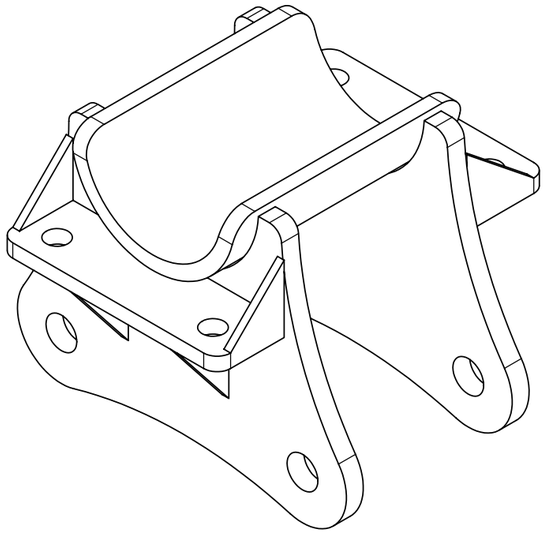
REV.	DESCRIPTION	ECN	DATE	BY
A	NEW DRAWING	-	03/01/95	RON
B	CORRECTED NOTE 4	3042	12/03/03	JFF
C	ADDED DANA & MERITOR SPECS	3042	12/09/03	JFF
D	ADDED SUDISA NOTE 4	3042	12/10/03	JFF
E	CHANGED NOTE 4 & 6	C-5073	12/26/07	EFR
F	CHANGED NOTE 4 BACK	C-5305	04/03/08	EFR
G	INTO SOLIDWORKS AND UPDATED	C-6299	4/22/2009	TEG

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

FOR OTHERS SEE PAGE 2



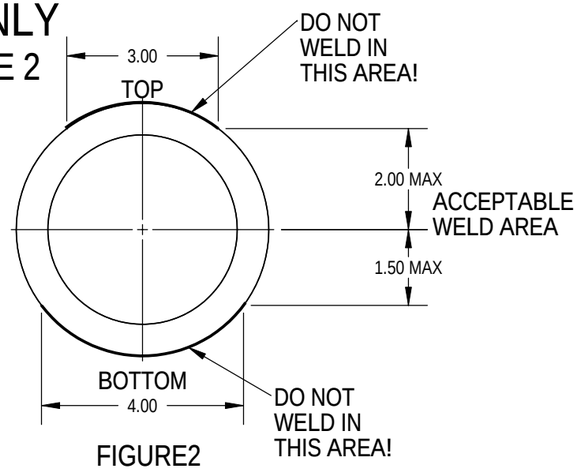


FIGURE2

NOTES:
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.
   E --IMT REQUIRES 60-200 ° F PRIOR TO WELDING.
   --DANA REQUIRES AXLE AND MATING BRACKETS MUST BE 60 ° F PRIOR TO WELDING.
   F --MERITOR REQUIRES AXLE TUBE AND HARDWARE BEING WELDED TO AXLE TO BE MINIMUM OF 60 ° F PRIOR TO WELDING.
   D --SUDISA REQUIRES AXLE TUBE AND HARDWARE BEING WELDED TO AXLE TO BE MINIMUM OF 60 °F PRIOR TO WELDING.
   IF OTHER MANUFACTURER'S AXLE IS USED, CONSULT THEM PRIOR TO WELDING, FOR PREHEAT SPECIFICATIONS.
5. APPLY WELDS IN THE SIZES AND SEQUENCE SHOWN IN FIRGURE 1, AND 3. APPLY WELDS IN AREAS SHOWN IN FIGURE 4. THE ELECTRODE SHOULD BE BACKED UP TO FILL IN THE FILLET CRATER AT THE END OF EACH PASS.
   E THE CORNERS SHOULD BE WRAPPED. CLEAN THE WELD BETWEEN EACH PASS.
6. SEQUENCE 1 SHOULD BE PERFORMED ON BOTH AXLE SEATS PRIOR TO CONTINUING WITH PASSES 2 AND 3. THE SEQUENCE SHOULD BE PASS #1 ON BOTH AXLE SEATS, THEN PASS 2 AND 3 ON EACH SEAT IN SERIES.

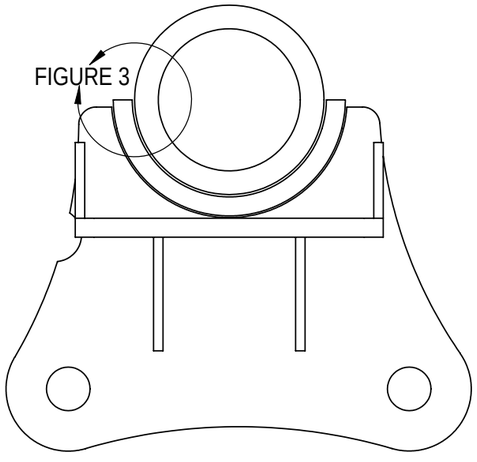


FIGURE 3

DO NOT "TEST THE ARC" ON THE AXLE BEAM

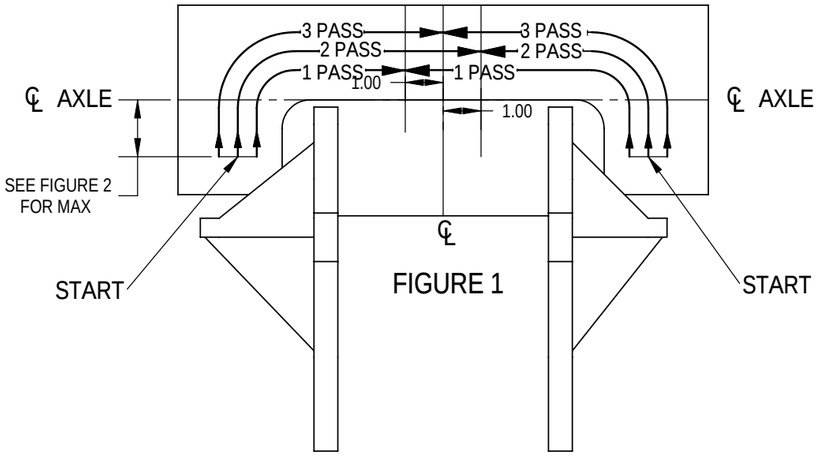
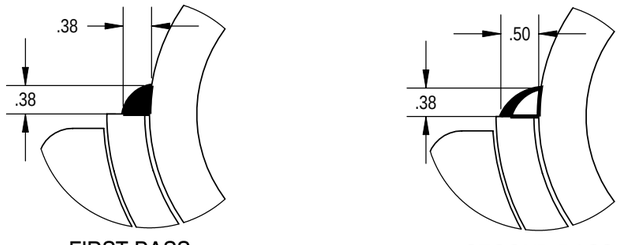


FIGURE 1

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

FOR OTHERS SEE PAGE 2



FIRST PASS SECOND PASS THIRD PASS

FIGURE 3

NOTE: PARENTHESIS ( ) DENOTES REFERENCE DIMENSION

DEPTS AFFECTED	TOLERANCES (EXCEPT AS NOTED)	DESCRIPTION: AXLE SEAT WELDING SPECS		
-	DECIMAL ± .06	PREVIOUS ASSY: -	SHEET: 1 OF 2	WATSON & CHALIN MANUFACTURING INC. Watson Suspension Systems
-	FRACTIONAL ± 1/16	SUSPENSION MODEL: -	SCALE: 1:1	
WEIGHT: -	ANGULAR ± 1 °	DATE: 03/01/95 / DRAWN BY: RON	SIZE: B	DRAWING NO: 11621

WELD PROCEDURE FOR MONO PIVOT BUSHING TYPE ARMS

REFER TO ES006 FOR ALIGNMENT TO AXLE

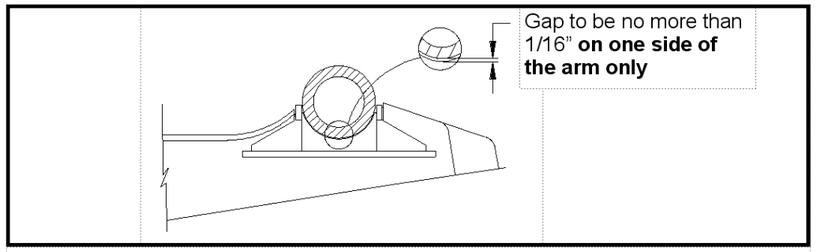


Figure 4

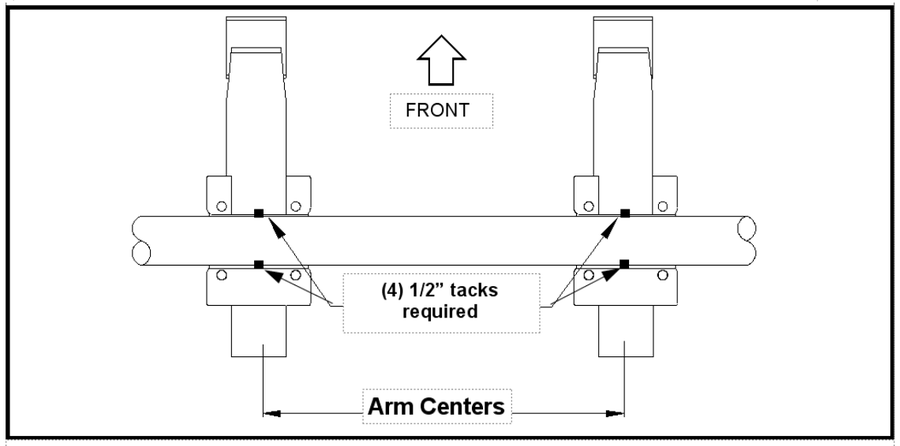


Figure 5

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.

*** Note:** Some axle manufacturers recommend preheating the axle before it is welded. Consult the axle manufacturer for recommended guidelines on welding to the axle.

3. 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.

Welding 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.

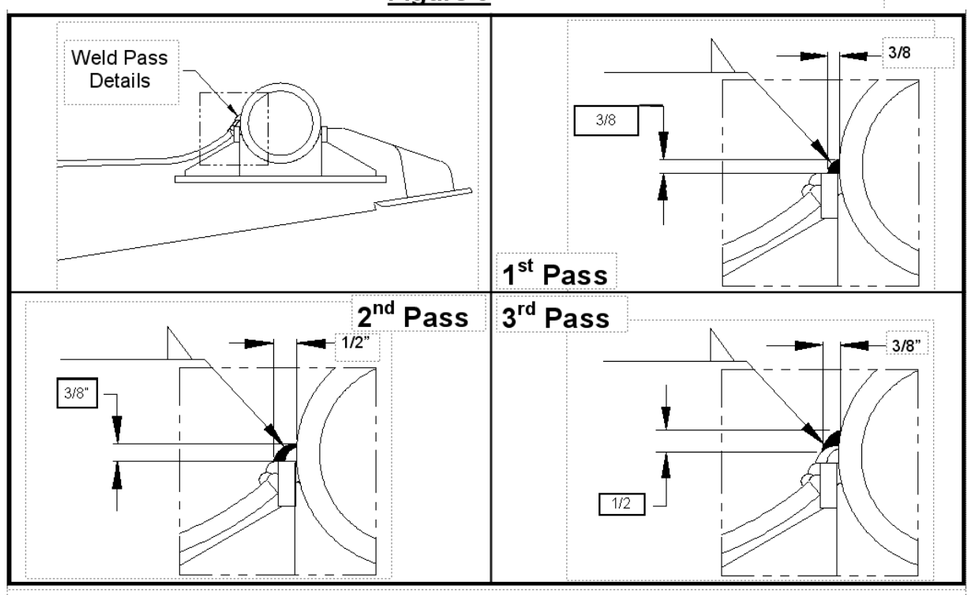
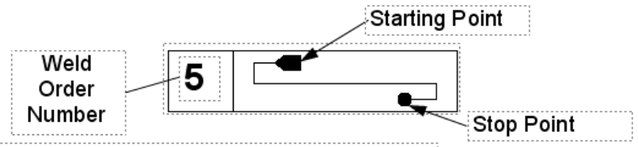
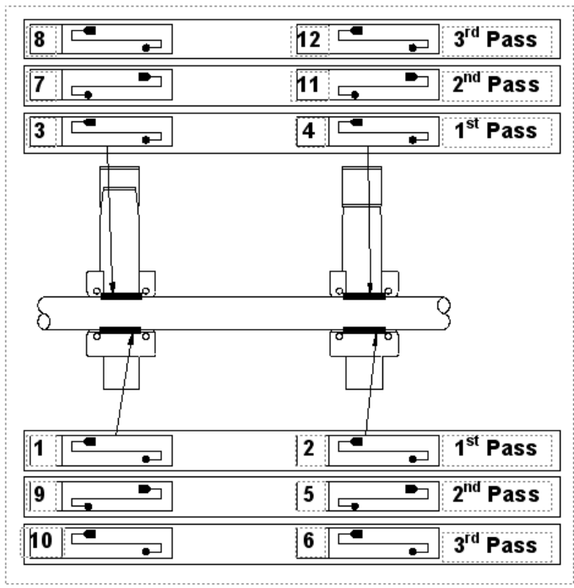


Figure 6





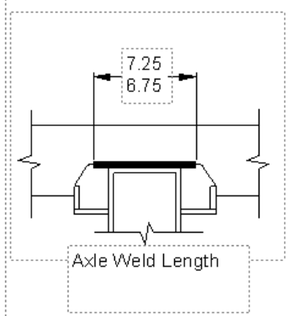
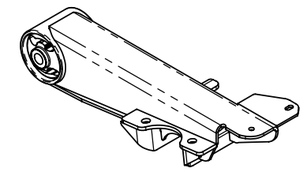
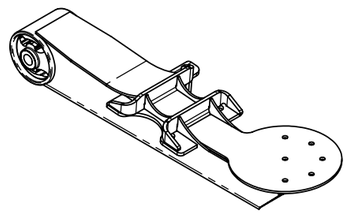


Figure 7

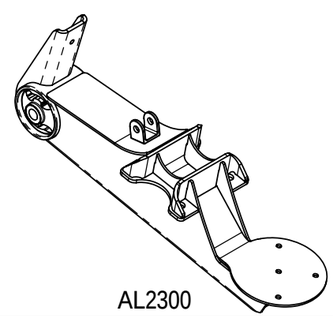
WELD PROCEDURE FOR COMMON:



TA250/300 TOP MOUNT



TA250/300 UNDERSLUNG



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DESCRIPTION: AXLE SEAT WELDING PROCEDURE SHEET: 2 OF 2				WATSON & CHALIN MANUFACTURING INC. Watson Suspension Systems
DATE: 04/22/09	SCALE: 1:8	DRAWN BY: tgreaves	SIZE: B	DRAWING NO: 11621