

GENERAL CORVETTE MAINTENANCE GUIDLINES

- Oil changes every 3-4k regardless of synthetic oil

The oil life monitor CAN go to 10,000 miles. Some may feel that this is a waste, but the car will benefit from this later in life.

-Air filters and cabin air filters as needed depending on environment

-Hydraulic fluids....Brake and clutch hydraulic fluids

Brake and clutch hydraulic fluids are hygroscopic meaning that they absorb moisture. GM has recently published a bulletin (#07-07-31-001C) due to all of the clutch hydraulic issues. They recommend that every two years that the clutch hydraulic system should be flushed with fresh fluid. There is no reason why the brake hydraulic system should not follow the same rule even though GM feels this is unnecessary.

Using a very high quality fluid here can reduce some of your maintenance. In the race cars we use Castrol SRF brake fluid which has the highest "wet" boiling of the hydraulic fluids typically 500 deg F "wet" which exceeds most commonly available fluids "dry" boiling point. Regardless of cost this is a great fluid to use in clutch hydraulic systems due to not being easy to access the clutch hydraulic bleeder (especially with headers). Additionally the costs associated with damage caused to the remainder of the driveline, (transmission, propshaft) from a clutch not operating properly is high.

-Cooling system

GM recommends that Dex-Cool antifreeze should be replaced every 5 years or 100,000 miles.

-Manual and Automatic Transmissions

Every 30k miles the automatic or manual transmission ought to be serviced. Manual transmissions come from the factory without synthetic fluid. Synthetic fluid remains significantly more constant through a wider temperature range than conventional fluids. Manual transmissions will shifter better when cold and be better protected when hot using synthetic fluid.

Automatics should have filters inspected/replaced on every transmission service. "Trans-fusions" not all ways the best idea especially on high mileage vehicles due "washing" of varnishes on the seals, allowing the transmission to leak or not seal after service performed potentially causing transmission issues.

-Rear Differentials

Rear differentials should be serviced every 50k with a synthetic fluid and friction modifier. The new "LS" gear oil that the cars come equipped with is not synthetic but "blended" oil that maintains friction modifier suspension better. This fluid was developed to reduce the rear differential clutch chatter that was prevalent in early C6 cars. Synthetic oils are better than non-synthetic oils. Corvettes have had synthetic oil in differentials since 1997 until recently. 2009-later production equipped with GM LS gear oil non-synthetic.

-Spark plugs

GM recommends spark plug replacement @ 100k miles. A more appropriate interval would be 50k. The remainder of the ignition system will benefit from this and this would be a good time to "read" the spark plugs to see what is happening in the cylinder.

-Fuel Injector Cleaning

I do not believe the GM recommends this for maintenance, only for condition repairs. A good rule of thumb here would be to have the fuel injectors cleaned every 50K when you are changing spark plugs.

-Fuel Filters

Corvettes produced after 11/02 do not have external fuel filters and are equipped with the FFS fuel system which has an internal to the tank fuel filter. Vehicles before that production have external fuel filters and should be replaced every 15-20k miles. 1999 model year to 11/02 production vehicles, the cars are equipped with a "return-less" fuel system which the fuel filter also incorporates the fuel pressure regulator and are considerably more pricey. If you get fuel typically at the same place after the first fuel filter is inspected for contamination you maybe able to extend the frequency of fuel filter replacement.

-Power Steering systems

Power steering systems should be maintained every 30-50K with a synthetic power steering fluid. The vehicles do NOT come equipped with synthetic power steering fluid. This procedure should be done to flush the entire power steering hydraulic system including the cooler.

-Wheel Alignment

Due to the incredible costs of a new set of run-flat tires, you would be advised to check your alignment every 10k miles or so. Alignments on these Corvettes wander due to some ride compliance being generated by soft compliant suspension bushings that wander or shift. That coupled with the ride height changing on the vehicle because of some spring sag allow the alignment to change. Alignments should always be performed "ballasted" as the vehicle is usually driven since ride height changes alignment. Additionally alignments from the factory are within "manufacturers specs", not necessarily perfectly symmetrical. Tires are expensive, you be the judge.

-Brake pads and rotors

Corvettes have the most phenomenal brakes the GM has to offer and are very well thought out. Typically Corvettes will go in excess of 50k miles before the brakes are worn depending on usage.

-Wheel bearings, Tie-rods, suspension

Periodic inspections of all of the above should occur when the vehicle reaches 40k or so. These components will require replacement at some point depending on usage, condition of roadways, and alignment settings. Additionally aside from the rear tie rods on newer Corvettes the ball-joints and tie rods have not had serviceable grease fittings since early C4 days.

-Radiator

The radiators in the vehicle will typically last past 100k miles. Modern coolant technology and aluminum engine components have aided in this. More problematic on Corvettes is the fact that most of them are "bottom feeders" meaning that air for the radiator is fed air from the bottom of the car. This turns the front end of your corvette into a vacuum cleaner, allowing in particular fall sediment to get inducted into the radiator and condenser cores in the front of the vehicle. This stuff should be cleaned out to prevent over heating and proper operation of the cooling system and air conditioning systems.