



Learning at Your Fingertips

Basic Car Maintenance



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Overview

With so much emphasis on car buying, few people consider the maintenance requirements of an automobile. The modern car may have as many as 75,000 parts, and the malfunction of just one can make your car behave very strangely. Maintaining a car in good condition will help you to keep it safe, drive it for a long time, and someday sell it for a good price.



Basic Steps

1. Establish a simple plan of attack. One way to think of this is to use the acronym T.O.W.B.I.F., which stands for Tires, Oil, Windows, Brakes, Interiors, and Fluids. Use your owner's manual to establish a schedule for your car.



Tires

Make sure they are properly inflated to the manufacturer's specified pressure. Tire gauges are cheap and easy to use. Tires should be replaced when tread wear indicators are showing between the treads.



Tires

Ask your local tire dealer if you are unsure how to identify tread wear indicators. Check your tires every other day for pressure and every week for wear or damage. Have them replaced when they become worn beyond acceptable limits.



Oil

Oil is the blood of your car, and without it, the car isn't going to go far or quietly. Have your mechanic demonstrate how to check your oil properly, and have the oil changed every 3,000 – 3,500 miles.



Oil

While oil manufacturers have claimed that their oil can last 10,000 miles, it is generally best to use the same oil for no more than 5,000 miles to maximize engine reliability and efficiency over the long term. Check the oil regularly, about once a week, and change the oil or have it changed when you reach the 4,000–4,500 mile (6,400–7,200 km) limit.



Windows

Make sure that all windows, mirrors and lights are clean and not broken. Replace any broken lights or mirrors as soon as possible. Have small windshield cracks by a windshield repair center to determine whether the windshield can be repaired or needs to be replaced. Check regularly for cracks and damage.



Windows

- Allow plenty of room if when following behind other vehicles that could throw objects from the road or loose debris from their loads. Even a small pebble from the back of a gravel truck can damage your windshield.



Brakes

The braking systems of modern cars are designed to be replaced periodically to maintain maximum braking efficiency. If you notice ANY problems with the brakes, take your car to have the brakes checked immediately. If the brakes fail, you can have a very serious crash.



Belts

Check the belts or have them checked regularly for wear and tension. Very loose belts often make a loud squealing sound; have yours serviced if you hear this noise.



Battery

Check the battery once per month for corrosion and clean it or have it cleaned and as needed. Avoid running your battery down, if possible. Even with a jump start, it's hard on the battery. Batteries do eventually get old. If you must replace your battery, also check the alternator to make sure that it is still functioning properly.



Interior

Clean and vacuum the interior as needed. The interior is often a point of selling power when it comes time to trade the car in or sell it. While many may not care about the oil or tires, if the CD player won't work, or the interior looks a little dirty, the deal is off.



Interior

It's been said that the value of the car is held in the cabin, and that statement holds true. If you ever want to trade the car in or sell it, every quarter spent at a pay vacuum will be paid back to you with interest!



Fluids

The other lifeblood of the car are the fluids that the drive train must have. Coolant, power steering fluid, transmission fluid, windshield washer fluid, brake fluid, and other fluids need to be checked at a minimum of once per week. Ask your mechanic to demonstrate the method to check these.



Lights

You can check your own lights if you have someplace you can park near reflective glass windows, or you can ask a friend to walk around your car while you turn on different lights. Make sure to check your headlights, taillights, reverse lights, brake lights, and turn signals.



Lights

- Notice where your headlights point and correct it or have it corrected as needed. They should be pointing down and towards the outside of the road, not straight out, up, or towards the center. You can see the light pattern on the road ahead of you.



Lights

- Misaligned headlights can be distracting or hazardous to drivers ahead of you or in oncoming or adjacent lanes. If they are too low, this could limit the distance you can see while driving at night.



Windshield Wipers

It's not difficult to replace worn wiper blades yourself. Replace just the blades once a year as needed before the rainy season. You can also replace the entire wiper assembly if needed. If you do a lot of driving in wet weather conditions, you may also want to apply a water repellent treatment to your windshield.



Emission Control Systems

Depending on where you live, you may be required to get your car checked for emissions periodically. Generally, a professional must perform the diagnosis. Oxygen sensors and EGR valves are two common culprits



How to Check Your Car Before a Trip

Planning on going on a road trip soon? Before you do so, you should check your car to make sure that it is in good condition and running smooth. This will help you to drive safe and avoid any breakdowns or mechanical issues. Then you'll be free to just roll down the windows, turn on the radio and enjoy the open road! Don't forget the coffee!



How to Check Your Car Before a Trip

1. Check the fluids in your car. Checking the oil, coolant, brake fluid and windscreen wash levels may help you avoid an accident or an unnecessary breakdown. Also check the levels for the clutch fluid (often the same as brake fluid) and power steering fluid (if fitted to your car). Refer to your owner's manual to see where fluid reservoirs are located.



How to Check Your Car Before a Trip

2. Check your air pressure. These should be printed in the owner's manual or a sticker on the body where the driver's door shuts. The pressure marked on the side of the tire is the max, which must not be exceeded. Also, don't forget to check your spare tire pressure. Often neglected, not doing so will turn a bad time into a worse one if the spare is unusable.



How to Check Your Car Before a Trip

3. Get the oil changed before you leave if it's almost time for a change. A long trip can put additional stress on your motor. Don't think that adding extra oil by yourself will work like an oil change, because that does not get rid of the sludge from old used oil.



How to Check Your Car Before a Trip

You may not realize this due to the fact that you are continuously adding new, cleaner oil which makes it appear as if it is clean oil. When changing your car's oil, you must always replace the oil filter at the same time.



How to Check Your Car Before a Trip

4. Check your tire wear by using a penny or tread gauge. Ensure you have at least 1/16th" or 1.6mm tread left. If the tread is less than 1/12" or 2.5mm, consider replacing your tires for very long journeys as they will wear down more quickly. Tires heat up on long trips which can cause blowouts on worn out tires.



How to Check Your Car Before a Trip

5. Check your car's air filter. A plentiful supply of clean air to your engine improves the vehicle's performance and efficiency. Also check and change your car's cabin (pollen) filter if it has one, as these are often ignored in services and, if worn, adversely affect the quality of air in the cabin.



How to Check Your Car Before a Trip

6. Wash your car. At the minimum, clean the windows of your car for the best visibility. Also check the condition of your wiper blades and replace them if necessary.



How to Check Your Car Before a Trip

7. Check to be certain that all lights and signals are functional on your car. You may need the help of another person for this. Sit in the car, turn on each light or signal and ask your friend to tell you if it is working or not. Replace bulbs as necessary.



How to Check Your Car Before a Trip

Also consider carrying spare bulbs on a road trip (at least one for each light ex. headlights, indicators, tail lights, reverse lights). Changing bulbs (especially front) can take time in modern cars, so don't leave this to the last minute if bulbs need changing.



How to Check Your Car Before a Trip

- Occasionally, lights may not work because a fuse needs replacing. Consider checking your headlights alignment (using a white garage door or inside a garage) and adjusting the alignment if it is incorrect as poor headlight alignment will reduce visibility at night, especially on unlit roads.



How to Check Your Car Before a Trip

8. Ensure that you have all emergency equipment inside your car, and that everything works properly. Emergency equipment includes: an up-to-date map, cell phone, spare tire (alternatively a puncture repair kit, although this is not ideal) and emergency tools (e.g. flashlight, screwdrivers, pliers and an adjustable spanner).



How to Check Your Car Before a Trip

Although usually absent; flares, medical kits and fire extinguishers may come in handy in worse-case scenarios.



Summary

You don't have to be a certified mechanic to own a car or take care of one. A basic knowledge of car maintenance will help you keep your car in good, safe condition and on the road.

