TESTING TIRES, CORNERING FORCES, RECAPS

By Jerry KiKin

I've been doing some tire testing recently, evaluating different types of recap on racing tires in comparison to brand new racing tires.

These tests were performed by driving my Elan around a 100 ft diameter circle and clocking the lap times. The actual driving circle was about 108 ft. The idea is to drive the car in a circle at the highest possible speed while still maintaining the circular driving path of the 108 ft circle. This circular path could be chosen as any radius from about 30 ft and up. However a 50 ft radius circule I believe is about the minimum radius circle to perform these tire tests. For this radius circle you would have to drive around the circle at 26 mph (8.1 sec lap time) to corner at "one g". For production sports, out of the showroom on road tires, typical cornering force would be about 0.7-0.8 g's. Just adding racing tires can make a significant improvement in cornering force and with suspension mods, you could expect upwards of one "g" which is a good figure to shoot for.

Anyhoo, with a well prepared (suspension-wise) Elan and new Dunlop race tires, my Elan attained a cornering force of about 0.94 g's. Another well prepared yellow Elan, sporting Goodyear "wet" racing tires, attained lap times very close to my times with the Dunlop tires.

Some recap racing tires I tested weren't too good and resulted in cornering force of only about 0.75 g. However after testing many different compounds we finally arrived at one which gave a cornering force just about the same as the new Dunlop racing tires!! This was quite a gratifying discovery as it is naturally much less expensive putting a racing recap on a race tire carcass than buying new race tires. This new hot recap is now available at Caldwell Tire in Pasadena. He can put this sticky rubber compound on race tires with a tread resembling the latest Goodyear wet-racing tread. The same rubber compound can also be put on radial-ply tires to give a good, sticky recap for road use.