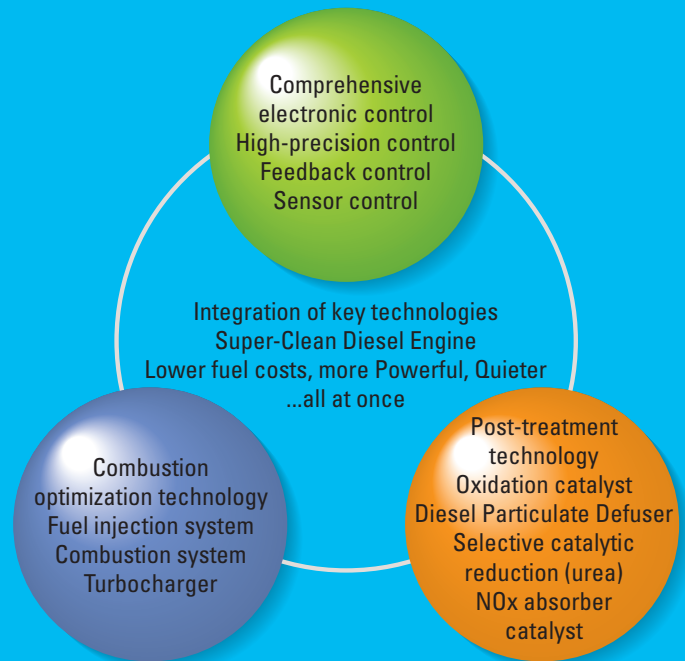




FISCAL 2004 TOPICS

Isuzu Developments



Isuzu Developments >>

Meeting new emission rules

In November 2003 we introduced our improved lineup of GIGA heavy-duty trucks. These trucks not only conformed with new Japanese emission regulations one year earlier than required, but they also qualify for designation as "ultra-low-PM-emissions diesel vehicles" by the Ministry of Transport since their particulate matter (PM) emissions are 75% lower than the allowable limit.



New transmission systems

In fiscal 2004, we introduced ELF and GIGA series models equipped with new transmission systems. Certain light-duty ELF trucks are now equipped with the next generation Smoother-E transmission system, and in June 2003, we introduced heavy-duty GIGA series trucks equipped with the Smoother-G transmission system that regulates shifting to manage fuel consumption.



Smoother-G

CNG vehicles

In May 2003, we introduced medium-duty FORWARD CNG trucks with further improved environmental performance. In April 2003 we opened our Shonandai Isuzu Eco-Station, the first CNG filling station in the northern part of Fujisawa City. And the number of vehicle registrations for our light-duty ELF CNG trucks has topped 5,000.



Telematics systems

In February 2004, in cooperation with KDDI Corporation, we launched an upgraded version of our Mimamori-kun Online Service, a true telematics system for commercial vehicles. The Mimamori-kun system collects data from the vehicle control computer to provide users information about fuel consumption, fuel costs, emissions, and driving habits. This information can then be analyzed and shared with our customers to help them improve fuel economy and encourage safe driving practices. The online service uses GPS technology and KDDI's latest packet telecommunications technology to provide a two-way, interactive, real-time interface between the vehicle, the forwarder (transport company), the shipper (cargo consignee), and Isuzu.



Super-Clean Diesel Engines

As environmental problems become increasingly serious on a global scale, emissions regulations—especially for diesel-powered vehicles—are becoming more strict. To meet today's needs, Isuzu is putting to work the technology that we have accumulated through our many years of developing, marketing, and selling diesel engines.

Isuzu is currently throwing enormous effort into developing what we call Super-Clean Diesel Engines. By combining combustion optimization technology, post-treatment technology, and comprehensive electronic control technology, we are working to build high-power diesel engines with minimal exhaust and CO₂ emissions.

Uniform pre-mixed combustion, which we call PCI (Pre-Mixed Compression Ignition), is one of the clean exhaust technologies currently being developed by Isuzu. This combustion method controls both fuel injection volume and air intake volume to build upon the basic technology of more precisely controlling combustion using an electronically controlled common rail system. The technology is

extremely difficult to perfect, but since it results in the optimal conditions for combustion without particulate matter or NOx emissions, it is an ideal technology for reducing vehicle exhaust. Japan is ahead of other countries in developing this technology, and Isuzu Advanced Engineering Center, Ltd., has taken the lead over other companies within Japan. We have high hopes that once this technology becomes a reality, diesel engines will rapidly become cleaner.

In the end, we hope to be building zero-emission diesel-powered vehicles. The emissions regulations stretching before us are merely steps on the way to achieving this final goal. At the end of the road lies the ultimate "Super-Clean Diesel Engine" envisioned by Isuzu.

Going forward, Isuzu will continue to forge ahead in researching and developing new technologies so that we can build diesel engines that outperform their life cycle costs and that play a role in improving people's lives.



Diesel Particulate Defuser



Nox Catalyst



Continuously Regenerating Diesel Particulate Defuser+Urea-Selective Catalytic Reduction System