## TITAN

### A real fuel alternative: LPG or CNG.

### A relief, not only for your budget: Passenger cars with LPG- or CNG-operation.

In times of high fuel-prices more and more car drivers are considering a change-over to CNG (Compressed Natural Gas) or LPG (Liquefied Petroleum Gas). With these alternative fuels costs can be significantly reduced. In addition to fuel cost savings, with lower exhaust and CO<sub>2</sub>-emissions CNG- or LPG-operated cars can be more environmentally friendly than conventional petrol or diesel cars.

However, a LPG- or CNG-operated car needs more than a technical changeover. For reliable operation a specific engine oil is required which is optimized to the particular demands of the gas-powered engine.

### **FUCHS Automotive Lubricants**

## **Innovative Lubricants Need Experienced Application Engineers**

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS engineers will be glad to advise on products for the application in question and also on our full range of lubricants.

Contact:

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G TURBO Power

FUCHS Automotive Lubricants

## Endurance and reliability





# Engine oils for gasoline engines with LPG- and CNG-operation

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TITAN

Engine oils for gasoline engines with LPG- and CNG-operation

## The right high-tech engine oil for every engine.

### TITAN engine oils: premium quality, made in Germany.

TITAN engine oils are the result of the latest research and development by the world's largest independent lubricant specialist. Developed together with leading automobile manufacturers, tailored to satisfy the demands of today's high-tech engines: offering outstanding high-performance, fuel-economy and wear protection.



## Specific demands of the gas-powered engine.

### **Problem: higher temperatures.**

Compared to petrol or diesel engines, engines with LPG- or CNG-operation face significantly higher operating temperatures. With petrol or diesel engines the liquid fuel evaporates before combustion giving a beneficial cooling effect. This does not happen with a gaseous fuel so the engine does not benefit from this effect. For this reason gas fuelled engines tend to run at



/alves/Valve seats: More deposits.

Danger: Loss of power

### TITAN

Perfect performance with the right engine oil.

### The solution: TITAN PRO GAS.

FUCHS has developed a new series of specific engine oils to suit gas powered engines: TITAN PRO GAS. They guarantee a reliable and long-lasting operation of the engine. TITAN PRO GAS engine oils were tested in extensive studies and test-runs.

They verified successfully the out-standing capabilities of this new high-performance engine oils. TITAN PRO GAS engine oils are low-emission engine oils. With their special formula the combustion chamber keeps clean and the engine maintains it's designed power output. Their unique lubricating technology makes the TITAN PRO GAS engine oils better resistant to ageing, thickening and oxidation compared to conventional engine oils. TITAN PRO GAS engine oils exhibit other important features.

The evaporation loss with TITAN PRO GAS SAE 5W-30 is very low and reduces oil consumption by 23 % compared with normal synthetic engine oils. Due to an optimized internal friction TITAN PRO GAS SAE 5W-30 can reduce fuel consumption up to 3 %.

### The TITAN PRO GAS engine oils for gas-powered engines of passenger cars.

|         | Engine oil        | Description                 | Specifications/approvals | FUCHS recommendations  |
|---------|-------------------|-----------------------------|--------------------------|------------------------|
|         | TITAN GT1 PRO GAS | Premium gas motor oil for   | ACEA C3                  | CHEVROLET              |
|         | SAE 5W-30         | modern passenger cars and   | ACEA A3/B4               | FIAT 9.55535-G1        |
|         |                   | light commercial vehicles.  | API SM                   | OPEL                   |
|         |                   | Specially for gasoline      | BMW LONGLIFE-04          |                        |
|         |                   | engines with LPG- and CNG-  | MB-APPROVAL 229.51       |                        |
| TITAN   |                   | operation. Optimum engine   | VW 502 00                |                        |
| 10.00   |                   | cleanness, lower oil con-   |                          |                        |
|         |                   | sumption and minimized      |                          |                        |
|         |                   | exhaust emissions.          |                          |                        |
|         |                   |                             |                          |                        |
|         | TITAN GT1 PRO GAS | Premium gas motor oil for   | ACEA C3                  | CITROEN                |
|         | SAE 5W-40         | modern passenger cars and   | ACEA A3/B4               | FIAT 9.55535-H2/N2/M2/ |
|         |                   | light commercial vehicles.  | API SM                   | S2/Z2                  |
|         |                   | Specially for gasoline      | BMW LONGLIFE-04          | FORD                   |
|         |                   | engines with LPG- and CNG-  | MB-APPROVAL 229.31       | PEUGEOT                |
| TITAN   |                   | operation. Optimum engine   | VW 502 00                | RENAULT                |
|         |                   | cleanness, lower oil con-   |                          |                        |
|         |                   | sumption and minimized      |                          |                        |
|         |                   | exhaust emissions.          |                          |                        |
|         |                   | Super high performance      |                          |                        |
|         |                   | super high-performance      |                          |                        |
|         | JAL 1000-40       | gas engine on for passenger |                          |                        |
|         |                   | vehicles. Specially devel   | WID-APPROVAL 229.1       | FIAT 9.55555-02        |
|         |                   | oped for ges opgings with   |                          |                        |
|         |                   | UPC and CNC operation       |                          |                        |
| TITAN C |                   | LPG- and CNG-operation.     |                          |                        |
|         |                   |                             |                          |                        |
|         |                   |                             |                          |                        |
|         |                   |                             |                          |                        |

While the information and figures given here are typical of current production and confirm to specification, minor variations may occur. Subject to amendment. Edition 05/2009

higher temperatures. This can lead to higher wear rates and increased ageing of the engine oil. Furthermore LPG or CNG do not contain the cleaning or protecting additives which are present in petrol or diesel fuels. These additives improve engine cleanliness by reducing or avoiding e.g. carbon deposits at the intake valves.

Higher temperatures.

Danger: Increased wear of the engine and increased ageing of the engine oil

