

		Differential (ELD) .
ELD does not engage in snow, mud or on ice	Mode switch	Refer to ELD DTC chart. REFER to: Electronic Locking Differential (ELD) .
	Differential	Refer to ELD DTC chart. REFER to: Electronic Locking Differential (ELD) .
	Transfer Case Control Module (TCCM)	Refer to ELD DTC chart. REFER to: Electronic Locking Differential (ELD) .
	Wiring	Refer to ELD DTC chart. REFER to: Electronic Locking Differential (ELD) .
Gray or milky axle lubricant in low mileage vehicles	Marking compound in axle fluid	Inspect axle housing and vent for damage or leaks. Refer to Axle Fluid Analysis .
Lubricant leaking from the pinion seal, axle shaft oil seals or support arm to the housing	Vent	CLEAN the axle housing vent.
	Damage in the seal contact area or dust slinger on the pinion flange dust shield	INSTALL a new pinion flange and the pinion seal if damage is found.

DIAGNOSIS AND TESTING > REAR DRIVE AXLE AND DIFFERENTIAL > SYMPTOM CHART(S) > SYMPTOM CHART: NVH

Symptom Chart

Condition	Possible Sources	Actions
Axle howling or whine	Axle lubricant low	CHECK the lubricant level. FILL the axle to specification. REFER to: Differential Fluid Level Check .
	Axle housing damage	INSPECT and INSTALL a new axle assembly as necessary. REFER to: Axle Assembly .
	Damaged, worn or incorrect ring and pinion gear contact	INSPECT and INSTALL a new ring and pinion set as necessary. Refer to, Contact Pattern of this procedure, or REFER to: Drive Pinion .
Driveline clunk - loud clunk when shifting from REVERSE to DRIVE	Incorrect axle lubricant level	CHECK the lubricant level. FILL the axle to specification. REFER to: Differential Fluid Level Check .

	Excessive backlash in the axle	CHECK for excessive axle backlash. ADJUST backlash as necessary. REFER to: Ring Gear Backlash Adjustment .
Driveline clunk - occurs as the vehicle starts to move forward following a stop	Pinion gears	CHECK and REPLACE as necessary. REFER to: Differential Carrier . REFER to: Differential Carrier - Vehicles With: Electronic Locking Differential (ELD) .
Grinding, popping or chattering - noise from the rear axle when the vehicle is turning	Damaged or worn differential (differential side gears and pinion gears)	INSPECT the differential carrier and the components of the differential carrier. INSTALL a new differential carrier and/or differential carrier components as necessary. REFER to: Differential Carrier . REFER to: Differential Carrier - Vehicles With: Electronic Locking Differential (ELD) .
Grunting - normally associated with a shudder experienced during acceleration from a complete stop	Loose rear axle mount bolts or suspension fasteners	CHECK for loose bolts. TIGHTEN to specifications. 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 ADJUST as necessary. Refer to, Contact Pattern of this procedure, or REFER to: Differential Carrier . REFER to: Differential Carrier - Vehicles With: Electronic Locking Differential (ELD) . REFER to: Ring Gear Backlash Adjustment .
Chuckle - heard at coast/ deceleration. Also described as knock	Incorrect ring and pinion contact or damaged teeth on the coast side of the ring and pinion	INSPECT and INSTALL a new ring and pinion set as necessary. Refer to, Contact Pattern of this procedure, or REFER to: Drive Pinion .
Knock - noise occurs at various speeds. Not affected by acceleration or deceleration	Gear tooth damage to the driver side of the ring and pinion	INSPECT and INSTALL a new ring and pinion as necessary. REFER to: Drive Pinion . REFER to: Differential Carrier . REFER to: Differential Carrier - Vehicles With: Electronic Locking Differential (ELD) .
Scraping noise - a continuous low pitched noise starting at low speed	Worn or damaged pinion bearings	INSPECT and INSTALL new pinion bearings as necessary. REFER to: Drive Pinion Front Bearing .