

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air that flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is usually connected to or placed near the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On the majority of cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise referred to as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This sensor sends the pedal position to the ECU or otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which is curved in design. The copper coil positioned next to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates turn in the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to enable a lot more air to flow into the intake manifold. Typically, an airflow sensor measures this change and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors so as to produce the desired air-fuel ratio. Generally a throttle position sensor or TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

Some throttle bodies can have adjustments and valves in order to regulate the lowest amount of airflow all through the idle period. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to regulate the amount of air that can bypass the main throttle opening.

It is common that various vehicles contain a single throttle body, though, more than one can be utilized and connected together by linkages in order to improve throttle response. High performance automobiles such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or likewise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They function by blending the fuel and air together and by regulating the amount of air flow. Vehicles that have throttle body injection, which is called CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This permits an older engine the chance to be converted from carburetor to fuel injection without really altering the design of the engine.