

## 1. Use Your Eyes & Ears to Inspect Your Brakes

Visually inspect your brakes' condition at least every six months. Here are some things to look for:

**Brake Rotors (discs)** should be inspected all the way around the surface and on both sides for any concentric scoring (grooves) or obvious defects. If defects are found, replace your rotors immediately. Any rotor discoloration may be a sign of overheating and an inspection by a brake repair professional is needed.

**Brake Pads** will normally match rotor scoring but should also be inspected for uneven wear, breakage or cracking on the friction surface. Again, if defects are found, replace the pads immediately. Many cars also have brake pad sensors to warn of pad wear. If your car uses sensors, replace these at the same time as your pads.

**Brake Drums (if equipped)** should also be inspected on a regular basis. Check for the same types of flaws as noted above. The drums should not have excessive grooves or have a deep "trough" dug into them where the shoes ride.

**Brake Shoes (if equipped)** should be worn evenly and have no rivets protruding to the friction surface.

**Additional Troubleshooting:** When inspecting brakes, check calipers, wheel cylinders, hoses and fittings for any hydraulic fluid leakage.

Inspect the master cylinder, reservoir and proportioning valve assemblies as well. Replace or rebuild as required.

A "spongy" brake pedal or one that's gotten lower underfoot also needs looking into. It could be caused by sticking calipers, worn pads, low fluid or hydraulic system problems.

If you can't "pump them up", then you definitely have hydraulic problems that need work. If you always have to pump them up, at the very least your hydraulic fluid needs replacement.

To check brakes by sound, know how your brakes should sound and listen for out-of-the-ordinary noises.

Most cars have a slight brushing sound from the pads lightly touching the rotors. This is perfectly normal. Sounds to beware of include:

**Squeaking** may be caused by dust or dirt on the brakes, loose pads vibrating when applied or worn pads.

**Rhythmic noise** might mean you have a warped rotor. Instead of a solid squeaking noise, it pulsates. In extreme cases, the brake pedal will also pulsate underfoot.

**Constant brake noise** is never a good sound and any grinding noise spells real trouble!

**Most importantly:** As soon as any problem is noticed, get it repaired immediately. Delaying brake repairs is extremely dangerous.

---

## 2. Tune up & Auto Maintenance Tips To Lengthen Your Import Car's Life

**Spark Plugs:** Spark plugs are good indicators of engine condition. Removing and inspecting spark plugs tell you a lot about how well the engine is running and what may be causing problems.

All spark plugs should be removed and checked every 30,000 miles - even if your car is "low maintenance" - you're told to change spark plugs at 100,000 miles. This prevents the plugs from seizing in the block, causing expensive repairs down the road.

Always note which plug came from which cylinder. This tells you if a particular cylinder has a problem. BEWARE: New spark plugs can make a difference in your car's performance but only if replaced with the appropriate OE replacement plug.

**Distributor Cap & Rotor:** Both the distributor cap and the rotor are usually plastic and, thus, deteriorate with age and use. Cracks may develop, allowing moisture in. The metal contacts on both can then corrode, causing misfiring. These parts should be replaced at recommended intervals or if showing any excessive wear.

**Spark Plug Wire Sets:** Spark plug wires have become less of a problem than before. New materials and sizing have reduced failures. Electronic ignitions have increased operating ranges.

Now these should be tested for proper resistance before replacement. They are no longer replaced routinely with the cap, rotor and plugs.-

---

### 3. Don't Wait For Failure

#### Replace Oxygen Sensor as Normal Preventive Maintenance

To minimize the consequences of normal aging, Bosch recommends oxygen sensor replacement for preventive maintenance at the following intervals:

<i>Type of Car</i>	<i>Mileage Replacement Interval Recommended</i>
<b><i>Unheated oxygen sensors on 1976 to early 1990s vehicles</i></b>	<b><i>Every 30,000 - 50,000 miles</i></b>
<b><i>Heated (1st generation) oxygen sensors on mid-1980s to mid-1990s vehicles</i></b>	<b><i>Every 60,000 miles</i></b>
<b><i>Heated (2nd generation) oxygen sensors on mid-1990s and newer vehicles</i></b>	<b><i>Every 100,000 miles</i></b>

Keeping the oxygen sensor fresh may improve fuel economy as much as 10%-15% (which can save \$100 each year in fuel costs on average). Keeping the oxygen sensor in good operating condition will also minimize exhaust emissions, reduce the risk of costly damage to the catalytic converter and ensure peak engine performance (no surging or hesitating).

---

## 4. Reading Between the Tires

### How do you read between the tires?

Every rider must have knowledge about tires. They must know its construction, its maintenance and care, how to mount and dismount it, how to troubleshoot and to take precautions. To do it here are the areas that need to be known by them:

- 1.The right size. Sizing is the process of choosing the tire by determining its rim width. This means that the tires must not be wider or narrower than its original equipment tires because to choose otherwise will distort motorcycle handling.
- 2.Pressure. Pressure increases with temperature. Thus, a rider must check tires regularly especially during winter season. Advisable tire pressures can be found on the manufacturer's reference table. Check them out in order to have a safe tire pressure.  
Never bleed air from a hot tire. Also avoid riding when tires are underinflated because this can lead to premature wear, tire failure and damage to the carcass.
- 3.The Wear. Regularly inspect the wear indicator in the tire grooves. You will know that the tire should be replaced if the wear indicators are leveled with the surface of the tread at any point.
- 4.The Valve. Always use valve caps to prevent air loss and to avoid dirt from entering the valve.
- 5.Warm-up. Each time you ride on your motorcycle, always begin at a moderate speed. This will gradually condition the tires up to their normal operating temperature. If they have already achieved a full warm-up then they will have an optimal grip.
- 6.Break-in. After warming up, avoid rapid acceleration or hard cornering. Do this for the first 50 kilometers of your ride up to the extent when the tread area is totally worn off.
- 7.Repairs. Try to learn the basics of motorcycle repairs so that you will not be groping in the dark when discrepancies occur. Another option is to consult tire experts to attend to tire repairs.

Learn the language of riding. Drive wisely. Travel safely.

---

## 5. Automobile Maintenance

### 3000 Mile Maintenance

Change the oil in your engine every 3000 miles. The filter should be changed at the same time. Newer synthetic oils are said to last longer without breaking down. When you change the oil, check the fluids, the air filter, tires, hoses and belts. At this time check the battery cables and terminals for corrosion. This can be removed with a wire brush or sandpaper.

### 5000-10,000 Miles:

Have your tires rotated and balanced every five to ten thousand miles. This helps the tires wear evenly and extends the life. The best tires should be put in the front of the car. Check the tire pressure regularly and check the tread for signs of uneven wear or damage.

### 15,000 Miles:

Change the air filter every 15,000 miles. A clean air filter improves the fuel economy of your car. A dirty air filter can cause the engine to run rough and stall. At this time you should also check the pads and shoes on your brake system. Check the brake fluid and top it off, as needed. The fluid should be clear. If you notice noise when the brakes are applied or the steering wheel shakes or vibrates, this can be an indication that the brakes need replacing. In this case, don't wait check the brakes and replace as needed. Check the fluid level on your transmission. The owner's manual will have information about the kind of fluid that should be used in your car. The manual should have directions on how to drain and replace the fluid. The pan gasket should be changed when the fluid is drained. Also at this time, give the car a tune up. Replace all spark plugs and wires.

### 50,000 Miles:

Change the coolant at 50,000 miles. See the owner's manual for directions on how to perform this task.

Remember to take care of your car's finish. You want the paint to remain in good condition for as long as possible. Wash the car regularly, even in the winter when salt from the roads can ruin the finish. Apply wax to protect the paint from the sun, salt and weather conditions. Don't neglect the headlights, which can become cloudy and won't operate as well. New Lite Headlight Cleaner and Restorer will return cloudy headlights to like new condition. Learn more about this product at