

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)-59, OPERATION, Clear Memory Mode.> and Inspection Mode <Ref. to EN(H6DO)(diag)-47, PROCEDURE, Inspection Mode.> after connecting the fuel injector connector.

EXHAUST

EX(H6DO)

| | Page |
|------------------------------|------|
| 1. General Description | 2 |
| 2. Front Exhaust Pipe | 4 |
| 3. Rear Exhaust Pipe | 7 |
| 4. Muffler | 9 |