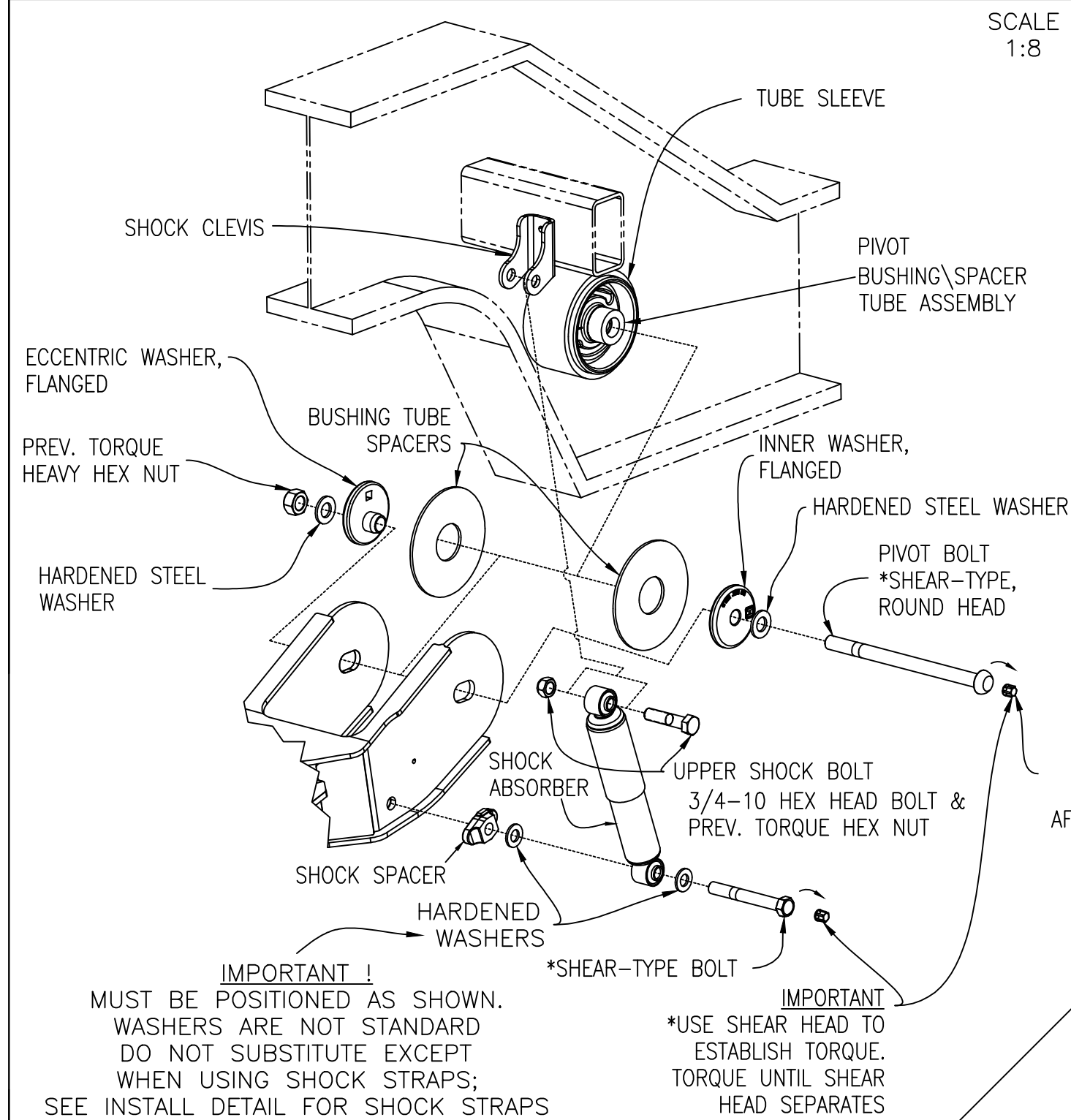
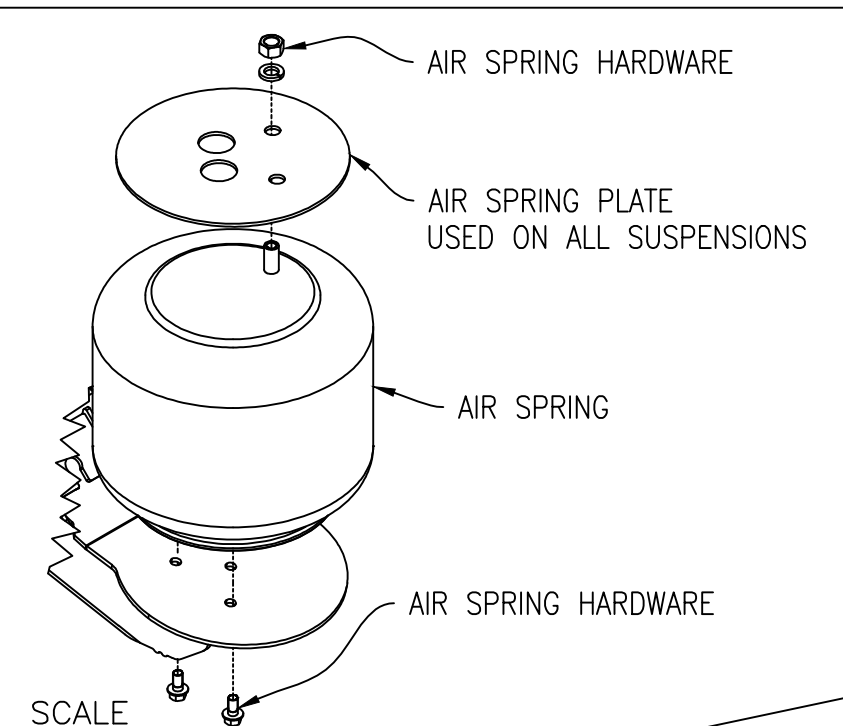


## HARDWARE INSTALL DETAIL FOR ④ UNASSEMBLED SUSPENSIONS

SCALE

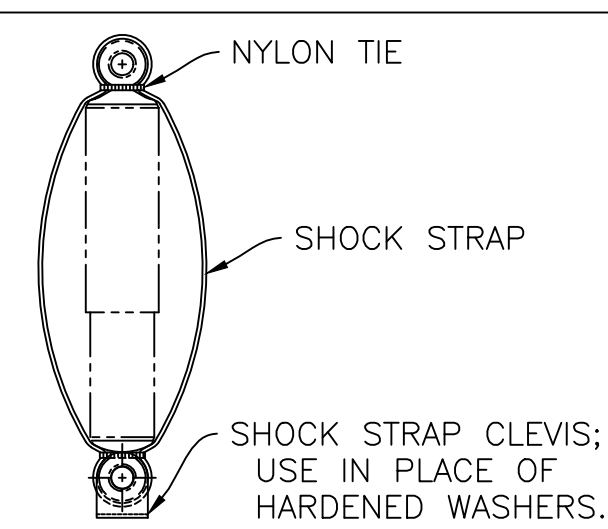


## SINGLE COMBO STUD AIR & SPRING INSTALLATION DETAIL



SCALE

## INSTALL DETAIL FOR SHOCK STRAPS

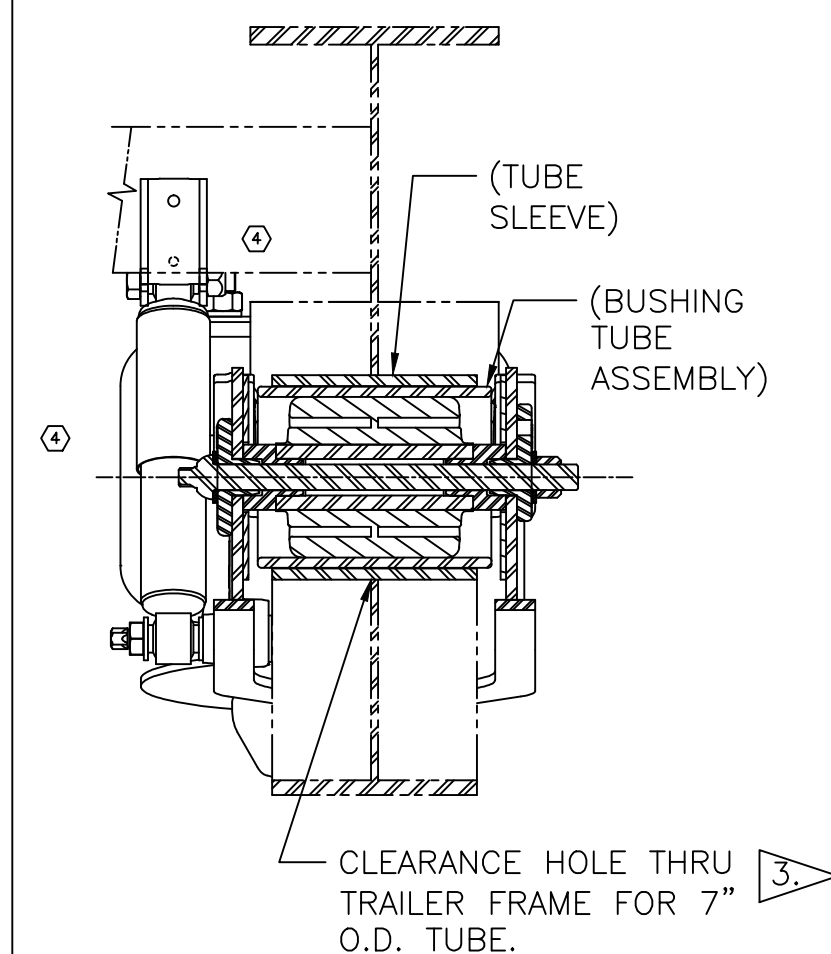


NOTES:

1. SEE T44004 FOR INFORMATION ON ASSEMBLY, WELDING PROCEDURE, AND ALIGNMENT.
2. SEE SERVICE MANUAL FOR INFORMATION CONCERNING MAINTENANCE PROCEDURE.
- ④ 3. SEE PAGE 3 FOR REQUIRED CROSSMEMBER LOCATIONS, FRAME CLEARANCE 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.
4. SEE STANDARD TRAVEL TABLE FOR ALLOWABLE RIDE HEIGHT RANGES.
5. CONTACT HENDRICKSON TRAILER COMMERCIAL VEHICLE SYSTEMS FOR SUSPENSION WEIGHT.
- ④ 6. GRAPHICS SHOWN ARE REFERENCE OF A HT250YS AT 6.5" RH.
7. DO NOT ROUTE ITEMS THROUGH THIS AREA DUE TO MINIMAL BEAM TO FRAME CLEARANCE.
- ④ 8. LOAD CAPACITY: 25,000 LB AT GROUND.
9. SEE PAGE 2 FOR S-CAM POSITION MOUNTING & U-BOLT KIT DETAILS.
- ④ 10. IF SHOCK STRAP REQUIRED, ORDER C-23086-4 SEPARATELY
11. JOUNCE AND REBOUND DIMENSIONS CHANGE AS THE RIDE HEIGHT CHANGES FROM THE NOMINAL POSITION.
12. DIMENSIONS "G" & "H" WILL REMAIN CONSTANT REGARDLESS OF RIDE HEIGHT VARIATION FROM NOMINAL POSITION.  
  
RIDE HEIGHT - JOUNCE = "G"  
RIDE HEIGHT + REBOUND = "H"
13. 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 RIDE HEIGHT TOLERANCE CAN REDUCE RIDE QUALITY AND SHORTEN SUSPENSION LIFE.
14. VARIATION IN RIDE HEIGHT BETWEEN LIKE SUSPENSIONS MAY RESULT IN UNEQUAL LOADING OF THE AXLES.

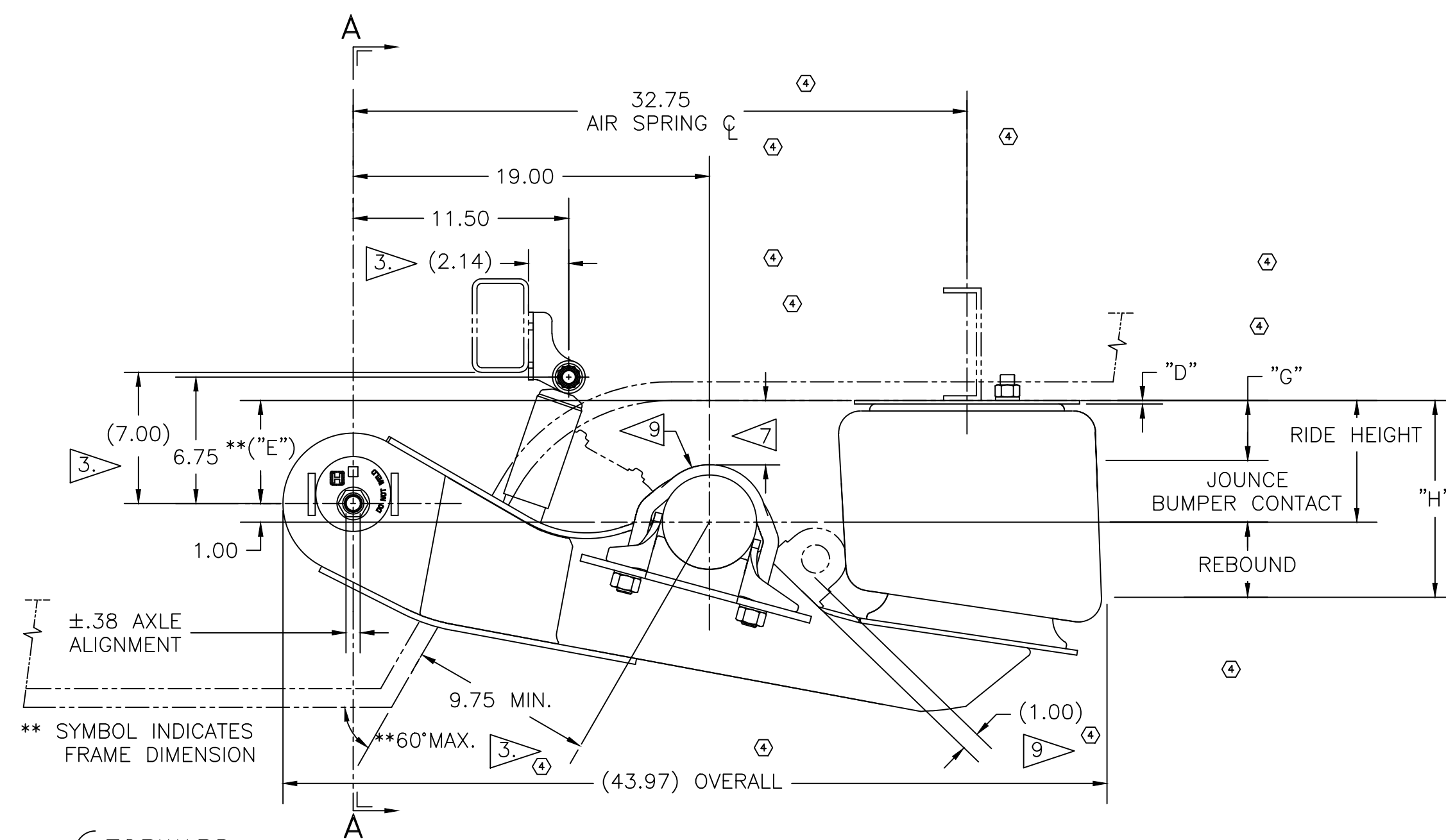
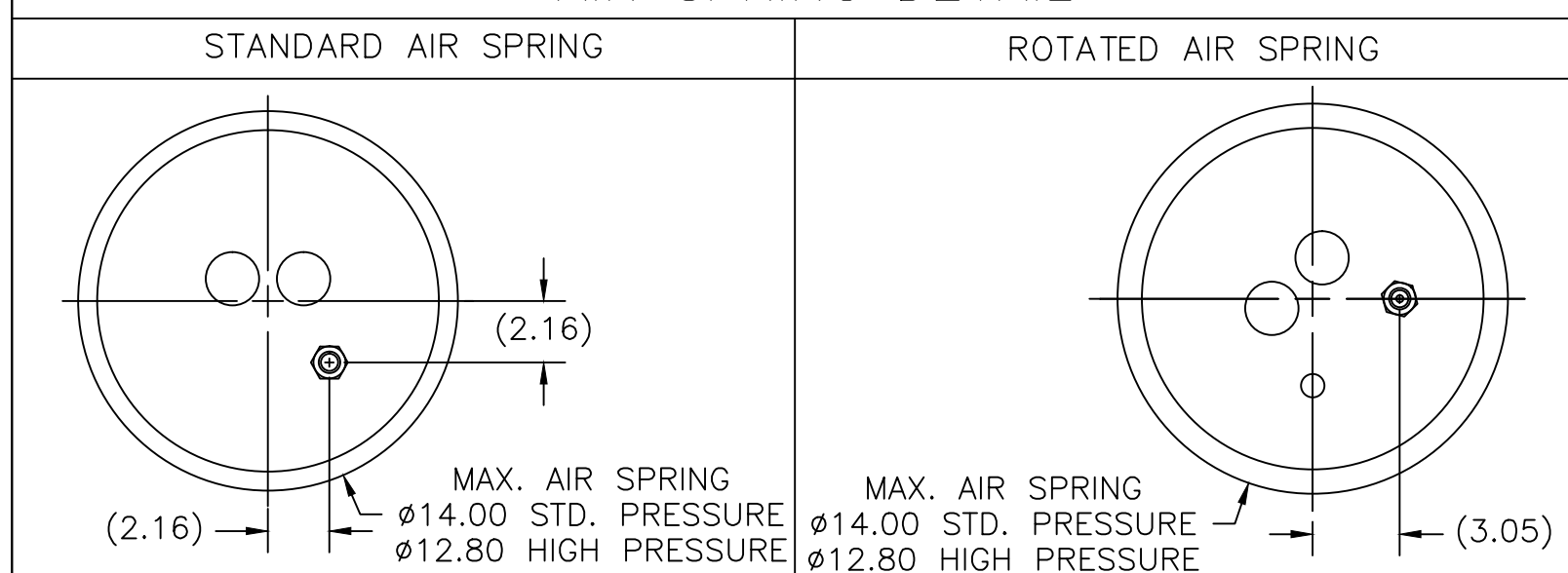
## TORQUE SPECIFICATIONS

DESCRIPTION	SIZE	TORQUE (FT LB)
SHOCK BOLTS, UPPER	3/4-10	210-235
AIR SPRING NUTS, UPPER	3/4-16	80-100
AIR SPRING BOLTS, LOWER	1/2-13	40-50
U-BOLTS	7/8-14	475-525








## SECTION AA

## AIR SPRING DETAIL




## STANDARD TRAVEL

RIDE HEIGHT			BUMPER CONTACT	<i>D</i>	<i>E</i>	<i>G</i> 	<i>H</i> 	RIDE HEIGHT TOLERANCE LIMITS 	
	BOUNCE	REBOUND						MIN.	MAX.
6.5	3.3	3.8	2.8	.188	5.5	3.2	10.3	6.5	7.25
7.5	3.9	3.8	3.4	.188	6.5	3.6	11.3	7.0	8.25
9.0	4.7	3.8	4.2	.188	8.0	4.3	12.8	7.75	10.0

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TRAILER COMMERCIAL VEHICLE SYSTEMS

UNLESS OTHERWISE NOTED:		4	35.333	JRH	10-19-
TOLERANCES ARE	DIMENSIONS ARE:	3	32721	BMT	06-03-
.X: $\pm .1$	INCHES	2	20113	KUE	09-08-
.XX: $\pm .06$		1	19082	KJE	06-14-
.XXX: $\pm .030$					
ANGULAR: $\pm 0.5^\circ$	3RD ANGLE PROJECTION	REV.	ECN NO.	BY	DATE
DIMENSIONS ADHERE TO ANSI Y14.5M-1982					

21	DRAWN BY	K. ERDMANN
19	CHK'D BY	C. RADCLIFF
11	APP'D BY:	S. BATES

1	2-3-11
2	THIS DRAWING IS THE CONFIDENTIAL PROPERTY OF HENDRICKSON

## HT250YS SUSPENSION INSTALLATION

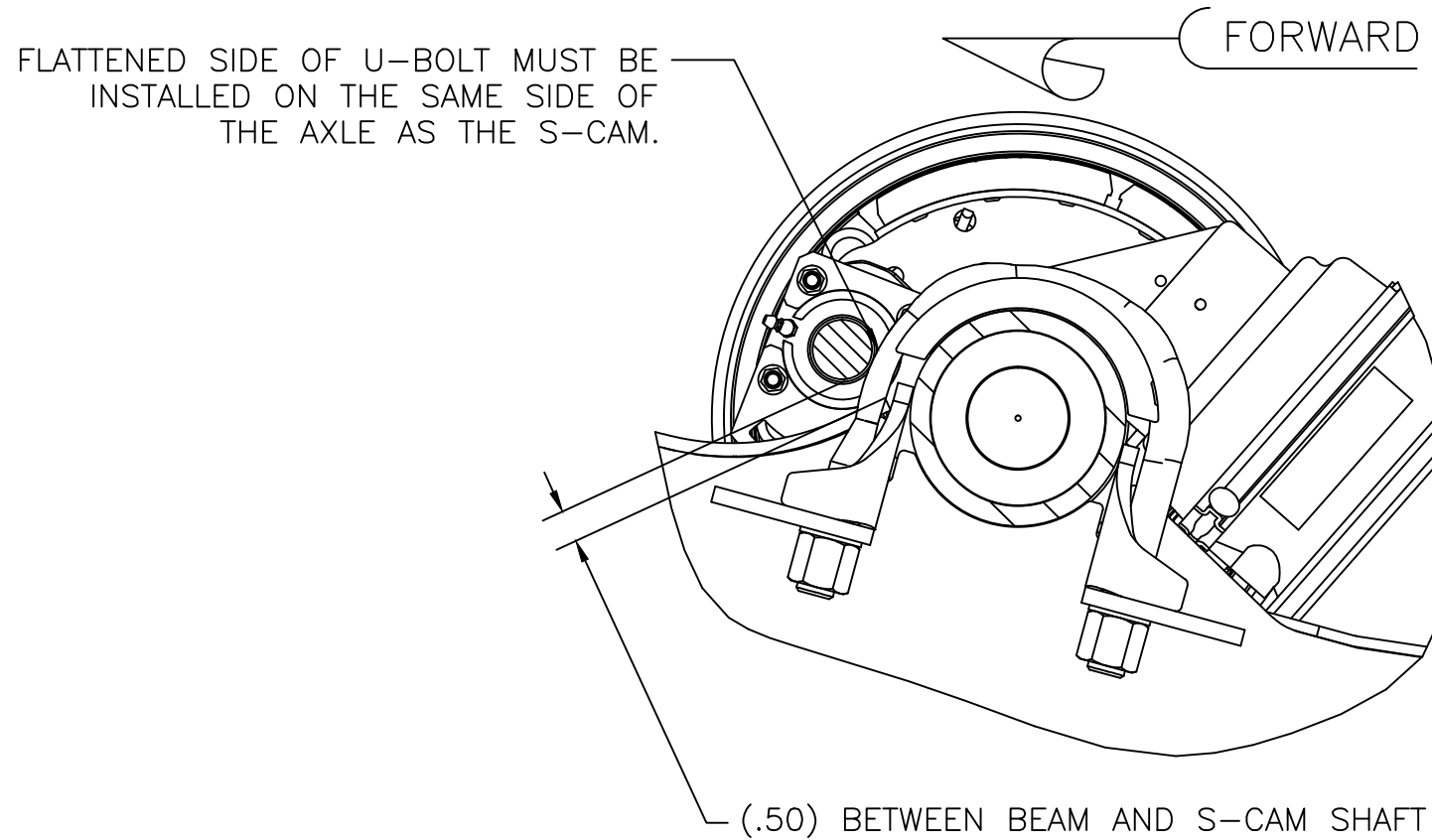
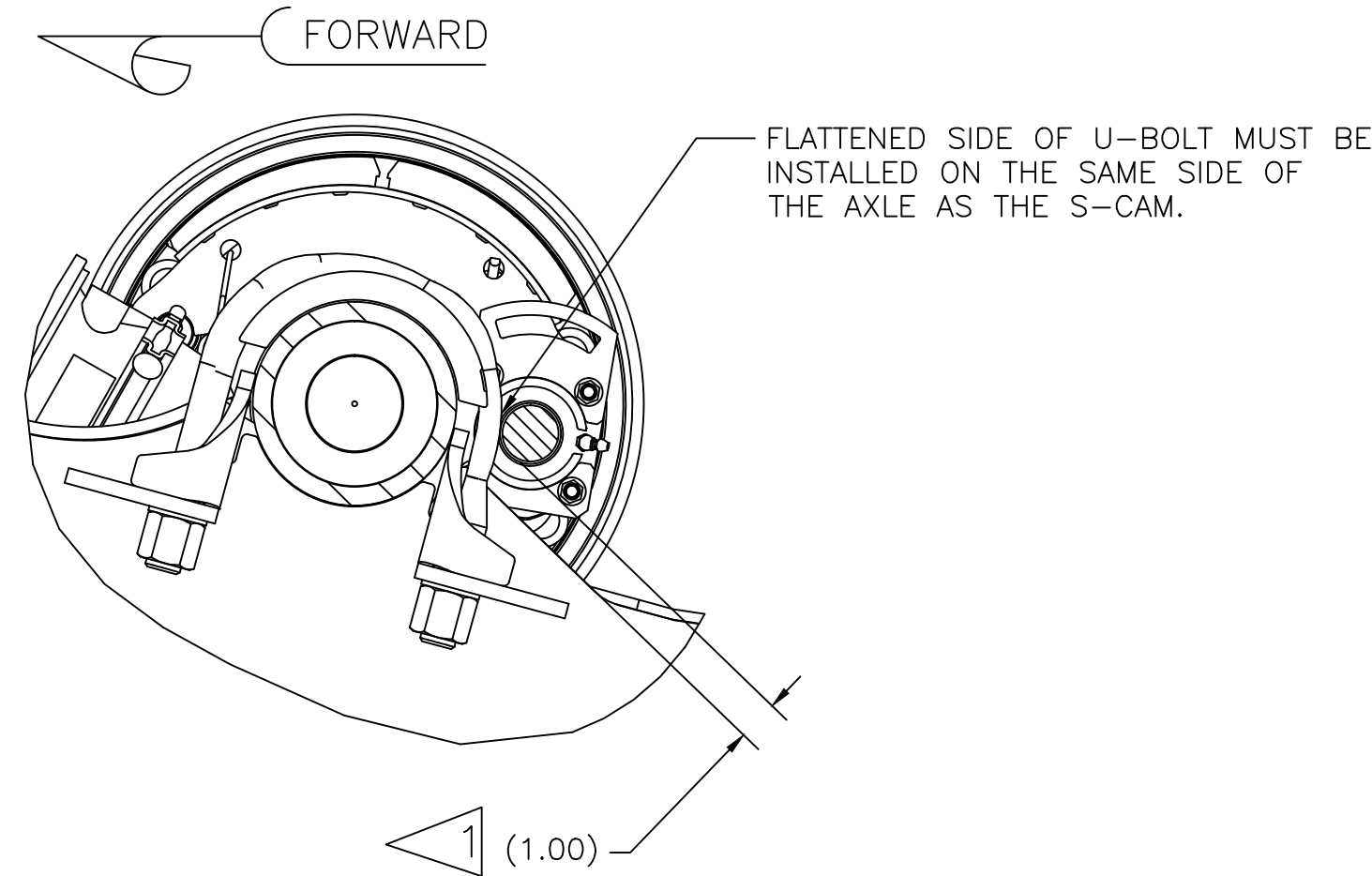
FRAME CENTERS	35.00	41.00
DIMENSION <i>A</i>	31.00	37.00
DIMENSION <i>B</i>	35.00	41.00
DIMENSION <i>C</i>	49.00	55.00
DIMENSION <i>M</i>	8.9 MAX	14.9 MAX

P  
PRODUCTION

SCALE <i>.166=1.000</i>	SIZE <i>D</i>	PAGE <i>1 OF 3</i>
DRAWING No.		(4)
D-31943		

12.25" BRAKE / 17.5" WHEEL, S-CAMS REAR, WITHOUT S-CAM TUBES

12.25" BRAKE / 17.5" WHEEL, S-CAMS FORWARD, WITHOUT S-CAM TUBES

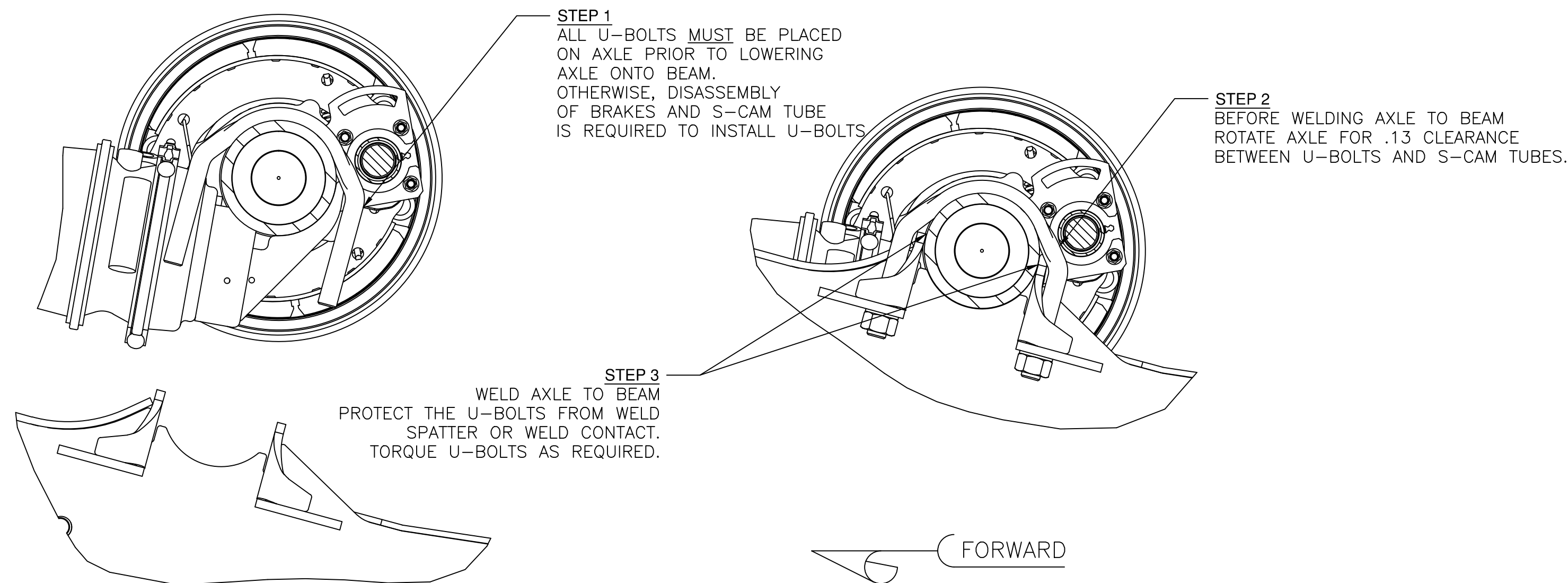


NOTES:

1. RECOMMENDED BRAKE S-CAMSHAFT AND BRAKE CHAMBER LOCATIONS LISTED IN CHART AA ARE FOR REFERENCE ONLY AND MAY VARY SLIGHTLY BASED ON AXLE MANUFACTURERS RECOMMENDATIONS.
2. REQUIRES SUSPENSION WITH U-BOLT KIT A-21140
3. REQUIRES SUSPENSION WITH U-BOLT KIT A-22237

12.25" BRAKE / 17.5" WHEEL, S-CAMS REAR, WITH S-CAM TUBES

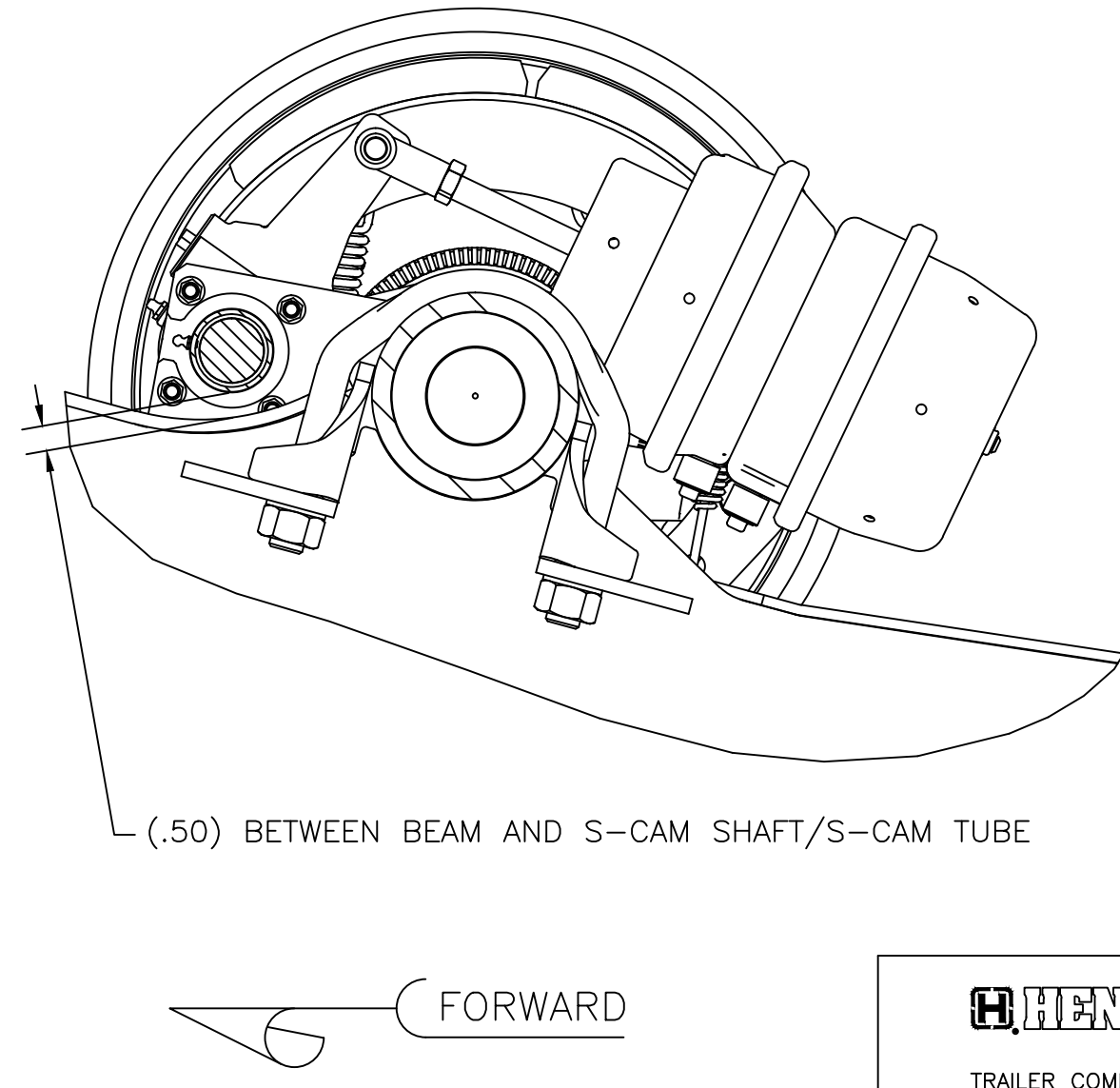
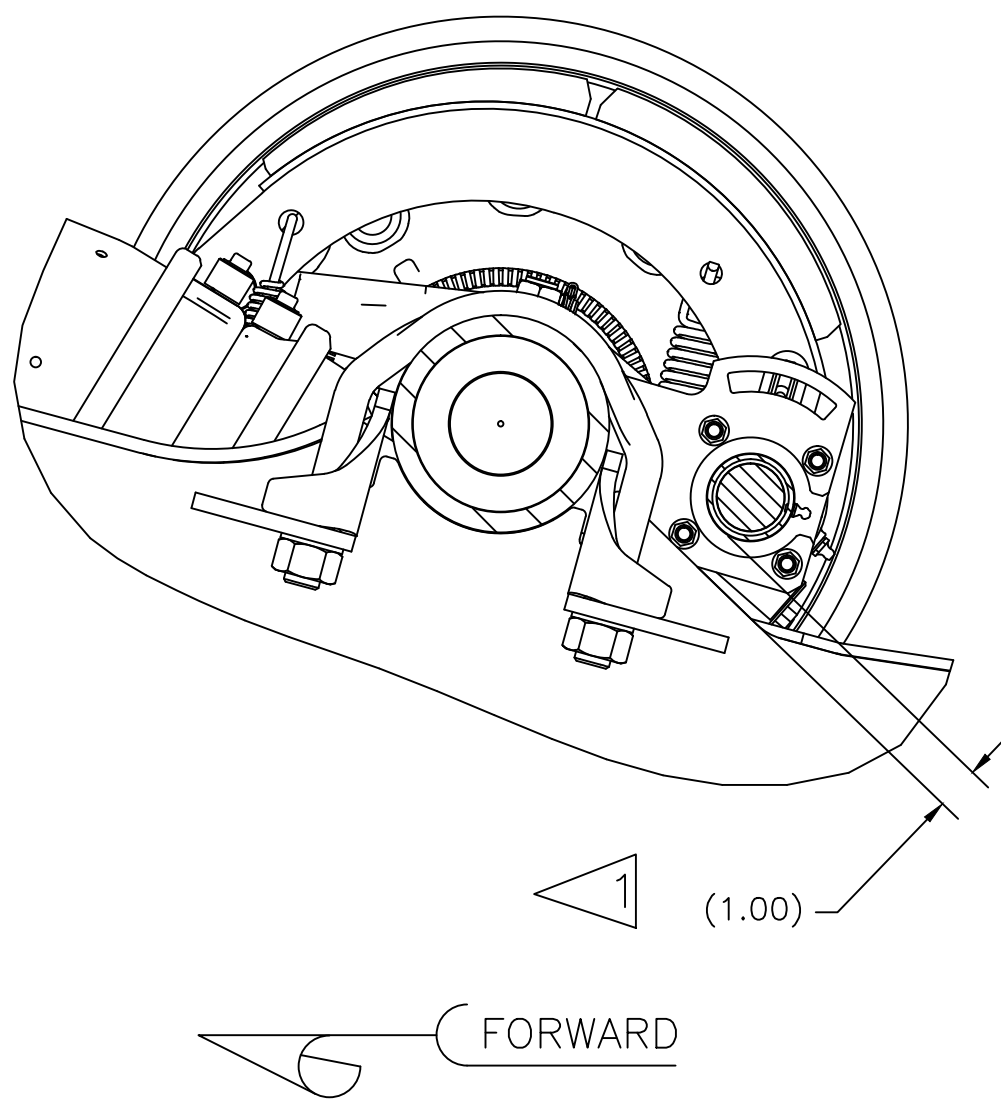
12.25" BRAKE / 17.5" WHEEL, S-CAMS FORWARD, WITH S-CAM TUBES



THIS CONFIGURATION IS NOT RECOMMENDED DUE TO BRAKE CHAMBER ROTATION PLACEMENT

15.0" BRAKE / 19.5" WHEEL OR LARGER, S-CAMS REAR, WITH OR WITHOUT S-CAM TUBES

15.0" BRAKE / 19.5" WHEEL OR LARGER, S-CAMS FORWARD, WITH OR WITHOUT S-CAM TUBES



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2070 INDUSTRIAL PLACE SE., CANTON, OH 44707-2600 U.S.A.

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

4 35.333 JPH 10-19-21  
REV. EGN NO. BY DATE

DRAWN BY J. HOFER 11/2/2021  
CHK'D BY S. BIRKEY  
APP'D BY K. EROMANN

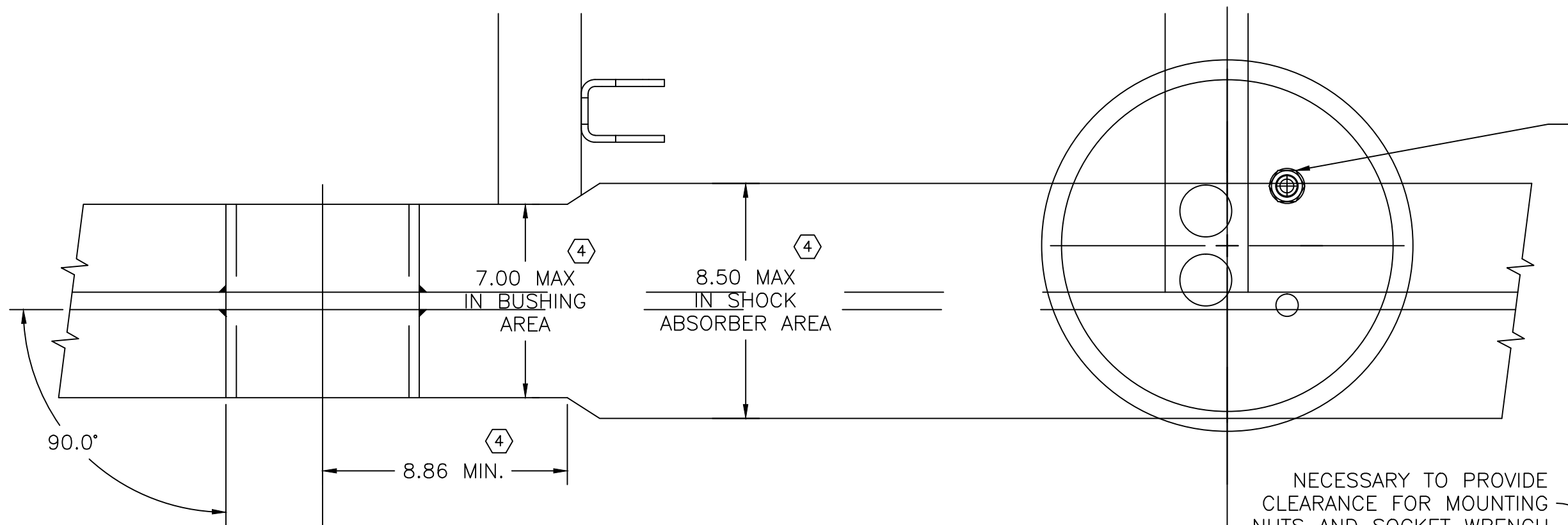
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HT250YS SUSPENSION  
INSTALLATION

SCALE 1:4  
SIZE D  
PAGE 2 OF 3  
DRAWING No. D-31943

SUGGESTED ATTACHMENT DETAIL

**CAUTION**  
FRAME CLEARANCE DETAIL



AIR SPRING PLATE  
SINGLE STUD (STD. ORENTATION)

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.

NECESSARY TO PROVIDE CLEARANCE FOR MOUNTING NUTS AND SOCKET WRENCH

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

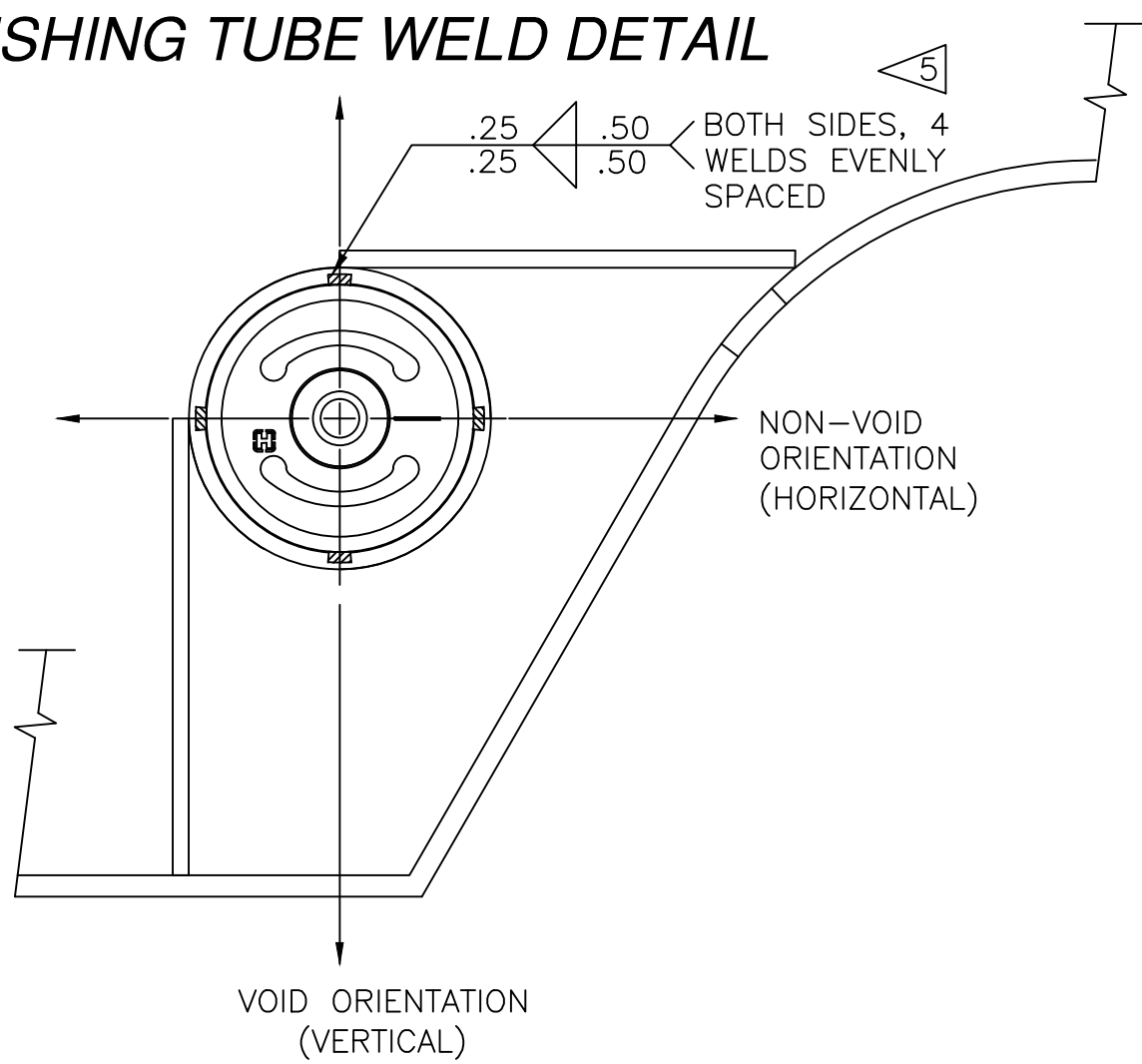
BUSHING SLEEVE WELD DETAIL

4 EACH FRAME .25 .25

THE CROSSMEMBER STRUCTURE AND LOCATIONS SHOWN HERE AND IN THE INSTALLATION MANUAL (L577) ARE RECOMMENDATIONS ONLY AND MAY VARY DEPENDING ON THE TRAILER DESIGN

THE BUSHING TUBE SLEEVE SUPPORT BRACE STRUCTURE AND LOCATIONS SHOWN HERE AND IN THE INSTALLATION MANUAL (L577) ARE RECOMMENDATIONS ONLY AND MAY VARY DEPENDING ON THE TRAILER DESIGN

BUSHING TUBE WELD DETAIL



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. CROSSMEMBERS AND/OR GUSSET MUST ADEQUATELY SUPPORT SHOCK ABSORBER BRACKETS. LOADS OF UP TO 8,000 LB CAN BE EXERTED THOUGH EACH SHOCK ABSORBER.
4. NOTICE: THE BUSHING TUBE SLEEVE MUST NOT CONTAIN A TRI-FUNCTIONAL BUSHING AT THIS TIME.
5. CAUTION: ALLOW ADEQUATE COOLING BETWEEN WELDS TO PREVENT EXCESSIVE HEATING OF THE TRI-FUNCTIONAL BUSHING.
6. SEE L64 TRAILER SUSPENSION SYSTEMS WELDING PROCEDURES FOR ADDITIONAL INFORMATION ON BUSHING TUBE ASSEMBLY, CROSS MEMBER, UPPER SHOCK BRACKET AND AIR SPRING MOUNT WELDING PROCEDURES.

**CAUTION**

CLEARANCE SPECIFICATIONS:

- a) 1.0 INCH MINIMUM REQUIRED BETWEEN TOP OF THE TIRE AND BOTTOM OF TRAILER STRUCTURE WHEN AXLE IS AT FULL JOUNCE.
- b) 2.0 INCHES MINIMUM REQUIRED BETWEEN INSIDE OF TIRE AND TRAILER STRUCTURE FOR LATERAL MOVEMENT.
- c) 1.0 INCH MINIMUM CLEARANCE MUST BE MAINTAINED AROUND AIR SPRING WHEN IT IS AT MAXIMUM DIAMETER.
- d) ALLOW 1.5 INCHES AROUND FORWARD SECTION OF BEAM ASSEMBLY FOR SUSPENSION MOVEMENT.

4 AIR SPRING PLATE  
SINGLE COMBO STUD ROTATED  
DETAIL

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

1.25 MIN

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UNLESS OTHERWISE NOTED:			
TOLERANCES ARE:	DIMENSIONS ARE:	INCHES	
.X: ±	3	35.333	JRH
.XX: ±	3	32.721	BM
.XXX: ±	2	20.113	KJE
ANGULAR: ±	1	19.082	KJE

10-19-21	10-19-21	10-19-21	10-19-21
06-03-19	06-03-19	06-03-19	06-03-19
09-08-11	09-08-11	09-08-11	09-08-11
06-14-11	06-14-11	06-14-11	06-14-11

DRWN BY	K. ERDMANN
CHKD BY	C. RADCLIFF
APP'D BY	S. BATES

2-3-11	2-3-11
06-03-19	06-03-19
09-08-11	09-08-11
06-14-11	06-14-11

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HT250YS SUSPENSION  
INSTALLATION

SCALE	SIZE	PAGE
.250=1.00	D	3 OF 3
DRAWING NO.	D-31943	4

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