

Octane/Octane Numbers



You see the word ‘Octane’ every time you pull in to put gas in your car. The octane numbering system was first introduced in 1926 and is simply an expression of a gasoline’s antiknock quality. The most common octane numbers you will see on gas pumps today are: 87 thru 91 depending in which part of the country you live in. In higher-elevation areas an engine draws in less air because of the reduced density of the atmosphere. This is why the gas you buy may have a different octane rating than what you would buy say at sea level. Now this octane thing can get really complex, you would have to be a chemist and a mathematician to really understand it. Let’s stick to the very basics. When we talk about anti-knocking quality we are talking about that pinging sound you hear when you step on the gas pedal to say pass another car. Assuming that your car’s engine is tuned properly and your engine pings, chances are you should be using a higher octane gas. Keep in mind I am talking in terms of older British classic cars and not newer cars as most newer cars are equipped with a knock sensor which sends a signal to the engine control unit, which in turn retards the ignition timing.

The “(R+M/2 Method)” you see on the gas pump is a research motor octane number and is determined by running the fuel on a test engine. One misconception is that if you run a higher octane fuel than what the automobile manufacturer recommends you will get an increase in performance. **NOT TRUE.** If you modified the engine such as increased the compression ratio, etc., than chances are using a higher octane gas will get you the increased performance you are looking for.



Happy Motoring...Ron Couturier