

IVECO: PIONEERING COST-SAVING TECHNOLOGY

Iveco and the environment

Iveco's concern for the environment is one of its core values, with this issue being of major importance to both customers and society in general.

Thanks to continued research and development, Iveco engineers have developed eco-friendly vehicles which are designed to reduce fuel consumption, greenhouse gases, exhaust emissions and noise. They have also worked hard to ensure that vehicles can be easily recycled at the end of their life, thus saving both materials and power resources.

Iveco's approach to using state-of-the-art technology to reduce emissions is far-reaching, taking into consideration the evolution of standards on emission limits, technology and – last but not the least – optimising purchase and operational costs.

In this way, Iveco is able to offer the most reliable, developed and specialised solutions for any mission.

The purpose of Iveco's extensive research goes beyond simply observing environmental standards; thanks to the analysis of the customer's needs, it is aimed at ensuring the vehicle's performance and economy.

Iveco's entire range of products is built around this philosophy, optimising solutions according to the specific mission of different vehicles in the various sectors: light, medium and heavy, as well as those for personal transportation and for special operations.

Euro 4/5 Technologies

At present the interventions on combustion alone are not able to reduce at the same time the level of particulate (PM) and nitric oxide (NOx) emissions, which are the most critical pollutants for diesel engines. Any intervention on the engine alone reduces the emissions of one pollutant but increases those of the other.

As a consequence there are two options:

- to abate particulate emissions by acting on combustion and to decrease the nitric oxide through the post-treatment of exhaust gases (SCR technology);

or

- to reduce the nitric oxides to minimum levels by acting on combustion (EGR technology), thanks to exhaust gas recirculation.

The greatest advantage of the SCR technology is that it allows a significant decrease in fuel consumption (up to 5%) with respect to Euro 3 engines. In addition, this technology is already able to meet the Euro 5 emission standards, which is coming into force in 2009. The SCR technology uses only one chemical reactant named AdBlue (water solution of urea), which reacts with the nitric oxides once it has been sprayed into the exhaust gases and transforms them into harmless substances. The consumption of AdBlue can vary between vehicle types, but is usually within 3% and 5% of fuel consumption. The SCR makes the PM filter redundant, since the production of particulate is minimal.

Iveco has studied and developed both EGR and SCR technologies and believes that the adoption of SCR technology for medium and heavy vehicles and EGR technology for light vehicles is the best overall solution.

Iveco and the SCR system

The Iveco-SCR technology enables an ideal compromise to be reached between two important needs of the customer: on one hand it allows a reduction in fuel consumption and in the cost of manufacturing engines, at the same time, improving the performance and extending the life of the motor-propulsion units; on the other hand it allows full compliance with rigorous Euro 5 emission standards established to safeguard the environment.

All Eurocargo, Stralis and Trakker models will use SCR, which represents the appropriate technology for vehicles where goods transport is the core activity, since fuel consumption is of major importance due to the likely high vehicle mileage requirements.

In addition the very low level of particulate produced through combustion reduces the contamination of the lubricating fluid oil and allows extended maintenance intervals, which further enhances the vehicle's productivity.

Thanks to compliance with the Euro 5 standard, the SCR system also allows operators in certain countries (such as Germany) to benefit from reduced motorway tolls which have been introduced for early adopters. It is also expected to result in higher residual values for used vehicles.

With regard to the availability of AdBlue, Iveco dealers across Europe are offering AdBlue for sale from their part's departments, ensuring customers have easy access to AdBlue supplies when placing routine parts orders. AdBlue can also be purchased from a growing number of large filling stations and truckstops.

Iveco and the EGR system: the best choice for light means

For vehicles across the new Daily range, EGR has been selected as the favoured technology in terms of balancing fuel consumption, weight and cost. This technology is also universally accepted today on cars and light vans, and there is no requirement for the use of AdBlue.

Models up to and including the Daily 50C will use EGR plus an oxidising catalyst and certification will be according to the light duty van procedure (70/220/EC). Models above the Daily 50C will use EGR plus a diesel particulate filter (DPF) and certification will be to the heavy duty procedure (88/77/EC).

In order to comply with the particularly restrictive rules adopted in some towns, lighter Daily vehicles may also be equipped also with a diesel particulate filter (DPF). This system allows the full environmental compatibility even on congested inner-city roads or for rigorous stop-start distribution runs.

Iveco EEV: the winning solutions for urban transport

Iveco's commitment to low emission vehicles does not neglect the special requirements of local public transport, where the safeguard of air quality is fundamental.

For years Iveco has been leader in the production of natural-gas powered urban buses compliant with EEV standards (Enhanced Environmental Vehicles), which are at present the most strict among the European Union standards.

Thanks to the experience practiced with the SCR technology and through the evolution of particulate filters, Iveco is able to meet these standards also with Diesel powered vehicles. For example, Iveco urban busses are equipped with an SCRT system (a combination of SCR and particulate trap) and are EEV certified. It is another example of the continuous effort to develop advanced solutions for the specific needs of our customers.