

## Driveline Repair Instructions For The 1959 Chevrolet Passenger Car

<b>Task Timeline:</b>	<b>Driveline Removal:</b> 30 minutes to 1 hour <b>Driveline Repair:</b> 1 to 2 hours <b>Driveline Installation:</b> 30 minutes to 1 hour
<b>Task Assumptions:</b>	Assumes a working knowledge of hand tools. Assumes a flat hard surface on which to park the vehicle. Assumes counter-clockwise rotation to loosen bolts and nuts. Assumes clockwise rotation to tighten bolts and nuts. Assumes vehicle has working emergency brake.
<b>Task Necessities:</b>	7/16 inch boxed end wrench. 9/16 inch boxed end wrench. One large straight-bladed screwdriver. An assortment of shop rags. One roll of Duct Tape. One pair of automotive repair ramps. One pair of wheel blocks -- 2x4 wood cut to 15 inches in length. One Carrier Bearing Support. Three Universal Joints.

Modules	Steps
<b>1. Secure Vehicle</b>	<b>1.1</b> Place ramps behind rear wheels. <b>1.2</b> Back the vehicle onto the ramps. <b>1.3</b> Set the emergency brake. <b>1.4</b> Place transmission in neutral. <b>1.5</b> Place blocks ahead of the front tires. <b>1.6</b> Kick the blocks lightly towards tread with foot, to secure against tire.
<b>2. Remove Carrier Bearing Support</b>	<b>2.1</b> Choose the 9/16 inch boxed end wrench. <b>2.2</b> Identify the two bolts in the center of the vehicle frame. <b>2.3</b> Remove each bolt. <b>2.4</b> Place removed bolts in safe storage area. <b>2.5</b> Replace bolts if worn or broken.
<b>3. Remove Universal Joint Attachment</b>	<b>3.1</b> Choose the 7/16 inch boxed end wrench. <b>3.2</b> Identify the differential yolk under the rear portion of the car. <b>3.3</b> Identify the driveline's rear universal joint attached to the differential yolk. <b>3.4</b> Remove the four nuts and washers holding driveline to the differential yolk. <b>3.5</b> Replace nuts and washers if worn. <b>3.6</b> Remove two u-bolts from universal joint.
<b>4. Prep Driveline For Removal</b>	<b>4.1</b> Place shop rag on ground below rear of driveline. <b>4.2</b> Choose the large straight-bladed screwdriver. <b>4.3</b> Place screwdriver in space between universal joint and differential yolk. <b>4.4</b> Place hand on driveline for support. <b>4.5</b> Pry forward carefully with screwdriver to unseat universal joint from its holder. <b>4.6</b> Lower rear of driveline to the shop rag.
<b>5. Remove Driveline</b>	<b>5.1</b> Pull slowly and carefully on driveline towards back of vehicle. <b>5.2</b> Remove driveline completely from driveline tunnel. <b>5.3</b> Pull driveline from underneath vehicle.

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Sub-Tasks	Steps
<b>6. Prepare For Machine Shop Work</b>	<p>6.1 Gather driveline, universal joints and carrier bearing support.</p> <p>6.2 Deliver driveline, universal joints and carrier bearing support to machine shop.</p> <p>6.3 Instruct worker to install new parts on driveline.</p>
<b>7. Prepare For Driveline Installation</b>	<p>7.1 Wrap shop rag around the front yolk of the driveline.</p> <p>7.2 Secure shop rag to yolk with duct tape.</p> <p>7.3 Place front of driveline inside driveline tunnel.</p> <p>7.4 Push forward on driveline slowly and carefully.</p> <p>7.5 Watch for front of driveline to appear through the forward portion of the tunnel.</p> <p>7.6 Remove shop rag.</p> <p>7.7 Place yolk into rear of transmission.</p> <p>7.8 Slide yolk forward slowly until it no longer moves.</p>
<b>8. Attach Carrier Bearing Support: Initial Phase</b>	<p>8.1 Identify the two slotted holes in the bottom of the differential tunnel.</p> <p>8.2 Line holes up with threaded holes in carrier bearing support inside tunnel.</p> <p>8.3 Choose 9/16 inch boxed end wrench.</p> <p>8.4 Thread bolts into holes one rotation.</p> <p>8.5 Confirm that the bolts are loose enough for the driveline to move.</p>
<b>9. Attach Driveline To Differential</b>	<p>9.1 Remove carefully the black tape holding universal joint caps in place.</p> <p>9.2 Raise rear of driveline to the differential yolk.</p> <p>9.3 Line up universal joint caps with the differential yolk by rotating driveline.</p> <p>9.4 Place universal joint caps slowly into corresponding cradle of differential yolk.</p> <p>9.5 Place u-bolts through holes in differential yolk.</p> <p>9.6 Place nuts on threaded ends of the u-bolts.</p> <p>9.7 Choose 1/2 inch boxed end wrench.</p> <p>9.8 Tighten nuts in an x-pattern, applying torque evenly to each one.</p>
<b>10. Attach Carrier Bearing Support: Final Phase</b>	<p>10. 1 Identify Carrier Support Bolts that were left hand tight.</p> <p>10. 2 Choose 9/16 inch boxed end wrench.</p> <p>10.3 Tighten bolts.</p>
<b>11. Prepare Vehicle For Driving</b>	<p>11.1 Remove all remaining tools and rags from underneath the vehicle.</p> <p>11.2 Kick blocks away from front of tires.</p> <p>11.3 Release emergency brake.</p> <p>11.4 Drive vehicle forward, slowly off ramps.</p>