Monolec® Engine Oil (8700 & 8730)

Offers Dependable, Heavy-Duty Performance in Diesel Engines

Monolec® Engine Oil provides excellent service for engines in mobile equipment and stationary generators. With its formulation of select base oils, shear-stable viscosity improver and Monolec®, LE’s exclusive wear-reducing additive, Monolec Engine Oil offers increased fuel efficiency, dependable performance and wear protection.

Beneficial Qualities

Cost-Saving Service
- Reduces oil consumption
- Increases fuel efficiency
- Improves reliability and minimizes downtime

Wear Prevention & Protection
- Includes synergistic blend of high-quality base oil and oxidation inhibitors to prevent excessive thickening and deposit formation
- Contains combination of wear-reducing agents
  - Provides maximum wear prevention
  - Extends engine life
  - Keeps engine parts clean with heavy-duty detergents and dispersants

All-Weather Performance
- Provides good viscosity properties in all weather
  - Ensures minimal drag during low-temp startups
  - Effectively lubricates at high temps

Emissions Reduction
- Works in conjunction with EGR engines to manage soot and other exhaust contaminants
- Low SAPS formula minimizes poisoning of SCR systems and particulate filtration traps

Proprietary Additives

LE’s proprietary additives are used exclusively in LE lubricants. Monolec® Engine Oil contains Monolec.

Monolec® wear-reducing additive creates a single molecular lubricating film on metal surfaces, vastly increasing oil film strength without affecting clearances. An invaluable component in LE’s engine oils, industrial oils and many of its other lubricants, Monolec allows opposing surfaces to slide by one another, greatly reducing friction, heat and wear.
## Technical Data

### Monolec® Engine Oil

<table>
<thead>
<tr>
<th></th>
<th>8700</th>
<th>8730</th>
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</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td><strong>SAE Grade</strong></td>
<td>15W-40</td>
<td>10W-30</td>
</tr>
<tr>
<td><strong>Relative Density @ 60°F/60°F, ASTM D1298</strong></td>
<td>0.8751</td>
<td>0.8644</td>
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<tr>
<td><strong>Viscosity @ 100°C, cSt, ASTM D445</strong></td>
<td>15.21</td>
<td>12.41</td>
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<tr>
<td><strong>Viscosity @ 40°C, cSt, ASTM D445</strong></td>
<td>113.0</td>
<td>84.97</td>
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<tr>
<td><strong>Viscosity Index ASTM D2270</strong></td>
<td>140</td>
<td>144</td>
</tr>
<tr>
<td><strong>Viscosity-HTHS @ 150°C, cP, ASTM D4683</strong></td>
<td>3.9</td>
<td>3.5</td>
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<tr>
<td><strong>Viscosity-CCS @ -20°C, cP, ASTM D5293</strong></td>
<td>4,635</td>
<td>5,885</td>
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<tr>
<td><strong>Viscosity-MRV TP-1 @ -25°C, cP, ASTM D4684</strong></td>
<td>17,840</td>
<td>21,560</td>
</tr>
<tr>
<td><strong>Flash Point °C (°F), (COC), ASTM D92</strong></td>
<td>221 (430)</td>
<td>221 (430)</td>
</tr>
<tr>
<td><strong>Pour Point °C (°F), ASTM D97</strong></td>
<td>-31 (-24)</td>
<td>-36 (-33)</td>
</tr>
<tr>
<td><strong>Copper Corrosion 3 hrs @ 100°C, ASTM D130</strong></td>
<td>1b</td>
<td>1b</td>
</tr>
<tr>
<td><strong>Ash—Sulfated %, ASTM D874</strong></td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Acid Number mg KOH/g, ASTM D664</strong></td>
<td>3.52</td>
<td>3.26</td>
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<tr>
<td><strong>Base Number ASTM D2896</strong></td>
<td>10.0</td>
<td>10.0</td>
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</tbody>
</table>

### Performance Requirements Met or Exceeded
- ACEA E07-08, ACEA E9-08 (8700 only)
- API-SAE Service CI-4, CI-4, CI-4 Plus, CH-4
- Caterpillar ECF-1A, ECF-2 and ECF-3
- Cummins CES 20081,20076 and 20077
- DFS 93K218
- Mack EO-O Premium PLUS, EO-N Premium Plus ‘03, EO-M Plus and EO-M
- MAN M3575 (8700 only)
- MB p228.31 (8700 only)
- MTU 2.1 (8700 only)
- Renault RLD-3
- Volvo VDS-3, VDS-4

### Typical Applications
- Diesel engines (fleet)
  - On- and off-road mobile equipment, including over-the-road tractor trailers, pickup trucks, construction equipment, farming equipment and more
  - Specially formulated for low-emission and ultra low sulfur diesel (ULSD) engines and backwards compatible for use in older diesel engines
- Diesel engines (industrial)
  - Stationary generators

### Recommendations
- Compatible for use with Diesel Particulate Filters
- Not for use with silver alloy bearings such as EMD engines (Electro-Motive Division of GM)