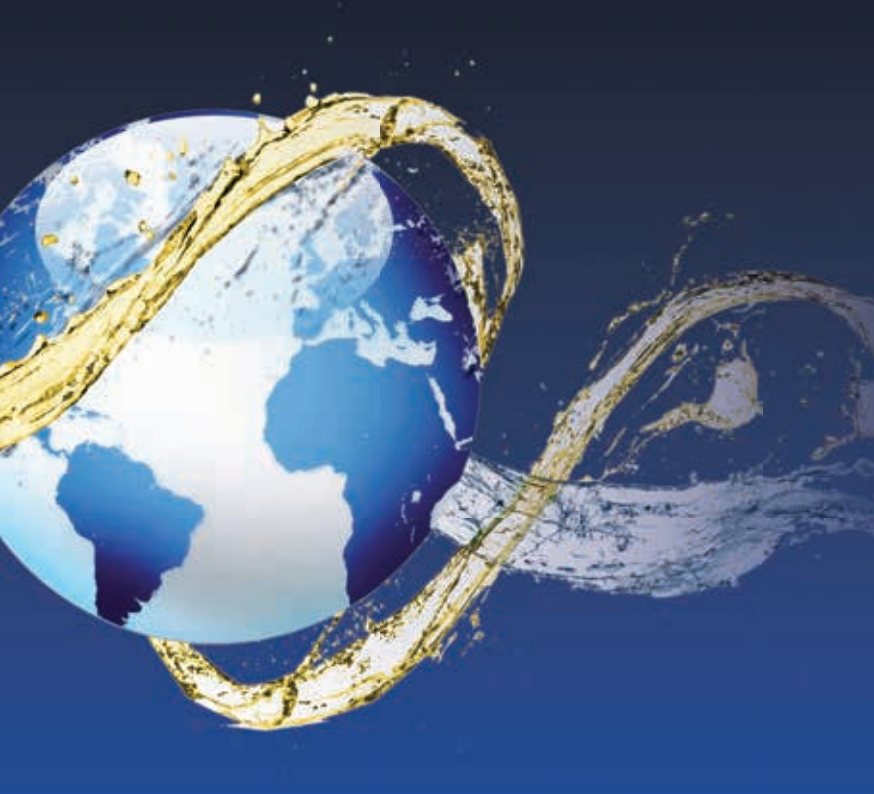


Lubricants for stationary gas engines

Highest economic efficiency and service life





FUCHS – The specialist for **gas engine oils.**

Few people understand engines better than FUCHS. Because as the world's largest independent manufacturer of lubricants we focus exclusively on the development and manufacturing of lubricants. On-going investments in our worldwide R&D centres have made us what we are today: A lubricant specialist with a full line of products and a multitude of special solutions. Particularly for stationary gas engines, the selection of the right engine oil is of critical importance.

Premium protection with **TITAN GANYMET** engine oils.

TITAN GANYMET engine oils from FUCHS were specially developed for stationary Otto and pilot injection gas engines. Special high-performance additives with a high resistance to oxidation and nitration guarantee reliability even under extreme operating conditions.

Our special zinc-free formulations offer a maximum degree of wear protection and work against the formation of sludge, deposits, acids and corrosion.



Zinc-free technology clearly superior.

Experiences have shown that there are significant differences in the morphology (structure) of the ash compounds. Ash deposits formed by the combustion of calcium (Ca) are noticeably softer than those formed by the combustion of both calcium and zinc (Zn). Zinc-free sulphated ash deposits lead to considerably less abrasive wear and are less tenacious, a factor which ultimately influences the cleanliness of the combustion chamber. With our zinc-free technology we use the advantage of replacing zinc by calcium compounds to gain a higher TBN (Neutralization number) at the same sulphated ash content.

Conventional gas engine oil
0,7 wt % SA* \approx 6,5 TBN

$$\text{Zn} = \text{SA}^*$$

$$\text{Ca} = \text{TBN} + \text{SA}^*$$



TITAN GANYMET ULTRA
0,7 wt % SA* \approx 8,5 TBN

$$\text{Ca} = \text{TBN} + \text{SA}^*$$

$$\text{Ca} = \text{TBN} + \text{SA}^*$$



*SA = Sulphated ash

UNSERE **PREMIUM** SCHMIERSTOFFE FÜR **GASMOTORENÖLE**.

PREMIUM-QUALITY

TITAN GANYMET ULTRA

Premium Performance Engine Oil, zinc-free, for stationary Otto and pilot injection gas engines.

- ✓ Excellent acid neutralization properties
- ✓ Highest corrosion prevention together with optimized zinc-free wear protection
- ✓ Clearly extended oil service interval
- ✓ Very high oxidation and aging stability
- ✓ Operation with aggressive gases (biogas, sewage or landfill gas) as well as with cleaned gases or formaldehyde catalysts

APPROVALS

- AGROGEN
- CAT CG132, CG170, CG260
- JENBACHER TA 1000-1109
 - A, CAT: BR/series 2, 3, 4 (Version B), 6 (Version C and E)
 - B, CAT: BR/series 2, 3
- MAN M 3271-4
- MTU Onsite Energy DK-BS-0001 (E, P, B)
- MTU Onsite Energy DK-BS-0002 (B)
- MWM TR 0199-99-02105 (DEUTZ POWER SYSTEMS)
- SEVA TRS-07
- SPANNER RE²
- TEDOM 61-0-0281.1/L, B, S



TITAN GANYMET PLUS

Super High Performance Engine Oil, zinc-free, for stationary Otto and pilot injection gas engines.

- ✓ Highest corrosion prevention and zinc-free wear protection
- ✓ Excellent acid neutralization properties
- ✓ Extended oil service intervals in operation with aggressive special gas

APPROVALS

- CAT CG132, CG170, CG260
- DREYER & BOSSE
- JENBACHER TA 1000-1109
 - B: BR/series 2, 3
- MTU Onsite Energy DK-BS-0001 (B)
- MWM TR 0199-99-02105 (DEUTZ POWER SYSTEMS)
- SCHNELL MOTOREN bis BJ 12/2005 / until MY 12/2005
- SEVA TRS-07



TITAN GANYMET PLUS LA

„Low Ash“ Super High Performance Engine Oil, zinc-free, for stationary Otto and pilot injection gas engines.

- ✓ Highest corrosion prevention and zinc-free wear protection
- ✓ Specially for gas engines with exhaust gas catalyst and heat exchanger
- ✓ Extended oil service intervals in operation with natural gas

APPROVALS

- CAT CG132, CG170, CG260
- DEUTZ TR 0199-99-01213
- MWM TR 0199-99-02105 (DEUTZ POWER SYSTEMS)
- SEVA TRS-07
- TEDOM 61-0-0281.1/G, P

RECOMMENDATIONS

- CATERPILLAR
- CUMMINS
- WAUKESHA



TITAN GANYMET

High Performance Engine Oil for stationary gas engines which run on all types of digester gases (sewage or landfill gas, biogas).

- ✓ Best suited for aggressive special gases
- ✓ Acid and corrosion protection
- ✓ For normal oil service intervals

APPROVALS

- ASJA AMBIENTE ITALIA
- JENBACHER TA 1000-1109
- C: BR/series 2, 3
- MAN M 3271-4
- MTU Onsite Energy DK-BS-0001 (B,K)
- SEVA TRS-07



TITAN GANYMET LA

„Low Ash“ High Performance Engine Oil for stationary gas engines.

- ✓ Specially for gas engines with oxidation respectively formaldehyde catalysts as well as heat exchanger
- ✓ Corrosion protection
- ✓ For normal oil service intervals

APPROVALS

- CAT CG132, CG170, CG260
- DEUTZ TR 0199-99-01213
- JENBACHER TA 1000-1109
- A, CAT: BR/series 2, 3, 4 (Version B),
6 (Version C and E)
- MAN M 3271-2
- MTU Onsite Energy DK-BS-0001 (E, P, K)
- MWM TR 0199-99-02105 (DEUTZ POWER SYSTEMS)
- SEVA TRS-07

RECOMMENDATIONS

- CATERPILLAR
- CUMMINS
- WAUKESHA



ANTIFREEZE COOLANTS FOR **GAS ENGINES.**

Gas engines create large amounts of heat during the combustion process. As the engine and its components can only release heat slowly, additional coolants are necessary, so that the engine does not break down due to overheating. Our “ready-mixed” anti-freeze coolants are especially easy to use on stationary engines. No on-site mixing is needed.

MAINTAIN FRICOFIN LL

Premium Performance Coolant Additive based on monoethylene glycol. Free of borate, nitrites, amines, *silicates* and phosphates.

- ✓ Outstanding protection against deposits, cavitations and corrosion
- ✓ Excellent for use in engines, cylinder heads and radiators made of alloy
- ✓ Extended drain intervals

SPECIFICATIONS

- ASTM D 3306
- ASTM D 4985
- BS 6580

APPROVALS

- DEUTZ TR 0199-99-1115
- MAN 324 SNF
- MWM TR 0199-99-2091

ALS KONZENTRAT

RECOMMENDATIONS

- AFNOR NFR 15-601
- CUMMINS
- WAUKESHA

MAINTAIN FRICOFIN

Super High Performance Coolant Additive based on monoethylene glycol. Free of nitrites, amines and phosphates.

- ✓ Outstanding protection against deposits, cavitations and corrosion
- ✓ Excellent for use in engines, cylinder heads and radiators made of alloy

SPECIFICATIONS

- ASTM D 3306-05
- ASTM D 4985
- AFNOR NF R 15-601
- BS 6580:1992
- SAE J1034

ALS KONZENTRAT

APPROVALS

- DEUTZ TR-0199-99-1115
- JENBACHER TA 1000-0201
- MAN 324 NF
- MTU MTL 5048
- MWM TR 0199-99-2091

MAINTAIN FRICOFIN -35

Super High Performance Coolant Ready-Mix based on monoethylene glycol. Free of nitrites, amines and phosphates.

- ✓ Ready for use, no additional work
- ✓ Safe anti-corrosion
- ✓ Excellent for use in engines, cylinder heads and radiators made of alloy
- ✓ Safe frost protection down to -35°C

SPECIFICATIONS

- ASTM D 3306-05
- ASTM D 4985
- AFNOR NF R 15-601
- BS 6580:1992

ALS READY-TO-USE MIX

RECOMMENDATIONS

- DEUTZ TR-0199-99-1115
- JENBACHER TA 1000-0201
- MAN 324 NF
- MTU MTL 5048
- MWM TR 0199-99-2091



FUCHS EUROPE SCHMIERSTOFFE GMBH

Export Division

Friesenheimer Straße 19

68169 Mannheim / Germany

Phone: + 49 621 3701-1710

Fax: + 49 621 3701-7719

E-mail: export@fuchs-europe.de

www.fuchs-europe.de