

## Toyota Weld On Differential Cover Installation Instructions

### Tools Needed

- Welder
- Grinder with cut-off wheel or other appropriate metal cutting device
- Grinding disc or flap wheel
- Various hand tools (tools will vary with different models)

**Please read all instructions before beginning installation. Refer to the factory service manual for your particular model of Toyota for removal/installation of any factory components and torque specifications.**

**The pictures in this installation guide are of a Toyota pickup cover. Your cover and housing may look different, but the procedure is the same.**

This is a fairly straight forward procedure that anyone with a welder and the ability to weld should have no problem completing in 4-6 hours. Removing the axle housing from the vehicle is not necessary, however we removed the housing in these instructions so we could get clear pictures of the installation.

1. Drain the gear oil from the axle.
2. Remove the driveshaft from the vehicle.
3. Remove the axle shafts.
4. Now the 3<sup>rd</sup> member can be removed from the housing. We recommend removing the 3<sup>rd</sup> member to eliminate the possibility of contamination to the bearing and seals within the axle.
5. You are now ready to remove the factory cover. You should have an empty housing to work with. Use the new cover as a template so you do not remove too much material from the stock housing. Remove the factory cover with a cut-off wheel or other appropriate metal cutting device. Picture showing location of cut.



6. Your housing should now look like this.



7. The next step is to clean up the surface where the cover will be welded on with a grinder. Your housing should look like this when complete.



8. Take the new cover position it in place, and place tack welds in four corners to hold it. Reinstall the 3<sup>rd</sup> member and rotate the gears to check for clearance. On some models the suspension will need to be cycled to verify clearance to the track bar. The cover may need to be modified to clear the track bar.



9. You are now ready to weld the cover all the way around. On some models there is also an emergency brake cable bracket that will need to be removed from the old cover and welded to the new cover.
10. After you have completed welding, the housing now needs to be cleaned to avoid bearing contamination. Using brake cleaner or other such similar solvent clean the housing to remove any foreign material.
11. After the housing has been cleaned thoroughly, apply the paint of your choice to all bare metal surfaces.
12. Reassemble the axle. Reinstall all parts that were removed in the first part of these instructions.
13. Fill the differential with the factory recommended weight gear oil. Fill the differential until the oil reaches half way up the ring gear.
14. Use thread sealing tape or other thread compound on the threads of the fill plug and install the fill plug.

Congratulations you are now finished installing your new Toyota differential cover.

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