Instructions for
Differential Support Cover
TFS-8510200, TFS-8510300, TFS-8510400, TFS-8510500, TFS-8510600

Thank you for purchasing this cast aluminum differential support cover. With lightly preloaded support posts placed against the center of each bearing cap the cover will greatly reduce the rearward deflection of the carrier bearings during hard launches. The rearward forces are transferred through the support posts to the cover and cover bolts.

Installation:

1. Place a drain pan under the rear axle housing. Back out the bolts on the old cover about 3/8”; if needed, tap the cover to loosen it. Let the old gear oil drain out, then remove the old cover. Wipe the gasket surface and bolt holes clean.

2. Visually inspect the gears and bearing caps for unusual wear, cracks, or looseness. Check the gear oil left in the bottom of the housing. If there are a lot of large metal shavings and debris floating in the fluid, have the rear axle inspected by a professional.

3. Wipe out any remaining gear oil with paper towels or lint-free rags. With everything inspected and clean, hold the Trick Flow support cover up to the housing and check for any interference with the sway bar or other chassis components.

4. Put the load studs in the cover with the pivoting shoe side towards the bearing cap. Make sure to back the stud out so it will not touch the cap when the cover is bolted in place.

5. Place the gasket between the housing and differential cover and press the cover firmly and evenly against the housing. Install the mounting bolts and torque them to 25 ft-lbs using a criss-cross pattern.

6. Apply a small amount of new differential oil to the load studs prior to installation. Torque the bearing cap load studs to a maximum of 10 ft-lbs. Over-tightening may damage the bearings by creating an out-of-round condition on the bearing caps.

   **DO NOT USE AN IMPACT WRENCH TO RUN THE LOAD STUDS INTO THE COVER; THIS MAY CAUSE THE THREADS TO SEIZE.**

7. Apply a small amount of silicone sealer to the load stud threads underneath the jam nuts. This will help prevent gear oil seepage. Tighten the jam nuts to a maximum of 10-ft. lbs. Do not over tighten!

8. Remove the fill plug. Fill the housing with the proper gear oil for your application until the oil just trickles out of the fill hole. This is the proper fill level.

9. Test drive the vehicle and check for leaks.

   **Note** – Some applications such as the Chevy 10-Bolt, 7.5” Differential Covers will require the use of (2) 5/16-18NC x 1-1/2” hex head bolts (supplied) to mount the parking brake cable brackets to the rear end housing.

   **IMPORTANT NOTE**

   **TFS-8510300 (8.5” 10 Bolt):** GM used four different bolts on these differentials, metric and standard, with different lengths. When replacing your cover, you will need to pull out one of your stock bolts out and measure the length and determine whether it is metric or standard.

   * Metric bolts will have 1.25 threads per mm (20 threads per inch), standard will have 18 threads per inch.
   * Bolt lengths will be either 16mm or 21mm (metric) or 5/8” or 7/8” (standard).

   The bolts supplied with the pan replace the standard thread 5/8” bolts. If you have the metric or 7/8” standard thread bolts, we recommend using the following ARP fasteners.

<table>
<thead>
<tr>
<th>Stock Bolt</th>
<th>Stock Length</th>
<th>Recommended Bolts</th>
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<tbody>
<tr>
<td>Standard</td>
<td>7/8”</td>
<td>ARP-612-1500 (5 pack)</td>
</tr>
<tr>
<td>Metric</td>
<td>16mm/ 21mm</td>
<td>ARP-771-1004 (5 pack)</td>
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LIMITED WARRANTY

This Limited Warranty is given to the original purchaser (the "Buyer") of new Trick Flow products. Trick Flow warrants that new products will be free from defects in workmanship and materials under normal use and service for ninety (90) days from the date of purchase. For high performance street cylinder heads (single valve spring only), street manifolds, 4.6L Upper Plenums, and Street Engine Kits, the term of the Limited Warranty is one (1) year from the date of purchase. This Limited Warranty does not cover any of the following: 1) damages caused by accident, overload, or abuse; 2) damages resulting from improper installation or repair, alteration or modification of the product, or use of the product for race or competition purposes; 3) labor costs to remove and install the product or component parts; and 4) the cost of shipping the product or component parts to and from the Trick Flow address below.

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