Mobil Pegasus 1005 oil for gas engines

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History of Mobil

Mobil — an American oil and gas company, originated from Vacuum Oil and Socony. In 1931, they merged to form Socony-Vacuum, renamed in 1955 to Socony Mobil Oil Company, and from 1966 known as Mobil Oil Corporation.
In 1999, Mobil merged with Exxon and became part of ExxonMobil, retaining the Mobil brand and the Pegasus logo as a symbol of high-quality lubricants.
The Mobil Pegasus line (gas engine oils) was launched commercially in the early 2000s.

The **Mobil Pegasus 1005** oil was officially introduced in June 2007 as the next-generation solution for gas engines.
The Pegasus brand is named after the red winged horse logo (Pegasus) originally used by Socony.

Mobil Pegasus 1005 Terms

TDS — Product Technical Datasheet
: Official document from the manufacturer detailing technical specifications: viscosity, TBN, ash content, density, flash point, etc.

SDS
: Safety datasheet containing mandatory international information about handling, storage, transport, and disposal. Also called Chemical Safety Datasheet.

Viscosity
: Resistance to flow. Measured at 40 °C and 100 °C according to SAE/ASTM standards. Higher values indicate thicker oil.

TBN — Alkaline reserve
: Indicates the quantity of alkaline additives neutralizing acids. Higher values give longer protection.

Chlorinated additive (%)
: Chlorine content helps protect gas engines from wear.

Oxidation Stability
: Resistance to breakdown under heat and oxygen. Higher values indicate less deposit formation.

Nitration Resistance
: Resistance to nitrate formation in nitrogen-rich gas operation.

Oil Drain Interval
: Recommended runtime before oil replacement. Longer intervals reduce maintenance frequency.

Long-life
: Oils designed for extended drain intervals (e.g., Mobil Pegasus 1005).

OEM
: Original equipment manufacturer approvals are important for correct oil selection.

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Mobil Pegasus 1005 Specifications

Parameter	Value	Explanation
Grade	SAE 40	Viscosity grade according to SAE (Society of Automotive Engineers). This classification only indicates viscosity, not engine type, additives, or oil quality.
Kinematic viscosity @ 40°C	121 mm²/s	Thickness at warm temperature. ASTM D445 test method.
Kinematic viscosity @ 100°C	13.4 mm²/s	Operational viscosity for high-load performance. ASTM D445.
Viscosity index	100	Indicates change of viscosity with temperature. Higher index = more stable. ASTM D2270.
Flash point	247 °C	Temperature at which vapors ignite. ASTM D92.
Pour point	-25 °C	Lowest temperature at which oil still flows. ASTM D97.
Density @ 15 °C (g/cm³)	0.85 - 0.885 kg/l	Mass per unit volume. ASTM D4052.
TBN – Xylene/Acetic Acid	5.4 mgKOH/g	Higher value = longer acid neutralization. ASTM D2896.
Chlorination	≈ 0.5 %	Chlorine from anti-wear additives protects engines under high temperature and dry gas conditions.
Sulfated Ash	0.5 %	Inorganic residue after oil combustion, mainly from metal-containing additives. ASTM D874.
Evaporation (NOACK % mass)	See TDS	Oil loss at high temperature.
OEM compatibility	See TDS	List of engine manufacturers whose approvals are met.

Nitration & oxidation resistance	High	Indicates longevity and protection stability.



Mobil Pegasus 1005 Oil

Comparison of Pegasus Oils

Model	TBN	Chlorine (%)	Drain Interval	Application	Used For
Pegasus 705	≈ 5.7	≈ 0.5	Standard	Older engines, budget option	Basic protection
Pegasus 805	≈ 6.4	≈ 0.5	Up to ~2× longer	Medium corrosion & acid requirements	Corrosion & acid resistance
Pegasus 1005	≈ 5.4	≈ 0.5	2–3× standard	Modern low-emission engines	Wear resistance, nitration, long life

*Conclusion: **Pegasus 1005** is preferred for engines serviced less frequently but with high runtime and importance on stability. Pegasus 805 may be better if alkaline neutralization is crucial for gas quality.*

Mobil Pegasus 1005 Applications

Recommended by gas engine manufacturers:

- Jenbacher (GE series)
- MWM (Motoren-Werke Mannheim)
- Caterpillar G-series
- Waukesha

How to Choose Oil for Gas Engines

Determine engine type: OEM specifications (e.g., MWM PTR, Jenbacher NG-, CAT G-series)
Check requirements: TBN, chlorination, viscosity, emissions system compatibility.
Review TDS: Technical datasheet shows all properties. Consider fuel gas quality. Use used oil analysis every 1000–2000 operating hours for accurate drain intervals.

TDS Specifications and Approvals

Approvals include:

- Caterpillar Energy Solutions TR 2105
- Caterpillar/MaK 4-stroke medium-speed gas engines
- INNIO Jenbacher TI 1000-1109
- INNIO Waukesha Engine 220GL
- MTU Gas Engines S4000 series
- Perkins gas engines
- Bergen Engines AS (formerly Rolls-Royce Bergen)
- Wartsila SG/DF series
- Rolls-Royce Solutions Augsburg gas engines series 400-500

Product Datasheet (PDS) Mobil Pegasus 1005:
PDS Mobil Pegasus 1005 (EN)

Safety Datasheet (SDS) Mobil Pegasus 1005:
SDS Mobil Pegasus 1005 (EN)

Occupational Safety: See official recommendations in 201525106025.pdf or ExxonMobil SDS Portal. Use "Pegasus 1005" for Material, "ExxonMobil" for Manufacturer, and "201525106025" for Product Code.

Mobil Pegasus 1005 is available for purchase in our online store.