

TECH. TIPS cont.

I'm afraid I'll have to leave the fabrication of the timing plate and rotor to your imagination. Instead of the stock 6V coil a 6V car coil can be used since they are cheaper. I would also like to mention that 6V car coils can be used with the 12V ignition (#32 Newsletter) but place 1 ballast resistor in series with the coils. No ballast is required on 6 volt bikes. Another benefit using these circuits is that in case something burns up - you can replace the faulty component (s) individually, instead of replacing the whole black blob in other systems.

I would also like to say that this circuit is not impervious to external electro-magnetic forces from other worlds. Maybe Mr. Kettering had it right after all with mechanical contact points.

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OCTANE BOOSTERS AND SPECIAL FUELS

Running out of gas these days can be a real pain in the rear. There you are cruising down the road and you find yourself switching into reserve - on a Duke that could be for a couple miles - and you would like to put some decent gas into your high-performance steed. Yer siree, there you are on I-75 or whatever and you start watching for those beautiful signs that deface our lovely countryside (all of a sudden they aren't so ugly, all of a sudden they become quite informative). Hell, you don't want to put any of that Kayo, Mascot, Ascot, Army cot, blood clot....gas into your tank. Anyway, here is a comprehensive article which should give you a small education as to what you can put into your bike. The article was compiled and written by my fellow club director Michael Siegerist who runs the Morini Owners Club of North America Club.

By Michael Siegerist
Director, Moto Morini Owners Club of North America

GASOHOL

This fuel has evidently been a big commercial flop and has been very hard to find since Texaco pulled out of selling it. While it was available, I ran 2,000 km on the 125H (11.7:1, 210 lbs compression) and got 84 mpg in the city with no knocking or other ill effects. The gasahol was labeled at the pump at 88 octane, but that must have been the octane of the unleaded before the alcohol was added. The final octane depended upon how much alcohol was added, and according to Texaco, that varied from batch to batch. There is nothing to prevent you from adding ethanol to your gas in small amounts, but it is quite expensive. It will also loosen all the dirt in an old fuel system, and may clog your jets before it cleans them out.

UNLEADED PREMIUMS

Sunoco, Shell etc., are rated at 91.5 while Amoco is rated at 93. Therefore, I settled on the Amoco early on. Leaded regular is rated at 89, by comparison. Amoco will run in the Morinis, without immediately destroying the engines, in that the engines don't knock badly and still have full compression after 7,000 miles, the longest run of the test. For the 3 1/2 Sport (11:1, 180 lbs) and the 500 (11.2:1 and 195 lbs) this fuel shows all the signs of being right at the margin: light knocking, low speed bucking, engine roughness and poor fuel mileage. There must be a lot of very slight detonation. The 125H didn't seem to care, and showed none of these signs, still returning 80+ mpg. The 250's ran well, but knocked very audibly. I haven't tested the 250 2c (11.7:1) or the 3 1/2 Strada (10:1). I feel that the Morini piston burns best in the smaller sizes. Therefore, I expect the 250 2C to run as well as the 125H. I have not heard very many fuel complaints about the lower compression 3 1/2 Strada.

RACING GASOLINES

Believe it or not, Sunoco still makes 280, a heavily leaded premium of 108 octane. It sells at the local speed

shop for \$3.15 a gallon. There is no question that this will work in the Morinis. It should cut very nicely with unleaded premiums, probably at 1 gallon of 280 to two gallons of Amoco. I will run some tests as soon as I can get some. Aside from costs, 280 has two other disadvantages: you must store a flammable liquid in bulk, and it is not tax paid, so the speed shop won't pump it into your bike, and you're not supposed to run it on the road without paying the state tax.

AVIATION GAS

Private airplanes run on 100 octane unleaded that costs about \$1.80 a gallon. It's not tax paid, either, and airports are run a lot stricter than speed shops so it has a reputation of being hard to buy. The recession hit private planes very hard, however, and the local airport is willing to sell it to me if I sign a certificate of non road use. Once again, you could probably pay the tax directly to the state. You may also be able to get a refund on the Federal Aviation excise tax. I don't believe that this gasoline could be cut with any other fuel. Therefore, you should count on running it straight. Also, it presents the same storage problem as any other gasoline.

MIXING FUELS

This idea died along with leaded premium which is almost impossible to find in the east. Mixing leaded regular and unleaded premium just dilutes the premium and reduces its octane. There isn't enough lead in the regular to go around.

ANALINE BOOSTERS

These are sold under such brands as Moroso. The tests showed that they did not boost Amoco. There was no visible difference in performance. These boosters do seem to boost leaded regular - up to about the level of the Amoco. However, if you use this method you get a little lead in the engine to lubricate the valves. These boosters are very expensive and very toxic and are difficult to mix with gasoline.

MBTE

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