

27. Engine Noise

A: INSPECTION

| Type of sound | Condition | Possible cause |
|---|---|---|
| Regular clicking sound | Sound increases as engine speed increases. | <ul style="list-style-type: none">• Valve mechanism is defective.• Incorrect valve clearance• Worn camshaft• Broken valve spring• Trouble of valve lifter |
| Heavy and dull clank | Oil pressure is low. | <ul style="list-style-type: none">• Worn camshaft main bearing• Worn connecting rod bearing (large end) |
| | Oil pressure is normal. | Damaged engine mounting |
| High-pitched clank | Sound is noticeable when accelerating with an overload condition. | <ul style="list-style-type: none">• Ignition timing advanced• Accumulation of carbon inside combustion chamber• Wrong thermal value spark plug• Gasoline of improper octane number |
| Clank when engine speed is between 1,000 and 2,000 rpm. (NOTE*) | Sound is reduced when fuel injector connector of noisy cylinder is disconnected. | <ul style="list-style-type: none">• Worn crankshaft main bearing• Worn connecting rod bearing (large end) |
| Knocking sound when engine is operating under idling speed and engine is warm | Sound is reduced when fuel injector connector of noisy cylinder is disconnected. (NOTE*) | <ul style="list-style-type: none">• Worn cylinder liner and piston ring• Broken or stuck piston ring• Worn piston pin and hole at piston end of connecting rod |
| | Sound is not reduced if each fuel injector connector is disconnected in turn. (NOTE*) | <ul style="list-style-type: none">• Unusually worn valve lifter• Worn cam gear• Worn camshaft journal bore in cylinder head |
| Squeaky sound | — | Insufficient generator lubrication |
| Rubbing sound | — | Poor contact of generator brush and rotor |
| Gear scream when starting engine | — | <ul style="list-style-type: none">• Defective ignition starter switch• Worn gear and starter pinion |
| Sound like polishing glass with a dry cloth | — | <ul style="list-style-type: none">• Loose drive belt• Defective water pump shaft |
| Hissing sound | — | <ul style="list-style-type: none">• Insufficient compression• Air leakage in air intake system, hose, connection or manifold |
| Timing chain noise | — | <ul style="list-style-type: none">• Loose timing chain• Contact of timing chain with adjacent part |
| Valve lifter noise | — | Incorrect valve clearance |

(NOTE*)

When disconnecting the fuel injector connector, the malfunction indicator light illuminates and DTC is stored in ECM memory. Therefore, perform the Clear Memory Mode <Ref. to EN(H6DO)(diag)-54, OPERATION, Clear Memory Mode.> and Inspection Mode <Ref. to EN(H6DO)(diag)-44, PROCEDURE, Inspection Mode.> after connecting the fuel injector connector.

Engine Noise

MECHANICAL

EXHAUST

EX(H6DO)

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