

Front Drive Halfshafts

Principles of Operation

Inspection and Verification

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical or electrical damage.
3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step
4. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart.

Symptom Chart(s)

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Symptom Chart

Condition	Possible Sources	Actions
Halfshaft broken	• Overloading the vehicle	• INSTALL a new axle halfshaft. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).

	• Misaligned axle halfshaft	• INSPECT the axle for damage. CHECK axle halfshaft alignment. INSTALL a new axle halfshaft. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
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Symptom Chart: NVH

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Condition	Possible Sources	Actions
Axle howling or whine – front axle	• Damaged or worn wheel hub bearings	• CHECK for abnormal wheel hub bearing play or roughness. REFER to: Front Wheel Bearing and Wheel Hub (204-01B Front Suspension - 4WD, Removal and Installation).
Driveline clunk - loud clunk when shifting from REVERSE to DRIVE	• Damaged or worn Constant Velocity (CV) joints	• INSPECT the Constant Velocity (CV) joints for wear or damage. INSTALL a new halfshaft or driveshaft as necessary. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).

	Loose hub nut	CHECK the torque on the hub nut. REPLACE the hub nut if the torque is not at specification. For front hub nuts. REFER to: Front Wheel Bearing and Wheel Hub (204-01B Front Suspension - 4WD, Removal and Installation). REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
Driveline clunk — occurs during acceleration or from cruise to coast/ deceleration	Damaged or worn Constant Velocity (CV) joints	INSPECT the inner Constant Velocity (CV) joint and boot. INSTALL a new halfshaft as necessary. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
	Loose hub nut	CHECK the torque on the hub nut. REPLACE the hub nut if the torque is not at specification. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
Driveline clunk — occurs as the vehicle starts to move forward following a stop	Loose hub nut	CHECK the torque on the hub nut. REPLACE the hub nut if the torque is not at specification. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).

Clicking, popping or grinding - occurs while the vehicle is turning	• Inadequate or contaminated lubrication in the Constant Velocity (CV) joints	• CHECK the Constant Velocity (CV) boots and joints for wear or damage. INSTALL new components as necessary. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
	• Another component contacting the halfshaft	• CHECK the halfshafts and the area around the halfshafts. REPAIR as necessary.
Grunting — normally associated with a shudder experienced during acceleration from a complete stop	• Halfshaft Constant Velocity (CV) joint binding	• CHECK the outer Constant Velocity (CV) joint for correct seating into the hub. REPAIR as necessary. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation).
Driveline vibration - occurs at cruising speeds	• Incorrectly seated Constant Velocity (CV) joint in the wheel hub	• CHECK the outer CV joint for correct seating into the hub. REPAIR as necessary. REFER to: Halfshaft (205-04 Front Drive Halfshafts, Removal and Installation). REFER to: Front Wheel Bearing and Wheel Hub (204-01B Front Suspension - 4WD, Removal and Installation).