

Motorcycles are major polluters in cities like Delhi, but a solution is proposed

Compressed-air bikers – just an Indian pipe dream?

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MOST motorcycles in the world today use engines that burn petrol, contributing to greenhouse gases and to air pollution.

But two scientists in India are working on a new, cleaner motorcycle engine that uses compressed air to turn a small air turbine, generating enough power to run a bike for up to 40 minutes.

Their design could be combined with a compressed-air cylinder as a replacement for traditional internal-combustion engines.

In areas where motorcycles are a major source of public transportation such a technology could cut emissions substantially if widely implemented.

According to Bharat Raj Singh, a researcher at the SMS Institute of Technology in Lucknow, India, a massive 50-60% of present emissions in some areas could be reduced with the new technology, although a number of technical challenges remain.

Designing a compact, but high-capacity, air tank to store sufficient “fuel” for long rides is a major hurdle. Existing tanks would require someone to stop about every 30km (19 miles) to swap tanks.

India’s largest car manufacturer, Tata, is currently developing a car that will also use compressed air. The project was announced in 2007, but has not been as straightforward as the company had hoped. In December 2009, Tata admitted that the limited range and low engine temperatures were causing difficulties. So perhaps the motorbike project will become a pipe dream, too.

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