WELD PROCEDURE FOR 1/2 ROUND ARM/SEAT TO AXLE ONLY

1. AXLE SEATS TO BE CLAMPED SECURELY IN THE PROPER POSITION WITH ARMS PARALLEL AND SQUARED IF ASSEMBLED.
2. THE WELDING RODS SHOULD CONFORM TO AWS GRADE E-7018 (OVEN-DRIED) OR COMPARABLE. USE COMPARABLE WIRE IS USING MIG WELDER.
3. AXLE TUBE AND AXLE SEATS MUST BE CLEANED.
4. DO NOT WELD AXLES WHEN AXLES ARE COLD. NORMAL PREHEAT RECOMMENDATIONS ARE BETWEEN 100 AND 300 DEGREES F. CONSULT AXLE MANUFACTURER IF NECESSARY.
5. IMT REQUIRES 60-200° F PRIOR TO WELDING.
6. DANA REQUIRES AXLE AND MATTING BRACKETS MUST BE 60° F PRIOR TO WELDING.
7. MERITOR REQUIRES AXLE TUBE AND HARDWARE BEING WELDED TO AXLE TO BE MINIMUM OF 60 F PRIOR TO WELDING.
8. SUDISA REQUIRES AXLE TUBE AND HARDWARE BEING WELDED TO AXLE TO BE MINIMUM OF 60 F PRIOR TO WELDING.
9. IF OTHER MANUFACTURER'S AXLE IS USED, CONSULT THEM PRIOR TO WELDING.

APPLY WELDS IN THE SIZES AND SEQUENCE SHOWN IN FIGURE 1, AND APPLY WELDS IN AREAS SHOWN IN FIGURE 4. THE ELECTRODE SHOULD BE ON BOTH AXLE SEATS, THEN PASS 2 AND 3 ON EACH SEAT IN SERIES.

DO NOT "TEST THE ARC" ON THE AXLE BEAM!

NOTE: PARENTHESIS () DENOTES REFERENCE DIMENSION

REV. DESCRIPTION ECN DATE BY
A NEWDRAWING - 03/01/95 RON
B CONNECTED NOTE 4 3042 12/03/03 JFF
C ADDED DANA & MERITOR SPECS 3042 12/03/03 JFF
D ADDED SUBSIA NOTE 4 3042 12/03/03 JFF
E CHANGED NOTE 4 & 6 C-5073 12/26/07 EFR
F CHANGED NOTE 4 BACK C-5305 04/03/08 EFR
G INTO SOLIDWORKS AND UPDATED C-6299 4/22/2009 TEG

11621.SLDDRW 4/28/2009 8:36 AM
**WELD PROCEDURE FOR MONO PIVOT BUSHING TYPE ARMS**

**REFER TO ES006 FOR ALIGNMENT TO AXLE**

**Preparation**

1. The surface must be free of paint, water, and other contaminants where welding is to occur.
2. Suspension parts must be at least 60°F. *Normal recommendations is to preheat 100-300 degrees F.*
3. *Note:* Some axle manufacturers recommend preheating the axle before it is welded. Consult the axle manufacturer for recommended guidelines on welding to the axle.
4. Welding needs to be done in a flat horizontal position.

**Welding Procedures**

- **Warning:** Clean welds between passes and incorporate tacks into the first pass on the tacked side. Fill weld craters and avoid undercuts and cold laps over welds.
- **Welds should not be started or stopped at the end of the weld pass.** They should stopped and started away from the ends as shown in Figure 7. Do not wrap the corners of the axle seat while welding.

1. Three passes are required on each area where the axle is welded to the arms. Figure 6 shows the size of the weld of each pass.
2. Start welding in the sequence shown in Figure 7 at the rear side where the axle and seat meet. Make all first pass welds at all areas before proceeding to the second pass.
3. Figure 7 also shows the length of weld for both overslung and underslung models.

**Weld Axle to Suspension**

**Weld Specifications**

- **Caution:** The welding procedures must be followed carefully to avoid damage to the axle and suspension which could cause an accident and or serious personal injury.

**Preparation**

1. The surface must be free of paint, water, and other contaminants where welding is to occur.
2. Suspension parts must be at least 60°F.
3. *Normal recommendations is to preheat 100-300 degrees F.*
4. Some axle manufacturers recommend preheating the axle before it is welded. Consult the axle manufacturer for recommended guidelines on welding to the axle.
5. Welding needs to be done in a flat horizontal position.

**Figure 4**

- Front View of Axle and Suspension

**Figure 5**

- 4 1/2" tacks required

**Figure 6**

- 1st Pass
- 2nd Pass
- 3rd Pass

**Figure 7**

- Pass Details
- Weld Order Number
- 1st Pass
- 2nd Pass
- 3rd Pass
- 4th Pass
- 5th Pass
- 6th Pass
- 7th Pass
- 8th Pass
- 9th Pass
- 10th Pass
- 11th Pass
- 12th Pass

**Figure 8**

- Starting Point
- Stop Point
- Axle Weld Length

**DESCRIPTION:**

**AXLE SEAT WELDING PROCEDURE**

- **TA250/300 TOP MOUNT**
- **TA250/300 UNDERSLUNG**

**DRAWN BY:**

- tgreaves

**DRAWING NO:**

- 11621

**DATE:**

- 04/22/09

**SCALE:**

- 1:8