

# Natural Gas Vehicles

Heavy Vehicles   Light/Medium Vehicles   Forklifts

Natural gas vehicles offer significant environmental and, depending on circumstances, economic advantages. Advanced Fuels Technology

supplies and fits natural gas conversion equipment for all classes of vehicles, from 50cc 2 -stroke motor scooters and 150cc three wheelers to 500hp prime movers and everything in between.

Combining leading brand equipment with our own research and development, we have obtained Euro 4 certification on Euro 3 diesel engines, making significant reductions in NOx and particulate emissions in the process. Innovations such as these mean Advanced Fuels is making an active contribution to clearing the air in cities throughout Australia and the Asia-Pacific.

More details on each application can be found in our Heavy Vehicles and Light and Medium Commercial Vehicles and Forklifts sections.

In addition to engine and conversion expertise, Advanced Fuels Technology can also assist with refuelling infrastructure, making us a true one-stop alternative fuels shop.

## Compressed Natural Gas (CNG) & Liquefied Natural Gas (LNG)

In most cases CNG and LNG engines are essentially the same - the key differences between the two applications is the way in which the fuel is stored on a vehicle.

Compressed Natural Gas, as the name implies, refers to gas which has been compressed to fit into specially designed high pressure storage cylinders. CNG is suitable for most classes of vehicles but generally requires more frequent refuelling than liquid fuels. For this reason it is best suited for vehicles with 'back-to-base' operations or with easy access to CNG refuelling equipment.

Liquefied Natural Gas is gas which has been cooled to -162 degrees Centigrade, at which point the gas becomes a liquid. LNG is stored in special cryogenic cylinders resembling a vacuum flask to retain the cold temperature. Liquefaction allows more fuel to be stored on board the vehicle.

LNG can be used for all classes of vehicle but is generally used in heavy vehicles which are used frequently (almost daily).

Advanced Fuels can help you to evaluate which fuel best suits your requirements.

## Hydrogen Vehicles

Though not specifically a natural gas vehicle, the relationship is such that natural gas vehicles are widely recognised as 'the pathway to the hydrogen economy'.

Hydrogen vehicles can be driven by either internal combustion engines (ICE) or by fuel-cells. We have actively conducted research into hydrogen engine conversions and will remain at the forefront of the hydrogen vehicle industry in Australia.

