



STRANGE S60 & 12-BOLT REAR END ASSEMBLY GUIDELINES & TORQUE SPECIFICATIONS

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.

Setup Specifications

S60 Carrier Bearing Preload Tighten adjuster nuts until they contact carrier bearings. Then tighten each adjuster nut 1 to 1-1/2 holes per nut to preload bearings. (Optional adjuster nut wrench H1109D is available)

S60 Pinion Preload with slightly oiled seal and new bearings is 30-35 in-lbs

S60 Total Backlash acceptable limit is 0.008"-0.010"

12-Bolt Carrier Bearing Preload Use a case spreader to add shims for preload. Do not spread case over 0.015".

12-Bolt Pinion Preload with slightly oiled seal and new bearings is 25-30 in-lbs

12-Bolt Total Backlash acceptable limit is 0.007"-0.010"

If using a crush sleeve, torque the pinion nut until proper pinion preload is achieved.

If the differential cover is removed, ensure to use either a gasket or gasket maker during reinstallation.

Gear Oil Type & Amount

SAE 85W-140 nonsynthetic gear oil is recommended

S60 & 12 Bolt require 2 quarts of gear oil

Note: If using Spool 2-1/2 quarts are required

Differential Friction Modifier

Differential friction modifier is required for clutch-type limited slip differentials.

One entire bottle (4 fl. oz.) is required in addition to the 2 quarts of gear oil.

GM or Spicer brand is recommended.

Additive is required even if gear oil manufacturer states oil is compatible with limited slip differentials.

Additive reduces clutch chatter in differential providing smoother more consistent operation.

Break-in Procedure for Street Gears

No harsh acceleration! Drive vehicle 50 miles. Allow 1/2 hour for cool down. Repeat for total of 250 miles.

At 500 miles remove the rear cover, fully clean assembly, use a fresh gasket and reinstall cover.

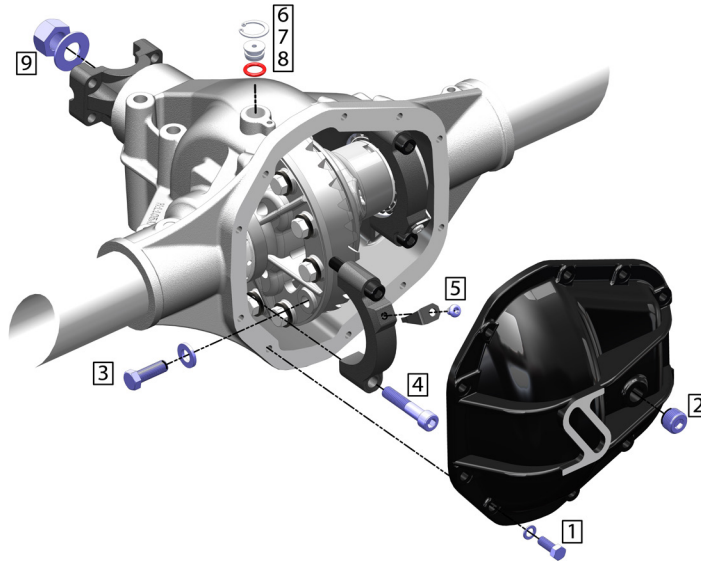
Storage of Rear End Assembly

Differential bearings, pinion bearings, and ring and pinion should be liberally oiled with gear oil and then sealed from the atmosphere in a plastic bag.

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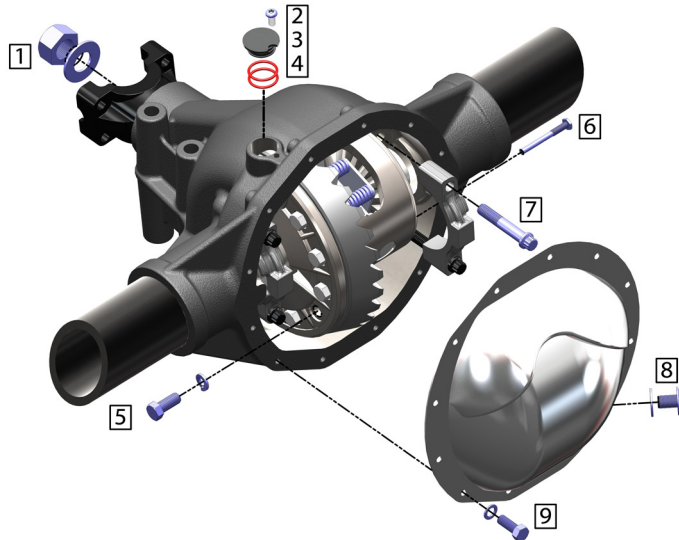
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STRANGE S60



Item #	Part #	Description	Torque Spec.	Notes
1	D3517B	3/8-16 x 1.25" HHCS	35 ft-lbs	none
2	N1908E	1/2 NPT Pipe Plug	40 ft-lbs	Thread Sealer
3	D3504A	Ring Gear Bolt #40638	110 ft-lbs	Red Loctite
4	N1908F	1/2-13 x 2.50" SHCS	80 ft-lbs	Anti-seize
5	N1905B	5/16-18 x 0.375 BHSCS	10 ft-lbs	none
6	H1105Y	Plug Retainer	--	--
7	H1105X	Plug	--	--
8	H1105Z	Plug O-Ring	--	--
9	D3507	Pinion Nut	250 ft-lbs	Red Loctite

STRANGE 12-BOLT



Item #	Part #	Description	Torque Spec.	Notes
1	R5214B	Pinion Nut	225 ft-lbs	Red Loctite
2	H1106T	1/4-20 x 0.50" BHSCS	7 ft-lbs	Anti-seize
3	H1106W	Sensor Plug	--	--
4	H1106U	Sensor Plug O-Ring (x2)	--	--
5	R5211E	3/8-24 x 7/8" HHCS	45 ft-lbs	Red Loctite
6	--	Differential Cross Pin Bolt	20 ft-lbs	Anti-seize
7	H1106C	7/16-14 x 2.50" 12 Pt. Bolt	65 ft-lbs	Anti-seize
8	--	1/2-20 Plug & Washer	15 ft-lbs	Thread Sealer
9	R5199B	5/16-18 x 3/4" HHCS	25 ft-lbs	none

When it comes to quality performance driveline and axles, Strange is the brand you can depend on.