On the Line

Engine Noise Complaints

They Could Be a Normal Characteristic

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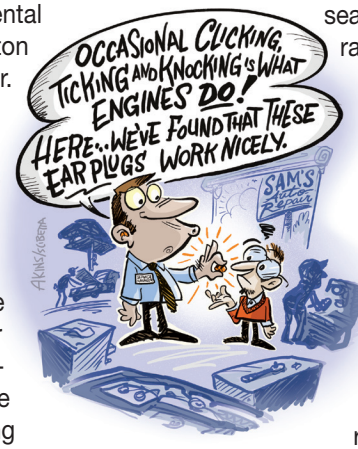
While engine diagnostics may not be your specialty, you may have to deal with engine noise complaints, especially if the customer is convinced the noise symptoms occurred following your lube service. Nothing is more frustrating than having to deal with an engine noise related symptom when you know the condition had nothing to do with your service or the parts and lubricant installed during the service.

Some vehicles emit noises that are considered as a normal characteristic by the vehicle manufacturer. Identifying normal characteristic noises from true engine related concerns can be a challenge. And then there is the challenge of convincing the customer and satisfying their concerns.

Having been in the automotive business for fifty years, it is still difficult to accept engine noises as a normal characteristic. But the fact is…some engines are prone to emit noises such as clicking, ticking or knocking sounds. Some noises are not detrimental to the life of the engine, such as a brief piston slap following a cold start in cold weather. Other noises, such as a main bearing or rod bearing knock, are not a normal characteristic and should receive attention. Some of the newer vehicles emit injector or fuel pump noises and those are truly a normal characteristic and there is nothing you can do to quieten the noise. Some of these conditions can be resolved or explained with minimum effort, while others may require some major labor-intensive repairs. The challenge comes in identifying what is considered a normal characteristic, what can be resolved, who bears the responsibility for those repairs, and above all keeping the customer happy. Factory service bulletins from companies such as ALLDATA can help identify problem vehicles. Let's consider some noise symptoms that you are certain to encounter:



TICKING NOISE ON COLD START

GM advises that an engine ticking noise lasting for 3-15 seconds following a cold start may be due to a defective or compressed oil pump pick-up tube-to-block seal. During this time air is drawn in when the engine is started. A few seconds later the oil pump picks up oil and seals the air space and the noise is eliminated until the next cold start. For specific applications ranging from 2004-2015 year models equipped with a V-6 engine, refer to GM Service Bulletin PIP5191. A replacement seal will be required to eliminate the condition.

PISTON SLAP

Piston slap/knock is common on some GM engines due to the short skirt pistons designed to increase power and fuel economy. The noise may occur for 2-3 minutes following a cold start. Once the engine temperature increases, the pistons will tighten in the bores and the noise will be eliminated until the next cold start.

MAXIMA MAIN BEARING KNOCK

Engine knock from the #1 main bearing may be encountered on 2009-2014 Nissan Maximas. The noise is more pronounced once the engine reaches normal operating temperature, at idle speed with the hood up or from beneath the engine. The customer may complain of the knocking condition especially from the passenger side front seat with the doors closed, windows up and the radio off. The intensity of the noise level may be changed by increasing or decreasing tension on the accessory drive belt. Nissan advises not to change oil type or viscosity in an effort to eliminate the noise. Nissan Service Bulletin NTB12-071a illustrates the proper main bearing selection necessary to quieten the main bearing knock.

GASOLINE DIRECT INJECTION

On vehicles equipped with Gasoline Direct Injection (GDI), it is not uncommon to receive customer complaints of ticking and clicking noises. The GDI system operates at extremely high fuel pressures. The noise emanates from the pulsing of the fuel injectors, and in some applications the high pressure fuel pump. The ticking and clicking noises are more evident when standing outside the vehicle, especially with the hood raised. The noise is more pronounced at idle speed following a cold start. The noise level lowers once the engine reaches normal operating temperature, but never completely leaves. Most associate the noise with that of a noisy valve lifter. This is a normal characteristic of the GDI system and no attempts should be made to quieten the noise. Many of the vehicle manufacturers are adding sound deadening material to their engine covers in an effort to reduce the noise levels.

Summary: When dealing with engine noise complaints, do your research before taking a position with the customer. Factory bulletins may be available describing the symptoms and there is a lot of information online.