

INDEXING SPARK PLUGS

*By Tech Editor, Ron Couturier
For July 2010 Spinner*

I originally drafted this article with the title "Indexing Spark Plugs for Better Performance & Fuel Economy". The more I researched the more I began to realize there are a lot of mixed opinions about plug indexing.

First of all, let me explain exactly what spark plug indexing means. Spark plug indexing is the relationship between the outer electrode position in relation to the intake valve and the center of the combustion chamber. The whole idea is to have the spark directed into or toward the middle of the combustion chamber where the air/fuel mix is. Think about it this way. Try to start a fire with a match, the closer you are to the fuel, the easier and more complete the fire will be.

The traditional method of installing a set of plugs is to install the plugs, then gradually torque each plug to the manufacturers specs. Wherever the outer electrode's position is once the plug is fully torqued can be different from cylinder to cylinder. When indexing your plugs, all plug electrodes (outer), end up pointing in the same direction, i.e., toward the center of the combustion chamber where fuel and air mixture is the most intense.

This, in theory, produces more horsepower. I have seen numbers kicked around claiming gains of 5 to 15 horsepower. The only valid way to confirm these numbers is, of course, on a dyno. Dyno the engine with the plugs indexed and then without being indexed.

This isn't rocket science and as someone stated in one article I read, "you don't have to be dead on". Being 1 clock number position off, either plus or minus, really doesn't make that much difference.

If you run new style plugs like the Bosch +4 platinum that uses 4 ground straps in its design, then it seems to me indexing is pointless. I have read articles both pro and con on indexing plugs. I have talked to mechanics and race car drivers...some are firm believers and others say it is just a waste of time. There is the probability of a valid argument for indexing plugs on older engines that produced much less horsepower than today's sophisticated engines.

There are automotive parts stores that sell indexing washers and indexing tools. There is also plenty of information available on the internet. You be the judge.

Happy Motoring.....Ron Couturier
