

JOHN'S AUTOMOTIVE REPAIR

www.johnsautomotiverepair.com

Spring/Summer
2021

9365 Old Bustleton Avenue
Philadelphia, PA 19115
(215) 673-9001

SHOP HOURS:
Monday through Friday
8:00 a.m.-5:30 p.m.

Don't Take Your AC for Granted

If your car's air conditioning is leaving you hot under the collar, the following are a few potential reasons why.

Low refrigerant is a common cause of diminished cooling. Leaks in the unit's hoses, seals, valves, or some other component of the AC system, such as the compressor, condenser, or evaporator, will lead to decreased pressure and reduced comfort. Moisture can then enter the system, too, which can create havoc.

HELPFUL TIP: Run your car's AC about once a month during the cool/cold season, which will lubricate the seals and help prevent leaks.

The compressor pressurizes the AC system and keeps the refrigerant flowing. But like any other part, it can eventually wear out. A malfunctioning compressor might emit high-pitched squealing or grinding sounds every time the AC is turned on.

Dirt can clog up your AC's condenser line, interrupting air flow and negatively affecting cooling. Mold and mildew can also build up in the AC unit, especially during periods when the AC isn't being used.



A broken condenser fan will halt cooling, as its purpose is to transfer heat to outdoor air. No fan, reduced heat transfer, diminished cooling.

Preventive maintenance can keep your car from losing its cool. Schedule an appointment with our shop for an AC checkup.

▶ THE GAS CAP ◀ Plays an Important Role



The "check engine" light's purpose is to keep drivers informed of any number of sensor failures, engine irregularities, exhaust leaks, and the like, all of which have a direct bearing on emissions. Sometimes the issues may be complex and/or expensive. Other times, simple ... like a loose or defective gas cap.

Why would a loose or defective gas cap warrant a "check engine" light on the dashboard? (Some cars have a separate dashboard light for a loose gas cap.)

LET'S START WITH THE FOLLOWING:

- The gas cap prevents carcinogenic gas fumes from exiting into the atmosphere and harming air quality.
- A tight, properly functioning gas cap keeps the gasoline under pressure, which helps the fuel pump do its job more effectively.
- A gas cap denies entry of contaminants into the gas tank — contaminants that will jeopardize engine efficiency.
- The gas cap diminishes the amount of moisture that enters the system. Excess moisture can lead to engine inefficiency and corrosion in metal gas tanks.

Tightening a gas cap is simple. Replacing one seems like an easy fix; just be aware that there's a lot of inferior-quality stuff in the aftermarket world — we're here for you if you need guidance. If the gas cap isn't the source of a "check engine" light, promptly schedule an appointment at our shop for a definitive diagnosis.

PROFESSIONAL SERVICE WITH FRIENDLY PEOPLE.

Don't Underestimate the Belts and Hoses

Belts and hoses are crucial to the proper functioning of a vehicle. For instance, coolant hoses enable coolant to flow between the engine and radiator. If a hose has weakened enough that it leaks or splits open, your engine is in danger of overheating.

If the timing belt snaps, your engine will stop working and may sustain critical damage. The timing belt synchronizes the opening and closing of the engine's valves. If it slips, loosens, or breaks, the engine's timing is thrown off, pistons and valves will collide, and serious and expensive harm will befall your engine.

The serpentine belt snakes around various pulleys, gripping and turning those for the water pump, alternator, air-conditioning compressor, and power-steering pump, among other parts. If this belt goes south, all accessories powered by it are lost, too.



Heat and age are belts' and hoses' worst enemies. Other factors that hasten their demise include mileage, oil contamination, improper belt tension, failed hose clamps, or a burr or nick on a pulley.

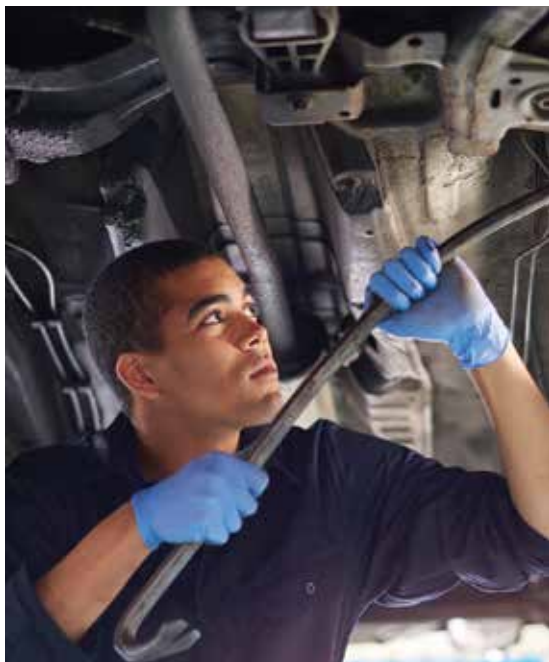
Symptoms of a faulty belt or hose include coolant leaks, squeaking noise, "check engine" light (e.g., when coolant temperature is too high), and the smell of burnt rubber.

Belts and hoses should be inspected at regular

intervals for fraying, contamination, or brittleness. If your vehicle is due, schedule an appointment at our shop today.



SHOCKS and STRUTS Are Not the Same



Shocks and struts have a major feature in common: They both control excessive spring motion, also called dampening. Without them, road bumps and momentum shifts would cause enough bounce to render a car uncontrollable.

Shock absorbers provide dampening; struts offer that and more. Struts provide structural support for the vehicle's suspension system, helping to bear the weight of the vehicle, and they are used as a pivot point for steering and are adjusted in wheel alignments. Taking on these added functions generally makes struts more expensive to replace than shocks.

Symptoms of worn struts or shocks are excessive sway or bounce, or dive during braking. Some unusual sounds may emanate from the suspension system when riding over something on the roadway that causes some bounce. If you notice a puddle of oil by the side of a tire, it may have leaked from the strut or shock, as oil lubes the moving parts of each.

Generally speaking, struts or shocks may need to be replaced every 50,000 miles or so. However, regional weather conditions, road contaminants, driving habits, and wheel modifications can all influence the replacement rate.

Worn shocks and struts allow excessive weight transfer from side to side and front to back. The tires' ability to grip the road is compromised, which means your handling and braking capacity is diminished — not good for safety.

If you suspect a problem with your struts or shocks, give our shop a call today.



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Keeping It Smooth and Clean

Oxygen sensors are small devices that monitor the air-fuel ratio of the engine combustion process and vehicle emissions. They help the engine to run at optimum efficiency and limit air pollution.

Most cars these days have at least two oxygen sensors, one in front of the catalytic converter and one after. The sensor in front keeps tabs on the oxygen content in the exhaust emitted from the combustion chamber. The sensor after the catalytic converter monitors the oxygen content of exhaust after it passes through the catalytic converter.

If there is too little air in the air-fuel ratio, unburned fuel will remain after combustion — a “rich” mixture. If there is too much air, it’s a “lean” mixture. Both are pollutants. The oxygen sensors transmit information to the vehicle’s computer, which will make instant adjustments to remedy rich or lean mixtures.

Oxygen sensors are subject to tremendous heat, get caked with combustion byproducts, and may be coated by leaking oil or coolant — highlighting the importance of regular maintenance. A bad oxygen sensor will trigger a “check engine” light, and your car will run less smoothly, get poor gas mileage, and fail its emissions test. Eventually the catalytic converter may be damaged.

Regular maintenance can help fend off, or detect, a bad oxygen sensor. If your car is due, give our shop a call today.

Diesel vs. Gas

Diesel engines used to be thought of as noisy, smoke-belching devices suited only for industrial applications. Technological advances have put that notion to rest. A number of diesel-powered passenger cars and full-sized pickups are on the market, each with pluses and minuses.

Diesel-powered cars and pickups are more expensive than their gasoline-powered counterparts — on average, \$2,000 to \$5,000 more. Diesel engines must be manufactured to withstand the elevated stresses of high-compression diesel combustion, and additional exhaust treatment is required to meet emissions standards. Diesel fuel is generally more expensive than “regular” gasoline; oil changes are pricier, too.

The good news, economically, is that diesels are roughly 25 percent more fuel efficient than gas-powered engines; highway driving is where you see the biggest returns. Diesel vehicles also retain a higher percentage of their value after five years compared to gas cars, and will be worth more at trade-in time. Payments for a leased diesel vehicle should be less than those of a similar gas-powered car.

Diesel engines have lots of torque available at low rpm, meaning improved power is at the ready when pulling out from a stopped position, going up steep hills, or towing. Not all gas stations offer diesel fuel; depending on where you live, that could be a problem.

Driving conditions, the type of driving you do, and the number of miles you log are important factors in determining if diesel is right for you.

CLUTCH PERFORMANCE



Manual-transmission enthusiasts enjoy the control, performance, relative simplicity, and fun that these vehicles offer. Part of that enjoyment depends on a healthy clutch.

The clutch is the most vulnerable component in a manual transmission. Its purpose is to provide a solid coupling between the engine and transmission, sparing the transmission and drivetrain excessive trauma when shifting gears. The clutch bears the abuse instead.

These warning signs may indicate a clutch under duress:

- Some people ride the clutch, meaning they don’t fully release the clutch pedal — frequently in heavy, stop-and-go traffic. Over time, this may cause the clutch plate to overheat, producing a burning smell and possibly smoke beneath the car.
- Shifting is not smooth and there is shaking. Problems may be more apparent in first gear or reverse.
- Depressing the clutch pedal produces a “spongy” feeling.
- Gears may slip for no apparent reason, especially when under a heavy load. In addition to a bad clutch, oil leaking onto the clutch plate can cause slippage. Your fuel economy will suffer noticeably.
- Leaks from a hydraulic linkage system can cause loss of pressure and prevent the clutch from disengaging.

Clutches have no replacement guidelines for mileage or length of time. Their life depends on one’s driving style and the conditions they’re driving in. If there’s been a “shift” in your clutch’s behavior, schedule an appointment at our shop.

‘Summerize’ Your Car

Summer weather can exact a toll on a vehicle. Stay safe and comfortable, maximize your car’s performance, and **reduce your risk of being stranded by having the following systems or components checked out:**

✓ **BELTS AND HOSES.** Early signs of wear and tear may be greatly accelerated by summer weather, resulting in fraying, cracking, loosening, and brittleness. In turn, your electrical, cooling, power steering, and air conditioning systems will suffer.

✓ **AIR FILTER.** A dirty, clogged filter can result in wasted gas and loss of engine power.

✓ **AIR CONDITIONING.** Uncontrolled sweating while riding in a car is generally not desirable. We’ll check system pressure, air flow, and determine if the system needs to be cleaned, has a leak, and/or needs a recharge.

✓ **FLUID LEVELS.** This includes brake, transmission, power-steering, and wiper fluid. Have your oil and filter changed as recommended as well.

✓ **WIPER BLADES.** Defective wiper blades can compromise vision, jeopardizing your safety.

✓ **TIRES.** We’ll check your tire pressure, tread depth, and wear patterns; inspect your tires for bulges and other defects; and rotate the tires if due.

✓ **COOLING SYSTEM.** A flush and refill may be advisable in some situations.

✓ **BATTERY.** We’ll test it and make sure it’s clean and corrosion-free.

Keep your vehicle longer, save hard-earned money, and command a higher resale price. Schedule preventive maintenance at our shop today.

John’s Automotive Repair
Customer conveniences

SAVE \$10
WITH THIS COUPON
(Regular price, \$97.95)

SPRING SERVICE

- Oil Change & Filter
- Check Air Conditioning
 - Rotate Tires
 - Adjust Tire Pressure
- Test Battery & Electrical System
- Top Off All Fluids

Not valid with other offers. Limit of one coupon per customer. Must be presented at the time work order is written. Synthetic oils will cost extra. Offer expires 6/30/21.

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+ The Pluses OF SYNTHETIC OIL

Conventional and synthetic motor oils serve the same purpose: lubricate moving engine parts to reduce friction and wear; aid in cooling the engine; escort dirt and debris to the oil pan or filter; and help keep the engine clean.

Most automakers recommend synthetic motor oil for today’s engines. A running engine gets extremely hot. This heat causes conventional motor oil to eventually break down or evaporate, which exposes your engine to more wear due to deficient lubrication. Synthetic oil resists breakdown much better than conventional oil, thanks to its chemical composition.

Conventional oil takes longer to flow freely through the engine after you start your car — even more so during cold-weather

months. Synthetic oil is engineered to flow smoothly almost immediately, even when it’s freezing outside, due to its engineering.

Conventional oil is more prone to sludge formation than synthetic oil. Sludge can clog up oil passageways throughout the engine, compromising engine efficiency.

Synthetic oil contains fewer impurities than conventional oil, thereby cutting back on deposit formation.

Synthetic oil is more expensive than conventional oil, but its durability means fewer oil changes. However, don’t get lulled into complacency. You still need to get synthetic oil changed on a regular (less frequent) basis or your engine will suffer. If your vehicle is due, give our shop a call today.

