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23-1810 Making Clunking Noise? It's Probably Not the Rack

Application:

2004-2010 Chevrolet Malibu

2005-2010 Pontiac G6

2005-2008 Saturn Aura

Problem:

Complaints related to noise, specifically "clunking" during low speed turns.

Cause:

The manual rack and pinion (23-1810) is part of the Electronic Power Steering System (EPS) for the vehicles listed above. EPS systems provide assist only when needed, so the driver feels when the motor engages/disengages for assist-on/assist-off driving. The different torque characteristic of this system is not typical of a hydraulic system. The noise complaint is most likely due to three possible conditions that are clearly defined in GM TSB 06-02-32-007G, which are:

- Intermediate shaft sticking or slipping
- Interference between the intermediate shaft clamp and steering gear input shaft
- Strut mount or sway bar link condition

Solution:

In addition to the TSB information, there is also a precise mounting bolt torque specification that must be followed to ensure that the rack is properly mounted to the frame. If this specification is not followed, vibration can also lead to misdiagnosed noise.

- Tighten mounting bolts to **52 ft-lbs. (70Nm) plus an additional 90 degrees.**

Note:

In addition to the listed TSB, please refer to your vehicle's service manual for specific diagnostic instructions. This ProTech bulletin is supplied as technical information only and is not an authorization for repair.

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