

NO.21 ENGINE NOISE [ZJ, Z6]

B3E010318881W54

| 21 | ENGINE NOISE |
|----------------|---|
| DESCRIPTION | Engine noise from under hood |
| POSSIBLE CAUSE | <p>Squeal, click or chirp noise:</p> <ul style="list-style-type: none"> • Improper engine oil level • Improper drive belt tension • Generator installation (alignment) • Splash shield or under cover looseness (splashed water to drive belt) <p>Rattle sound noise:</p> <ul style="list-style-type: none"> • Loose parts <p>Hiss sound noise:</p> <ul style="list-style-type: none"> • Vacuum leakage • Loose spark plug • Air leakage from intake-air system <p>Rumble or grind noise:</p> <ul style="list-style-type: none"> • Improper drive belt tension • Improper P/S fluid level <p>Rap or roar sound noise:</p> <ul style="list-style-type: none"> • Dynamic damper looseness • Exhaust system looseness • Intake-air system looseness <p>Other noise:</p> <ul style="list-style-type: none"> • Camshaft friction gear noise or MLA noise • Timing chain noise |

Diagnostic procedure

| STEP | INSPECTION | RESULTS | ACTION |
|------|--|---------|---|
| 1 | Is a squealing, click or chirping sound present? | Yes | Inspect for following: <ul style="list-style-type: none"> • Engine oil • Drive belt tension • Splash shield or under cover looseness • Generator installation (alignment) |
| | | No | Go to the next step. |
| 2 | Is a rumbling or grinding sound present? | Yes | Inspect drive belts. |
| | | No | Go to the next step. |
| 3 | Is a rattling sound present? | Yes | Inspect rattling location for loose parts. |
| | | No | Go to the next step. |
| | | | Inspect for the following: |

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| 4 | Is a hissing sound present? | Yes | <ul style="list-style-type: none"> • Vacuum leakage • Spark plug looseness • Intake-air system leakage |
| | | No | Go to the next step. |
| 5 | Is a rapping or roaring sound present? | Yes | Inspect the following for looseness: <ul style="list-style-type: none"> • Dynamic chamber • Intake-air system • Exhaust system |
| | | No | Go to the next step. |
| 6 | Is a knocking sound present? | Yes | Go to symptom troubleshooting "No.11 Knocking/pinging". (See NO.13 KNOCKING/PINGING-ACCELERATION/CRUISE [ZJ, Z6].) |
| | | No | If noise comes from engine internal, inspect for friction gear, timing chain or MLA noise. |
| 7 | Verify test results. <ul style="list-style-type: none"> • If normal, return to diagnostic index to service any additional symptoms. (See ENGINE SYMPTOM TROUBLESHOOTING [ZJ, Z6].) • If malfunction remains, inspect related Service information perform repair or diagnosis. - If vehicle repaired, troubleshooting completed. - If vehicle not repaired or additional diagnostic information not available, replace the PCM. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [ZJ, Z6].) | | |