

Grunting - normally associated with a shudder experienced during acceleration from a complete stop	Loose axle mount bolts or suspension fasteners	INSPECT the rear suspension and axle. TIGHTEN the fasteners to specification. REFER to: Axle Assembly .
Howl - can occur at various speeds and driving conditions. Affected by acceleration and deceleration	Incorrect ring and pinion contact, incorrect bearing preload or gear damage	INSPECT and REPAIR as necessary. REFER to: Differential Ring Gear and Pinion .
Chuckle - heard at coast/deceleration. Also described as a knock	Incorrect ring and pinion contact or damaged teeth on the coast side of the ring and pinion	INSPECT and REPAIR as necessary. Refer to Contact Pattern .
Knock - noise occurs at various speeds. Not affected by acceleration or deceleration	Gear tooth damage to the drive side of the ring and pinion	INSTALL a new ring and pinion. REFER to: Differential Ring Gear and Pinion .
Scraping noise - a continuous low pitched noise starting at low speeds	Worn or damaged pinion bearings	INSPECT and REPAIR or INSTALL new pinion bearings. REFER to: Differential Ring Gear and Pinion .
Driveline shudder - occurs during acceleration from a slow speed or stop	Drive axle assembly mispositioned	CHECK the axle mounts and the rear suspension for damage or wear. REPAIR as necessary. REFER to: Axle Assembly .
	Loose axle bolts	CHECK the axle for loose bolts. TIGHTEN the bolts to specification. REFER to: Axle Assembly .
	Loose or missing fasteners	CHECK all driveline fasteners for proper torque.

DIAGNOSIS AND TESTING > FRONT DRIVE AXLE > AXLE FLUID ANALYSIS

The appearance of milky or gray axle fluid in early mileage axles is a result of white marking compound used at the assembly plant to verify gear mesh contact pattern. The marking compound within the fluid will darken some over time. The milky fluid appearance will diminish and cause no harm and does not require a fluid change.

DIAGNOSIS AND TESTING > FRONT DRIVE AXLE > ANALYSIS OF LEAKAGE

Clean up the leaking area enough to identify the exact source.

A plugged front axle housing vent can cause excessive pinion seal lip wear due to internal pressure buildup.

Verify the differential lubricant level is at the correct level. REFER to: Specifications .