Walker Products – Engine Management

What does "Engine Management" mean?

The term "Engine Management" is often used to generally describe engine parts that turn on a vehicle's Check Engine Light. While that isn't necessarily wrong, it is important to fully realize all that goes into these systems.

To start, we must recognize that vehicles on the road today have an average of 15 to 30+ unique sensors that control and monitor the powertrain and drivetrain – this system of sensors and computers is ***Engine Management***. As vehicle manufactures strive to meet emission requirements, while simultaneously meet customer needs, new technologies emerge that require more intricate engine controls. The goal of this complex system is to improve fuel economy, reduce emissions, deliver maximum power, and increase reliability.

Why is Engine Management important?

Engine sensors perform multiple roles within the overall system, but most boil down to a couple root purposes – some ensure engine safety, some ensure engine efficiency, and many do both.

For example, camshaft and crankshaft position sensors monitor proper ignition and fuel timing to ensure the engine is achieving maximum power and fuel economy. At the same time, these sensors are ensuring that the mechanical internals of the engine are properly sequenced to avoid collision and catastrophic engine failure.

On the other hand, take the oxygen sensor. Upstream O2 sensors play one major role in the Engine Management system: measure the air to fuel ratio in the exhaust and report the information back to the engine's onboard computer to adjust the fuel trim for maximum fuel economy and clean emissions. Downstream O2 sensors are solely responsible for monitoring the emission levels in the exhaust to determine if the catalytic converter is working properly to minimize emissions. While it may seem straight forward on the surface, the precision and accuracy at which oxygen sensors operate are crucial to the engine's safety and efficiency.

Needless to say, all of the numerous sensors that make up the Engine Management system play very special roles in protecting the engine while also making sure you get the most performance and fuel economy possible.

How do regular maintenance effect Engine Management Components?

We all know regularly changing your engine's oil is important to keep it running well, but did you know that regularly replacing your engines air filter will extend the life of your engine management components while also delivering better fuel economy and performance too? A dirty air filter will restrict the amount of air the engine can take in and this and cause unburned fuel to form soot that fouls spark plugs and reduce fuel economy and engine power. This condition will also foul the Oxygen Sensors and shorten their life span along with the vehicle's catalytic converters. A dirty air filter can also force air to bypass the filter and deposit dirt build up on the engines Mass Air Sensor that will cause it to malfunction and shorten its life span. These are just a few examples of regular maintenance items that can directly impact your vehicle's engine management components.

Walker Products Engine Management – Experts You Can Trust

Walker Products knows Engine Management. Walker began supplying the fuel system needs of the automotive industry in 1946. Today, Walker is an ISO 9001/ IATF16949 certified manufacturer, and one of the largest privately owned manufacturers of fuel system components and engine sensors. Walker Products is committed to supplying products manufactured to meet or exceed OEM standards and specifications – an effort backed by in-house manufacturing, product management, and dedicated engineering teams to ensure precise accuracy in the production of the highest quality parts, vehicle applications, and technical support.

The next time you are servicing a vehicle with a check engine light, look no further than the Engine Management Experts – trust Walker Products for all your fuel, ignition, and engine sensor needs so you can complete the job right the first time.

To learn more about Walker Products and their extensive Engine Management capabilities, please visit walkerproducts.com .