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Today's Oil Change

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Before you change the oil in your car, you need to be aware of a few things that the average driver isn't.

Non-synthetic motor oils are made to a performance specification and are not a formulated product. Motor oil is made from what is left over after all the other chemical products have been removed. (Please see Bi-Tron Distributor Document 2004-01-201.) This document will give you additional information on this subject.

Each batch of base stock oil is different because it comes from different oil wells in different parts of the world. This difference means the "Oil Manufacturer's Additive Package" that will be added to the base stock oil will be different for each batch. California oil vs. Saudi oil is much different and the "Oil Manufacturer's Additive Package" is also different.

So, what does this mean to me? Well most people think that when they buy a brand name oil, let's say a 10-30 type, that if they buy that bottle in Boston it will be the same as a bottle purchased in San Diego. With non-synthetic motor oil being a performance specification and not a formula, the additive packages in each of these two bottles we are talking about may or may not be same.

Oil is made in different plants and different parts of the country, and different parts of the world for that matter. This means that to meet the minimum specification set forth by the auto manufacturer you would have to make sure the "Brand Name Oils" all came from the same lot.

Look on the bottom of each bottle and you will find the lot number along with many other numbers that are used for pricing and transportation.

Say the bottle you buy in Boston has a 1234 lot number on it and the one you buy from San Diego has a lot number 5678. If you mix these two bottles of motor oil, with these two different lots numbers, from the same oil company with the same brand name and viscosity, it will not meet the minimum performance specification. Because the "Oil Manufacturer's Additive Packages" are different.

I ran the following test in a laboratory setting using state-of-the-art engine test equipment and I found that mixing lot numbers does affect the outcome of how the oil performs. I bought cases of oil and randomly picked bottles of oil out of the cases and mixed them together and put them into a 3.8L GM test engine. We failed on two occasions to meet the baseline requirements of the auto manufacturer's performance specification because we mixed lot numbers.

We, as auto engineers, were also unaware of this problem, and then when we mixed bottles with the same lot numbers we passed the minimum specification.

So if you change your own oil, you will now have to look at the bottom of each bottle and make sure you buy a case of oil with all the same lot numbers to assure you meet the minimum performance specification.

What happens when you take your car to a quick oil change place and they pump the oil out of their underground tanks? When the auto dealer or quick oil change place buys in bulk, let's say 10W-30 oil, it may be from different batches and blended before it even gets to the auto dealer or quick oil change establishment.

One thing for sure is that it's going to be mixed with other oils when they dump the new oil on top of the oil left in the bottom of the tank. This mixing of oils and lot numbers just took a major turn for the worse because now the oil that was pumped into your car may come from many different manufacturers and a variety of lot numbers.

This brings us to the use of Bi-Tron oil additives in your car. With the secret out about lot numbers you need to have a high quality oil additive like Bi-Tron in your car. Without it you will not meet the performance standards set forth by the auto manufacturer because the lot numbers were not the same.

This mixing of lot numbers causes the oil additives packages in the oil to cancel each other out in some cases. To make sure that your car meets the performance standard you will need an additional oil additive that is compatible with the oil in your car.

Bi-Tron oil additives are the products that can step into the void and perform to meet this need.