MOTOR GAS HTM 40

STATIONARY GAS ENGINE OIL

Description

Mineral lubricant oil for turbocharged and naturally aspirated stationary gas engines. Suitable for a wide variety of gases, such as natural gas, biogas, landfill gas, process gas and other gases with a higher sulphur content than natural gas (check with the manufacturer). Specially formulated for applications in which manufacturers require a product with a high alkaline reserve and average ash content.

Properties

- Specially designed for use in all engines fuelled by biogas, process gases, coke gas, or gases with high sulphur content. The alkaline reserve allows the acids produced in combustion to be neutralised.
- Protects against wear, as a result of both friction and corrosion due to acidic gases.
- Excellent detergent/dispersant properties keep the engine clean by controlling deposits, avoiding wear in pistons and sleeves.
- High resistance to oxidation and nitration.
- Excellent control of the valve recession typical of cogeneration gas engines.

Quality level

Meets the requirements of the following manufacturers:
- JENBACHER 1000-1109 (approved for engines installed until September 2009)
- ROLLS ROYCE BERGEN K-G1/ K-G2/K-G3 (approved for biogas)

Technical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>UNIT</th>
<th>METHOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE Grade</td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Density at 15°C</td>
<td>g/cm³</td>
<td>ASTM D 4052</td>
<td>0.894</td>
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<tr>
<td>Viscosity at 100°C</td>
<td>cSt</td>
<td>ASTM D 445</td>
<td>13.2</td>
</tr>
<tr>
<td>Viscosity at 40°C</td>
<td>cSt</td>
<td>ASTM D 445</td>
<td>130</td>
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<tr>
<td>Viscosity Index</td>
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<td>ASTM D 2270</td>
<td>96</td>
</tr>
<tr>
<td>Flash point, open cup</td>
<td>°C</td>
<td>ASTM D 92</td>
<td>220 minimum</td>
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<tr>
<td>Pour point</td>
<td>°C</td>
<td>ASTM D 97</td>
<td>-12</td>
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<tr>
<td>TBN</td>
<td>mg KOH/g</td>
<td>ASTM D 2896</td>
<td>8</td>
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<tr>
<td>Sulphated ashes</td>
<td>% in weight</td>
<td>ASTM D 874</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Hazard Identification

This product is not classified as toxic or dangerous according to current European legislation.

Handling

Minimum precautions should be taken to avoid prolonged contact with the skin. The use of gloves, visors or glasses is recommended to avoid splashes.

Health and safety hazards

Inhalation: This product may have low volatility; the risk due to inhalation is minimal.
Ingestion: Do not induce vomiting. Provide water. Seek medical advice.
Contact with the skin: Wash thoroughly with soap and water.
Eyes: Wash thoroughly with water.
General measures: Seek medical advice.

Firefighting measures

No special measures required.
Fire-extinguishing measures: Foams, dry chemicals, CO2, water spray. Do not apply the jet of water directly as this could cause the product to disperse.

Environmental precautions

Danger of physical pollution if spilt (watercourses, coastlines, soil, etc.) due to its floatability and oily consistency, which may harm flora and fauna on contact. Prevent the material from entering the water supply.
Decontamination and cleaning: Treat as an accidental oil spill. Prevent dispersion using mechanical barriers and remove by physical or chemical means.

A safety information file is available on request.

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Unless otherwise indicated, the figures cited in the technical characteristics should be considered typical.

Technical data sheet for Lubricants. Review 5 February 2012