CAR CARE SPECIALTIES, INC.

ENGINE CLEANING

Why should you clean the engine compartment? Rust prevention, early oil/fluid leak detection, early belt wear detection and cosmetics are among the prime reasons. (There is a rumor that certain series of German mid/rear engine cars have a factory designed engine oil leakage feature to assist in rust prevention for the non-galvanized rear quarter panels and trunk areas.)

To soften the grease and grunge collected on your engine compartment, start the engine, let it warm up for a few minutes and shut it off. The proper cleaning temperature of the engine is warm but not hot. If you can just hold your hand to the engine without burning it, then it is warm enough to clean. As the engine cools to proper temperature, use the time to cover the few openings on the motor that dislike ingesting water. The air intake/air filter, the distributor, the coil and the oil dipstick/breather are among the few sensitive areas.

Use plastic Baggies and rubber bands to cover the air intake/air filter(s) and the distributor/coil. Place a double layer of Baggies over the air intake and secure with a couple of rubber bands. Use a pair of two-gallon size Baggies to cover the distributor and plug wires around the distributor cap. This may be difficult to seal, but the idea is to prevent significant amounts of water possibly shorting out the distributor. If the cap is in good condition, it will be "waterproof", so this is only a preventative measure. The coil is also "waterproof", so Baggies are again a preventative measure. Check the tightness of the oil filler cap, the power steering filler cap, windshield washer fluid cap, oil dip stick, battery filler caps and all other engine compartment opening caps and secure baggies over them with rubber bands.

Now that your engine is warm and sealed, spray the entire engine/engine compartment with a quality non-petroleum based degreaser. Try to start from the bottom and work up. This way, you don't have the degreaser dropping on you as you clean the underside areas. My two favorite engine cleaners are P21S Total Auto Wash and Wurth Citrus Degreaser. I find that either of these two products will clean thoroughly, and not harm the paint or finish of the aluminum components. One note of caution, all degreasers will remove your nice coat of wax. If you get over spray on the waxed areas, plan on rewaxing. Allow the degreaser about 3-5 minutes to work and then use a 100% cotton towel or a "SOFT" brush to "GENTLY" brush the heavily soiled areas. Respray and rebrush any areas that need additional cleaning. Once the entire engine/engine compartment has been cleaned, rinse thoroughly with water. There is a debate as to the optimum force of spray to rinse the degreaser. Some say a gentle spray is all that is necessary, while others advocate the use of a high-pressure spray. Use your common sense, the stronger the spray, the more likely you will get water in sensitive parts. If all areas are properly protected, you should have no problems with a stronger spray. If any areas need additional cleaning, repeat as necessary.

Once the engine/engine compartment is clean, immediately remove all of your plastic baggies/rubber bands. Dry any "puddles" and aluminum parts with a soft 100% cotton towel. Use paper towels to thoroughly dry the battery (if it is in the engine compartment). Start the engine and allow it to warm up. This will dry the rest of the engine and evaporate any moisture that may have collected in sensitive components.

Once everything is dry and has completely cooled, you may wish to apply a coating of rubber protectant to the rubber hoses, rubber, plastic shields and rubber gaskets. Black Again, One Grand Exterior Rubber, Meguiar #40 Vinyl/Rubber Treatment, Sonax Rubber Maintenance or Wurth Rubber Care all work extremely well. I do not recommend treating the underside of the rubber belts, as this makes them reluctant to turn their respective pulleys, with somewhat interesting results. (This is somewhat like waxing brake pads)

The painted areas of your engine compartment should be waxed. If there are any areas that are difficult to reach, Sonax makes a spray wax that requires little buffing and offers excellent protection. Spray a light coat on these areas and buff as much as possible. Two thin coats are much better than one heavy coat.

If the aluminum areas are dull or have whitish corrosion, a mild metal polish will help restore the finish. My favorite is P21S Metal Finish Restorer Polish. Use a soft 100% cotton cloth and work a small amount into the surface and buff out with another cotton cloth. Sonax Engine Lacquer is designed to protect the uncoated or "raw" aluminum engine components against corrosion. Check the battery terminals, to insure that they are clean. If not, disconnect the cables and clean both the cable terminals and battery posts with a wire brush. Reconnect the terminals and retighten. Wurth makes a nifty Battery Terminal Spray that protects the terminals from corrosion and changes from yellow to pink if there is battery acid leakage.

All of the hinges, throttle cables, cruise control cables and hood shocks should receive a thin coating of non-silicone lubricant such as Wurth HHS-2000 Spray Lube. Lastly, check all fluid levels, remove any stray Baggies and you are finished!

If you have any questions or if you need further information, please do not hesitate to contact us.