

Under the Hood Aug 2018

The latest ultimate street Porsche, the GT2RS (base price about \$295K) follows Porsche's practice of offering pricey options, which can easily add 40-50% to the base price. In this example, Porsche offers the Weissach package for \$31,000 that includes magnesium wheels, carbon fiber roof and even carbon fiber anti-roll bars. The complete lightweight package reduces the weight of the car by 40 pounds. Certainly, the lightweight wheels have the advantage of reducing un-sprung weight and reducing rolling inertia, but at about \$800/pound, this package seems to be more about expanding Porsche's finances than increasing the vehicle's performance. You would get almost the same performance increase if the owner simply lost some weight. How many months of Weight Watchers could we buy for \$31,000? Danica Patrick is probably the best known of recent woman race car drivers. Danica is very petite and weighs about 110 lbs. In every race car the designers are always working to decrease the pounds that each horsepower needs to move. You can see that Danica would have an inherent advantage (assuming all other things being equal) over her heavier competitors. Danica has many detractors who claim that she didn't live up to all the hype. However, I think we should remember that the pyramid to the top of the race world is very steep and a very limited number of drivers can possibly reach the top. Just being very, very good is not enough. Some drivers excelled regardless of their weight. Dan Gurney was 6' 4" tall and probably weighed twice Danica's 110 lbs. Even with that disadvantage Dan was one of the most successful racers in all forms of racing. He won events at Indy, NASCAR, Le Mans and Formula 1. Some of the Ford GT40 race cars had a bump on the top, which was added to give Dan enough room for his helmet. In the later part of his career, Gurney built his own race cars, race engines and designed the Gurney flap which is used on the current Z06 Vette as the "wickerbill" on the rear wing. While Gurney wasn't known as a Corvette driver, one of his early victories was in sports car racing driving a 1957 Corvette fuelie. You probably know that Gurney passed early this year.

Do you wonder where we are going with our current horsepower race? When the C7 Z06 was introduced with 650 hp, I thought we had gone insane. The latest LT5 engine in the ZR1 is rated at 755 hp, and I am even more convinced we are going insane. By way of comparison the "ultimate" 1990 Corvette ZR1 debuted with a 4 cam/32 valve engine rated at 375 hp. This was approximately 50% more than the base Corvette. Then in 2001 the C5 Z06 debuted with 385 hp and that car finally got me off the fence to buy my first Corvette. Now my 2015 Z51 Corvette with "only" 460 hp and skinny tires, makes me feel like the 98 pound weakling at the beach getting sand kicked in my face. With the new ZR1, we have a 66% increase in horsepower compared to the base Corvette. The basic engine size is the same 6.2 liter V8 for the base car, Z06 and ZR1. The Z06 and ZR1 get the added hp from their supercharged boost pressure. The Z06 was designed for a 9.4 psi boost and the ZR1 enjoys 14 psi. For supercharged engines the ZR1 seems to be at the upper end of the boost pressure range, although there are many turbocharged engines running more than 14 psi boost. The ZR1 engine also features 16 fuel injectors. It has eight direct cylinder injectors like the other C7 engines, and eight additional intake port injectors that come on line during high horsepower demands. I understand that the ZR1 LT5 engine will not come with active fuel management which means it will run on eight working cylinders at all times. Somehow, I doubt that many ZR1 buyers are concerned whether active fuel management could save them 1 mpg during cruise. Will we find that the insurance companies put a high premium on the ZR1? We will have to wait until we start hearing from new ZR1 owners to know the story. However, I suspect that the insurance companies are not looking favorably to cars with excess of 500 hp, and this horsepower race will be hindered by insurance premiums.

I don't follow NASCAR as closely as some of our club members. From 2014-17, the Chevrolet entries were "based" upon the Chevy SS, an Australian built V8 powered rear wheel drive sedan. The actual real Chevy SS component amounted to a vinyl wrap on the front of the car that had SS in one corner.

The rest of the race car had little resemblance to the actual Chevy SS sedan. However, that is true of all the NASCAR entries as the Fords and Toyotas are not remotely based upon what we can buy in the showroom. Now I am not a Toyota hater. The very first car Judy and I bought after we married was a Toyota that suffered years of spirited driving and served us faithfully for over 100K miles. That Toyota certainly proved the adage that it is more fun to drive a slow car fast, than to drive a fast car slow. Regardless, I have a hard time imagining a Toyota Camry race car with a thumping V8, and rear wheel drive. Toyota apparently did not get the same memo, as Toyota absolutely dominated the 2017 season with 16 major wins compared to Ford and Chevy with 10 wins each. It will be interesting to watch the 2018 season and see how Toyota fares. GM has closed the Australian manufacturing plant, so the Chevy SS is being replaced for the 2018 season with a Camaro ZL1. Again, I suspect the Camaro entry is more vinyl wrap than real Camaro, but that is NASCAR.