

Temporary Repair of ArvinMeritor Torque Tower Bracket on Oshkosh ® S-Series Front Discharge Concrete Trucks

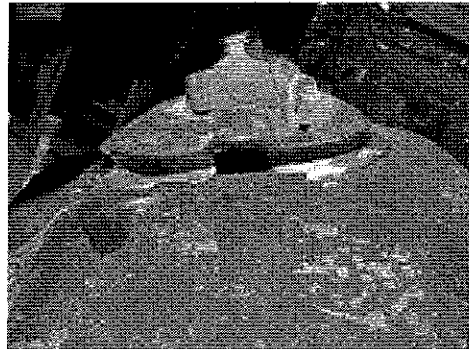
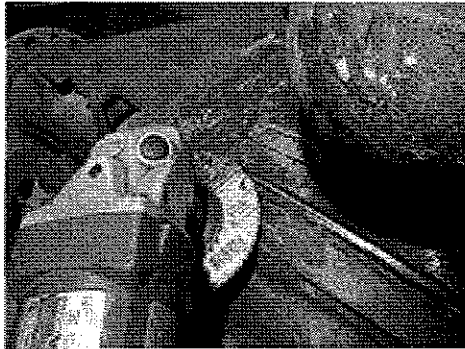
Overview of Repair:

Follow these steps to make temporary repairs to cracks in weld joint at the base of the Torque Tower Bracket and Axle Housing:

Disconnect the battery ground. **Caution*** If you fail to disconnect the battery ground, you will damage vehicle electronic control modules.**

Block steer axle tires front and rear.

1. Keep tower bracket in its existing position. Weld only one side at a time.
2. First grind away the weld on the side where the crack shows. (The cracked weld is at the base of Tower Bracket, where it attaches to the axle housing.)



Avoid removing axle housing material. Grind more on the tower side.

3. Remember that the axle housing is filled with grease. Be careful not to cut through the axle housing. A serious, quick fire is possible. Keep a large-capacity fire extinguisher handy.
4. Remove paint, grease and other impurities for a distance of one inch beyond the weld joint.
5. Follow instructions below for making a 3-pass weld.
6. Then go to the opposite side of the Tower Bracket. Grind out and replace the single-pass weld, and following steps 2-5 above.

Instructions:

BEFORE you make the first weld pass, use 400° F heat crayon to mark a spot in the neck of the Torque Tower.

Use rose flame tip to preheat Torque Tower until crayon melts.

It is important to preheat the Torque Tower.

Then weld according to the following specific instructions:

Welding Equipment and Specifications:

Mig (wire) Welding

Welding Gas: 80% Argon, 20% CO-2

Gas Flow Setting: 50-60 cfh

Wire Size: ER70S-3 or ER70S-6 .035"

First and second passes, approximate settings: 30 volts, 180 amps.

Third filler pass, approximate settings: 26 volts, 140 amps.

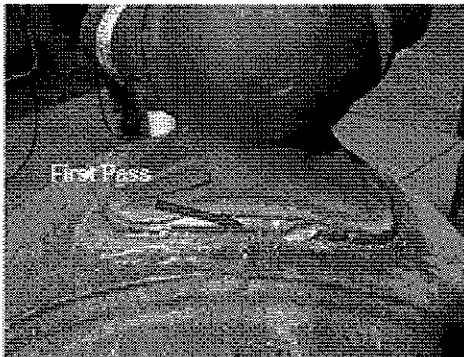
Arc (stick) Welding

Miller® DC type stick welder: 140-150 amp setting.

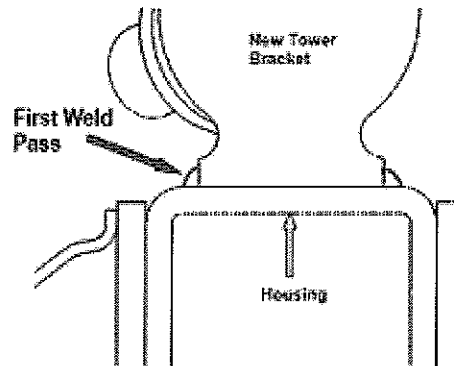
Electrode: E7018 1/8-inch Electrode for all three passes.

You must store E7018 rod in heated rod oven.

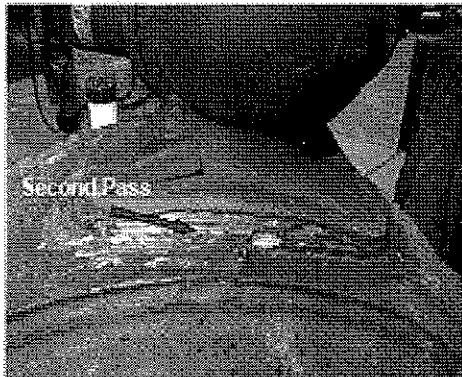
The First Weld Pass: Must be a deep penetrating root pass. Start weld at corner of the bracket. Work your way to the center. Be sure to overlap weld craters. Remove all slag.



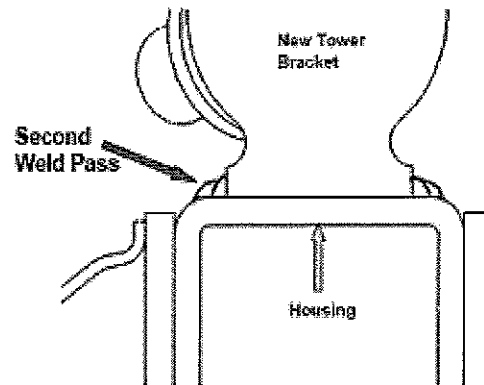
Start at Corners and Work to Center of Bracket



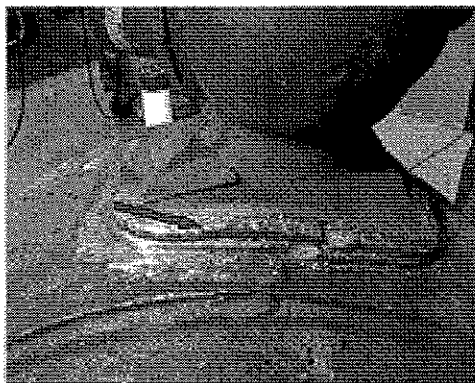
Second Weld Pass: Place the second pass so that it overlaps half of the first weld and also covers an equal amount of the housing. Be sure to overlap weld craters.



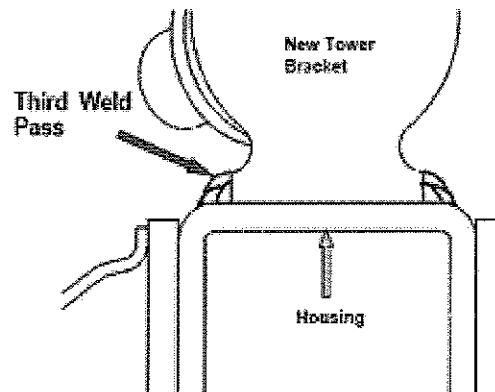
Second Pass, Overlap Craters



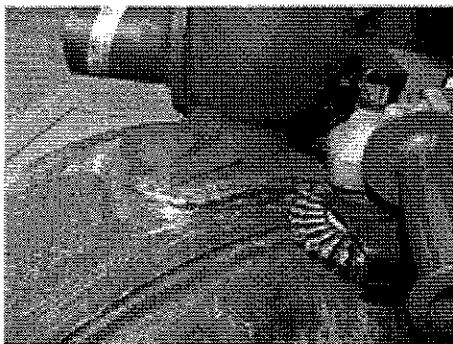
Third Pass Cover Weld: Make third pass even with top of the bracket surface and also overlap half the width of the second pass weld. Be sure to overlap weld craters.



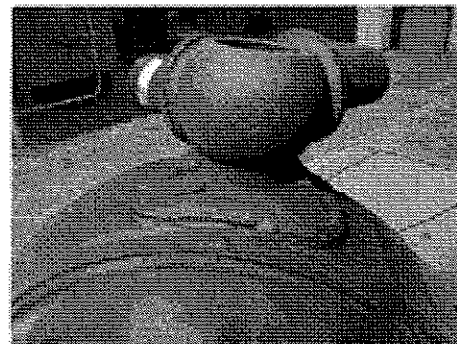
Third Weld Pass



Use a wire wheel to clean the repaired area of any slag, burnt paint or dirt. Prime and paint repaired area to prevent rust.



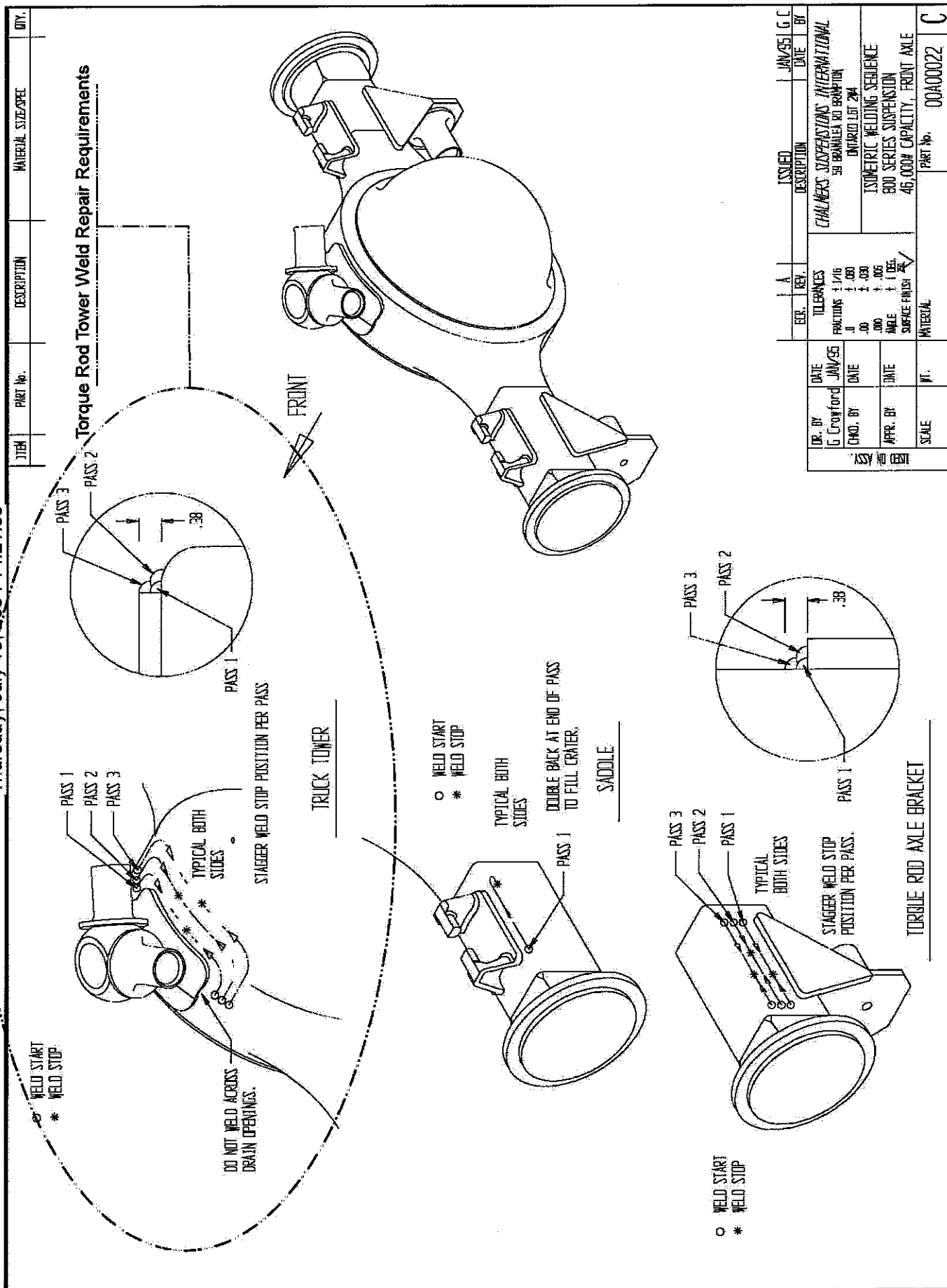
Clean Area to be Painted



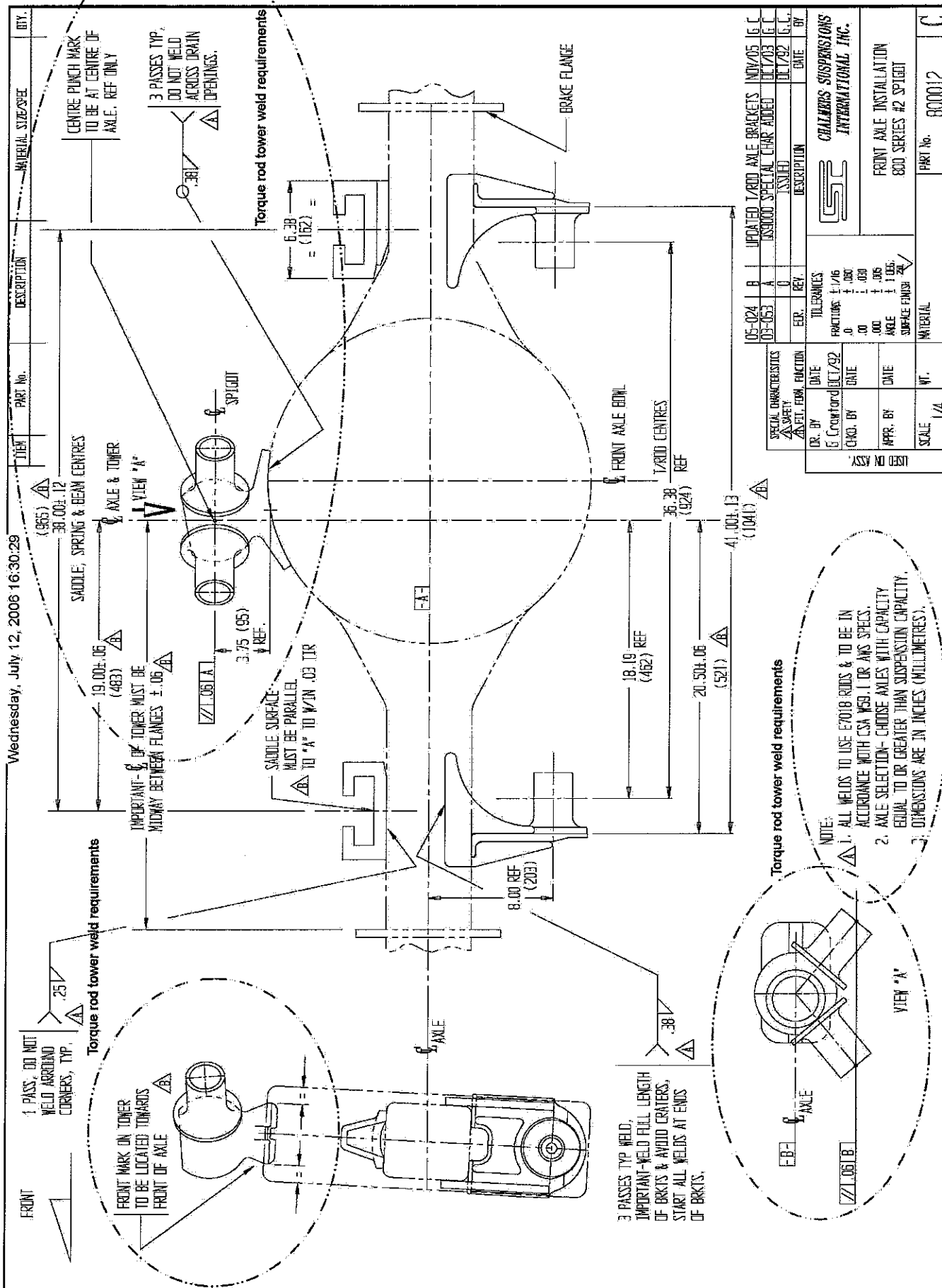
Paint Reconditioned Area

Reconnect battery grounds.

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Chalmer's Welding Requirement



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