.6	2.06	10.0	19.4	13.1	21.4 ⁽²⁰⁾
17.0	3.4	4.4	3.0	1.31	10.0	19.1	13.6	21.4 ⁽²⁰⁾

RIDE HT	 JOUNCE	 REB'D	 BUMPER CONTACT	D	 E	F	 G	 H
BOLT-ON								
STANDARD TRAVEL								
12.0	-	-	-	-	-	-	-	-
13.5	3.0	6.2	2.4	.25	8.5	19.7	10.5	19.7
14.0	3.5	5.7	2.9	.25	8.5	19.5	10.5	19.7
15.0	3.5	4.7	2.9	.25	8.5	19.2	11.5	19.7
16.0	3.5	5.4	2.9	.25	10.5	19.5	12.5	21.4
17.0	3.6	4.4	3.0	1.38	10.5	19.2	13.4	21.4
LIMITED REBOUND TRAVEL								
14.0	3.5	4.3	2.9	.25	8.5	19.5	10.5	18.3
16.0	3.5	4.1	2.9	.25	10.5	19.5	12.5	20.1
HIGH CONTROL TRAVEL								
13.5	2.7	6.6	2.1	.25	10.5	20.1	10.8	20.1
14.0	3.2	6.1	2.6	.25	10.5	20.0	10.8	20.1
15.0	3.2	5.1	2.6	.25	10.5	19.8	11.8	20.1
16.0	3.3	6.0	2.7	2.13	12.5	20.0	12.7	22.0
17.0	3.2	5.0	2.6	3.38	12.5	19.8	13.8	22.0
ZMD								
14.0	3.2 ⁽²⁰⁾	5.1	2.8 ⁽²⁰⁾	0.25	8.4 ⁽²⁰⁾	19.5	10.8 ⁽²⁰⁾	19.1
15.0	3.2	5.3	2.8	0.25	8.4	19.2	11.8	20.3 ⁽²⁰⁾
16.0	3.2	4.8	2.8	0.25	10.4	19.5	12.8	20.8 ⁽²⁰⁾
17.0	3.3	5.0	2.9	1.375	10.4	19.2	13.7	22 ⁽²⁰⁾

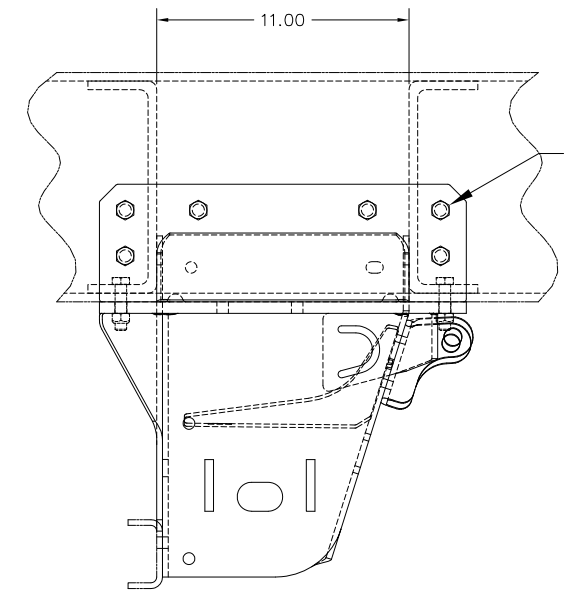
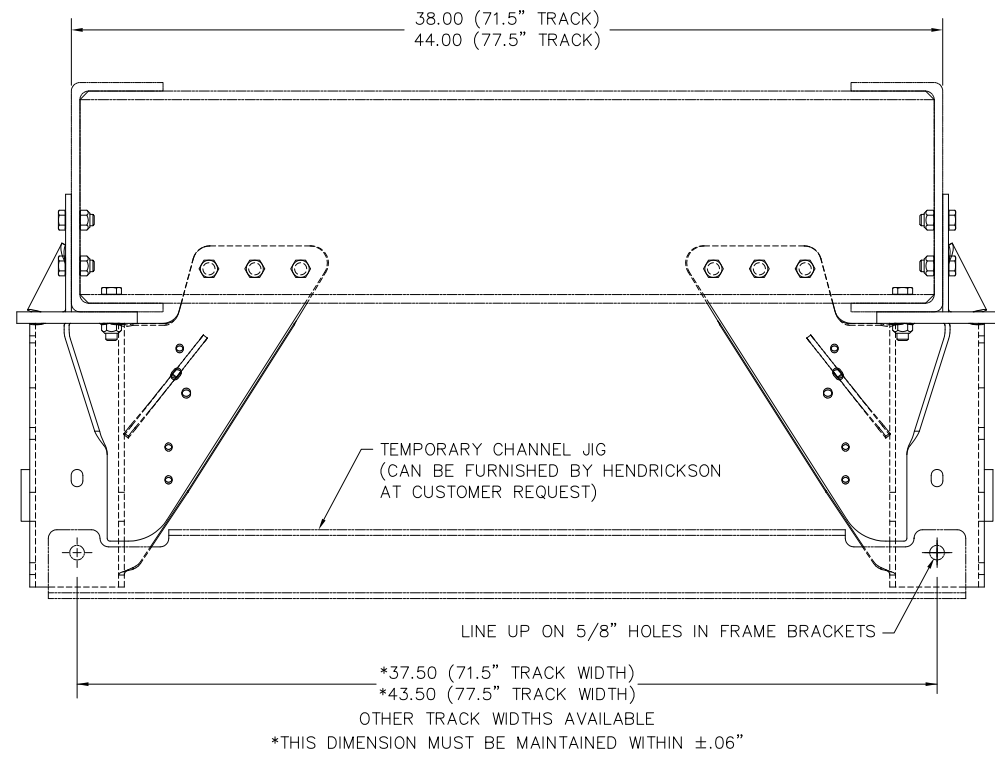
NOTES:

- SEE L600 FOR SUSPENSION WEIGHT.
- SEE L1073 FOR RIDE HEIGHT RANGE.
-  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-27124 (TAPERED WELD-ON).
JOUNCE DIMENSIONS FOR BOLT-ON SUSPENSIONS ARE FROM TRAVEL STUDY DRAWING D-28025 (BOLT-ON CLASSIC).
REBOUND AND BUMPER CONTACT DIMENSIONS FOR BOLT-ON SUSPENSIONS ARE FROM TRAVEL STUDY DRAWING D-27881 (SIDE-MOUNT BOLT-ON).
-  DIMENSIONS "G" & "H" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.
- "G" = RIDE HEIGHT - JOUNCE.
"H" = RIDE HEIGHT + REBOUND.
-  DIMENSION SHOWN IS FOR SIDE-MOUNT BOLT-ON FRAME BRACKET, WHICH USES .50 THICK MOUNTING PLATE.
SUBTRACT .12 INCH FOR BOLT-ON CLASSIC FRAME BRACKET, WHICH USES .38 THICK MOUNTING PLATE.

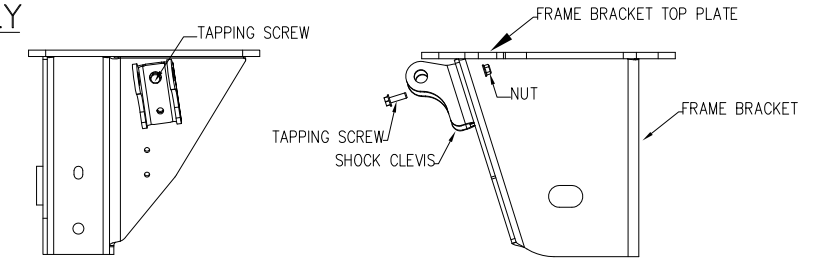
This Print remains the property of Hendrickson. All information contained thereon is confidential. It is loaned, subject to return on demand and on express condition that it is not to be copied or used directly or indirectly for any purpose other than the purpose for which it has been loaned to you.

⁽²⁰⁾

This Print remains the property of Hendrickson. All information contained thereon is confidential. It is loaned, subject to return on demand and on express condition that it is not to be copied or used directly or indirectly for any purpose other than the purpose for which it has been loaned to you.



ZMD OPTION ONLY



- NOTES:**
1. VERIFY THE SELF TAPPING SCREW IS TO BE INSTALLED.
 2. INSERT THE SELF TAPPING SCREW INTO THE SHOCK CLEVIS HOLE, CLOSEST TO THE FRAME BRACKET TOP PLATE.
 3. USING A NUT RUNNER, THREAD THE SELF TAPPING SCREW INTO THE SHOCK CLEVIS AND THE FRAME BRACKET.
 4. THREAD THE NUT ONTO THE SELF TAPPING SCREW, TWO FULL TURNS BY HAND, TO AVOID CROSS THREADING.
 5. USING A 25 FT. LB. TORQUE WRENCH, TIGHTEN THE NUT.
 6. VERIFY THAT THE SELF TAPPING SCREW HAS BEEN PROPERLY INSTALLED AND THE NUT TIGHTENED.

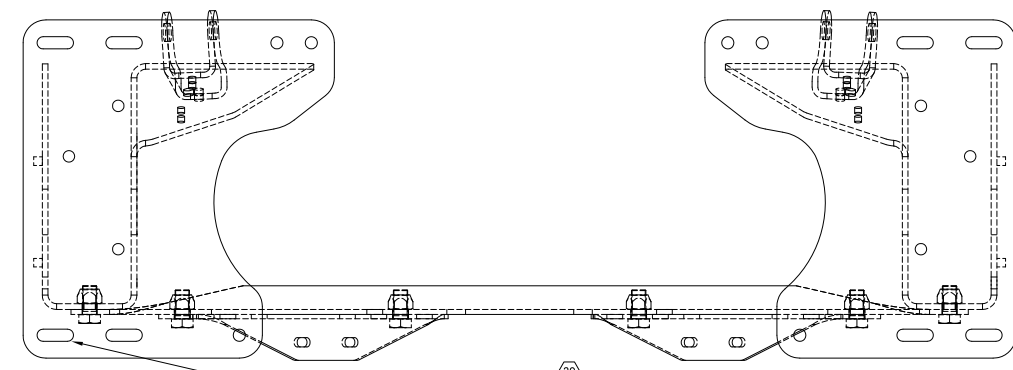
INSTALLATION SEQUENCE:

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.

*IF A LIFT KIT (UBL) IS TO BE INSTALLED ON THIS SUSPENSION, DO NOT INSTALL BRACING CHANNEL, ANGLE, OR FRONT GUSSETS, BEFORE REVIEWING D-28630 UBL-004 INSTALLATION DRAWING.

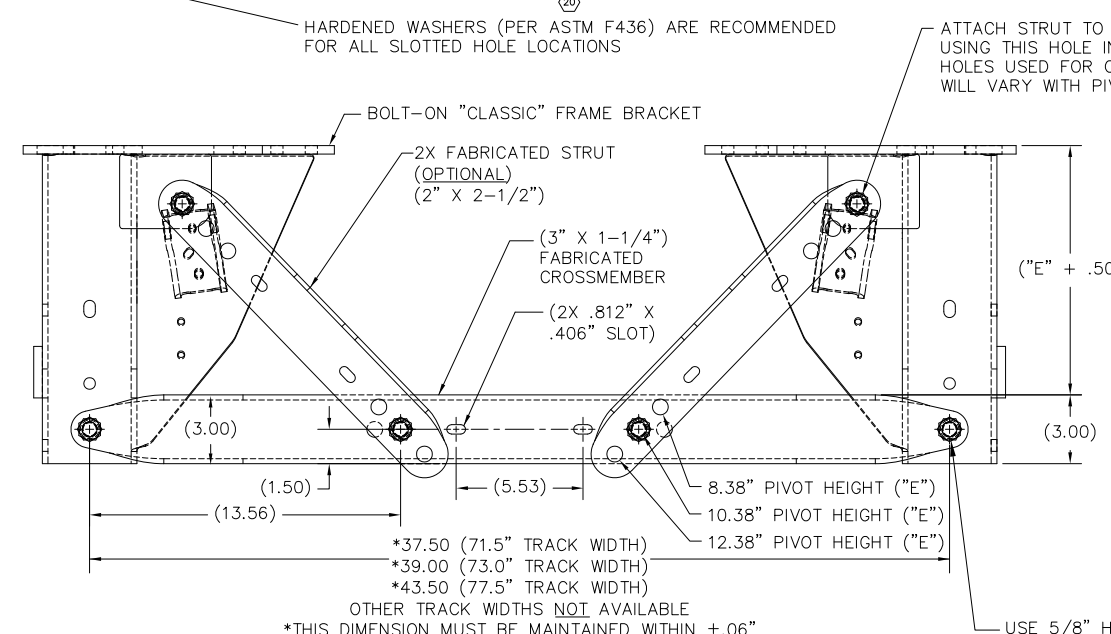
FRAME BRACKET INSTALLATION USING TEMPORARY CHANNEL JIG

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



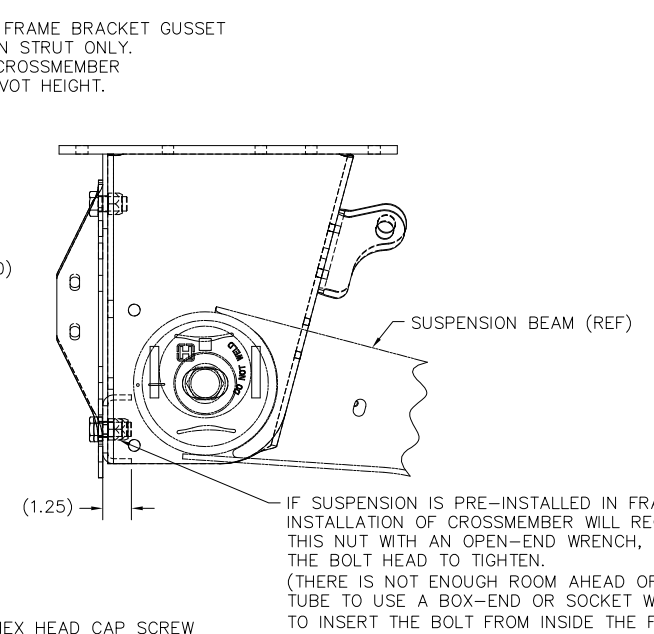
INSTALLATION SEQUENCE:

1. LOCATE FRAME BRACKETS ONTO TRAILER FRAME AND LOOSELY INSTALL MOUNTING BOLTS USING HARDENED WASHERS AT ALL SLOTTED HOLE LOCATIONS.
2. 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.
4. TIGHTEN CROSSMEMBER MOUNTING BOLTS AND STRUT MOUNTING BOLTS, IF PRESENT.
5. TIGHTEN FRAME BRACKET MOUNTING BOLTS.



CROSSMEMBER INSTALLATION (BOLT-ON)

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

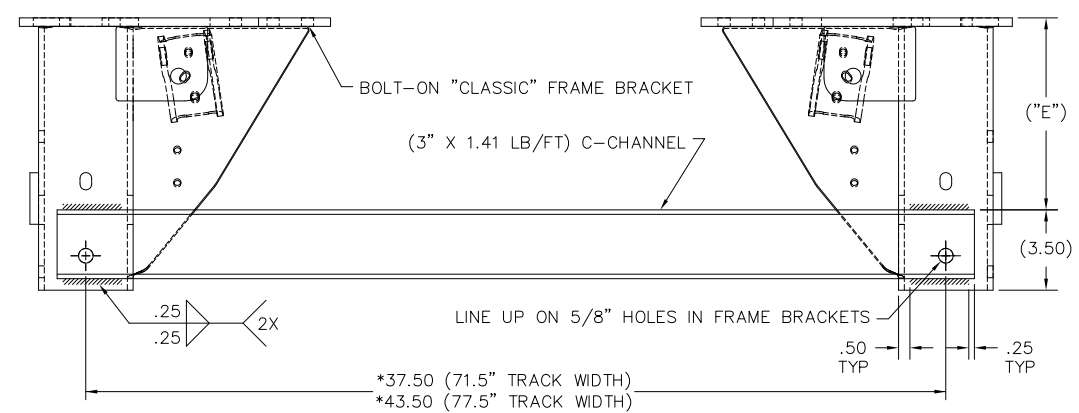


INSTALLATION SEQUENCE:

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.

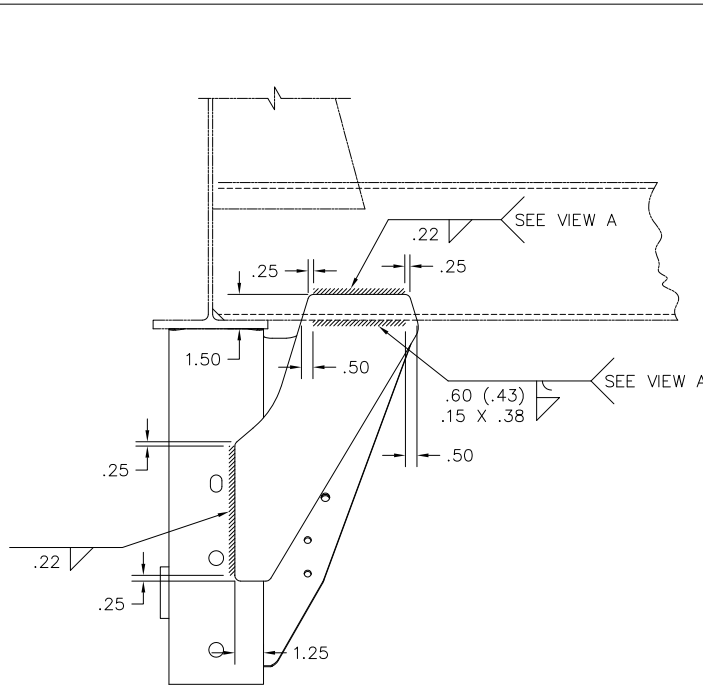
*WITH THE EXCEPTION OF UBL. FOR INSTALLATION OF CHANNEL ON SUSPENSIONS WITH UBL, REFER TO D-28630.

*IF A LIFT KIT (UBL) IS TO BE INSTALLED ON THIS SUSPENSION, DO NOT INSTALL BRACING CHANNEL, ANGLE, OR FRONT GUSSETS, BEFORE REVIEWING D-28630 UBL-004 INSTALLATION DRAWING.



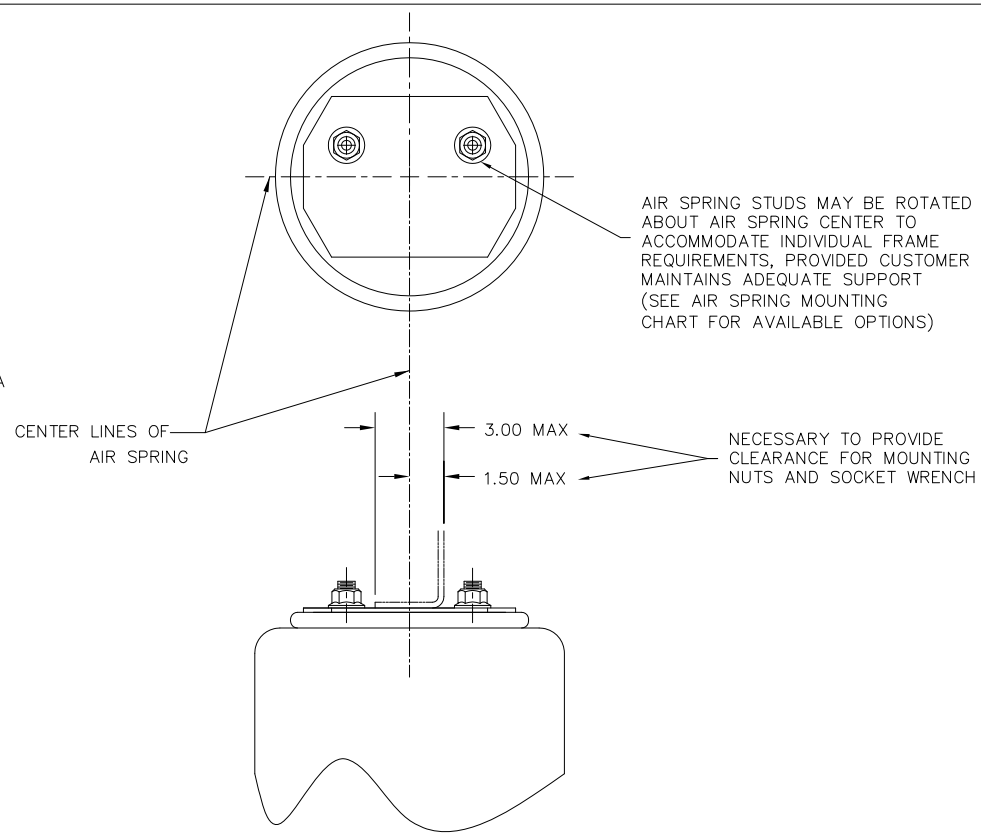
BRACING CHANNEL INSTALLATION (WELD-ON)

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

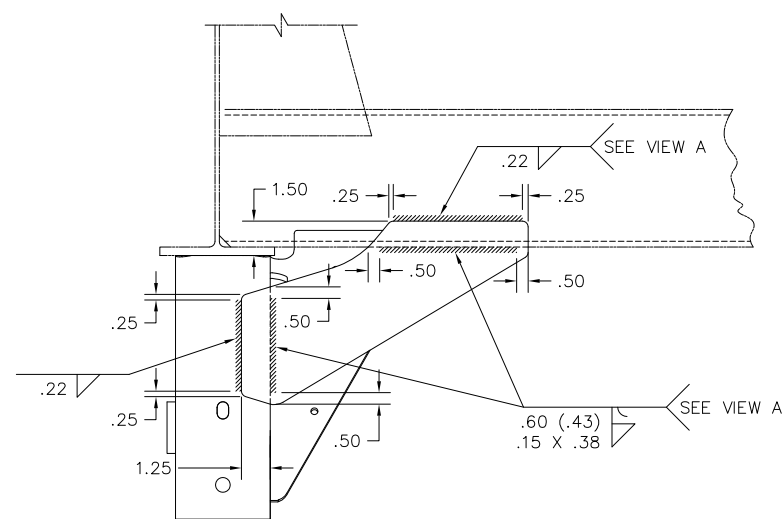


**FRAME BRACKET FRONT GUSSET
USED FOR WELD-ON FRAME BRACKETS**

*IF A LIFT KIT (UBL) IS TO BE INSTALLED ON THIS SUSPENSION, DO NOT INSTALL BRACING CHANNEL, ANGLE, OR FRONT GUSSETS, BEFORE REVIEWING D-28630 UBL-004 INSTALLATION DRAWING.



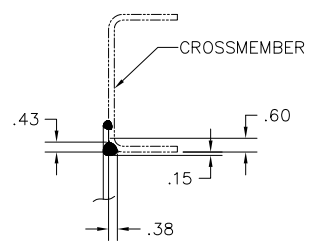
AIR SPRING MOUNTING



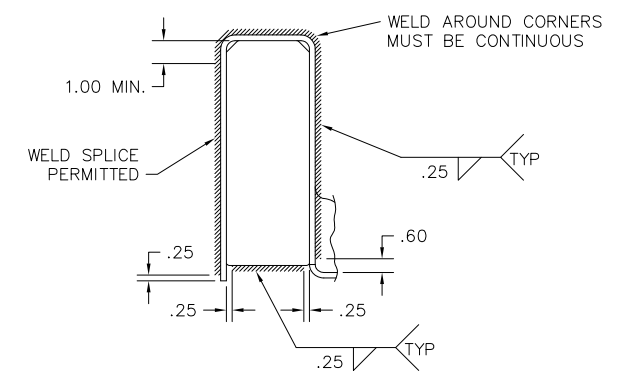
FRAME BRACKET FRONT GUSSET (ROTATED):

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

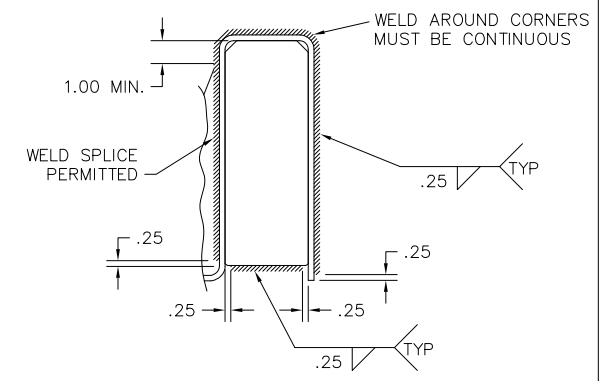
*IF A LIFT KIT (UBL) IS TO BE INSTALLED ON THIS SUSPENSION, DO NOT INSTALL BRACING CHANNEL, ANGLE, OR FRONT GUSSETS, BEFORE REVIEWING D-28630 UBL-004 INSTALLATION DRAWING.



VIEW A
SCALE: .25:1.00

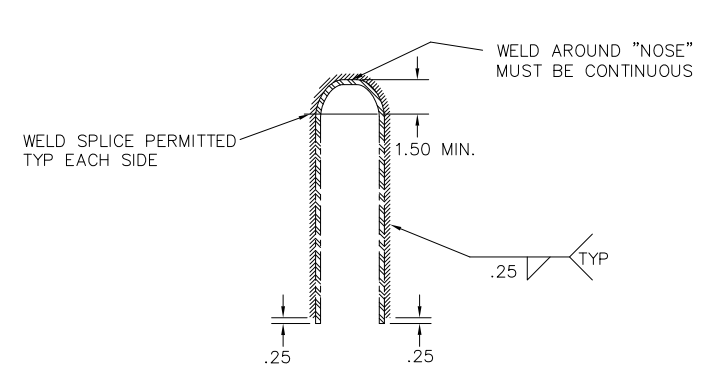


WITH WING

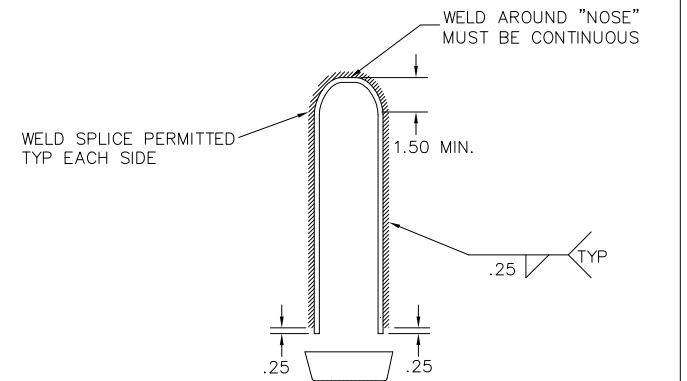


WINGLESS

WELD FOR STRAIGHT FRAME BRACKETS



WITH WING



WINGLESS

WELD FOR TAPERED FRAME BRACKETS

This Print remains the property of Hendrickson. All information contained thereon is confidential. It is loaned, subject to return on demand and on express condition that it is not to be copied or used directly or indirectly for any purpose other than the purpose for which it has been loaned to you.