

Q: What would cause a clicking or ticking sound in my engine?

A: The most common source of ticking sounds is from a valve tappet adjustment (or two) that might be a bit over the recommended clearance of .010" for intake valves, and .012" for exhaust valves. Clearances as little as .002" over these values can cause a ticking sound. Ticking sounds caused by loose valve adjustments usually become very slight, or disappear completely at higher RPM.

The second most likely place for ticking sounds is from the accessory drive, or the internal idler gear that connects the accessory drive gear to the crankshaft gear. These ticking sounds are also most pronounced at idle RPM, and practically disappear at RPM above 1200 or so.

A more serious source of ticking sounds, and a source that becomes louder as RPM increases, is a failure of one or more valve springs. If a valve spring fails in only one location, it can still function rather normally, but the valve closing is somewhat "lazy", allowing the combustion process itself to slam the valve closed the last little bit of travel, which causes the clicking (or ticking) sound that you may be hearing.

If, or when, a valve spring fails in a second or third location, it will no longer be able to cause the valve to follow the lobe of the cam shaft, and serious missing will result at virtually all RPM.

The surest way to determine if you have a broken valve spring is to remove the valve cover on the carburetor side of the engine and inspect each valve spring carefully. Valve springs that are broken in only one place, tend to be broken near the bottom of the spring, and the only visible indication may be a bit of "bunching up" near the bottom of the spring.