

¹NATURAL GAS AS A SAFE TECHNOLOGY FOR CLEAN URBAN VEHICLES

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Summary

A motor vehicle fuel can be dangerous if handled improperly. Like liquefied petroleum gas, gasoline and diesel fuel are potentially dangerous fuels, but over time we are learned to use them safely. The same is true with natural gas. It safely generates our electricity, heats our homes and cooks our meals. Natural gas from the gas field to the vehicle's engine, requires very little processing to make it suitable for the use as a fuel. Usually, at a reciprocating compressor's fueling station, the natural gas is compressed and provided to vehicles, where it is stored at 200 bar pressure like Compressed Natural Gas (CNG). In the paper, the solutions for the safe conversion of gasoline powered car and local articulated bus to dedicated Natural Gas Vehicle (NGV) are shown. In addition to safety, the paper demonstrates also ecological benefits, regarding to the use of NGVs in urban transport. In the paper, shortly is presented a look in the natural gas market and safety regulations.

Key words: Compressed natural gas, safe vehicle, cleaner urban transport.

PRIRODNI GAS KAO BEZBEDNA TEHNOLOGIJA ZA ČISTIJA GRADSKA VOZILA

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Rezime

Svako gorivo može biti opasno ako se koristi nepravilno u motornom vozilu. Tečni naftni gas, benzin i dizel su takođe potencijalno opasna goriva, ali smo vremenom naučili da ih bezbedno koristimo. Isto važi i za prirodni gas. On se bezbedno koristi za proizvodnju struje, za grejanje stanova i pripremu hrane. Prirodni gas sa nalazišta zahteva mali tretman da bi mogao da se koristi kao gorivo za motore. Obično se prirodni gas komprimuje uz pomoć klipnih kompresora do pritiska od 200 bar i kao komprimovan (CNG) se skladišti u vozilima. U radu su prikazane solucije za konverziju automobila i gradskog zglobnog autobusa na prirodni gas. Dodatno, pored bezbednosti prikazane su i ekološke prednosti vozila na prirodni gas u saobraćaju. Ukratko je prikazana dinamika na tržištu prirodnog gasa i sistematizovani su propisi koji se odnose na bezbednost

Ključne reči: Komprimovani prirodni gas, bezbedno vozilo, čistiji gradski saobraćaj

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