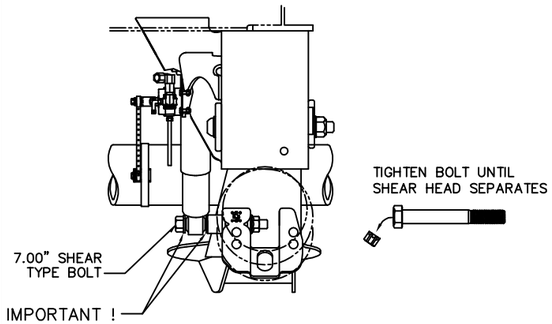


IMPORTANT !

BOLT KIT INCLUDES TWO HARDENED WASHERS PER SHOCK WHICH MUST BE POSITIONED AS SHOWN.

THESE WASHERS ARE NON–STANDARD WASHERS WITH TIGHTER TOLERANCED HOLES, DO NOT SUBSTITUTE STANDARD WASHERS FOR THESE PARTS.

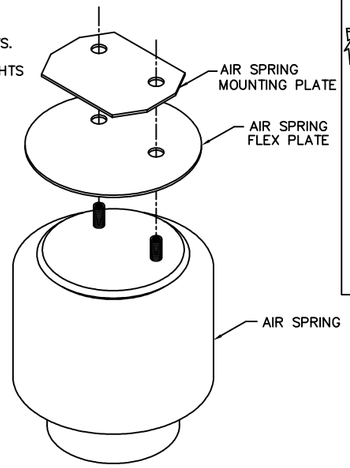
O.E.M. INSTALLED SHOCK BOLT KIT

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 8 AND 9 FOR C–CHANNEL AND FRAME BRACKET BRACE REQUIREMENTS.
7. DO NOT ROUTE ITEMS THROUGH THIS AREA FOR 9.0 INCH AND LOWER RIDE HEIGHTS DUE TO MINIMAL BEAM TO FRAME CLEARANCE.
8. TWO UPPER AIR SPRING PLATES ARE PROVIDED FOR 6.5", 7.5", 8.0" AND 9.0" RIDE HEIGHTS. SEE VIEW XX FOR INSTALLATION.
9. SEE D–29431 FOR DIMENSIONS AND CROSSMEMBER LOCATIONS.
10. FOR BOLT–ON MOUNTING PATTERNS, SEE DRAWING D–26651.

CLEARANCE SPECIFICATIONS:

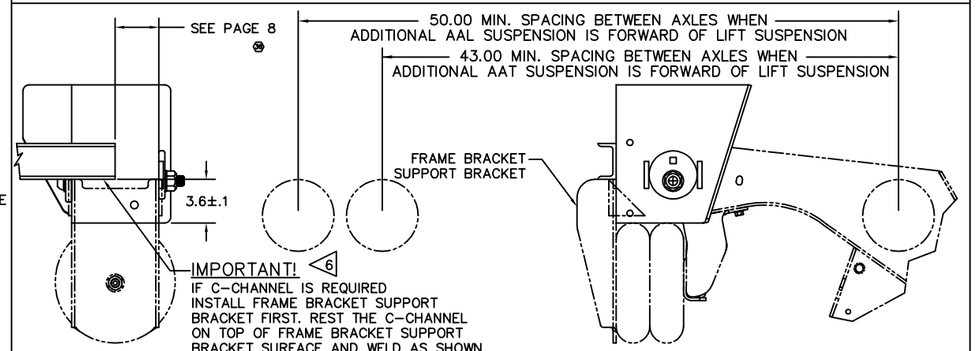
a) 1.0 INCH MINIMUM CLEARANCE REQUIRED BETWEEN TOP OF TIRE AND BOTTOM OF TRAILER STRUCTURE WHEN AXLE IS AT FULL JOUNCE.
b) 2.0 INCHES MINIMUM CLEARANCE REQUIRED BETWEEN INSIDE OF TIRE AND TRAILER STRUCTURE FOR LATERAL MOVEMENT.
c) .75 INCH MINIMUM CLEARANCE MUST BE MAINTAINED AROUND AIR SPRING WHEN IT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



VIEW XX

INSTALLATION OF AIR SPRING PLATES FOR 6.5", 7.5", 8.0" AND 9.0" RIDE HEIGHTS

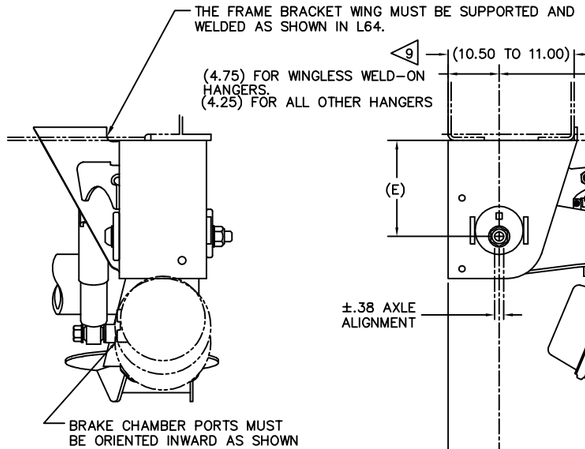
C–CHANNEL AND SPACING REQUIREMENTS WHEN USING UNDER BEAM LIFT ASSEMBLY

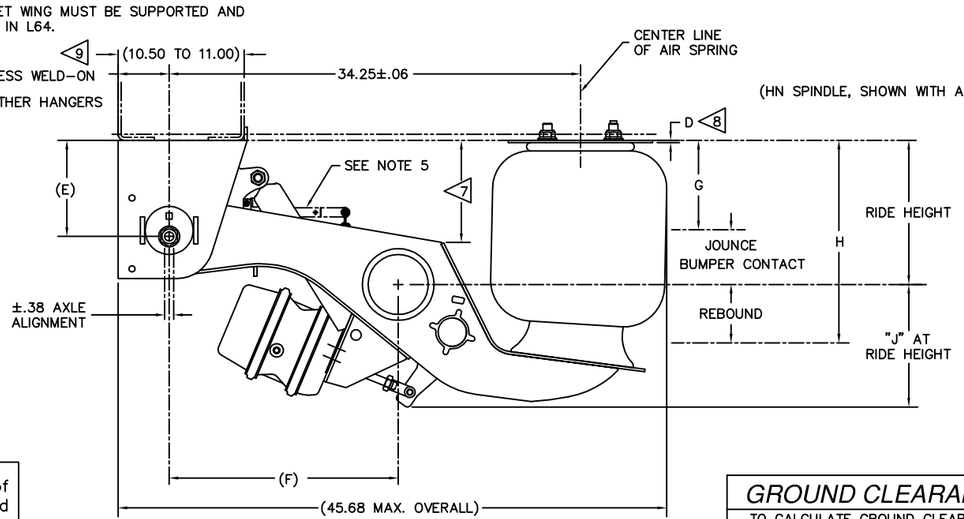


IMPORTANT!

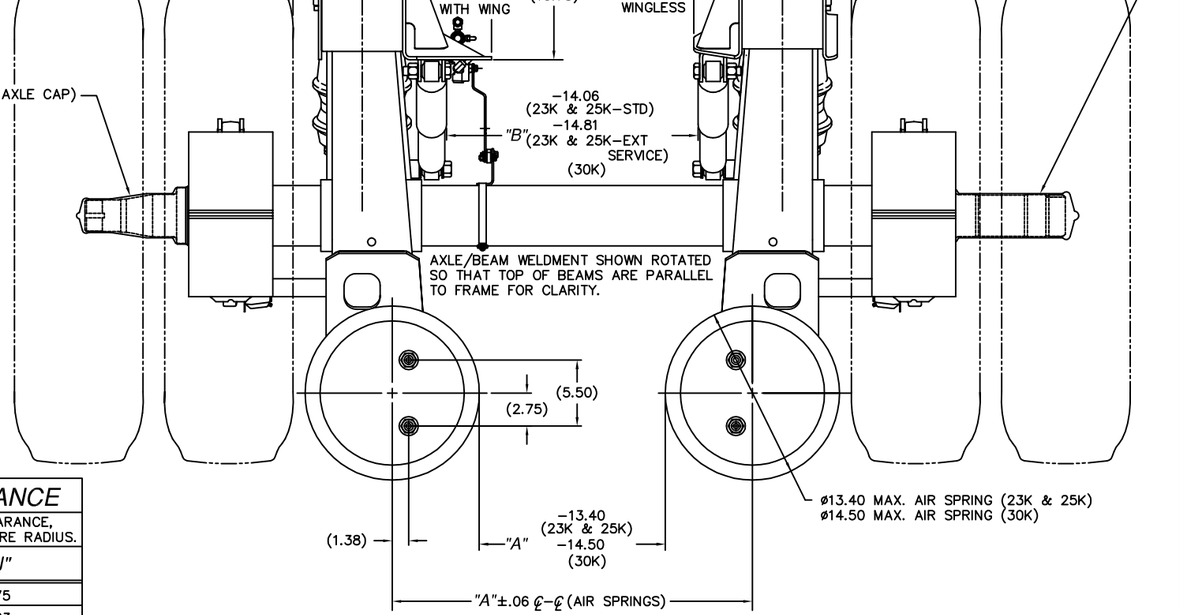
IF C–CHANNEL IS REQUIRED INSTALL FRAME BRACKET SUPPORT BRACKET FIRST. REST THE C–CHANNEL ON TOP OF FRAME BRACKET SUPPORT BRACKET SURFACE AND WELD AS SHOWN.

IF RETROFITTING UBL KIT, C–CHANNEL MAY NEED RELOCATED PER ABOVE.





SEE PAGES 2, 3, 5 AND 6 FOR THE TABULATED DIMENSIONS SHOWN ABOVE



TORQUE SPECIFICATIONS

DESCRIPTION	SIZE	TORQUE (FT-LB)
SHOCK BOLTS	3/4–10	210–235
AIR SPRING NUTS, UPPER	3/4–16	80–100
AIR SPRING NUT, LOWER	1/2–13	25–35
S–CAM BEARING BOLTS	3/8–16	35–45
BRAKE CHAMBER MNTG. NUTS	5/8–11	100–110
ABS BRACKET BOLTS	1/4–20	75–100 IN–LB
BRAKE DUST SHIELD BOLTS	5/16–18	160–180 IN–LB

GROUND CLEARANCE

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

RIDE HEIGHT	"J"
6.5	9.75
7.5	9.83
8.0	9.88
9.0	10.04
12.0	9.95
14.0	9.95
15.0	10.32
16.0	9.93
17.0	10.32
19.0	

MODEL	23K & 25K							30K						
TRACK WIDTH (IN)	71.5	73.0	75.5	76.5	77.5	83.5	85.0	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	30.00	31.50	34.00	35.00	36.00	42.00	43.50
DIMENSION "B" (IN)	35.00	36.50	39.00	40.00	41.00	47.00	48.50	35.00	36.50	39.00	40.00	41.00	47.00	48.50
DIMENSION "C" (IN)	46.50	48.00	50.50	51.50	52.50	58.50	60.00	46.50	48.00	50.50	51.50	52.50	58.50	60.00

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UNLESS OTHERWISE NOTED: TOLERANCES ARE: .X: ± – ; .XX: ± – ; .XXX: ± – ; ANGULAR: ± – ; DIMENSIONS ARE: INCHES; 3RD ANGLE PROJECTION; DIMENSIONS ADHERE TO ANSI Y14.5M–1982

REV.	ECN NO.	BY	DATE
J6	045136	DJD	10/18/24
J5	042444	DJD	8–29–23
J4	26252	ZAC	1/27/17
J3	24594	DTR	08/03/15

DRAWN BY: C. ANDERSON 7–6–99
CHK'D BY: 7–22–99 DAUGHERTY
APP'D BY: N.MYERS
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INTRAAX® AAL, AAEDL
INSTALLATION DRAWING

P PRODUCTION
SCALE .166=1.000 | SIZE D | PAGE 1 OF 9
DRAWING No. D–25153

STANDARD & HIGH CONTROL TRAVEL DIMENSIONS FROM PAGE 1 FOR AAL 23K AND 25K										
RIDE HEIGHT	<3> JOUNCE	<3> REBOUND W/FRONT SHOCKS	<3><5><7> REBOUND W/REAR SHOCKS	BUMPER CONTACT	<6> D	E	F	<4> G	<4> H W/FRONT SHOCKS	<4><5> H W/REAR SHOCKS
6.5	2.3	4.5	3.9	1.9	.38	4.5	19.4	4.2	11.0	10.4
7.5	3.3	3.5	2.9	2.9			19.3			
8.0	3.8	5.2	4.7	3.4	.38	4.5	19.2	4.2	13.2	12.7
9.0	4.8	4.2	3.7	4.4	.38	4.5	19.0	4.2	13.2	12.7
12.0	5.3	4.8	3.4	4.9	.19	8.0	19.1	6.7	16.8	15.4
14.0	5.9	4.4	4.2	5.5	1.13	10.0	19.1	8.1	18.4	18.2
15.0	5.6	3.4	3.2	5.2	3.50	10.0	18.8	9.4	18.4	18.2
16.0	5.7	4.3	4.3	5.3	3.50	12.0	19.1	10.3	20.3	20.3
17.0	6.0	3.3	3.3	5.6	4.81	12.0	18.8	11.0	20.3	20.3
19.0	5.7	3.5	–	5.3	7.31	14.0	18.8	13.3	22.5	–

NOTES:

1. SEE L729 FOR SUSPENSION WEIGHT.
2. SEE L1073 FOR ALLOWABLE RIDE HEIGHT RANGES.

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

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

<5> WHEN THE OPTION FOR FRONT AND REAR SHOCKS IS SELECTED, DIMENSIONS FROM "REBOUND WITH REAR SHOCKS" AND "H WITH REAR SHOCKS" SHOULD BE USED

<6> TWO UPPER AIR SPRING PLATES ARE PROVIDED FOR 6.5", 7.5", 8.0", AND 9.0" RIDE HEIGHTS. SEE VIEW XX ON PAGE 1 FOR INSTALLATION.

<7> AIR DISC ONLY AVAILABLE WITH REAR SHOCKS

<36>

P
PRODUCTION

STANDARD & HIGH CONTROL TRAVEL DIMENSIONS FROM PAGE 1 FOR AAEDL

RIDE HEIGHT	◁3 JOUNCE	◁3 REBOUND W/FRONT SHOCKS	◁3◁5◁6 REBOUND W/REAR SHOCKS	BUMPER CONTACT	D	E	F	◁4 G	◁4 H W/FRONT SHOCKS	◁4◁5 H W/REAR SHOCKS
9.0	4.6	4.0	3.7	4.0	.19	4.5	19.0	4.4	13.0	12.7
12.0	5.3	4.6	3.4	4.8	.19	8.0	19.1	6.7	16.6	15.4
14.0	5.9	4.3	4.2	5.4	1.13	10.0	19.1	8.1	18.3	18.2
15.0	5.6	3.3	3.2	5.0	3.50	10.0	18.8	9.4	18.3	18.2
16.0	5.7	4.2	4.3	5.2	3.50	12.0	19.1	10.3	20.2	20.3
17.0	6.0	3.2	3.3	5.4	4.81	12.0	18.8	11.0	20.2	20.3
19.0	5.7	3.4	–	5.1	7.31	14.0	18.8	13.3	22.4	–

NOTES:

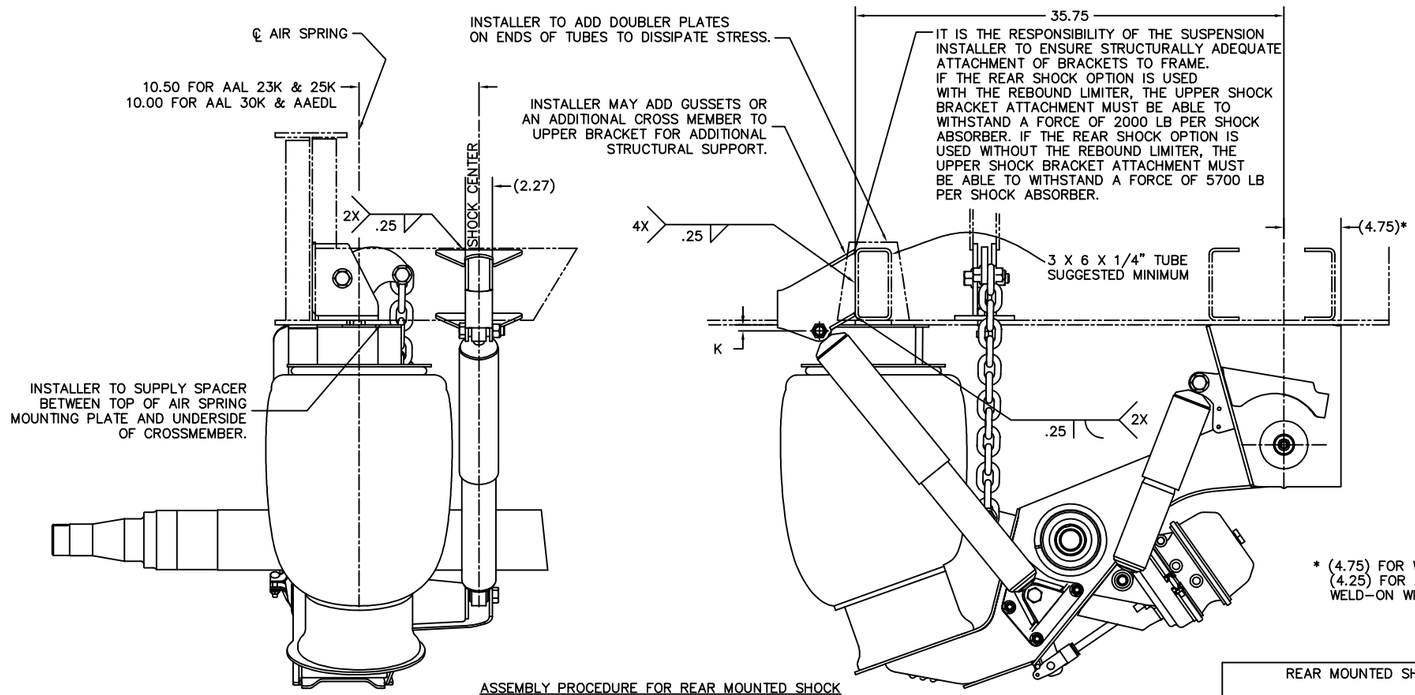
1. SEE L729 FOR SUSPENSION WEIGHT.
2. SEE L1073 FOR ALLOWABLE RIDE HEIGHT RANGES.

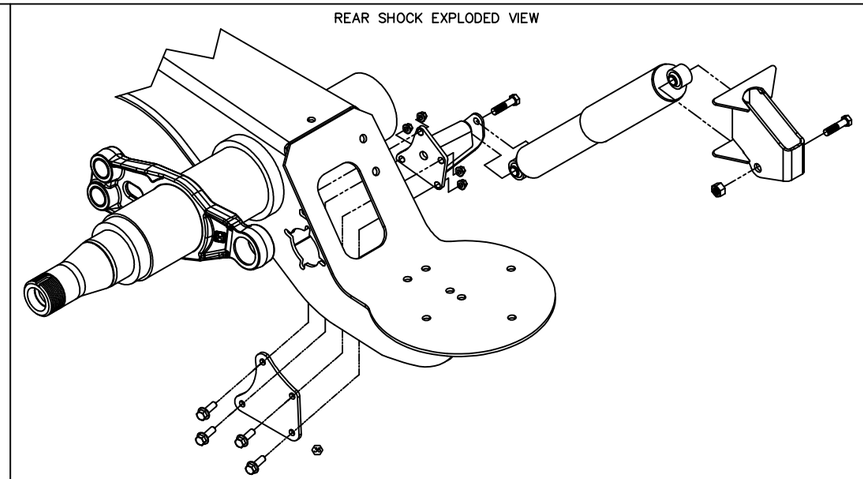
◁3 JOUNCE AND REBOUND DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.

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

◁5 WHEN THE OPTION FOR FRONT AND REAR SHOCKS IS SELECTED, DIMENSIONS FROM "REBOUND WITH REAR SHOCKS" AND "H WITH REAR SHOCKS" SHOULD BE USED

◁6 AIR DISC ONLY AVAILABLE WITH REAR SHOCKS





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

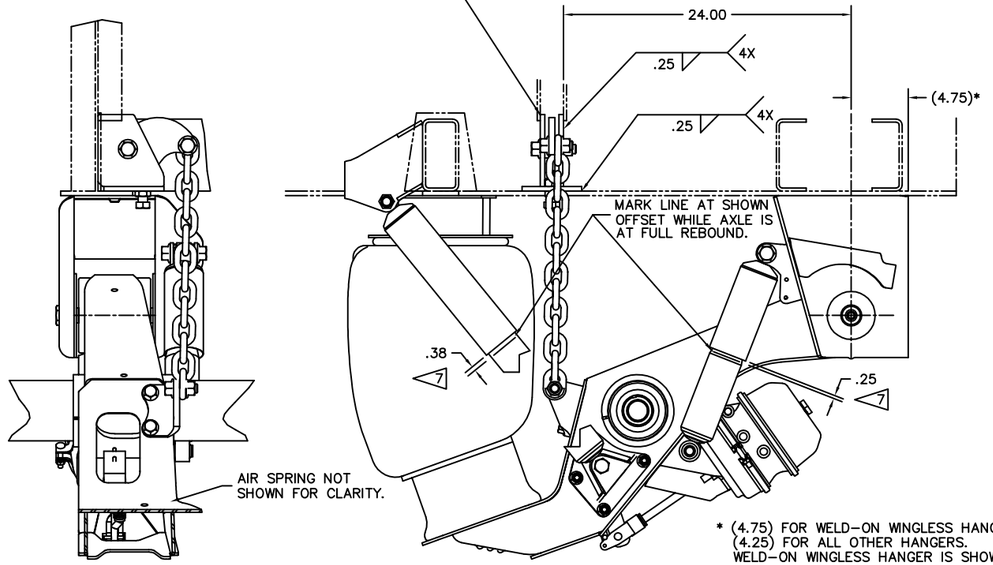
ASSEMBLY PROCEDURE FOR REAR MOUNTED SHOCK
1. SET SUSPENSION TO RIDE HEIGHT.
2. LOCATE UPPER SHOCK BRACKET ACCORDING TO SHOWN DIMENSIONS AND WELD INTO PLACE. CROSSMEMBER MUST BE 6 X 3 X 1/4" MINIMUM TO WITHSTAND TORSION.
3. BOLT LOWER SHOCK TOWER BRACKET AND BACKING PLATE TO BEAM USING 1/2–13 FLANGE BOLTS 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–29967	.50
7.5		
8		
9		
12	C–25420	3.59
14	C–29967	.50
15		
16	C–25420	3.59
17		

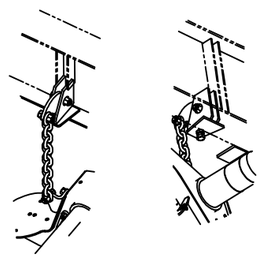
TORQUE SPECIFICATIONS

DESCRIPTION	SIZE	TORQUE (FT-LB)
SHOCK ABSORBER BOLTS	3/4–10	210–235
LOWER SHOCK TOWER BOLTS	1/2–13	100–110
LOWER CHAIN BRACKET BOLTS	5/8–11	200–220
UPPER CHAIN BRACKET BOLTS	3/4–10	240–260
CHAIN ATTACHMENT BOLTS	3/4–10	240–260
JAM NUT	3/4–10	240–260

IT IS THE RESPONSIBILITY OF THE SUSPENSION INSTALLER TO ENSURE STRUCTURALLY ADEQUATE ATTACHMENT OF BRACKETS TO FRAME. REBOUND LIMITER UPPER BRACKET ATTACHMENT MUST WITHSTAND 7600 LB FORCE EXERTED BY EACH CHAIN.



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



VIEW B
SCALE: 1.00=8.00
OPTION 1
REINFORCEMENT GUSSETS

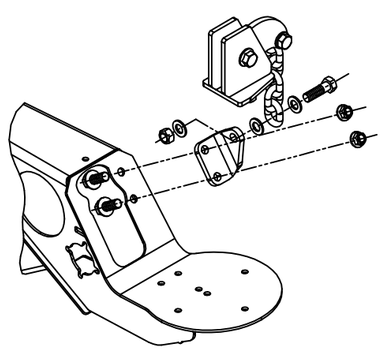
VIEW C
SCALE: 1.00=8.00
OPTION 2
WEB STIFFENERS

CHAIN LENGTH	
RIDE HEIGHT	# OF LINKS
8	10
9	10
12	12
14	14
15	14
16	14
17	14
19	16

ASSEMBLY PROCEDURE FOR REBOUND LIMITER
1. RAISE REAR OF TRAILER AND SUPPORT SECURELY. TRAILER MUST BE HIGH ENOUGH FOR THE SUSPENSION TO BE AT FULL REBOUND WITHOUT TIRES TOUCHING GROUND.
2. POSITION UPPER BRACKET ASSEMBLIES ON FRAME RAILS TO INDICATED DIMENSION AND CLAMP INTO PLACE.
3. ATTACH LOWER BRACKETS TO TRAILING ARMS USING THE FOUR 5/8" FLANGE BOLTS AND NUTS.
4. VERIFY THAT THE CHAINS HAVE THE CORRECT NUMBER OF LINKS INDICATED FOR THE APPLICATION'S RIDE HEIGHT (SEE "CHAIN LENGTH" CHART). ATTACH CHAINS TO LOWER AND UPPER BRACKETS USING THE 3/4" BOLTS, NUTS, AND WASHERS AS SHOWN IN EXPLODED VIEW.
5. ROTATE THE ADJUSTMENT BOLT UNTIL THE SLACK IS TAKEN OUT OF THE CHAINS.
6. WELD THE UPPER BRACKETS TO THE FRAME AS SHOWN. BRACKETS MUST BE ADEQUATELY ATTACHED TO FRAME USING ONE OF TWO METHODS: WEB STIFFENER PLATES OR SUPPLEMENTARY GUSSETS. (SEE VIEW "B" AND "C").
7. ON REAR MOUNTED SHOCK ABSORBERS, MEASURE 3/8" OFFSET FROM THE BOTTOM EDGE OF THE SHOCK ABSORBER DUST TUBE AND MARK WITH A PAINT PEN OR FELT TIP MARKER. IF THE SUSPENSION IS NOT EQUIPPED WITH REAR SHOCKS, OFFSET 1/4" ON THE FRONT SHOCK AND MARK. (SEE FRONT VIEW).
8. ROTATING THE ADJUSTMENT BOLTS ON EACH SIDE, RAISE THE AXLE UNTIL THE BOTTOM EDGES OF THE SHOCK DUST TUBES ARE ALIGNED WITH THE MARKS.
9. TIGHTEN ALL FASTENERS, INCLUDING JAM NUT, TO SPECIFIED TORQUE. (SEE "TORQUE SPECIFICATIONS" CHART).

P PRODUCTION

REBOUND LIMITER EXPLODED VIEW



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UNLESS OTHERWISE NOTED: TOLERANCES ARE: DIMENSIONS ARE: INCHES
X: ± –
.XX: ± –
.XXX: ± –
ANGULAR: ± –
DIMENSIONS ADHERE TO ANSI Y14.5M–1982
3RD ANGLE PROJECTION

REV.	ECN NO.	BY	DATE
36	045138	DJD	10/18/24
35	042444	DJD	8–29–23
34	26252	ZAG	1/27/17
33	24594	DTU	08/03/15

DRAWN BY: C. ANDERSON 3–8–00
CHK'D BY: 3–10–00 DAUGHERTY
APP'D BY: E.FABRIS

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SCALE: .166=1.000 SIZE: D PAGE: 4 OF 9
DRAWING No. D–25153

LIMITED JOUNCE & HIGH CONTROL TRAVEL DIMENSIONS FROM PAGE 1 FOR AAL 23K & 25K										
RIDE HEIGHT	<3> JOUNCE	<3> REBOUND W/FRONT SHOCKS	<3><5><6> REBOUND W/REAR SHOCKS	BUMPER CONTACT	D	E	F	<4> G	<4> H W/FRONT SHOCKS	<4><5> H W/REAR SHOCKS
8.0	3.2	5.2	4.7	2.8	1.50	4.5	19.2	4.8	13.2	12.7
9.0	3.7	4.2	3.7	3.3	2.25	4.5	19.0	5.3	13.2	12.7
12.0	4.2	4.8	3.4	3.8	2.25	8.0	19.1	7.8	16.8	15.4
14.0	4.6	4.4	4.2	4.2	3.50	10.0	19.1	9.4	18.4	18.2
15.0	4.6	3.4	3.2	4.2	5.31	10.0	18.8	10.4	18.4	18.2
16.0	4.7	4.3	4.3	4.3	5.31	12.0	19.1	11.3	20.3	20.3
17.0	4.6	3.3	3.3	4.2	7.31	12.0	18.8	12.4	20.3	20.3
19.0	4.6	3.5	–	4.2	9.25	14.0	18.8	14.4	22.5	–

NOTES:

1. SEE L729 FOR SUSPENSION WEIGHT.
2. SEE L1073 FOR ALLOWABLE RIDE HEIGHT RANGES.

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

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

<5> WHEN THE OPTION FOR FRONT AND REAR SHOCKS IS SELECTED, DIMENSIONS FROM "REBOUND WITH REAR SHOCKS" AND "H WITH REAR SHOCKS" SHOULD BE USED

<6> AIR DISC ONLY AVAILABLE WITH REAR SHOCKS

<36>

P
PRODUCTION

STANDARD & HIGH CONTROL TRAVEL DIMENSIONS FROM PAGE 1 FOR AAL 30K										
RIDE HEIGHT	<3> JOUNCE	<3> REBOUND W/FRONT SHOCKS	<3><5><7> REBOUND W/REAR SHOCKS	BUMPER CONTACT	<6> D	E	F	<4> G	<4> H W/FRONT SHOCKS	<4><5> H W/REAR SHOCKS
9.0	4.5	4.2	3.7	3.9	.38	4.5	19.0	4.5	13.2	12.7
12.0	5.3	4.8	3.4	4.8	.19	8.0	19.1	6.7	16.8	15.4
14.0	5.9	4.4	4.2	5.4	1.13	10.0	19.1	8.1	18.4	18.2
15.0	5.6	3.4	3.2	5.0	3.50	10.0	18.8	9.4	18.4	18.2
16.0	5.7	4.3	4.3	5.2	3.50	12.0	19.1	10.3	20.3	20.3
17.0	6.0	3.3	3.3	5.4	4.81	12.0	18.8	11.0	20.3	20.3
19.0	5.7	3.5	–	5.1	7.31	14.0	18.8	13.3	22.5	–

NOTES:

1. SEE L729 FOR SUSPENSION WEIGHT.
2. SEE L1073 FOR ALLOWABLE RIDE HEIGHT RANGES.

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

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

<5> WHEN THE OPTION FOR FRONT AND REAR SHOCKS IS SELECTED, DIMENSIONS FROM "REBOUND WITH REAR SHOCKS" AND "H WITH REAR SHOCKS" SHOULD BE USED

<6> TWO UPPER AIR SPRING PLATES ARE PROVIDED FOR 9.0" RIDE HEIGHT. SEE VIEW XX ON PAGE 1 FOR INSTALLATION.

<7> AIR DISC ONLY AVAILABLE WITH REAR SHOCKS

<36>

P
PRODUCTION

LIMITED JOUNCE & HIGH CONTROL TRAVEL DIMENSIONS FROM PAGE 1 FOR AAL 30K										
RIDE HEIGHT	<3> JOUNCE	<3> REBOUND W/FRONT SHOCKS	<3><5><6> REBOUND W/REAR SHOCKS	BUMPER CONTACT	D	E	F	<4> G	<4> H W/FRONT SHOCKS	<4><5> H W/REAR SHOCKS
9.0	3.4	4.2	3.7	2.9	2.25	4.5	19.0	5.6	13.2	12.7
12.0	4.2	4.8	3.4	3.6	2.25	8.0	19.1	7.8	16.8	15.4
14.0	4.6	4.4	4.2	4.0	3.50	10.0	19.1	9.4	18.4	18.2
15.0	4.6	3.4	3.2	4.0	5.31	10.0	18.8	10.4	18.4	18.2
16.0	4.7	4.3	4.3	4.1	5.31	12.0	19.1	11.3	20.3	20.3
17.0	4.6	3.3	3.3	4.0	7.31	12.0	18.8	12.4	20.3	20.3
19.0	4.6	3.5	–	4.1	9.25	14.0	18.8	14.4	22.5	–

NOTES:

1. SEE L729 FOR SUSPENSION WEIGHT.
2. SEE L1073 FOR ALLOWABLE RIDE HEIGHT RANGES.
3. JOUNCE AND REBOUND DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.
4. DIMENSIONS "G" & "H" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.
5. WHEN THE OPTION FOR FRONT AND REAR SHOCKS IS SELECTED, DIMENSIONS FROM "REBOUND WITH REAR SHOCKS" AND "H WITH REAR SHOCKS" SHOULD BE USED
6. AIR DISC ONLY AVAILABLE WITH REAR SHOCKS

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2070 INDUSTRIAL PLACE S.E., CANTON, OH 44707-3900 U.S.A.

UNLESS OTHERWISE NOTED:
TOLERANCES ARE: DIMENSIONS ARE: INCHES
.X: ± –
.XX: ± –
.XXX: ± –
ANGULAR: ± –
3RD ANGLE PROJECTION
DIMENSIONS ADHERE TO ANSI Y14.5M-1982

REV.	ECN NO.	BY	DATE
J6	045136	DJD	10/18/24
J5	042444	DJD	8-29-23
J4	26252	ZAG	1/27/17
J3	24594	DTU	08/03/15

DRAWN BY C. ANDERSON 6-13-02
CHK'D BY 6-20-02 K. GALIGHER
APP'D BY W. SCHNEIDER

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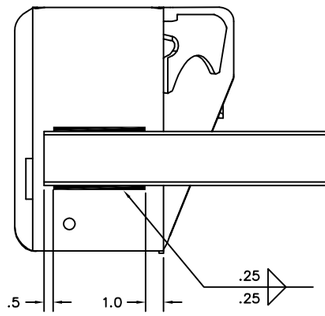
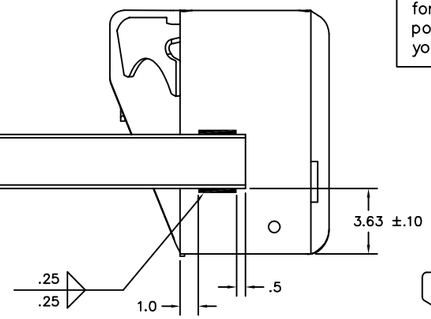
INTRAAX® AAL, AAEDL
INSTALLATION DRAWING

SCALE 1.00=1.00 | SIZE D | PAGE 7 OF 9
DRAWING No. D-25153

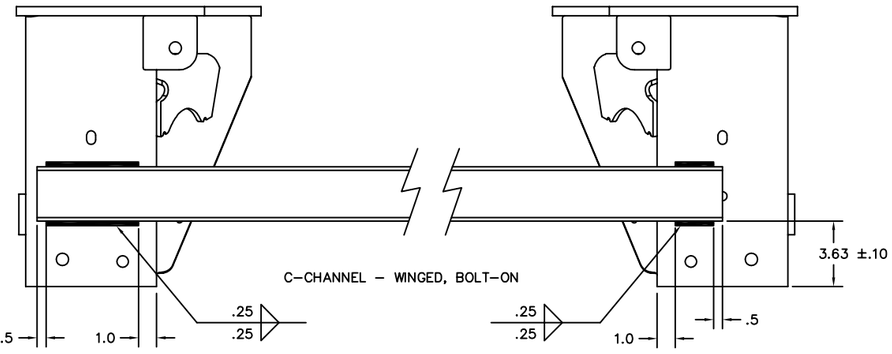


C–CHANNEL WELDING AT
35" & 47" BEAM CENTERS



C–CHANNEL – WINGLESS, WELD–ON
ALL EXCEPT 19" RIDE HEIGHT

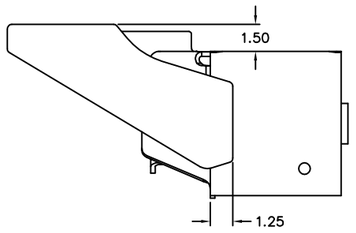
C–CHANNEL WELDING AT
41" & 48.5" BEAM CENTERS



C–CHANNEL – WINGED, BOLT–ON

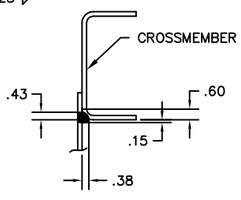
C–CHANNEL WELDING AT
35" & 47" BEAM CENTERS

C–CHANNEL WELDING AT
41" & 48.5" BEAM CENTERS

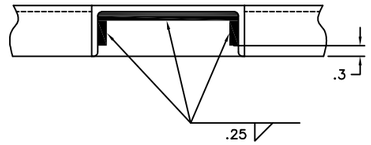


VIEW B
SCALE: .25=1.00
FOR SHORT, WINGED WELD–ON FRAME BRACKETS
& SOME UBL INSTALLATIONS

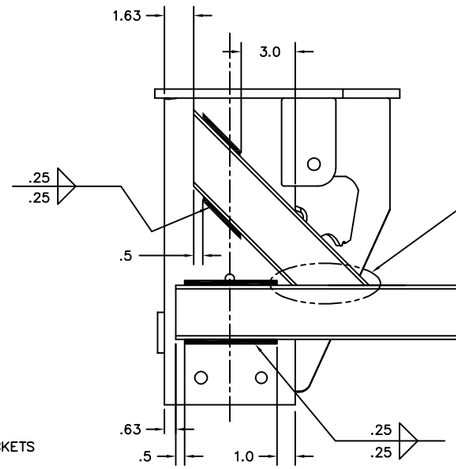
FRAME BRACKET GUSSET
(SEE VIEW B FOR GUSSET LOCATION
ON 4.5 PIVOT FRAME BRACKET)
WINGED, WELD–ON



VIEW A
SCALE: .25=1.00



DETAIL X
SCALE: .50=1.00



C–CHANNEL WELDING AT
35" & 47" BEAM CENTERS

C–CHANNEL & FRAME BRACKET BRACE
19" RIDE HEIGHT ONLY
WINGED BOLT–ON SHOWN, OTHERS SIMILAR.

C–CHANNEL WELDING AT
41" & 48.5" BEAM CENTERS

FRAME BRACKET BRACING							
FRAME ATTACHMENT––	WELD–ON				BOLT–ON		
SUSPENSION CAPACITY––	AAL 23K, 25K, AND 30K		AAEDL 30K		AAL 23K, 25K, AND 30K		AAEDL 30K
HIGH CONTROL––	YES –OR– NO		YES –OR– NO		NO	YES	YES –OR– NO
FRAME BRACKET STYLE––	WINGED	WINGLESS	WINGED	WINGLESS	WINGED		
RIDE HEIGHT							
6.5	FRAME BRACKET GUSSET REQUIRED	C–CHANNEL REQUIRED			NONE	NONE	
7.5							
8.0							NONE
9.0			FRAME BRACKET GUSSET REQUIRED	C–CHANNEL REQUIRED	NONE	C–CHANNEL REQUIRED	C–CHANNEL REQUIRED
12.0							
14.0							
15.0							
16.0					C–CHANNEL REQUIRED		
17.0							
19.0			C–CHANNEL & FRAME BRACKET BRACE REQUIRED		C–CHANNEL & FRAME BRACKET BRACE REQUIRED	C–CHANNEL & FRAME BRACKET BRACE REQUIRED	C–CHANNEL & FRAME BRACKET BRACE REQUIRED

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.

HD BOLT–ON C–CHANNEL WITH STRUTS OPTION			
FRAME ATTACHMENT––	BOLT–ON		
SUSPENSION CAPACITY––	AAL 23K, 25K, AND 30K		AAEDL 30K
HIGH CONTROL––	YES –OR– NO		
FRAME BRACKET STYLE––	WINGED		
RIDE HEIGHT			
6.5	WITH STRUTS	WITH STRUTS	
7.5			
8.0			
9.0			
12.0			
14.0			
15.0			
16.0			
17.0			
19.0			

BOLT–ON C–CHANNEL WITH STRUTS OPTION		
FRAME ATTACHMENT––	BOLT–ON	
SUSPENSION CAPACITY––	AAL 23K, 25K, AND 30K	AAEDL 30K
HIGH CONTROL––	YES –OR– NO	
FRAME BRACKET STYLE––	WINGED	
RIDE HEIGHT		
6.5	WITHOUT STRUTS	
7.5		
8.0		
9.0		WITHOUT STRUTS
12.0	WITH STRUTS	WITH STRUTS
14.0		
15.0		
16.0		
17.0		
19.0		

P
PRODUCTION

H. HENDRICKSON
TRAILER COMMERCIAL VEHICLE SYSTEMS
3070 INDUSTRIAL PLACE S.E., CANTON, OH 44707–3900 U.S.A.

UNLESS OTHERWISE NOTED:
TOLERANCES ARE DIMENSIONS ARE: INCHES
.XX: ± –
.XXX: ± –
.XXXX: ± –
ANGULAR: ± –
3RD ANGLE PROJECTION
DIMENSIONS ADHERE TO ANSI Y14.5M–1982

REV.	ECN NO.	BY	DATE
36	045138	DJD	10/18/24
35	042444	DJD	8–29–23
34	26253	ZAC	1/27/17
33	24594	DTU	08/03/15

DRAWN BY: C. ANDERSON 9–22–00
CHK'D BY: G. SHENKLE 10–10–00
APP'D BY: G. MICHEL

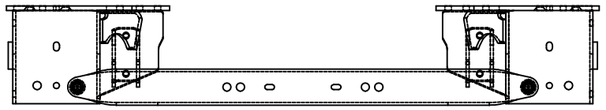
INTRAAX® AAL, AAEDL
INSTALLATION DRAWING

SCALE .25=1.00 | SIZE D | PAGE 8 OF 9
DRAWING No. D–25153

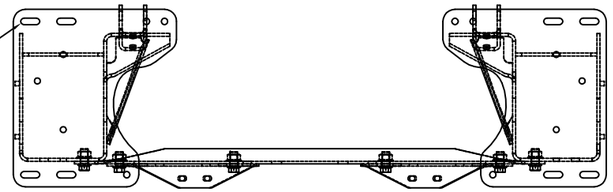
USE 82° FLAT HEAD SOCKET CAP SCREW WITH FLANGED PREVAILING TORQUE NUT IN THESE TWO HOLES ON EACH SIDE OF SUSPENSION.
SEE KIT A-30476-1 (5/8") OR A-30476-2 (1/2").
TORQUE 1/2" FASTENERS TO 100±20 FT-LB.
TORQUE 5/8" FASTENERS TO 190±20 FT-LB.
THIS APPLIES TO 6.5 THROUGH 9.0 RIDE HEIGHTS FOR BOLT ON UNITS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

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

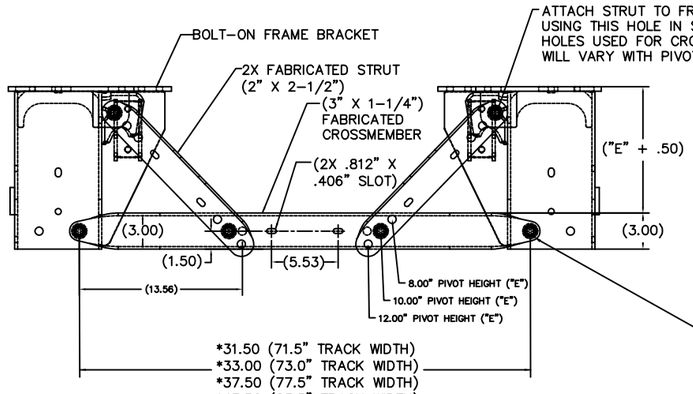
6.5 THROUGH 9.0 RIDE HEIGHTS FOR BOLT ON UNITS ONLY.
STANDARD C-CHANNEL

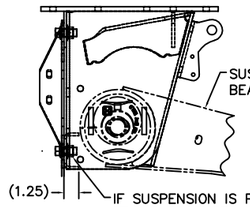


6.5 THROUGH 9.0 RIDE HEIGHTS FOR BOLT ON UNITS ONLY.
BOLT-ON C-CHANNEL
(SEE 12.0 THROUGH 19.0 RIDE HEIGHT VIEW FOR DIMENSIONS AND NOTES)



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. 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.





IF SUSPENSION IS PRE-INSTALLED IN FRAME BRACKETS, INSTALLATION OF CROSSMEMBER WILL REQUIRE HOLDING THIS NUT WITH AN OPEN-END WRENCH, WHILE TURNING THE BOLT HEAD TO TIGHTEN. (THERE IS NOT ENOUGH ROOM AHEAD OF THE BUSHING TUBE TO USE A BOX-END OR SOCKET WRENCH, NOR TO INSERT THE BOLT FROM INSIDE THE FRAME BRACKET).

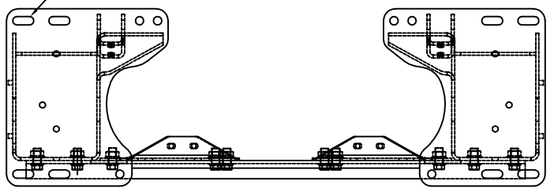
*31.50 (71.5" TRACK WIDTH)
*33.00 (73.0" TRACK WIDTH)
*37.50 (77.5" TRACK WIDTH)
*43.50 (83.5" TRACK WIDTH)
OTHER TRACK WIDTHS NOT AVAILABLE
*THIS DIMENSION MUST BE MAINTAINED WITHIN ±.06"

12.0 THROUGH 19.0 RIDE HEIGHTS FOR BOLT ON UNITS ONLY.
BOLT-ON C-CHANNEL WITH STRUTS

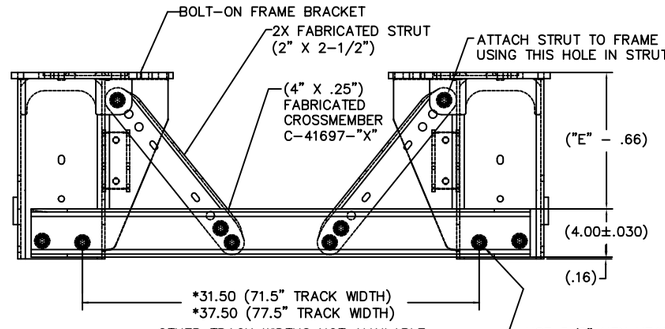
USE 5/8" HEX HEAD FLANGE SCREW WITH SPIRALOCK® FLANGE NUT.
(SEE KIT A-29822 FOR CROSSMEMBER ONLY, KIT INCLUDES 2 SCREWS & NUTS)
(SEE KIT A-30720 FOR CROSSMEMBER & STRUTS, KIT INCLUDES 6 SCREWS & NUTS
TORQUE TO 190±20 FT-LB.
((TORQUE BY NUT WHERE POSSIBLE))

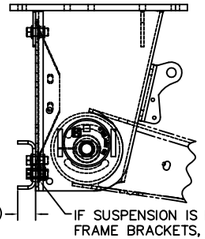
BOLT-ON C-CHANNEL WITH STRUTS

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



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. INSTALL STRUTS, USING 5/8" MOUNTING HOLES IN FRAME BRACKET GUSSET AND CROSSMEMBER.
4. TIGHTEN CROSSMEMBER MOUNTING BOLTS AND STRUT MOUNTING BOLTS.
5. TIGHTEN FRAME BRACKET MOUNTING BOLTS.





IF SUSPENSION IS PRE-INSTALLED IN FRAME BRACKETS, INSTALLATION OF CROSSMEMBER WILL REQUIRE HOLDING THIS NUT WITH AN OPEN-END WRENCH, WHILE TURNING THE BOLT HEAD TO TIGHTEN. (THERE IS NOT ENOUGH ROOM AHEAD OF THE BUSHING TUBE TO USE A BOX-END OR SOCKET WRENCH, NOR TO INSERT THE BOLT FROM INSIDE THE FRAME BRACKET).

OTHER TRACK WIDTHS NOT AVAILABLE
*THIS DIMENSION MUST BE MAINTAINED WITHIN ±.06"

16.0 THROUGH 19.0 RIDE HEIGHTS FOR BOLT ON UNITS ONLY.
HD BOLT-ON C-CHANNEL WITH STRUTS

USE 5/8" HEX HEAD FLANGE SCREW WITH SPIRALOCK® FLANGE NUT
(SEE KIT A-41823-1 FOR CROSSMEMBER & STRUTS, KIT INCLUDES 10 SCREWS & NUTS)
TORQUE 190±20 FT-LB.
((TORQUE BY NUT WHERE POSSIBLE))

4-INCH HEAVY DUTY BOLT ON C-CHANNEL WITH STRUTS

H. HENDRICKSON
TRAILER COMMERCIAL VEHICLE SYSTEMS
2070 INDUSTRIAL PLACE S.E., CANTON, OH 44707-3800 U.S.A.

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X: ± –
.XX: ± –
.XXX: ± –
ANGULAR: ± –
3RD ANGLE PROJECTION
DIMENSIONS ADHERE TO ANSI Y14.5M-1982

REV.	ECN NO.	BY	DATE
J6	0451.38	DJD	10/18/24
J5	024444	DJD	8/31/23
J4	26252	ZAC	1/27/17
J3	24594	DJD	08/03/15

DRAWN BY S. GIBB 11-14-08
CHK'D BY C. RADCLIFF
APPR'D BY E. MUCKELRATH
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INTRAAX® AAL, AAEDL
INSTALLATION DRAWING

P PRODUCTION
SCALE .166=1.000 SIZE D PAGE 9 OF 9
DRAWING No. D-25153