



CMS BILLET SIDE PLATE INSTALLATION NOTES

Note: To achieve the best possible results it's recommended the new side cover is installed with the transmission removed in the event differential preload and backlash settings need adjusting. Adjust to factory specifications.

1. Drain gearbox of oil.
2. Remove axle bolt in center of axle flange. It may be helpful to use the CV bolts so a pry bar can be used to lock the axle flange when loosening the bolt. It should not be very tight, only 32 ft lbs. Do not remove the axle flange on the case side yet.
3. With the bolt removed the axle flange pulls straight out by hand.
4. Remove the (11) 13mm hex nuts and washers on the side cover.
5. With a hammer and soft striking tool (wood block, brass punch, etc) carefully walk the cover off by tapping on the back side part of the casting that overhangs the differential case.
6. You may choose to leave the differential in at this stage. It will be necessary to remove for bearing replacement or preload/backlash adjustment. If you need to remove the differential, the axle flange on the case side can now be removed, but while doing so, support the diff so it doesn't fall out.
7. If you are planning to reuse the bearing race from the original cover, remove the radial seal and discard. From the outside of the cover using a drift or similar tool, knock the race out (inward) being careful not to damage it.
8. With the race removed or a new one ready, place in the freezer for about an hour.
9. Heat the new side cover to approximately 300F just prior to installation of the bearing race. We recommend you install in a press to ensure the bearing race goes in straight and all the way down.
10. If the bearing race was replaced, now is the time to install the new taper bearing. With the differential removed from the case, remove taper bearing with the appropriate puller. It's sometimes difficult to remove without damaging the cage.
11. Heat the new taper bearing and press onto the differential. Note: If an adjustment needs to be made, the bearing will have to be removed.
12. After the parts have cooled off, fit the cover without o ring and axle seal and tighten crosswise with 4 nuts.
13. Slip the axle flanges back in and check and adjust preload and backlash settings as necessary.
14. Install a new o-ring and oil lightly before installing cover – do not twist.
15. Install a new radial axle seal; oil lightly prior to installing. Use an appropriate seal installation tool. Best done in a press.
16. Torque nuts crosswise to 17 ft lbs.
17. Torque axle bolts to 32 ft lbs.
18. On models that use the ring gear thrust bolt - screw down bolt so it just touches the backside of the ring gear and then lock down. Do not under any circumstances preload the ring gear.