Strange F-Body Housings

Read Before Installation !!!

Strange Engineering has always maintained a reputation of producing the highest quality components and assemblies. We have achieved this by accumulating input from you, the customer, and using that information to better ourselves as well as the products and services we offer.

Axle Replacement Policy

S/T Series (induction hardened 33 and 35 spline) are guaranteed against spline breakage to the original owner for a period of three years. Strange pro race axles with 33, 35 (excluding gundrilled) and 40 spline axles are guaranteed against spline breakage to the original owner for a period of five years.

Rear-end assembly

Complete 12 bolt and Strange S-60 assemblies carry a one year parts replacement policy. All parts installed in these assemblies are guaranteed against breakage for one year from that date of purchase (except axles. See above)

Gear Noise

Strange has invested an abundance of time and money to provide a superior product including an in-house test vehicle and dyno. We are extremely selective when choosing gear set manufacturers, unfortunately, gear noise can still potentially exist in the F-body rear end assemblies.

Aftermarket gears are typically cut with a performance application in mind. During production, special attention is paid to the “drive” or “load” side of the gear to maximize the strength of the ring & pinion. This design contributes to potential gear noise as a result of a pattern that is less than optimal for noise reduction. Other factors that can amplify the noise in the vehicle are the use of poly-urethane or solid bushings, aftermarket torque arms, removal of the factory sound deadening or any other components that stiffen the rear of the vehicle which can cause the noise to resonate into the driver compartment. 12 bolt rear-end assemblies provide a further risk if used in vehicles equipped with slicks or drag radials. The teeth on the 12 bolt ring & pinion may bend or distort which changes the pattern on the gear resulting in “gear noise”.

Due to the fact that the rear end assembly may have noise as a result of one or more of the above factors, Strange Engineering will not replace the ring & pinion for this reason, however, the complete rear is guaranteed against breakage for a period of one year as noted above.

Disclaimer of Warranty

Strange Engineering reserves the right to make changes in design and to add or improve on its product without incurring any obligation to install the same on products previously manufactured.

Purchasers using Strange Engineering racing components and equipment, any and all inventory services, purchasers acknowledge that due to the differing conditions and circumstances under which all equipment and parts are installed and used, purchasers are not relying on Strange Engineering Co. skill or judgement to select or furnish the proper part or equipment. Purchasers expressly affirm they are relying on their own skill or judgement to select and purchase suitable goods.

Strange Engineering Co. makes no warranties whatsoever, expressed or implied, oral or written, to purchasers. There is no warranty of merchantability made to purchasers. Strange Engineering Co., further excludes any implied warranty of fitness with respect to racing and equipment, any and all inventory and service.
12 bolt installation guidelines

Before you begin installation: Read these guidelines thoroughly and save for future reference. If after reading these installation guidelines, you have any questions or comments, please do not hesitate to call us.

1.) Differential covers are sealed and fully torqued by Strange Engineering.

2.) 12 bolts are equipped with a clutch style limited slip differential which require one bottle (4 fl. oz.) of GM or Spicer limited slip additive. This fluid is a friction modifier that reduces clutch chatter in the differential providing smoother more consistent operation.

3.) The 12 bolt requires approximately 2 quarts of gear oil. Non-synthetic SAE 85W-140 gear oil is recommended for drag racing applications and non-synthetic SAE 80W-90 is recommended for street applications.

4.) Break-in procedure for street gears: No harsh acceleration! Drive the vehicle 50 miles then allow a 1/2 hour for the differential to cool down. Repeat this sequence for a total of 250 miles. At 500 miles remove the differential cover, fully clean the inside, seal the cover and reinstall. Add one bottle of limited slip additive and approximately 2 quarts of gear oil.

*Amount of fluid may vary depending on type of cover, gear ratio, and differential.

Additional setup information:

<table>
<thead>
<tr>
<th>Pinion preload</th>
<th>25-30 in-lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinion nut torque**</td>
<td>225-250 ft-lbs.</td>
</tr>
<tr>
<td>Backlash</td>
<td>0.007&quot;-0.010&quot;</td>
</tr>
</tbody>
</table>

*Pinion seal installed and new bearings with light oil

**If using a crush sleeve, torque the pinion nut until proper pinion preload is achieved
S60 Installation guidelines

Before you begin installation: Read these guidelines thoroughly and save for future reference. If after reading these installation guidelines, you have any questions or comments, please do not hesitate to call us.

1.) Differential covers are sealed and fully torqued by Strange Engineering.

2.) The S60 requires approximately *2 quarts of gear oil. **Non-synthetic** SAE 85W-140 gear oil is recommended for drag racing applications and **non-synthetic** SAE 80W-90 is recommended for street applications.

3.) Break-in procedure for street gears: No harsh acceleration! Drive the vehicle 50 miles then allow a 1/2 hour for the differential to cool down. Repeat this sequence for a total of 250 miles. At 500 miles remove the differential cover, fully clean the inside, seal the cover and reinstall. Refill with approximately *2 quarts of gear oil.

Additional setup information:

*Amount of fluid may vary depending on type of cover, gear ratio, and differential.

<table>
<thead>
<tr>
<th>Pinion preload**</th>
<th>30-35 in-lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinion nut torque</td>
<td>240-300 ft-lbs.</td>
</tr>
<tr>
<td>Backlash</td>
<td>0.008&quot;-0.010&quot;</td>
</tr>
</tbody>
</table>

**Pinion seal installed and new bearings with light oil

Optional tools:

ADJUSTER NUT WRENCH
PART# H1109D
F-BODY TORQUE ARMS

12 BOLTS
1.) No modifications required.
2.) Torque arms with dual bolt patterns will use the inboard bolt pattern just as they were designed for.
3.) The outboard bolt pattern is designed to be used for 9" installations.

S60’s
1.) The torque arm mount on the rear end is moved a 1/2" forward and a 1/2" to the driver’s side.
2.) Torque arms with a single bolt pattern require no modifications.
3.) Torque arms with dual bolt patterns will need to be modified to provide more clearance between the torque arm and the tunnel/floor.
4.) Modifications to BMR and Spohn bars are documented below.

BMR TORQUE ARM MODIFICATION FOR STRANGE S60
(Applies to Trak Pak and Xtreme Duty only)

Front of Car

Top

Remove material only on top half of bracket along dotted line

1/4”

SPOHN TORQUE ARM MODIFICATION FOR STRANGE S60

Front of Car

Top

Install bolts with heads facing pinion/driveshaft

Remove material only on top half of bracket along dotted line