



9600-9700



Trailer Suspension Series

Installation Instructions



Advancing the Practical Application of Suspension Technology

Springfield, MO ■ (800) 654-8824 ■ (417) 862-5012
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This installation manual has been prepared to pass along to you our recommendations for attaching “Hutch” suspension components to trailer frames, subframes and axles. Unless otherwise noted, the same procedures apply whether you are installing fabricated or cast steel components.

The following illustrations are intended to show those proven welding and bolting practices which over the years have played an important part in achieving the high level of performance for which all “Hutch” suspensions are designed. *These should be considered as minimum requirements.* Anytime heavier than legal loads or abnormal service is anticipated, additional reinforcing must be provided. These recommendations also point to the need for adequate support and stabilization for each of the various types of hanger mountings. Since there are many variations in subframe design, this aspect of proper hanger installation must – in the final analysis – be assumed by the trailer or subframe manufacturer.

In regard to welding, we realize that specification of the electrode, as well as preparation and post-treatment of the weld area, is dependent in some instances upon the composition and thickness of the subframe and axle materials. Therefore, should there be any doubt as to the proper selection of the welding process to be used, subframe and axle manufacturers should be consulted. Should these manufacturers have higher requirements, then their instructions should be followed.

Many of the accompanying illustrations also include metric equivalents in (mm). Please read the “Assembly Instructions” which follow the accompanying illustrations. Should further information relating to installation procedures or component dimensions be required, please contact Hutchens’ Engineering Department for assistance.

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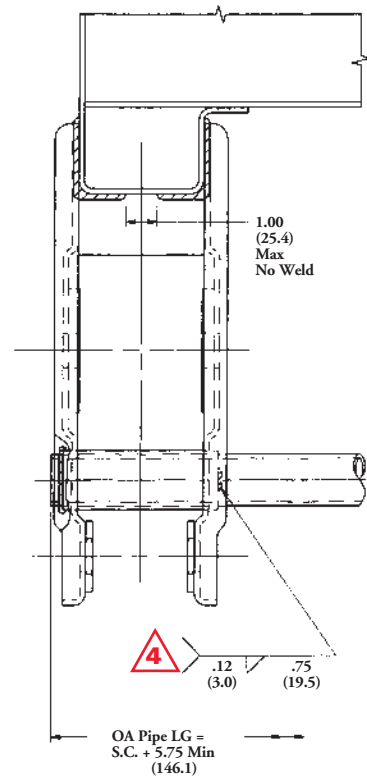
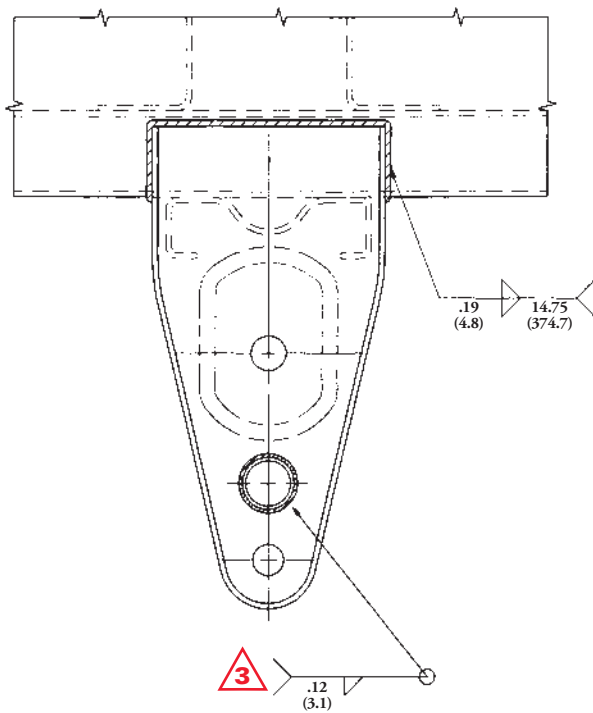
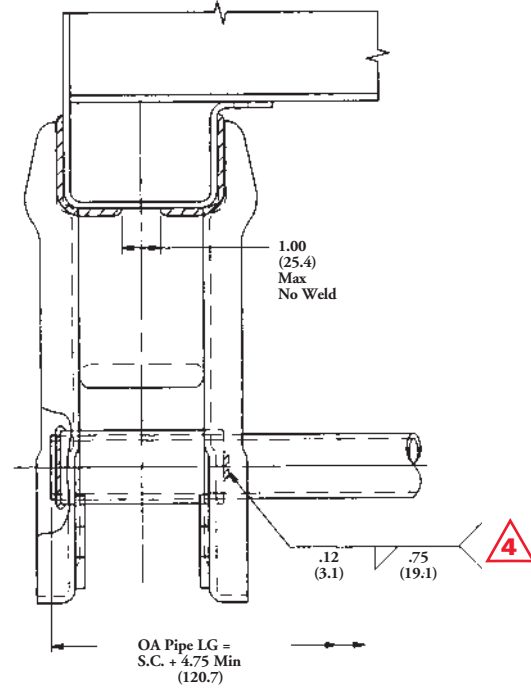
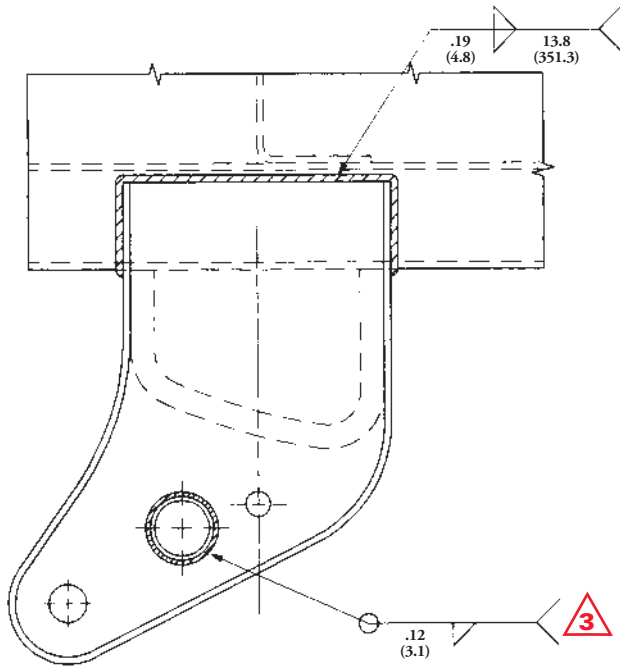
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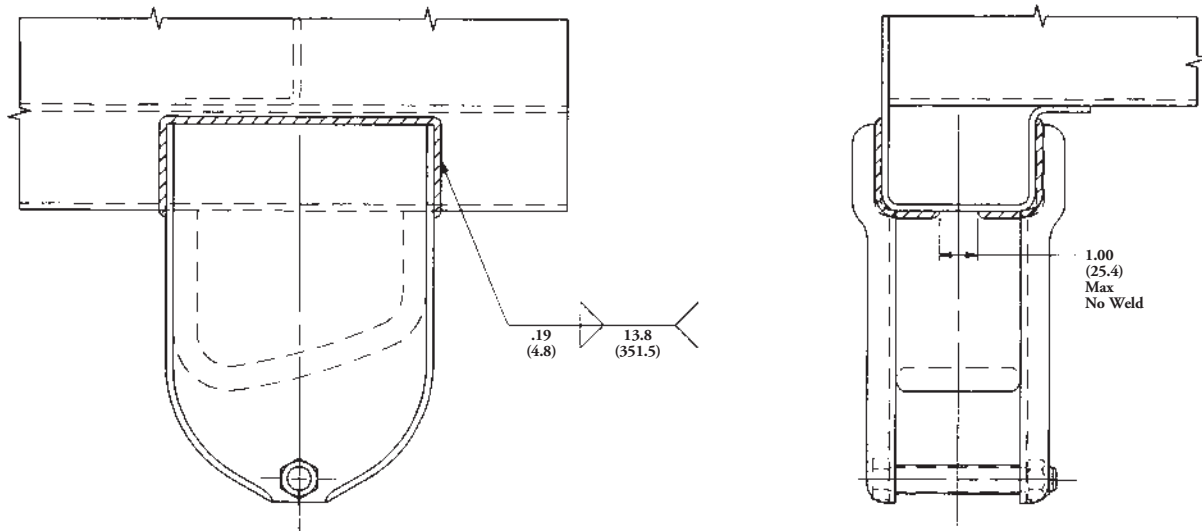
Important: Warning Decal Note

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Straddlemount Hangers





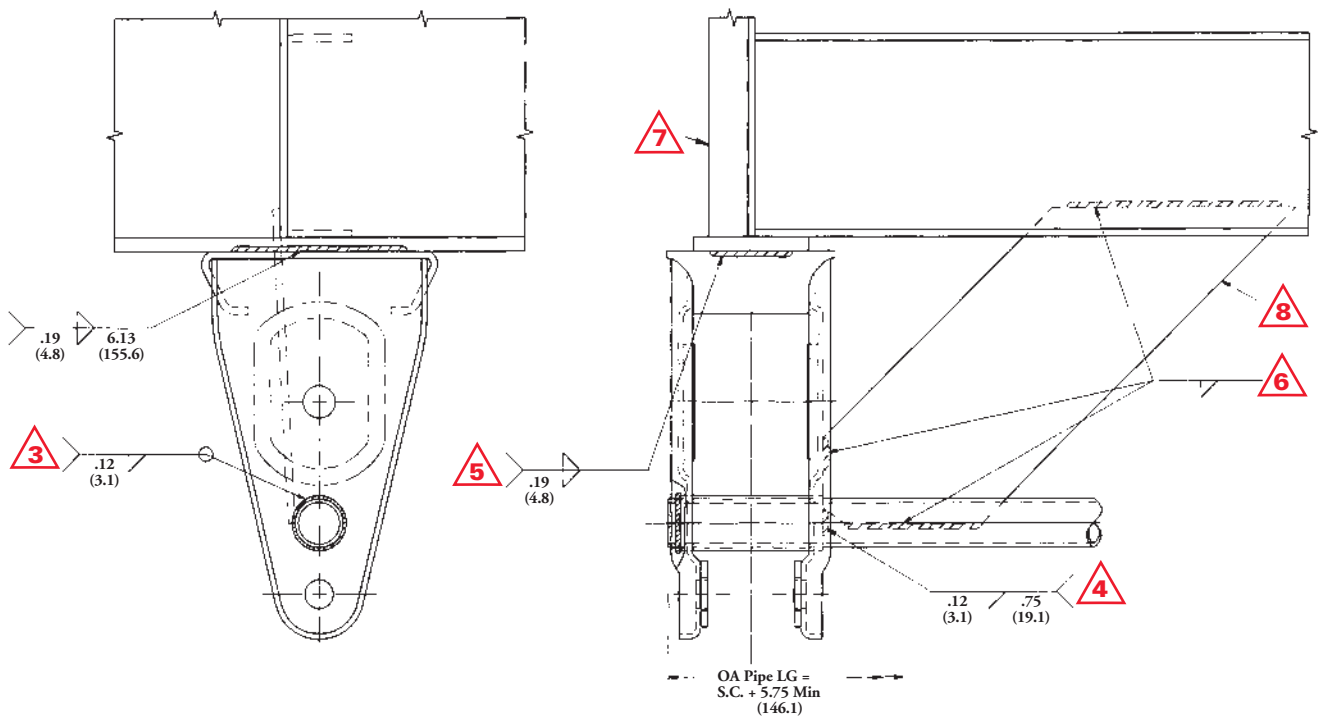
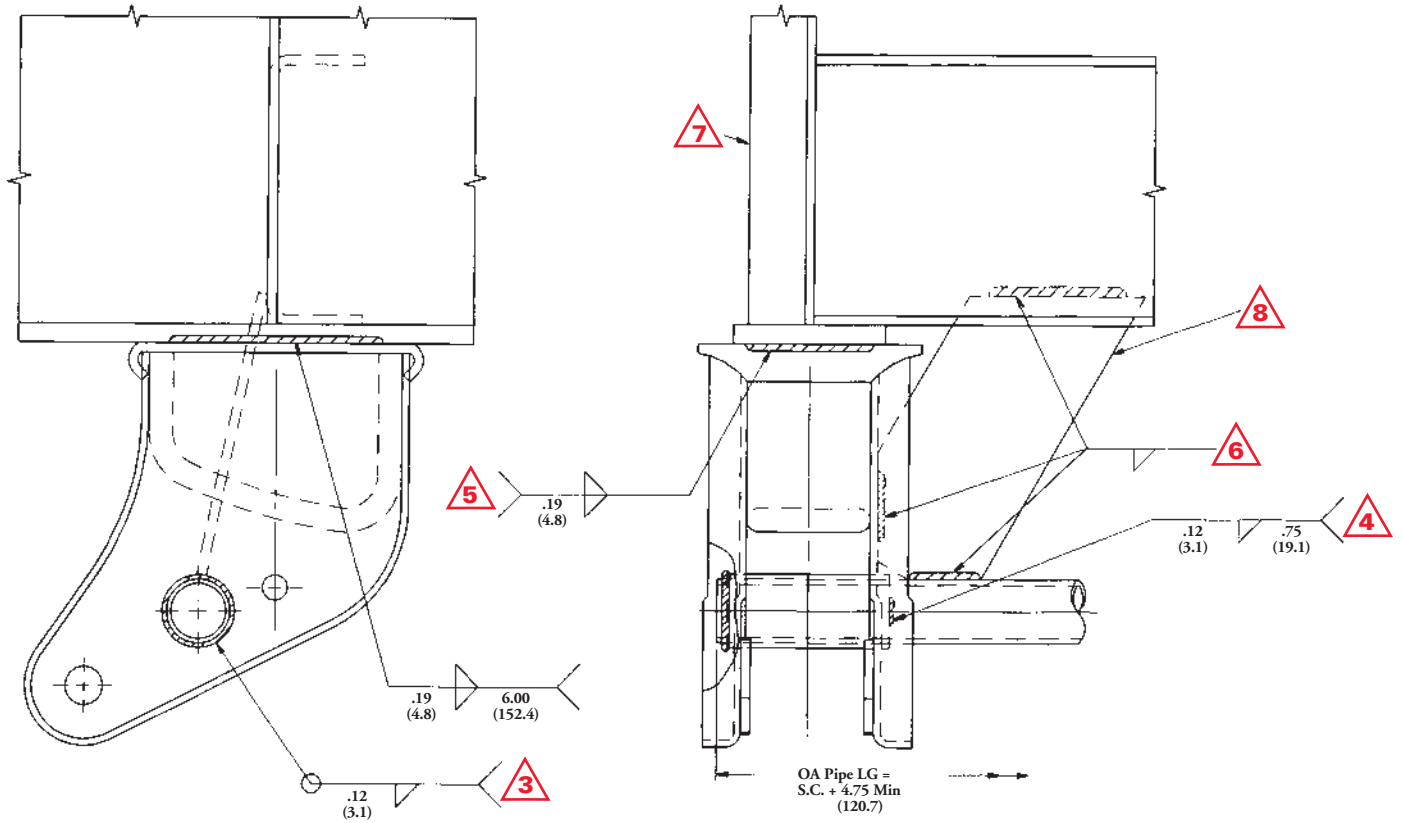
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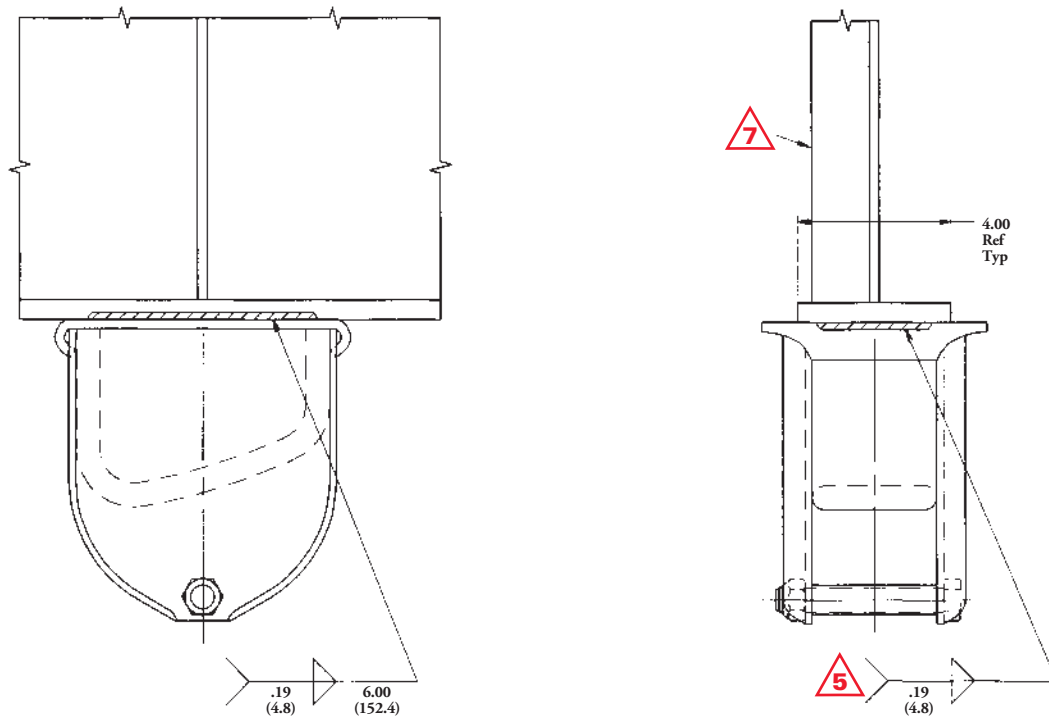
Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Straddle Mount** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Undermount Hangers: 4" I-Beam Flange





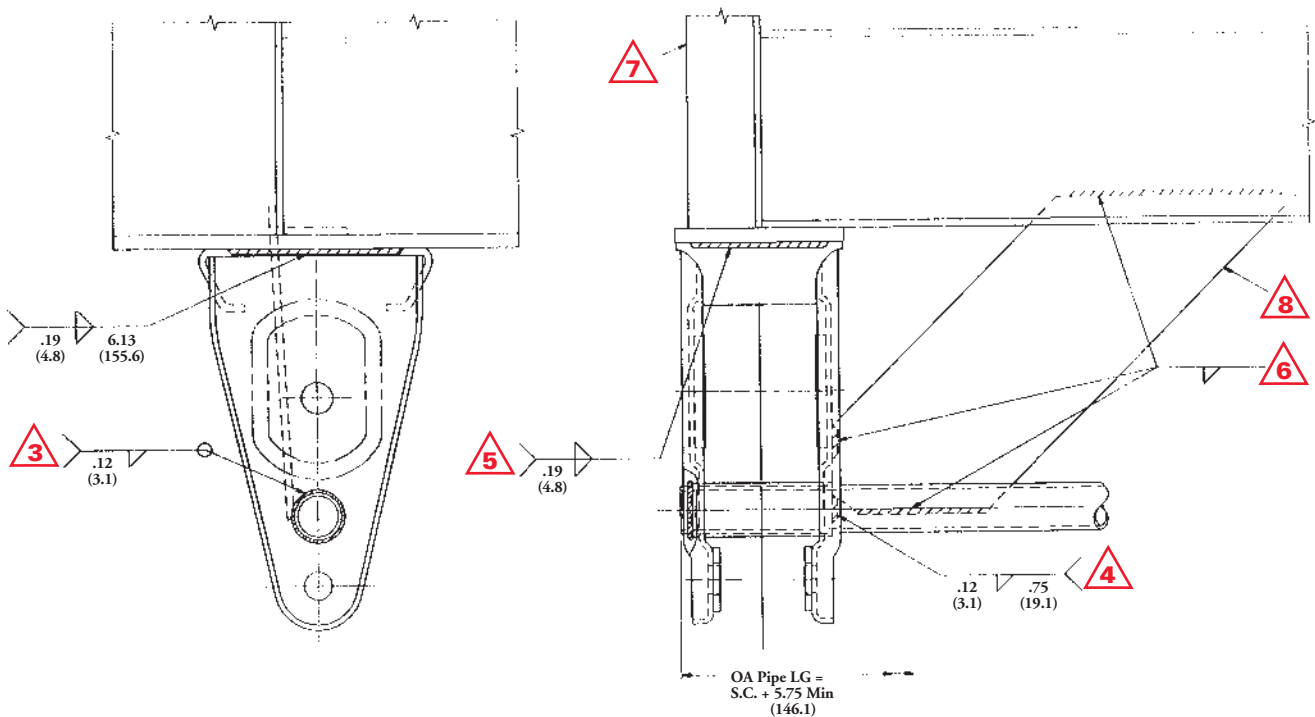
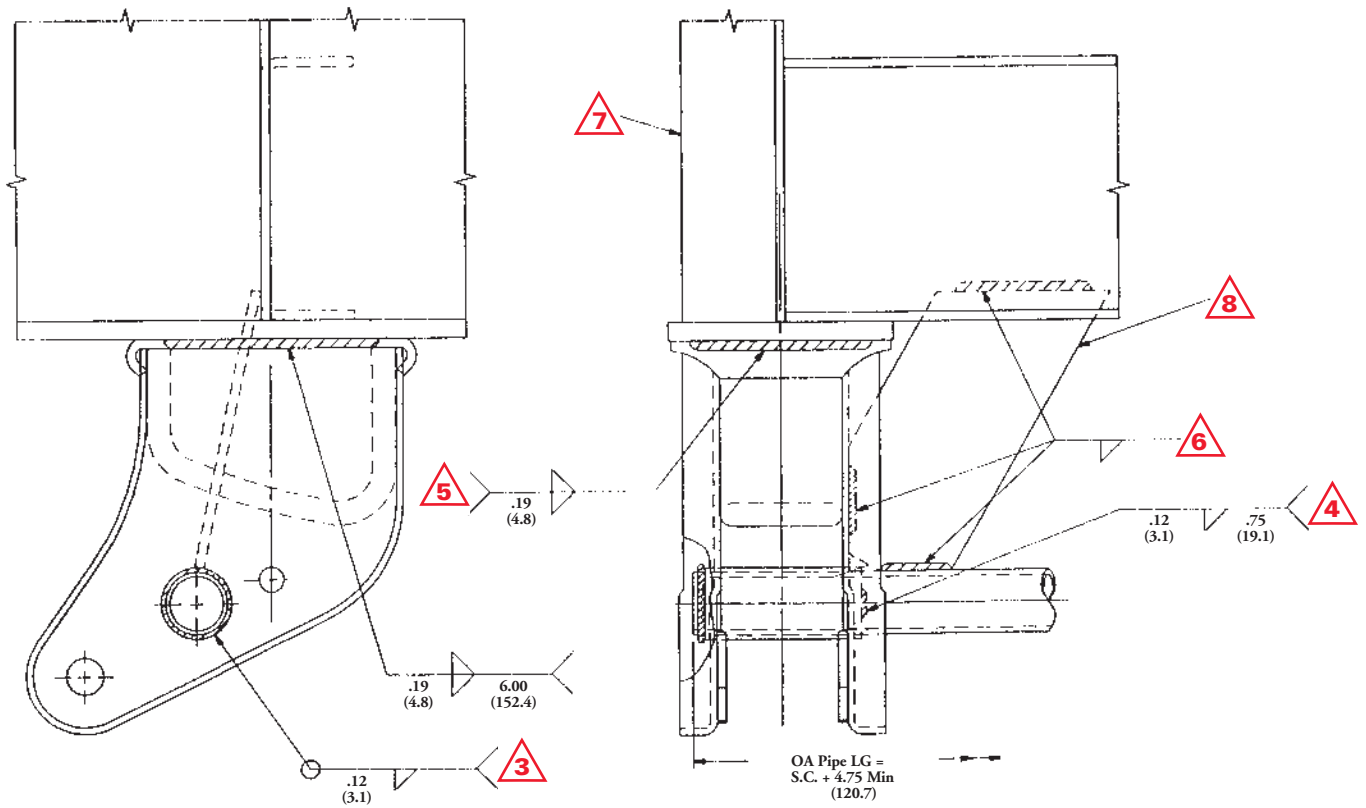
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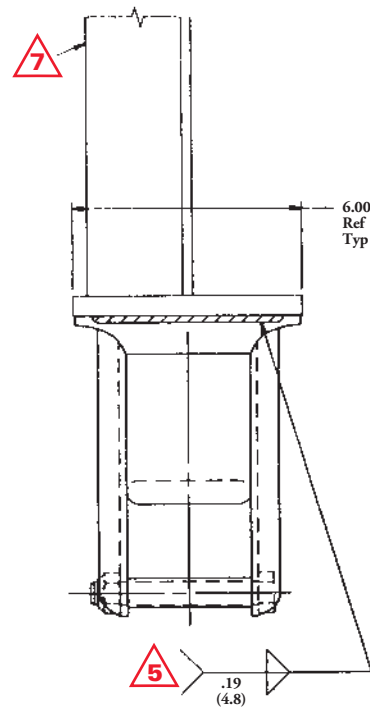
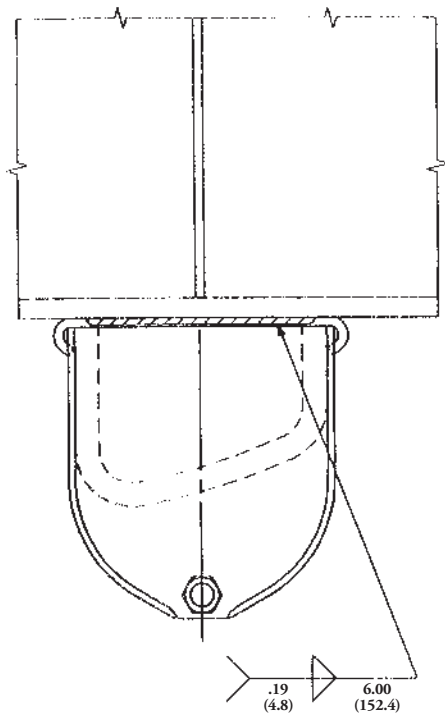
Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Undermount** suspension hangers to a **4" I-Beam Flange**. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
6. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
7. Stiffeners may be required on both sides of web depending on flange width and thickness.
8. Gusset proportions shown are for reference only. The final size and orientation of the lateral hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
9. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Undermount Hangers: 6" I-Beam Flange





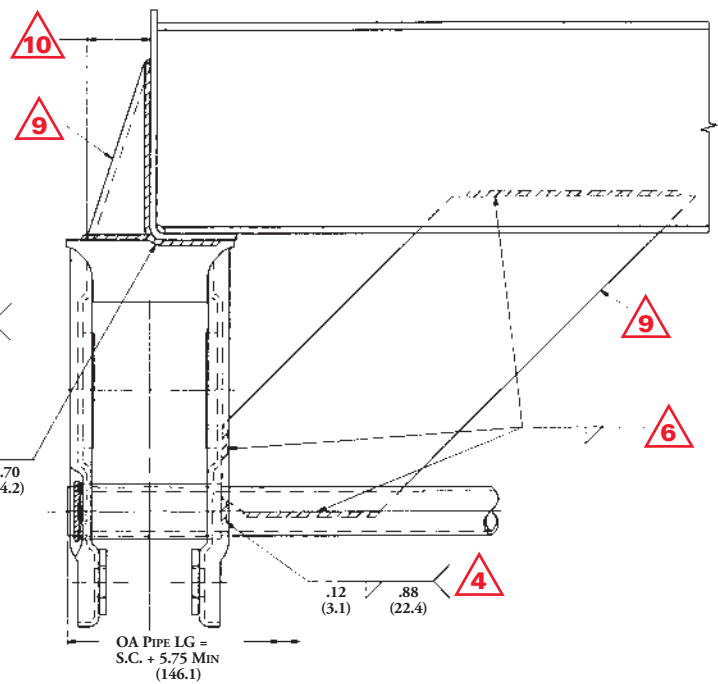
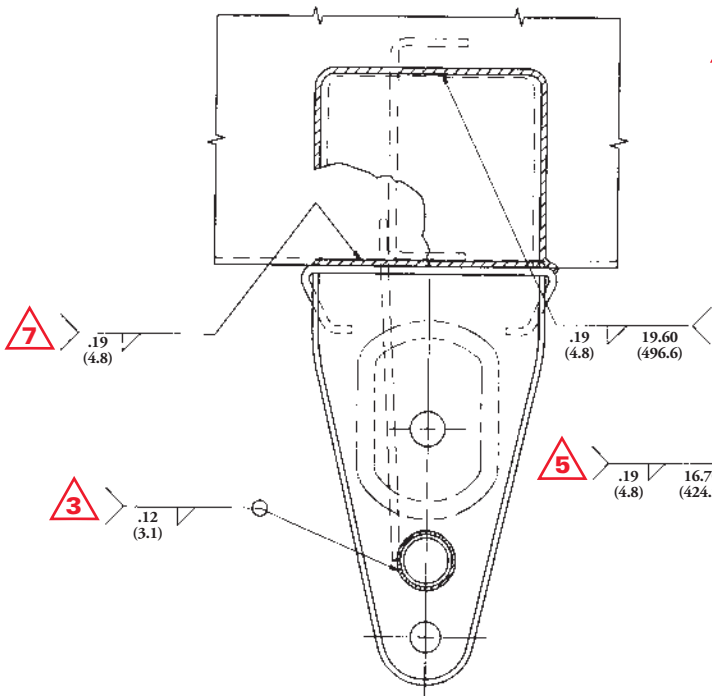
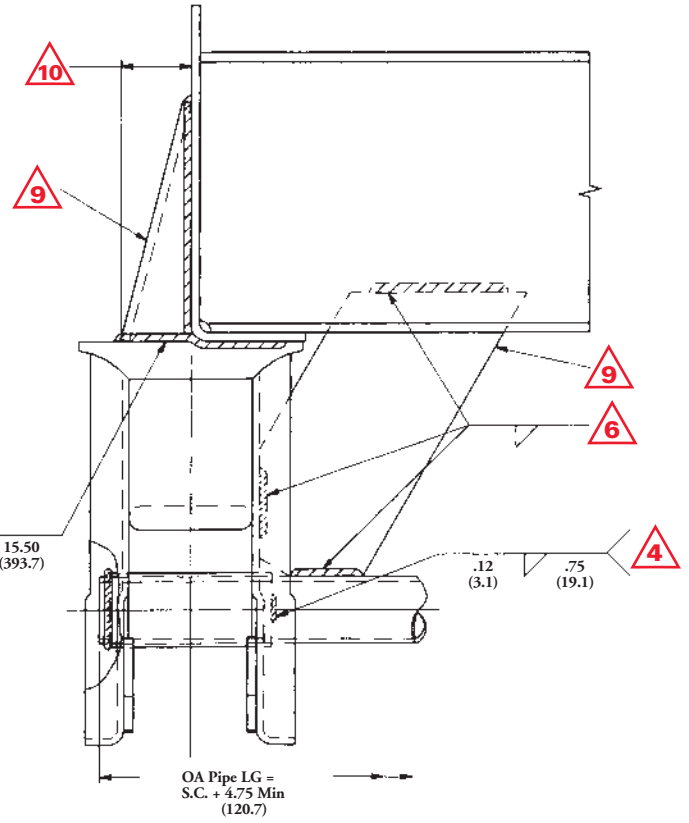
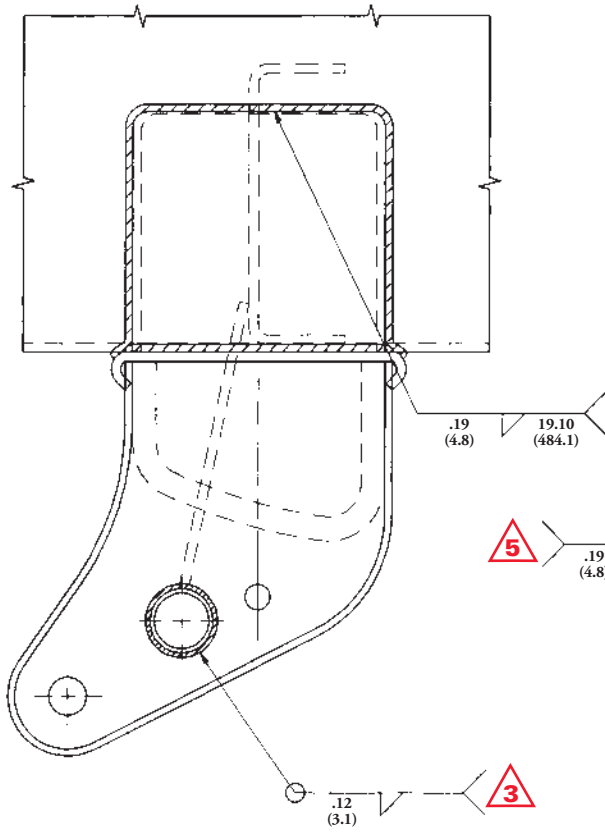
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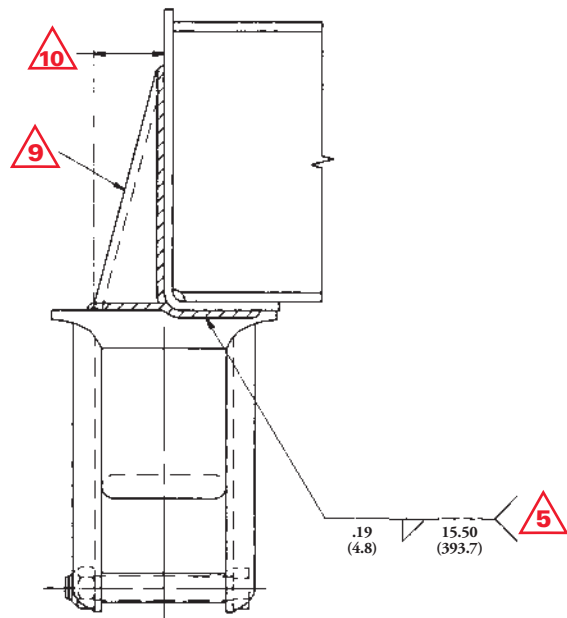
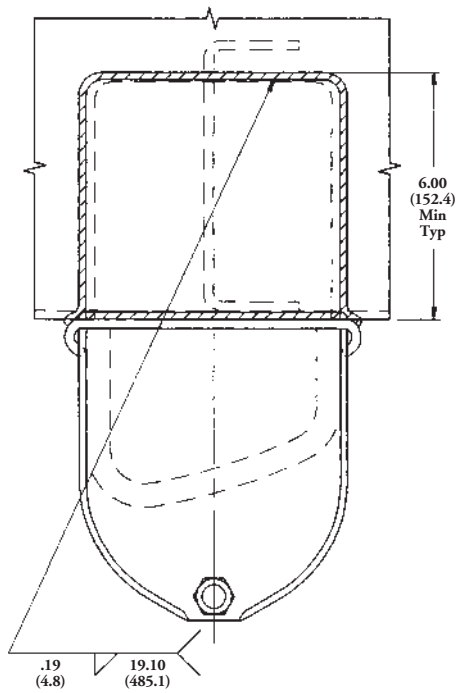
Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Undermount** suspension hangers to a **6" I-Beam Flange**. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
6. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
7. Stiffeners may be required on both sides of web depending on flange width and thickness.
8. Gusset proportions shown are for reference only. The final size and orientation of the lateral hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
9. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Undermount Hangers: "C" Channel





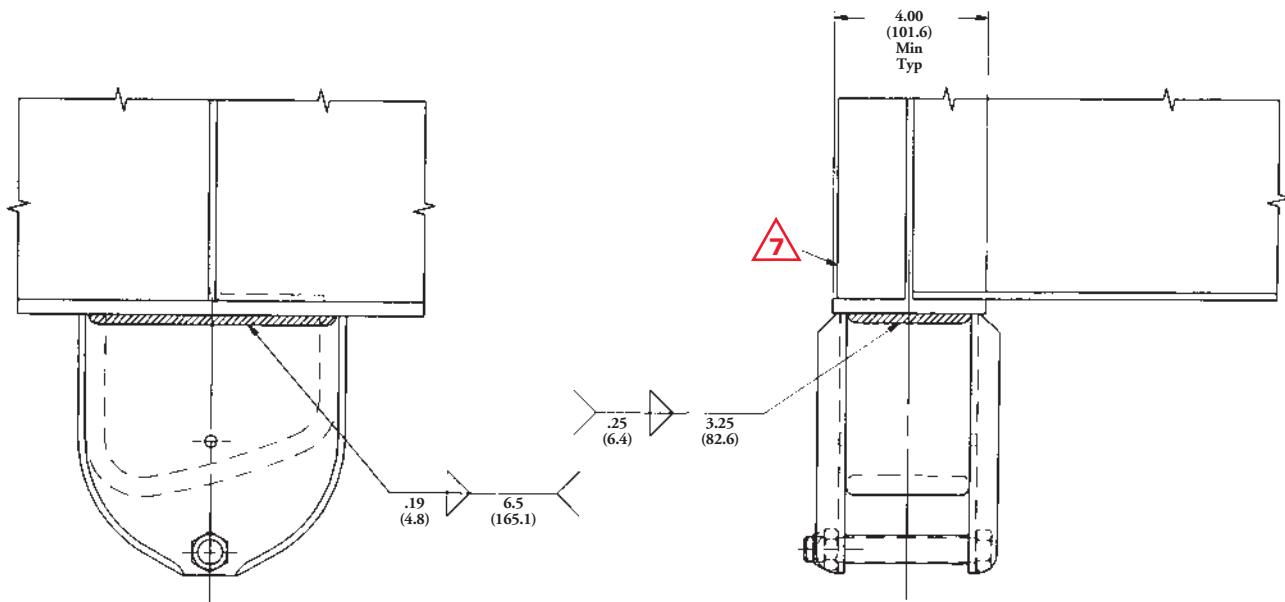
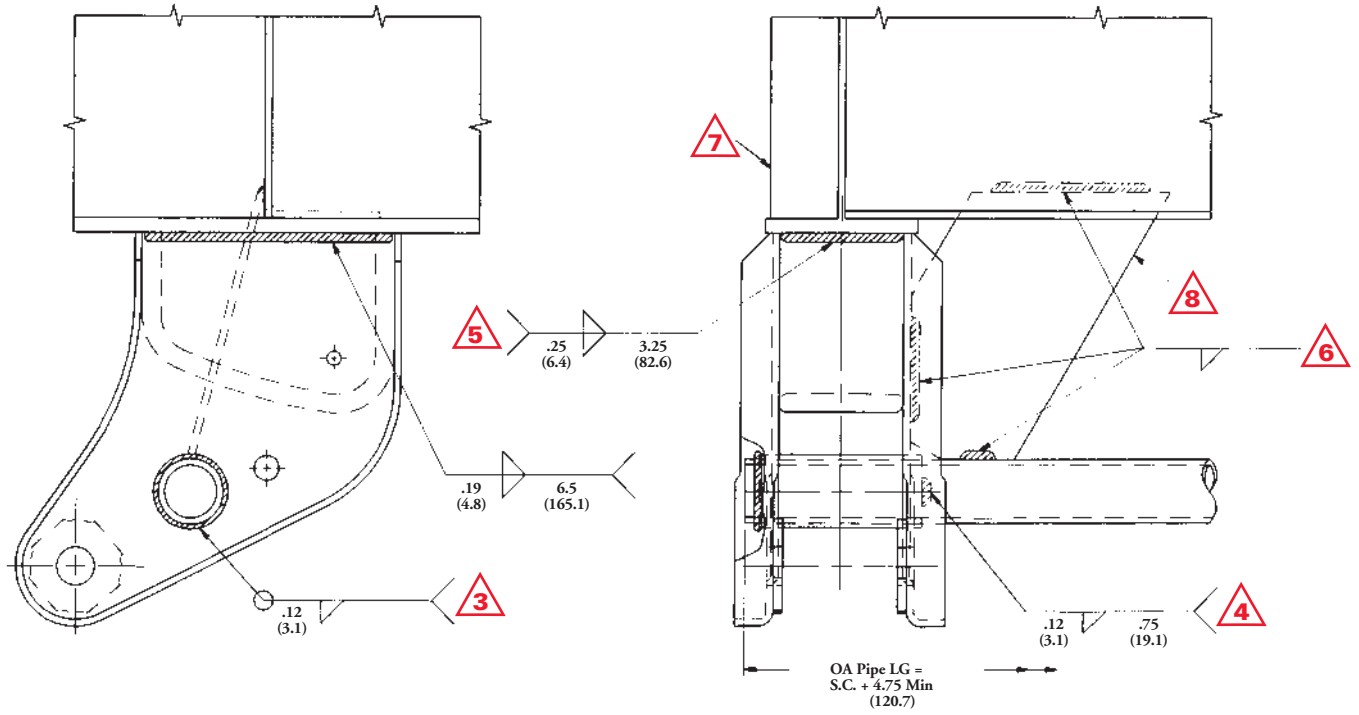
Assembly Instructions

Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Undermount** suspension hangers to a “C” **Channel Frame**. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
6. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
7. Apply full length weld along hanger to siderail before attaching gusset. Typical of all hangers.
8. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.
9. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the gussets should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
10. Lower end of gusset to be even with hanger sideplate.



Undermount I-Beam Hangers



Assembly Instructions

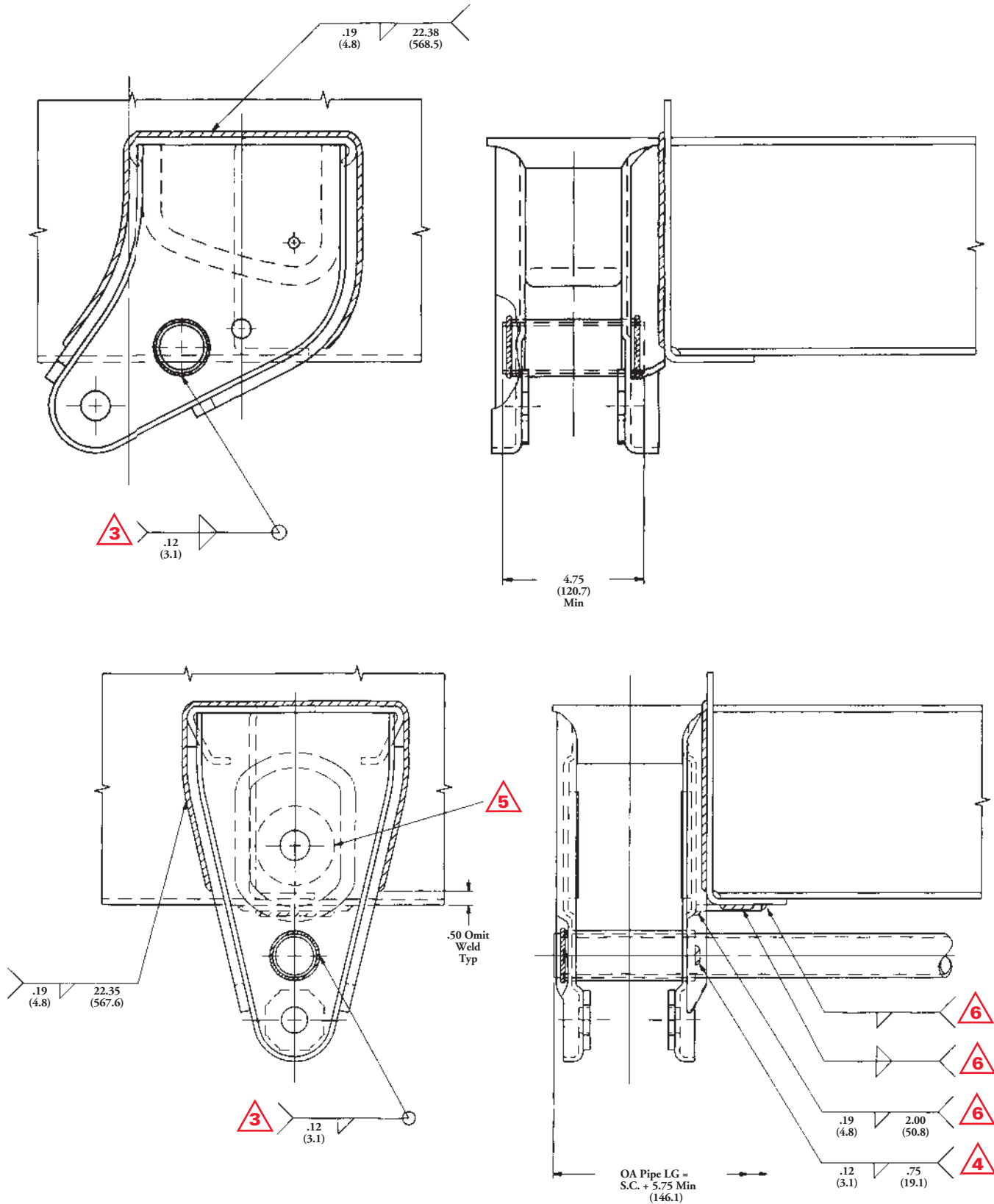
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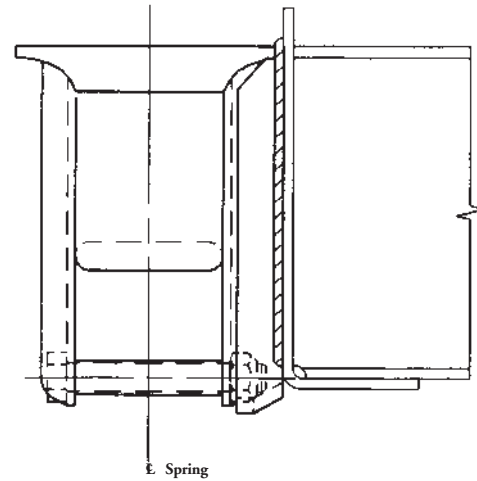
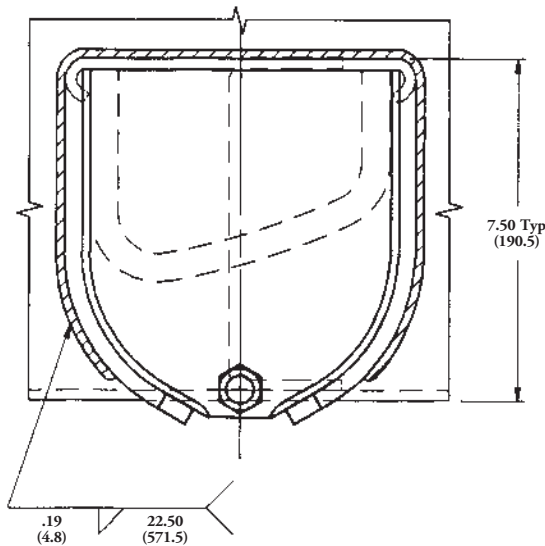
1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Undermount I-Beam** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front hangers. Weld must penetrate hanger side plate and pipe brace.
5. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
6. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
7. Stiffeners may be required on both sides of web depending on flange width and thickness.
8. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the gussets should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential.
9. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Sidemount Hangers: "C" Channel

(Type 1 Installation)





Assembly Instructions

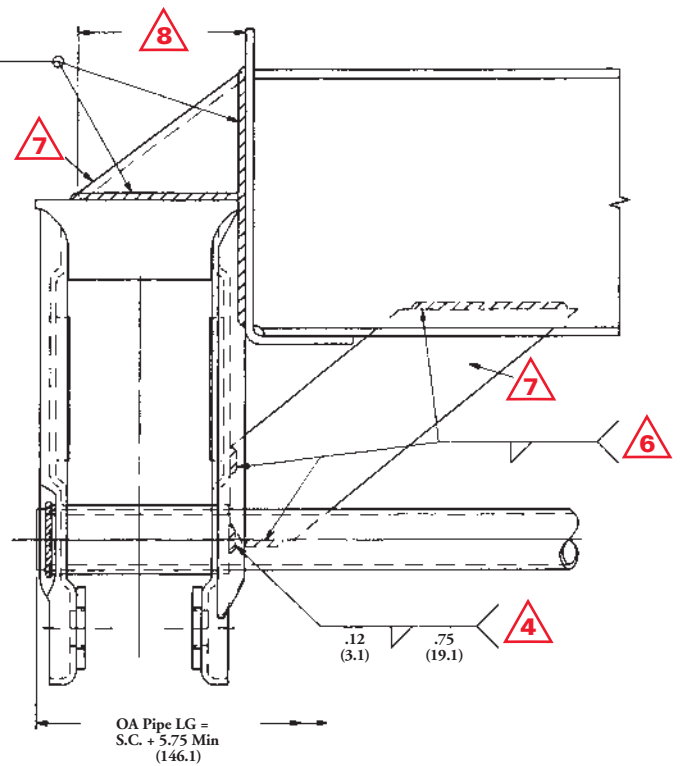
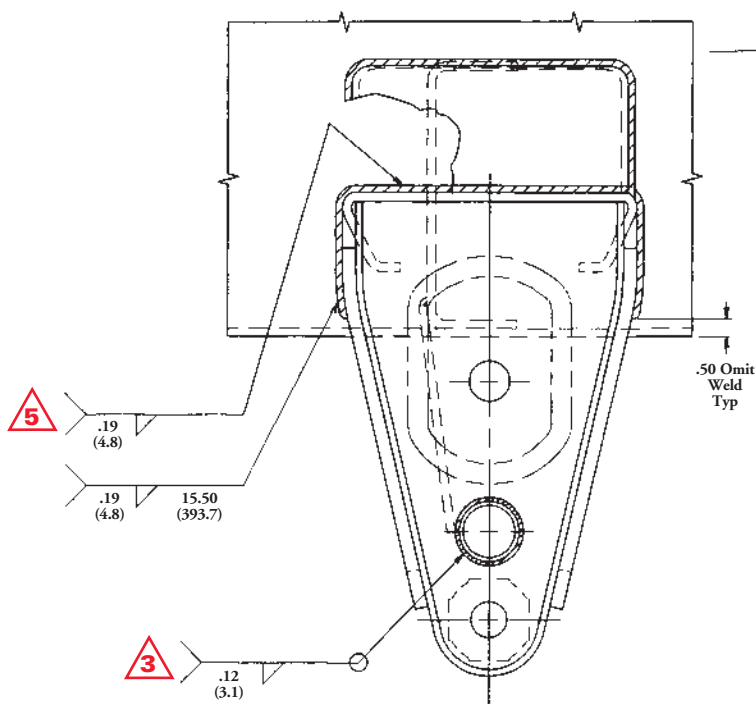
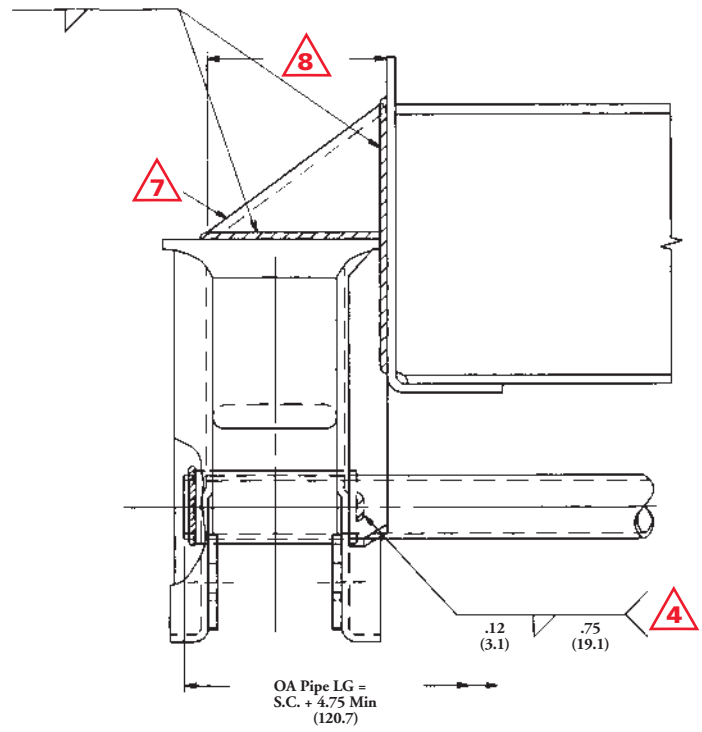
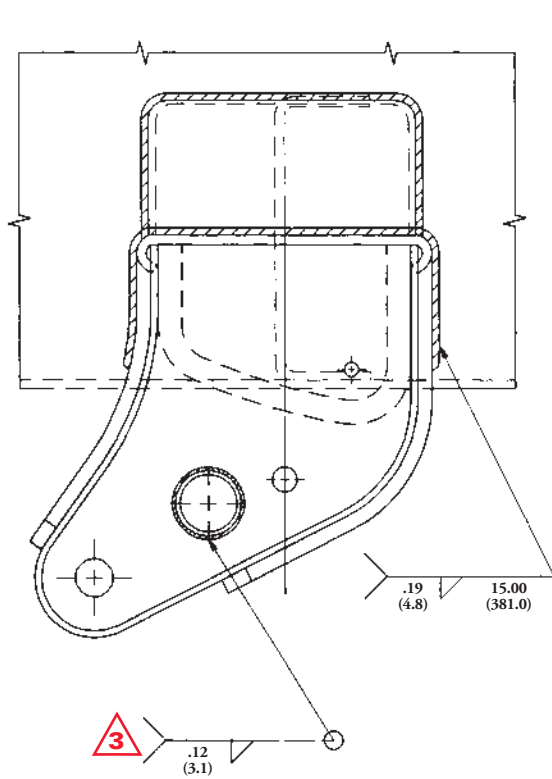
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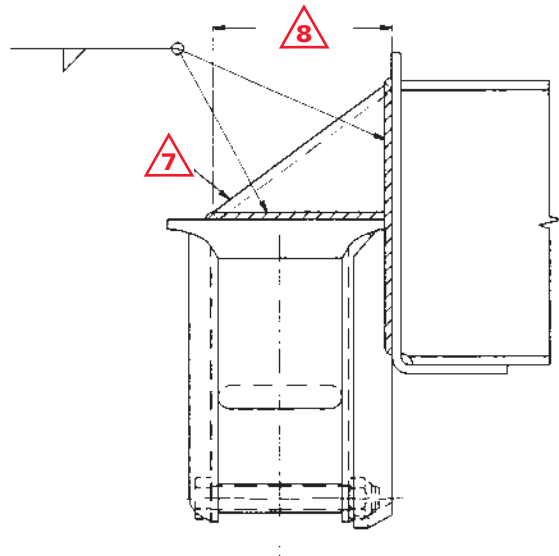
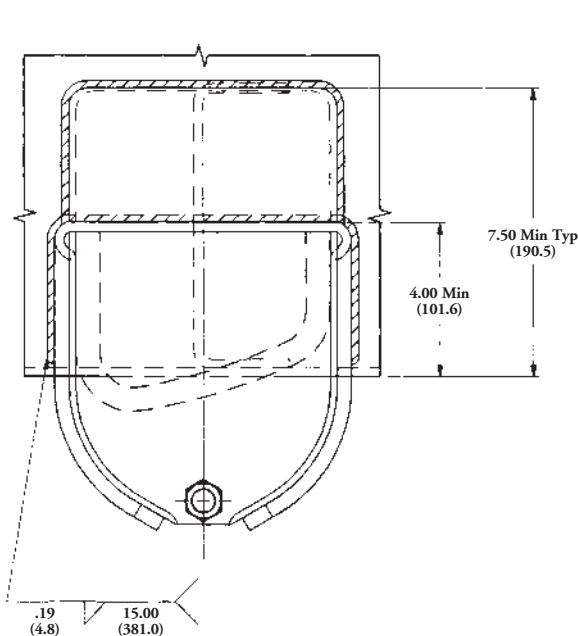
1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Sidemount** suspension hangers to a “C” **Channel Frame** with a frame lap of 7.5". The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Consider clearance for 1.125" rocker bushing bolt.
6. Weld .25" thick x 2.50" tieplate to inside of center hanger and to frame rail.
7. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Sidemount Hangers: "C" Channel

(Type 2 Installation)





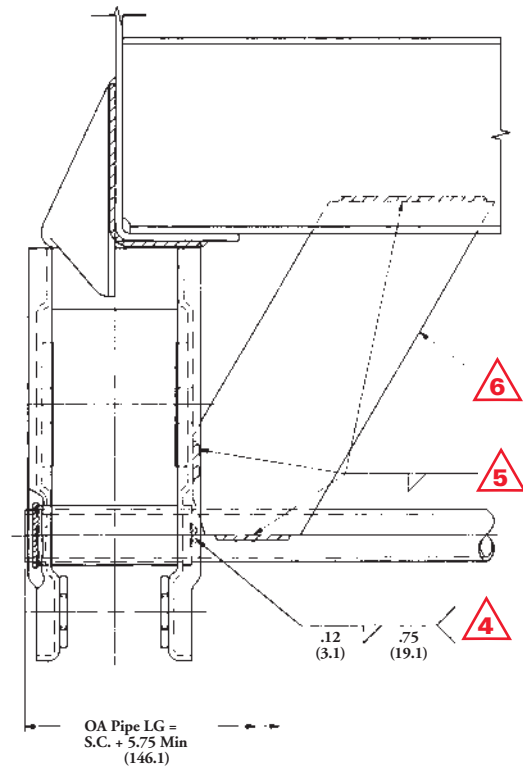
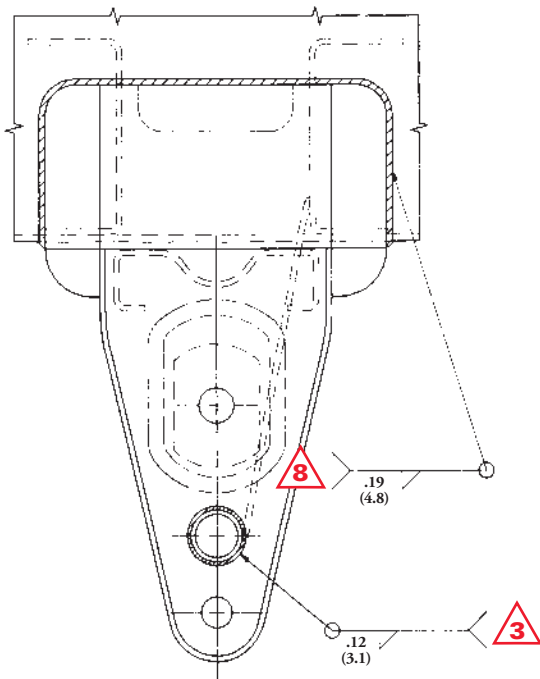
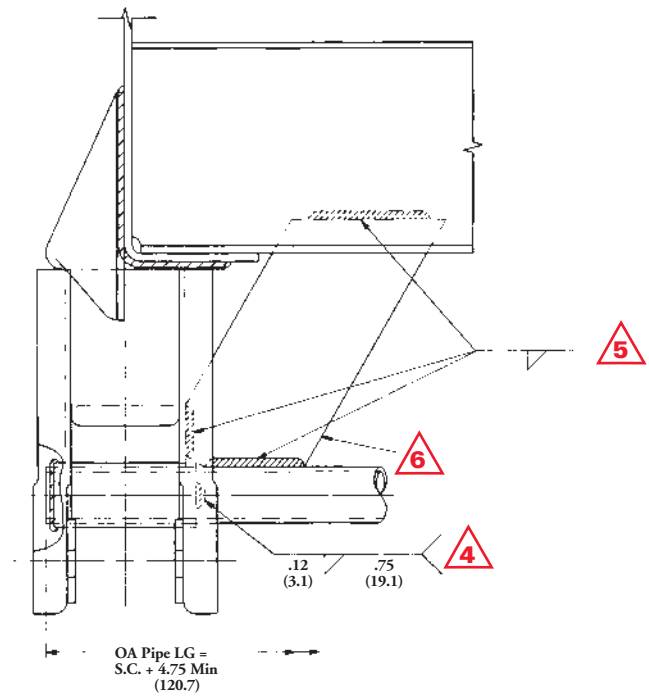
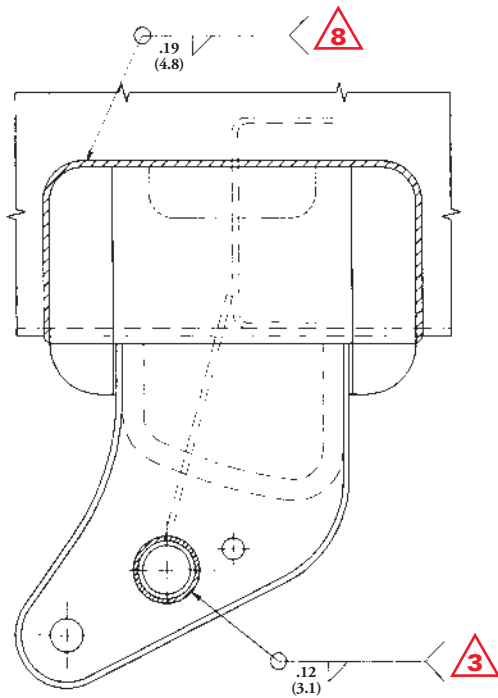
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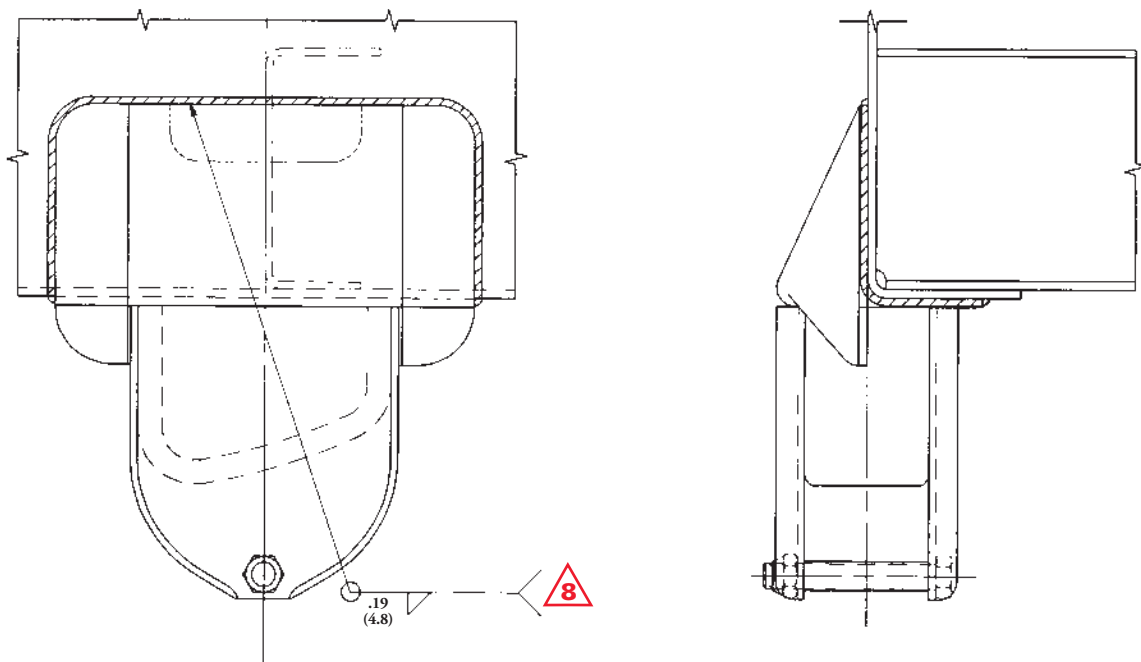
Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Sidemount** suspension hangers to a "**C**" **Channel Frame** with a minimum lap of 4". The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Apply full length weld along hanger to siderail before attaching gusset. Typical of all hangers.
6. Weld gusset to pipe, inside of center hangers, and to crossmember web.
7. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the lateral hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
8. Lower end of gusset to be even with hanger sideplate.
9. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



Flangemount Weld-On Hangers





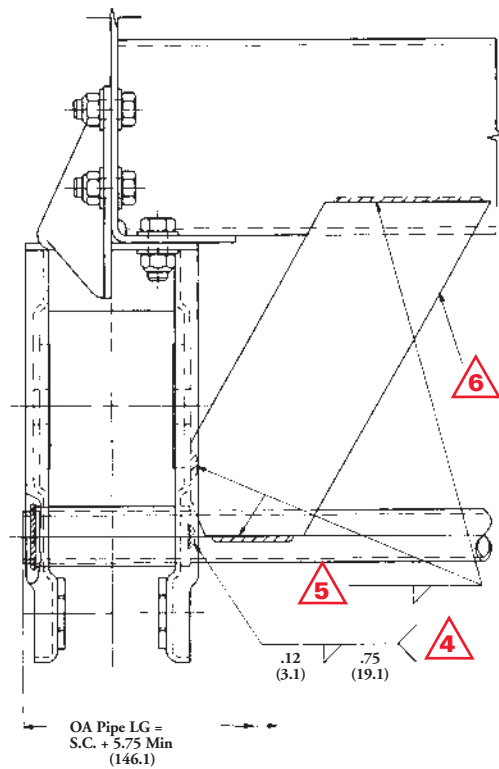
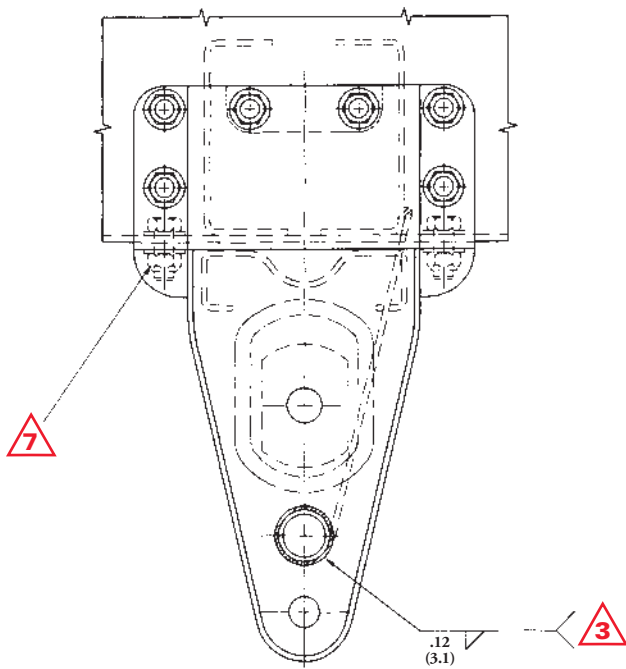
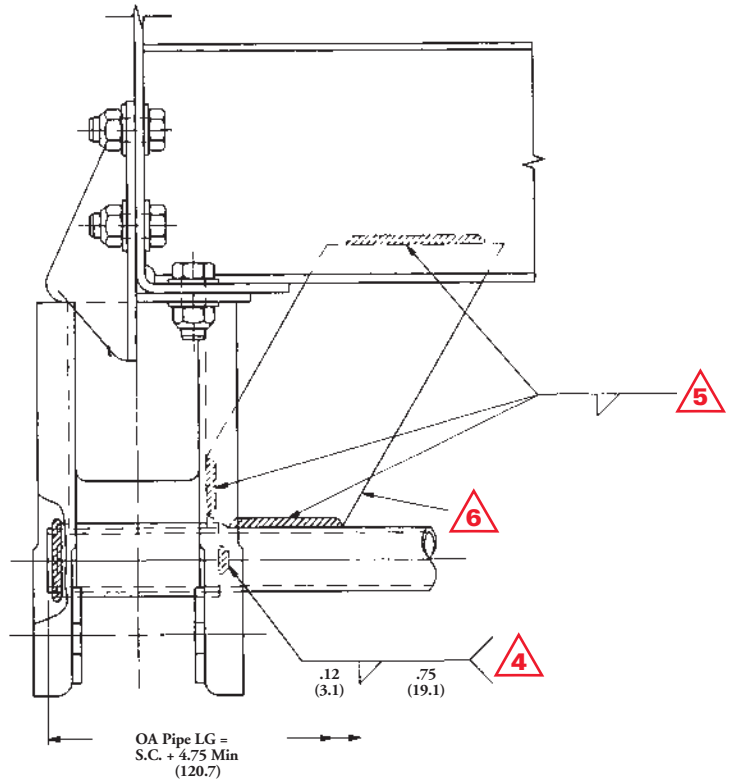
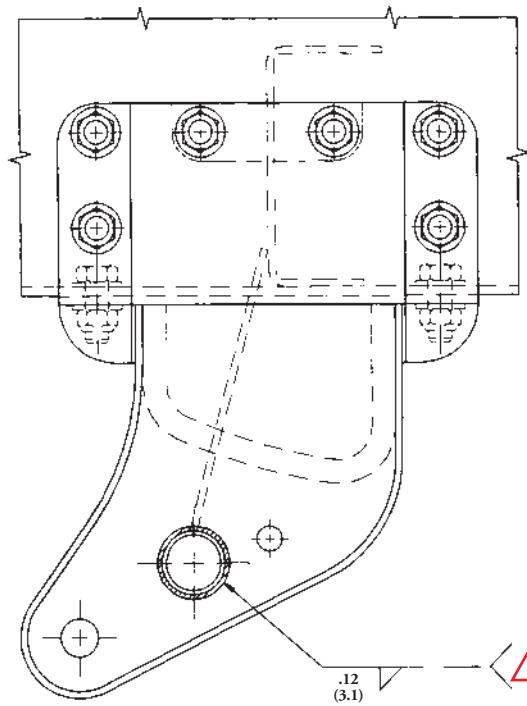
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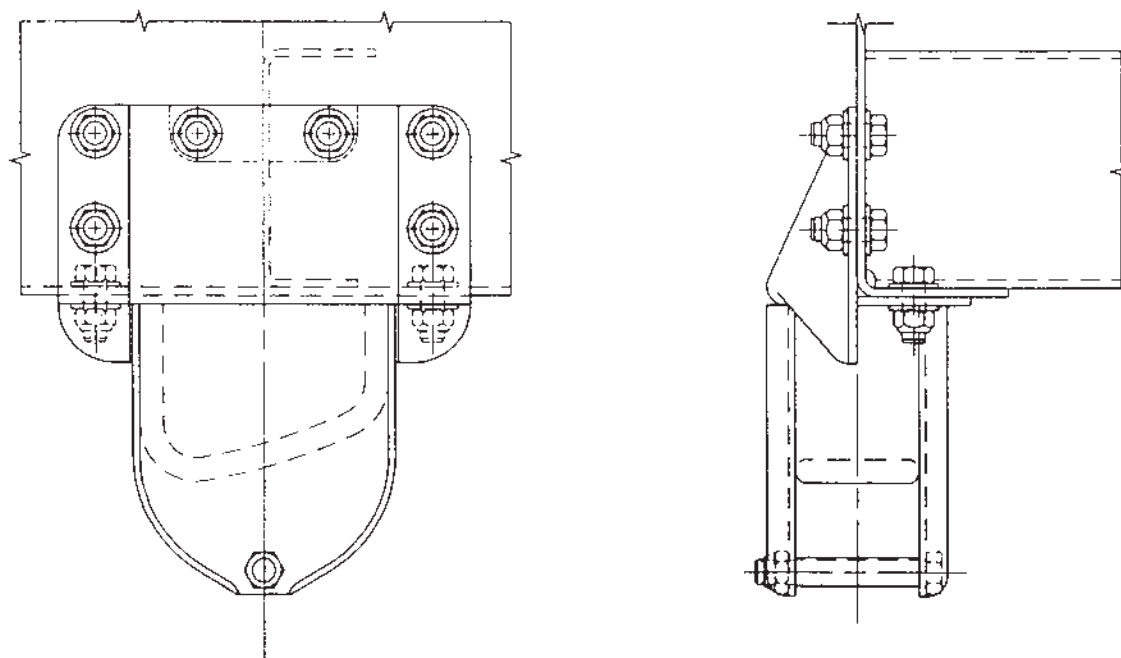
Notes

1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Flangemount Weld-On** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
6. Gusset proportions shown are for reference only. The final size and orientation of the lateral hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.
8. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.



Flangemount Bolt-On Hangers





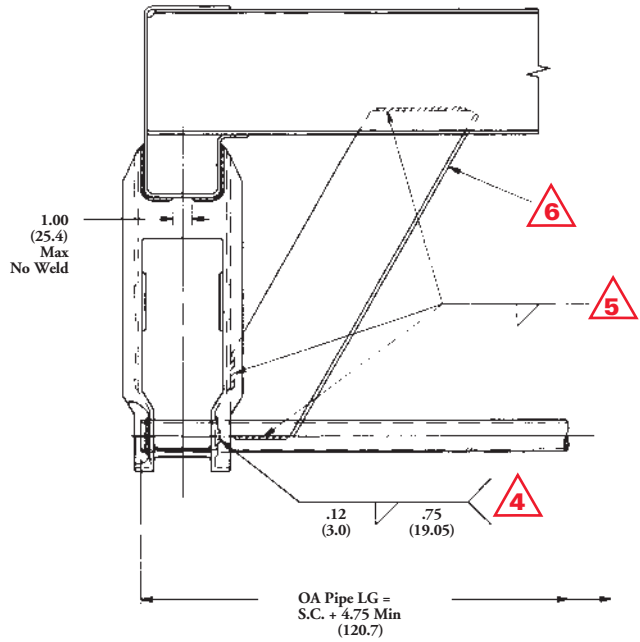
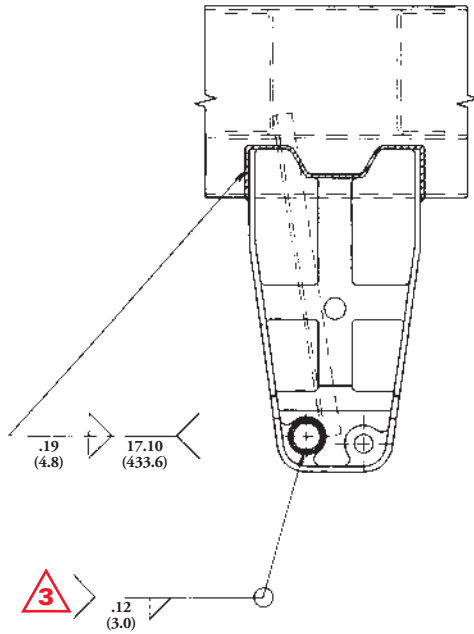
Assembly Instructions

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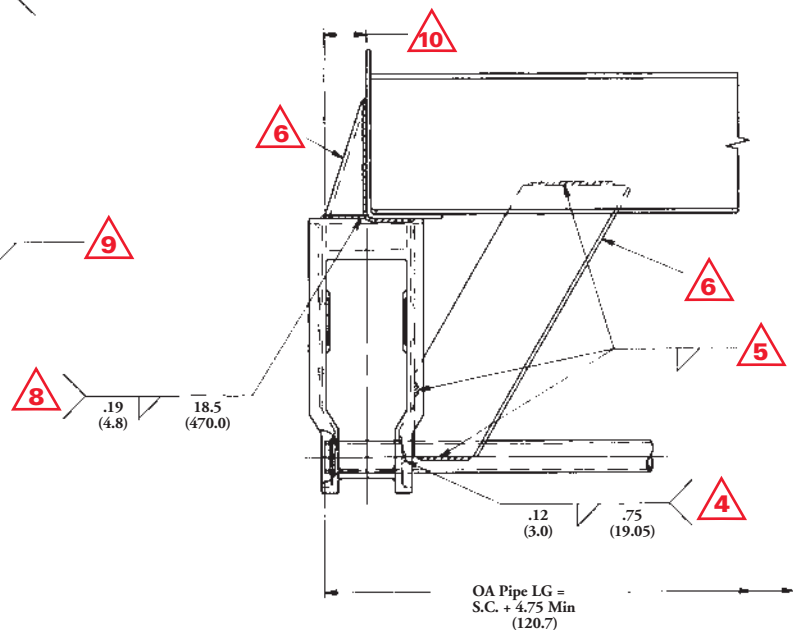
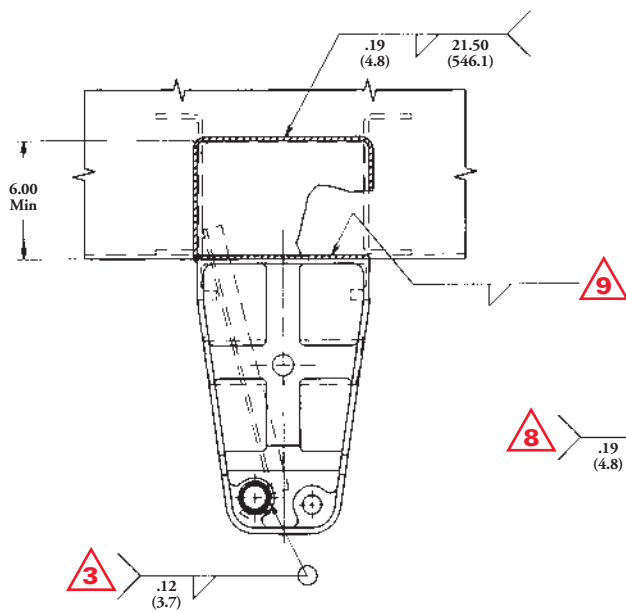
1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Flangemount Bolt-On** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown at the front and center hangers. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of front and center hangers, and to crossmember web.
6. Gusset proportions shown are for reference only. The final size and orientation of the lateral hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. Minimum .625" Grade 5 fasteners.
8. Refer to hanger detail drawings for bolthole pattern.
9. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.



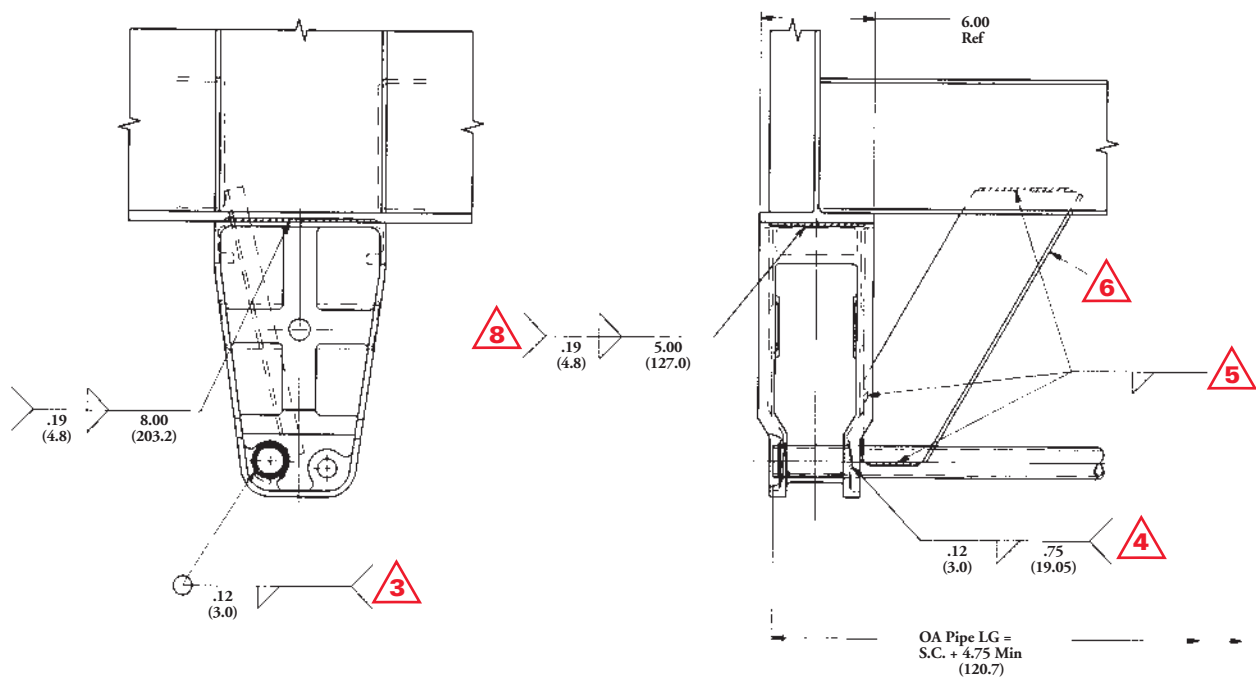
Intermediate WS Center Hangers



Straddlemount Hangers



Undermount Hangers: "C" Channel



Undermount Hangers: I-Beam

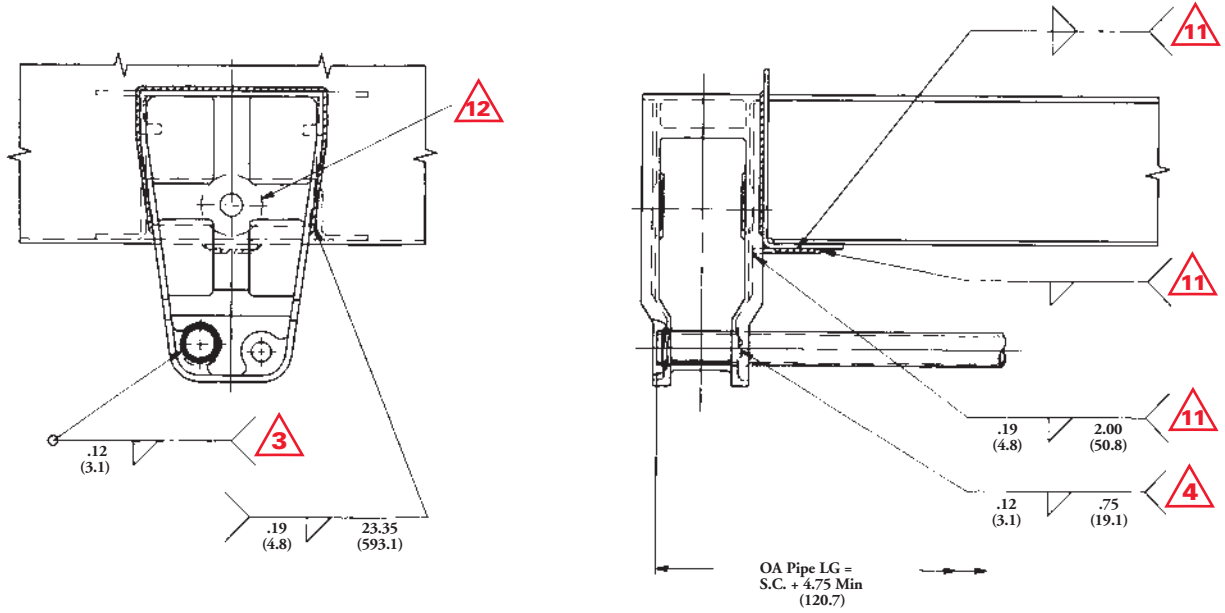
Assembly Instructions

Notes

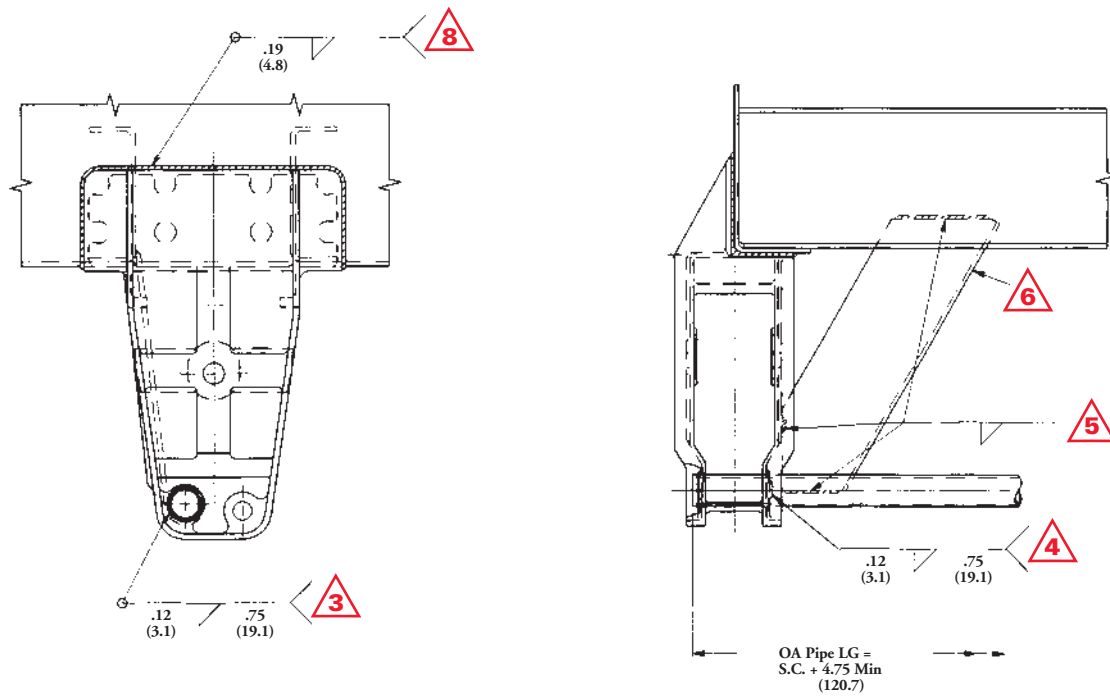
1. This recommendation is intended to provide a general guideline for the installation of the cast **Intermediate Widespread Center** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of center hangers, and to crossmember web.
6. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.
8. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
9. Apply full length weld along hanger to siderail before attaching gusset.
10. Lower end of gusset to be even with hanger sideplate.



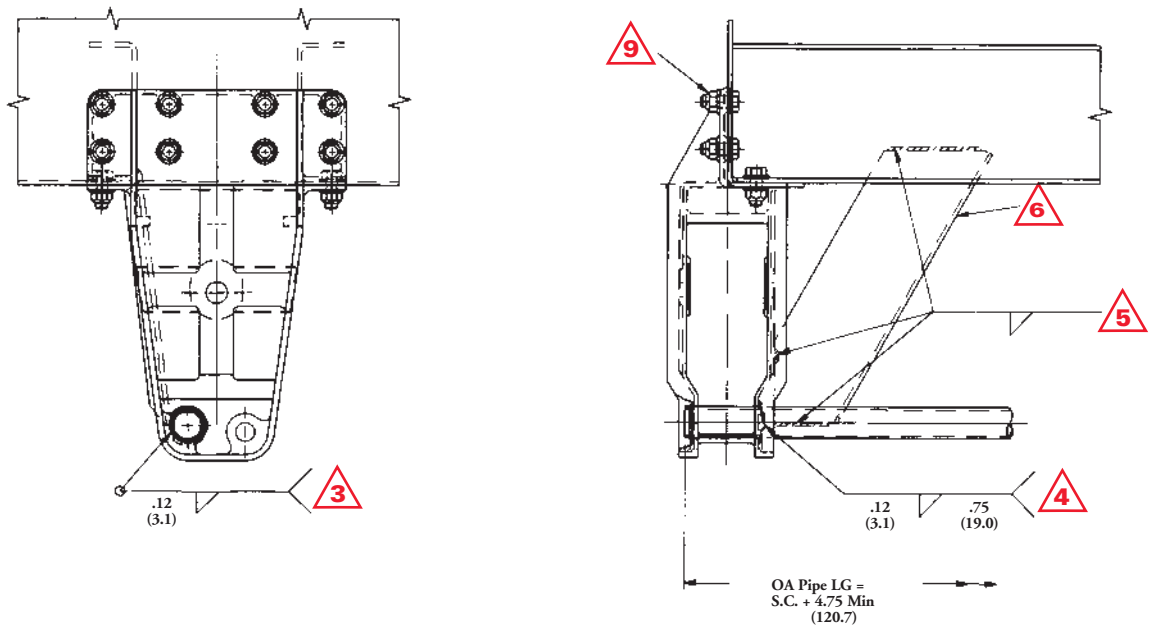
Intermediate WS Center Hangers



Sidemount Hangers



Flangemount Weld-On Hangers



Flangemount Bolt-On Hangers

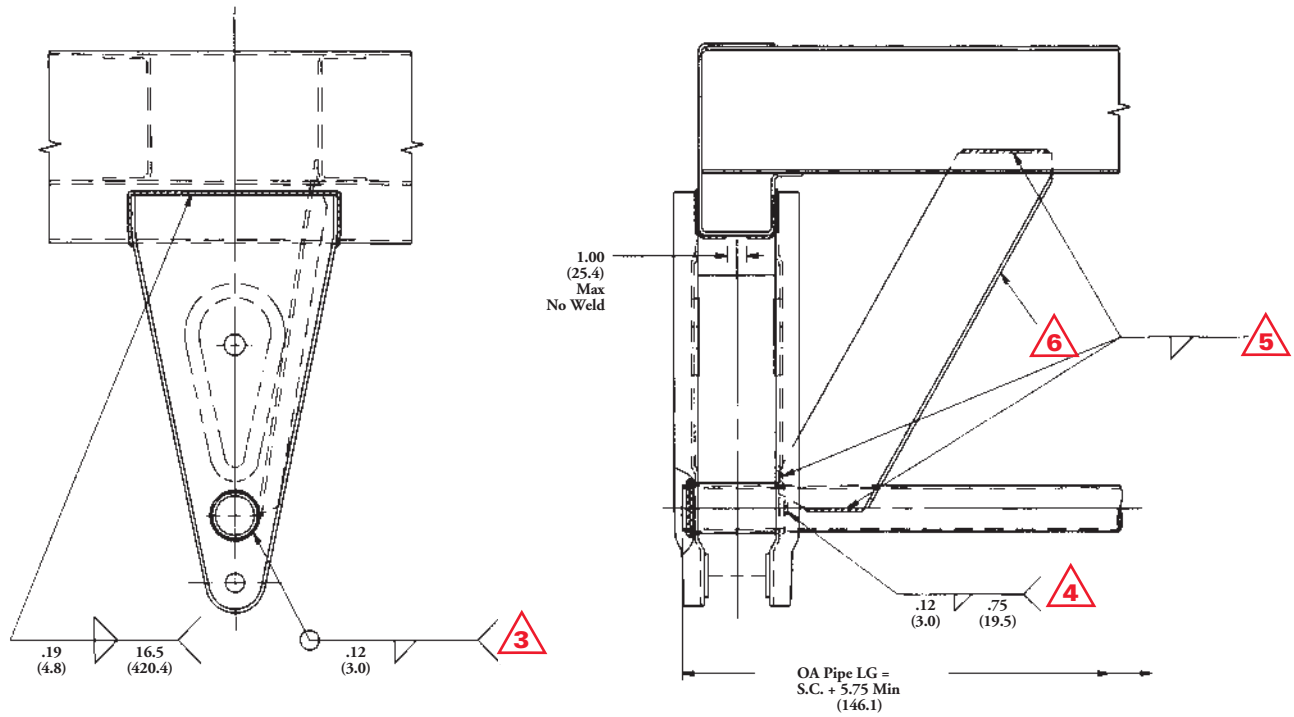
Assembly Instructions

Notes

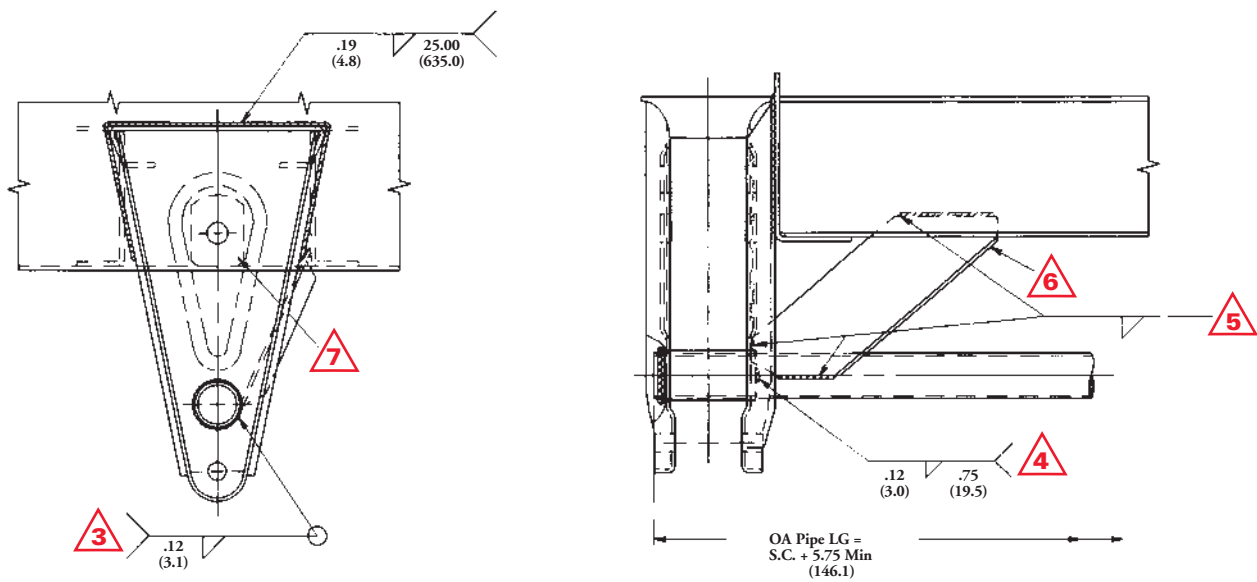
1. This recommendation is intended to provide a general guideline for the installation of the cast **Intermediate Widespread Center** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld pipe brace all around the outside as shown. Weld must penetrate hanger side plate and pipe brace.
4. Weld pipe brace with two .75" welds on the horizontal centerline of the pipe as shown. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of center hangers, and to crossmember web.
6. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. For pipe brace, use 1.66 OD x .109 wall STD mechanical tubing to comply with ASTM A500 Grade B, or 1.25 SCH 40 pipe or better.
8. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
9. Minimum .625" Grade 8 fasteners.
10. Lower end of gusset to be even with hanger sideplate.
11. Weld .25" thick x 2.50" tieplate to inside of center hanger and to frame rail.
12. Consider clearance for 1.125" rocker bushing bolt.



Widespread Center Hangers



Straddlemount Hangers



Sidemount Hangers

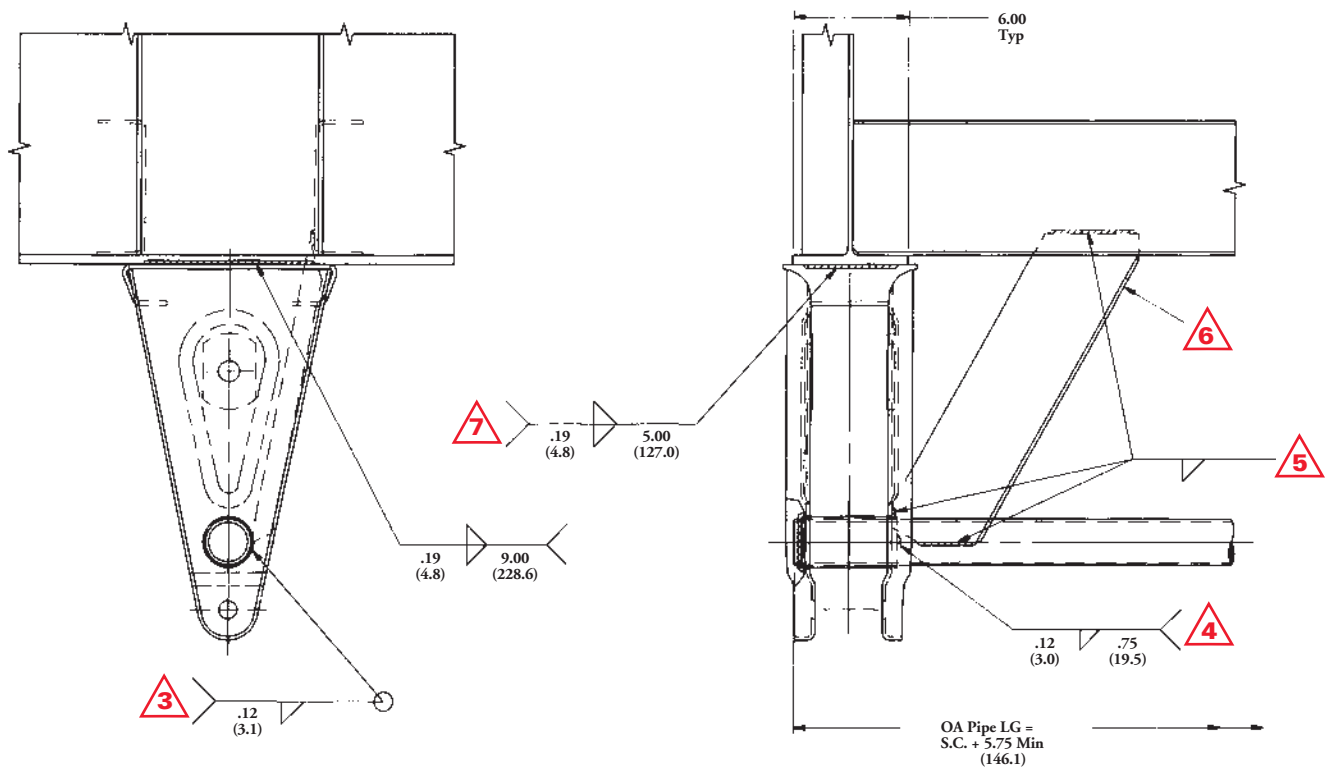
Assembly Instructions

Notes

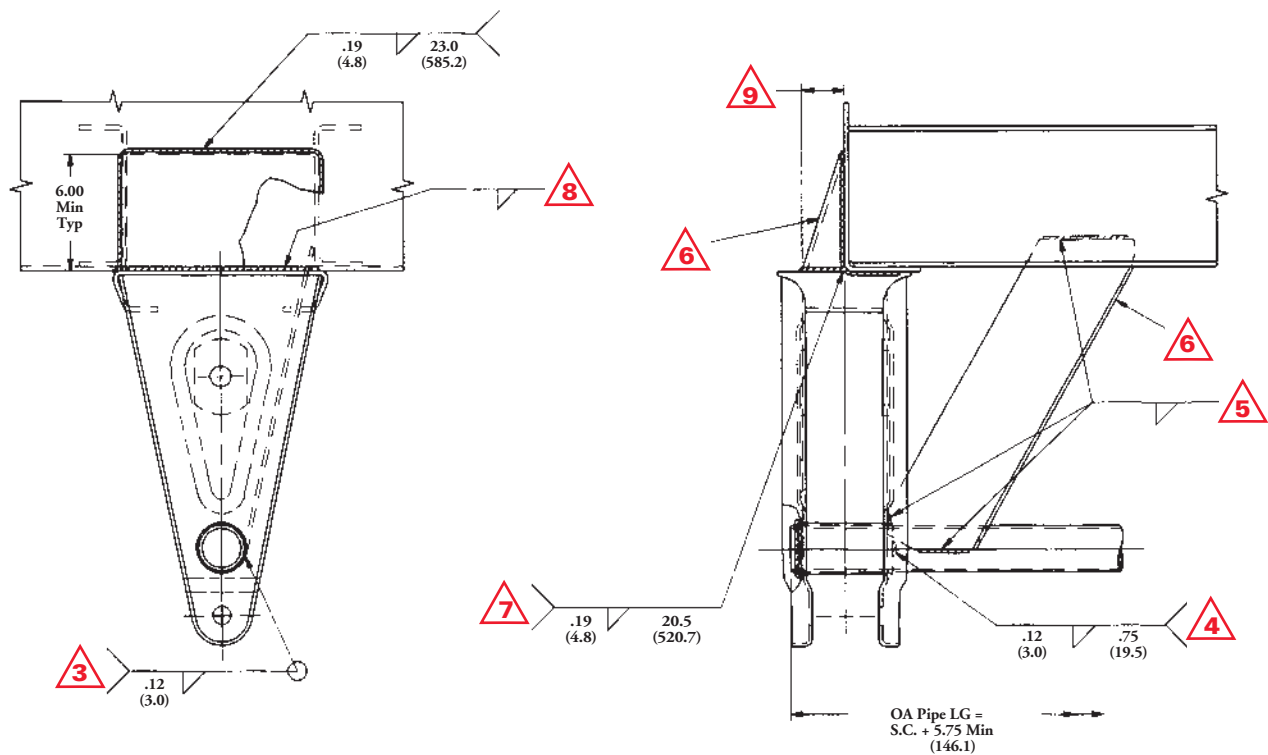
1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Widespread Center** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld 2.00" SCH 40 pipe brace all around the outside as shown. Weld must penetrate hanger side plate and pipe brace.
4. Weld 2.00" SCH 40 pipe brace with two .75" welds on the horizontal centerline of the pipe as shown. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of center hangers, and to crossmember web.
6. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. Consider clearance for 1.125" rocker bushing bolt.



Widespread Center Hangers



Undermount Hangers: I-Beam



Undermount Hangers: "C" Channel

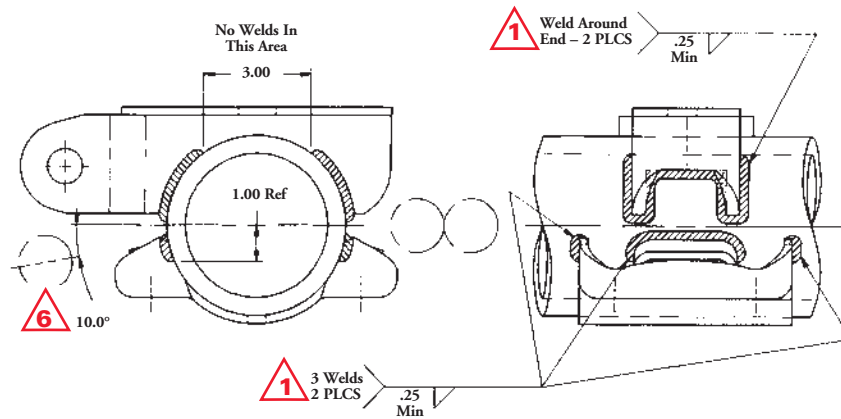
Assembly Instructions

Notes

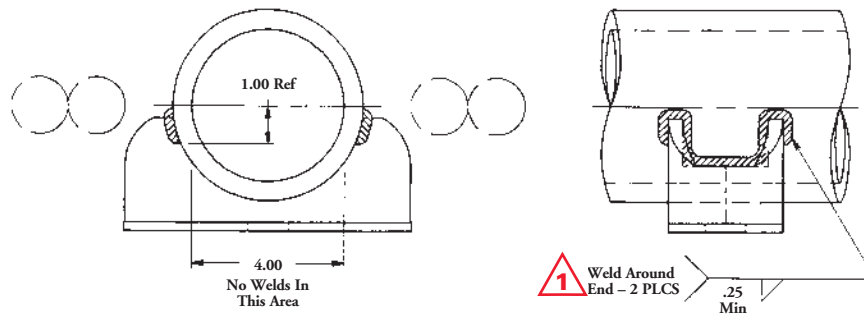
1. This recommendation is intended to provide a general guideline for the installation of the fabricated **Widespread Center** suspension hangers. The design and production of an adequate structure to support the suspension is the sole responsibility of the trailer manufacturer. This document is not intended to prescribe specific recommendations for the trailer design.
2. All welding should be performed using AWS E70xx welding materials and practices.
3. Weld 2.00" SCH 40 pipe brace all around the outside as shown. Weld must penetrate hanger side plate and pipe brace.
4. Weld 2.00" SCH 40 pipe brace with two .75" welds on the horizontal centerline of the pipe as shown. Weld must penetrate hanger side plate and pipe brace.
5. Weld gusset to pipe, inside of center hangers, and to crossmember web.
6. Except as noted, gusset proportions shown are for reference only. The final size and orientation of the hanger gusset should be designed for the specific main beam and crossmember configuration used on the trailer. Adequate lateral gusseting is essential. Consider clearance for 1.125" rocker bushing bolt.
7. Terminate weld .50" from flange free edge unless otherwise prescribed by the trailer manufacturer.
8. Apply full length weld along hanger to siderail before attaching gusset.
9. Lower end of gusset to be even with hanger sideplate.



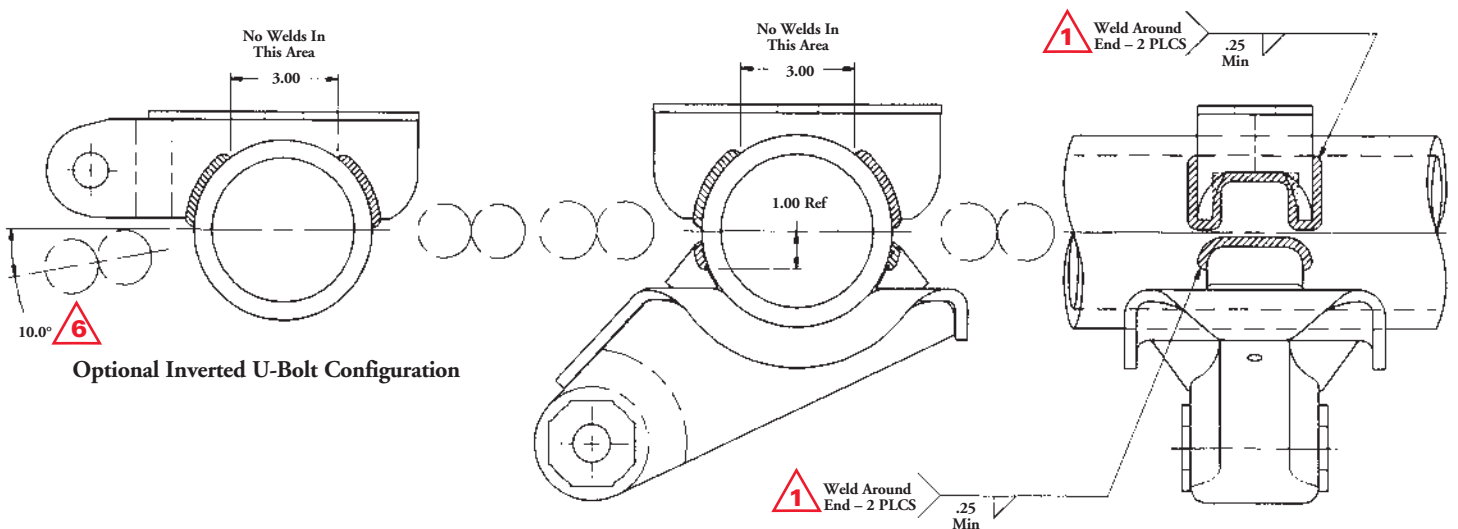
5" RD Standard, Underslung & No-Hop



Standard Overslung Axle Seat and Bottom Plate

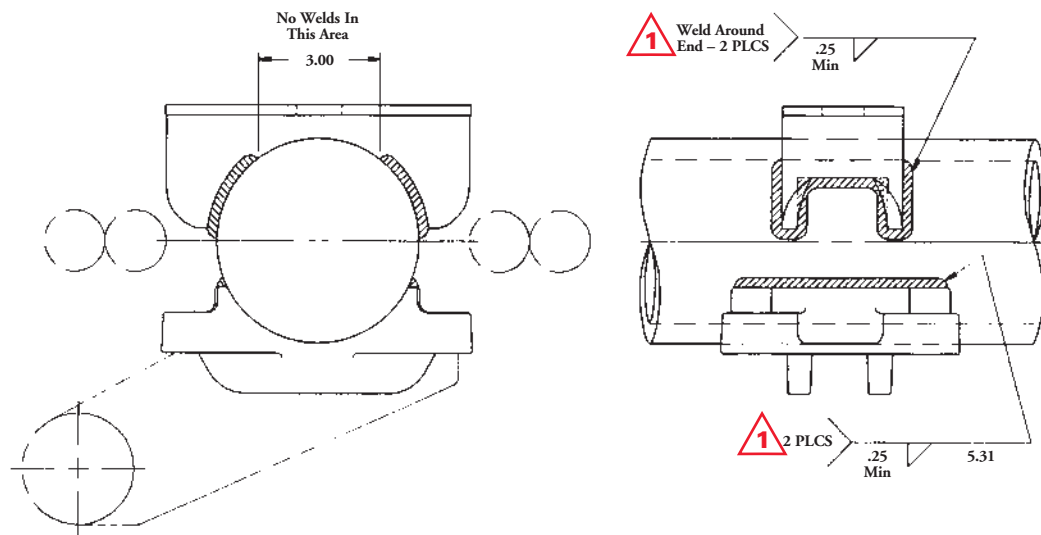


Optional Underslung Configuration



Optional Inverted U-Bolt Configuration

Optional No-Hop Configuration
9700



**Optional Cast Bottom Plate and No-Hop Configuration
9600**

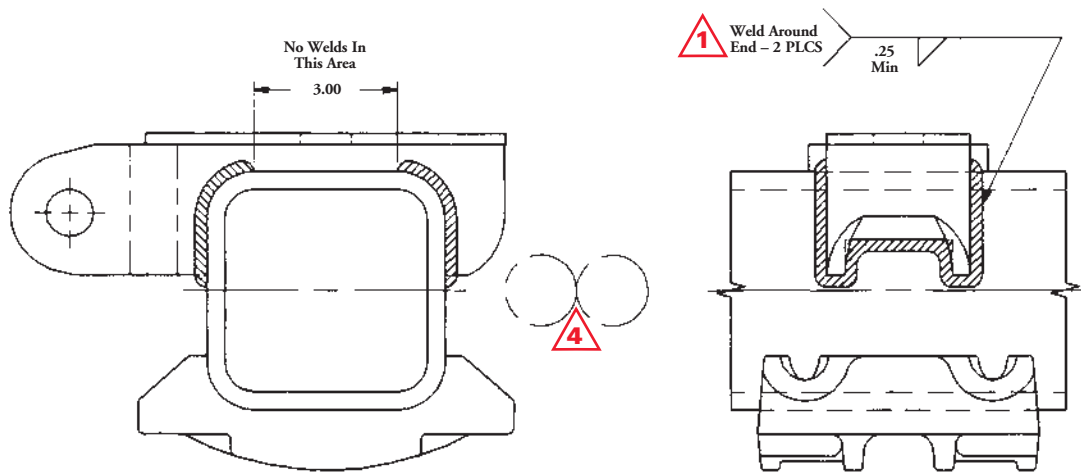
Assembly Instructions

Notes

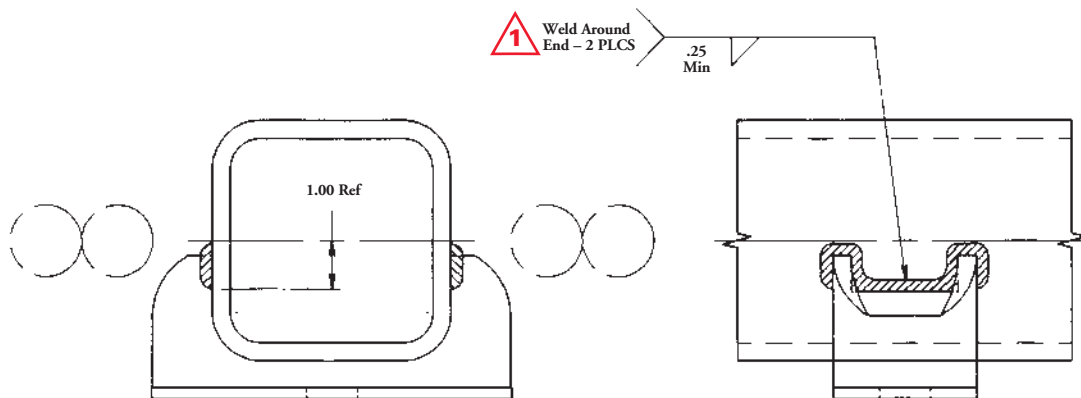
- 1.** Check axle manufacturer for electrode specification, weld size, pre-heat and post-heat requirements, etc.
- 2.** Be certain axle seats fit axle properly before welding.
- 3.** Welds are not permitted more than 2" above or 1.5" below the horizontal centerline of the axle beam.
- 4.** All of Hutchens' components are weldable using E70xx welding materials and practices.
- 5.** All spring seats and bottom plates must be parallel within .032" to ensure proper installation of the U-bolts, as well as proper positioning of springs and axles.
- 6.** For "cams forward" applications, position the camshaft 10 degrees below axle centerline when using spring seats shorter than 1.75".



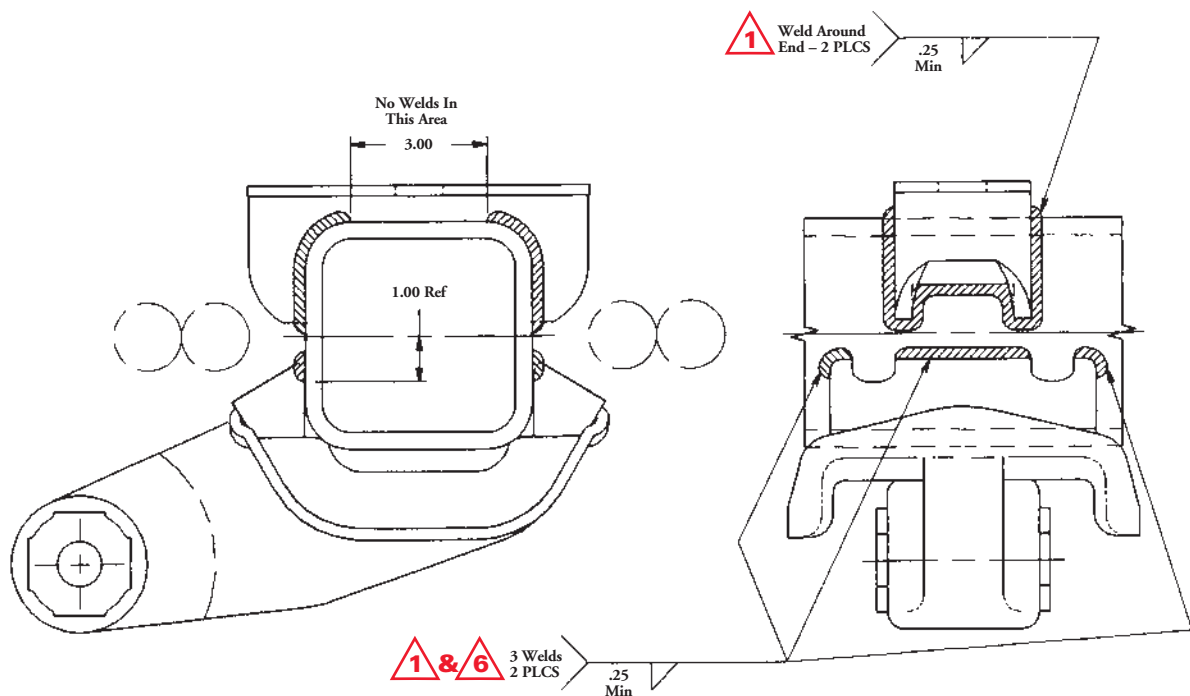
5" x 5" Standard, Underslung & No-Hop



Standard Overslung Axle Seat and Bottom Plate



Optional Underslung Configuration



Optional No-Hop Configuration

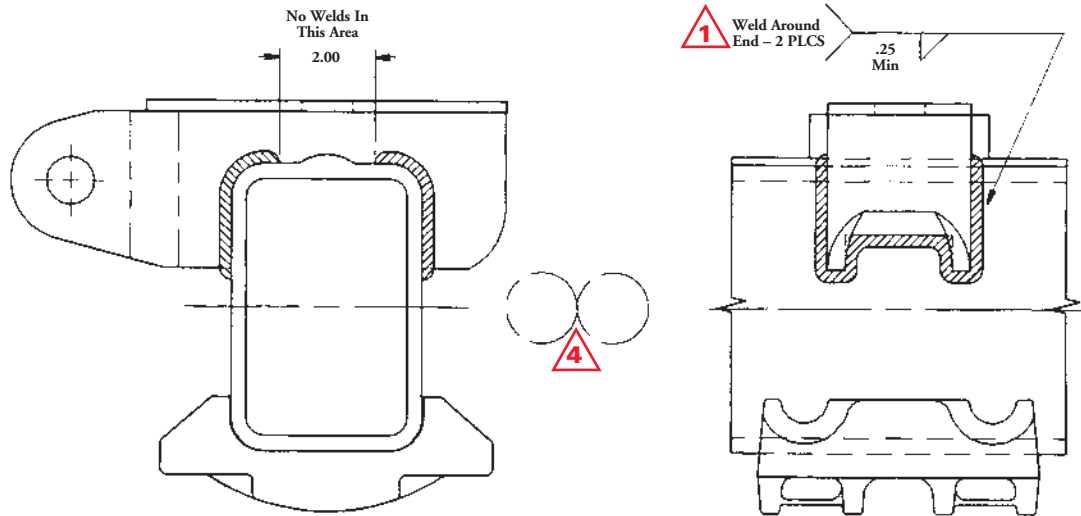
Assembly Instructions

Notes

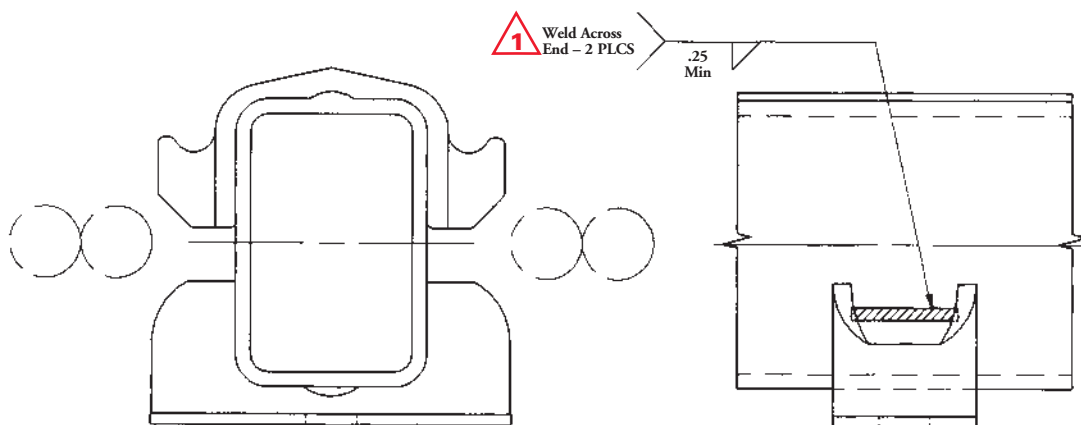
- 1.** Check axle manufacturer for electrode specification, weld size, pre-heat and post-heat requirements, etc.
- 2.** Be certain axle seats fit axle properly before welding.
- 3.** All of Hutchens' components are weldable using E70xx welding materials and practices.
- 4.** For "cams forward" applications, a spring seat of 1.75" minimum must be used.
- 5.** All spring seats and bottom plates must be parallel within .032" to ensure proper installation of the U-bolts, as well as proper positioning of springs and axles.
- 6.** Cast 9600 No-Hop bottom plate attaches in the same manner.



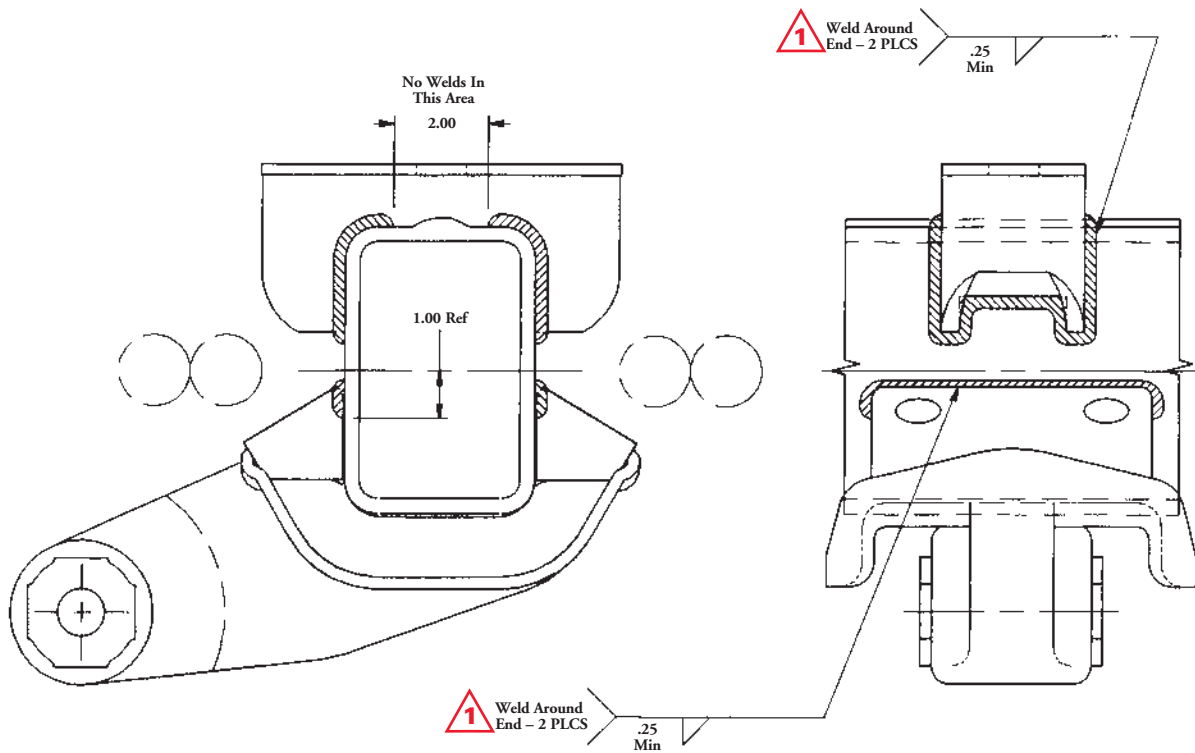
4" x 6" Standard, Underslung & No-Hop



Standard Overslung Configuration



Optional Underslung Configuration



Optional No-Hop Configuration

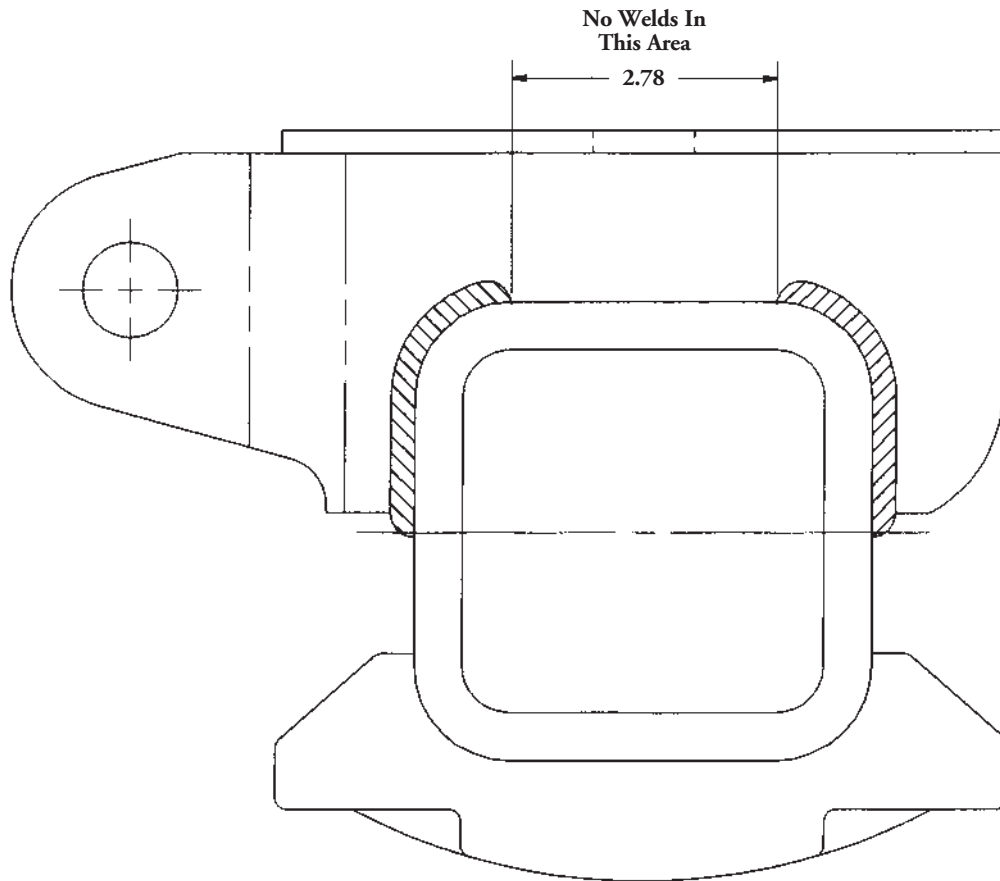
Assembly Instructions

Notes

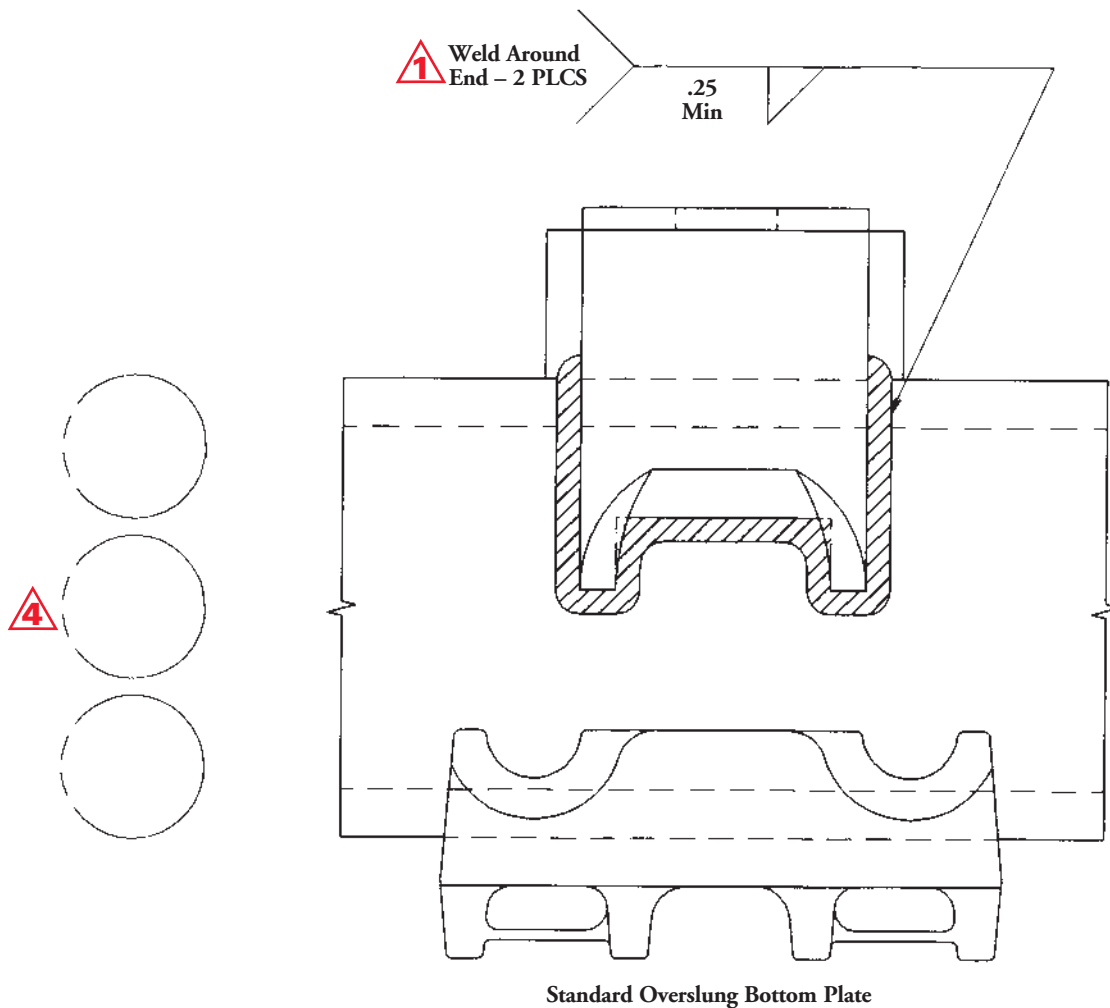
- 1.** Check axle manufacturer for electrode specification, weld size, pre-heat and post-heat requirements, etc.
- 2.** Be certain axle seats fit axle properly before welding.
- 3.** All of Hutchens' components are weldable using E70xx welding materials and practices.
- 4.** For "cams forward" applications, a spring seat of 1.75" minimum must be used.
- 5.** All spring seats and bottom plates must be parallel within .032" to ensure proper installation of the U-bolts, as well as proper positioning of springs and axles.



120 mm Square Axle



Standard Overslung Axle Seat



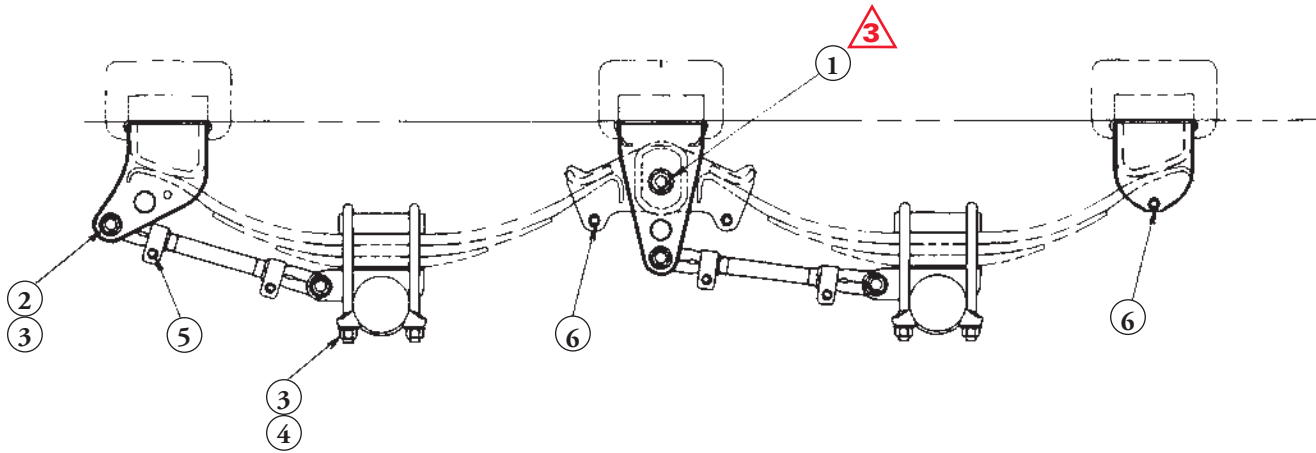
Assembly Instructions

Notes

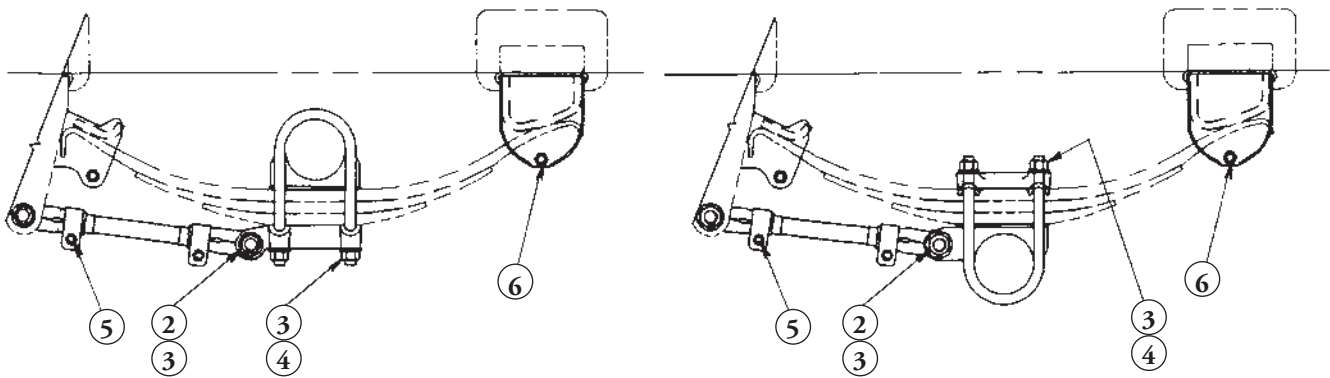
1. Check axle manufacturer for electrode specification, weld size, pre-heat and post-heat requirements, etc.
2. Be certain axle seats fit axle properly before welding.
3. All of Hutchens' components are weldable using E70xx welding materials and practices.
4. For "cams forward" applications, make sure adequate clearance is available.
5. All spring seats and bottom plates must be parallel within .032" to ensure proper installation of the U-bolts, as well as proper positioning of springs and axles.



Fastener ID and Torque Specifications



Tandem Axle Overslung

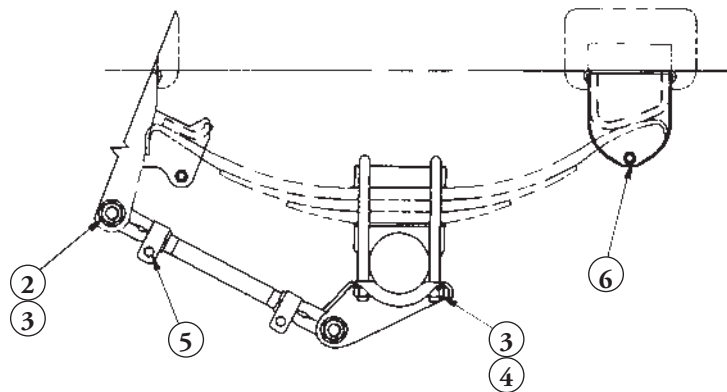


Underslung Option – All Axles

Inverted U-Bolt Option – All Axles

Torque Specifications

Item No.	Fastener	Oiled	Dry
1	1 1/8-7 (9600/9700 Rocker Bolt)	590 Lb-Ft	790 Lb-Ft
2	1-14 (9700 Radius Rod Bolt)	540 Lb-Ft	720 Lb-Ft
3	7/8-14 (Axle U-Bolt & 9600 Radius Rod Bolt)	350 Lb-Ft	470 Lb-Ft
4	3/4-16 (Axle U-Bolt)	310 Lb-Ft	420 Lb-Ft
5	5/8-18 (Radius Rod Clamp Bolt)	130 Lb-Ft	170 Lb-Ft
6	5/8-18 (Spring Retainer Bolt)	35 Lb-Ft	50 Lb-Ft



No-Hop Option – Rear Axle Only
(Remaining Axles Are Overslung)

Assembly Instructions

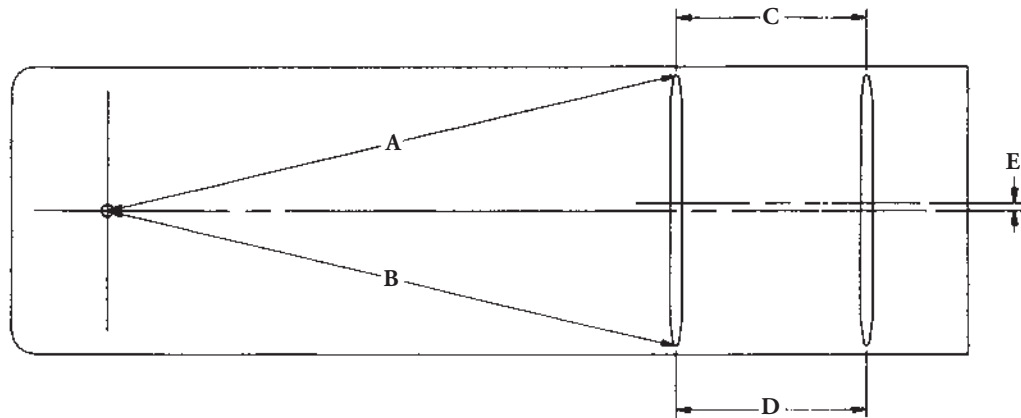
Notes

1. To achieve the most consistent clamp loads, lubricate the threads and torque fasteners to the “oiled” specifications.
2. Tighten U-bolt nuts in an alternating pattern.
3. Not required if rocker and hanger are assembled at Hutchens.
4. Install decal #16086-01 in clear view on the road side of the trailer immediately above the suspension.
5. On standard model suspensions having one adjustable and one non-adjustable torque arm on each axle, install the non-adjustable torque arm on the curb side and the adjustable torque arm on the road side. On suspension models utilizing the “no-hop” feature, two adjustable torque arms are provided for the rear axle.



Suspension Alignment

$$\begin{aligned} A &= B \pm .125" \\ C &= D \pm .062" \\ E &= \pm .25" \end{aligned}$$



To properly align the suspension, make sure the trailer is unloaded. Free the suspension of any “binds” by first pushing the trailer backwards and then pulling forward. While pulling the trailer forward on a level floor, apply the brakes and release. This will assure that an adjustable undercarriage is in its rearmost locked position. The trailer must be level from side to side, as well as from front to rear. Neither service nor parking brakes shall be applied during the measurement procedure.

The axle position may be determined using any established mechanical or optical (laser) measurement equipment.

Measure distances A and B from the kingpin to the front axle. These dimensions must be equal within 1/8 (.125) of an inch. If adjustment is needed, loosen the radius rod clamp bolts and turn the adjustment screw as required. When the front axle is positioned correctly, align any succeeding axles with the front axle by measuring distances C and D. These dimensions must be equal to within 1/16 (.062) of an inch.


After alignment has been completed on all axles, check to make certain that the radius rod clamp bolts and all other fasteners are tightened to the recommended torque requirement.

Check dimension E. The lateral displacement of the trailer body to the axles should not exceed 1/4 (.25) of an inch.

Refer to TTMA RP No. 71-10 for more detail.

Important: Warning Decal Note

When the installation of your "Hutch" suspension is complete and the trailer and/or subframe has been painted, a torque requirement decal (Part No. 16086-01) must be installed in plain view on the road side of the trailer immediately above the suspension. It is essential that the correct decal is in plain view on each trailer. Decals are shipped with the suspension. If decals are not received, or if for any reason additional decals are wanted, contact our Customer Service Department at (800) 654-8824 or fax (417) 862-2317 and decals will be shipped promptly at no charge.

 **WARNING**


SAFETY ALERT! (1) FOLLOW ALL TORQUE REQUIREMENTS. (2) DO NOT USE ANY COMPONENT WITH VISIBLY WORN OR DAMAGED THREADS. FAILURE TO FOLLOW THESE SAFETY ALERTS CAN LEAD TO LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH.

Hutchens Suspension Torque Requirements
9600-9700 Series (Decal Part Number 16086-01 Rev. J)

After an initial break in period, approximately 1000 miles, and at least every 4 months periodically thereafter, ALL bolts and nuts should be checked to insure that recommended torque values are being maintained.

Oiled torque values listed are for new fasteners with lubricated threads. It is recommended that new installations be performed with oiled fasteners. For dry threads which have been in service, use the higher torque values which are noted below.

	OILED	DRY
1 1/8-7 (9600 / 9700 Rocker Bolt)	590 lb-ft	790 lb-ft
1-14 or 1-8 (9700 Radius Rod Bolt)	540 lb-ft	720 lb-ft
7/8-14 (Axle U-Bolts & 9600 Radius Rod Bolt)	350 lb-ft	470 lb-ft
3/4-16 (Axle U-Bolts)	310 lb-ft	420 lb-ft
5/8-18 (Radius Rod Clamp Bolt)	130 lb-ft	170 lb-ft
5/8-18 (Spring Retainer Bolt)	35 lb-ft	50 lb-ft

 **Hutchens Industries, Inc., P.O. Box 1427, Springfield, Missouri 65801-1427 Toll Free 1 (800) 654-8824**



Advancing the Practical Application of Suspension Technology

Springfield, MO ■ (800) 654-8824 ■ (417) 862-5012
Fax (417) 862-2317 ■ www.hutchensindustries.com