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Pierburg GmbH

Throttles for Heavy Duty Engines

One consequence of the present emission-reduction trend is that today's truck diesel engines likewise require precise metering of the recirculated exhaust gas. The exhaust-gas pressure upstream of the turbine is frequently insufficient for rerouting an adequate mass of exhaust gas. Pierburg has now designed a throttle body for the specific needs of a heavy duty engine.

Pierburg GmbH enjoys a long tradition in EGR systems and as part of the strategic expansion of its portfolio for commercial diesel applications, is following up on its turbocharger and EGR valves with throttle bodies for that market. In doing so, it is drawing on its longstanding experience in the automotive engine sector.

On modern diesels and in combination with EGR, throttle bodies help reduce emissions due to changing air-fuel ratio. Pierburg's new throttle body is engineered to meet the demands of the haulage industry and hence for a service-life of up to 20,000 h. This new product is the outcome of specially selected material combinations and dimensions, especially in its bearing and seals.

Electronically, the new throttle has integrated EC-motorized CAN-compatible position control. This allows seamless integration with the existing bus system and avoids one of the major problems in this area: brush wear on the D.C. motor.

Cost management through modularity

Within the organization, Pierburg's Berlin plant serves as a global competence center for throttles, control valves, and actuators. The throttle bodies developed here are based on a modular design, the outcome being a system with high parts commonality allowing the use of various (geared) motors. Customer configurations are mainly in the areas of housing and plug design as well as electronic customizing of specific functions.

Photo no. 6

Truck engine throttle body