



CITGO[®] Pacemaker[®] Gas Engine Oil 700 Series

OVERVIEW



- Medium ash oils formulated from high viscosity index base stocks and select additives to provide excellent wear protection and deposit control in high speed, severe-service engines.
- Contains zinc for a high level of antiwear performance. Additional antioxidant provides improved oxidation and nitration stability and resistance to thermal breakdown, needed for long service life.

FEATURES & BENEFITS



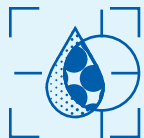
- Provide excellent valve face and seat lubrication.
- Improved engine cleanliness and sludge control performance in heavy-duty, high-temperature, and continuous operation.
- Improved resistance to oxidation and nitration.
- Better wear protection, especially in the valve train, and better protection from ring and valve sticking.
- Higher TBN offers longer oil life through greater protection against acid increase and corrosive wear.

APPLICATIONS



- Recommended for naturally-aspirated to turbocharged, medium- and high-speed, high-output four-cycle engines in field gathering service.
- Recommended for engines in cogeneration service, digester gas-fueled, dual-fueled (i.e. diesel/natural gas), and diesel-fueled service.
- For use in lean/clean burn engines; NOT recommended for engines equipped with catalytic converters.
- Can also be used to lubricate the compressor cylinders in natural gas service.

PROPERTIES



Typical Properties for CITGO Pacemaker Gas Engine Oil 700 Series:

| Product Name | 715 | 740 |
|---|---------------|-----------|
| SAE Grade | 15W-40 | 40 |
| Material Code | 632033001 | 632034001 |
| Gravity, ASTM D4052, °API | 30.1 | 30.1 |
| Pounds Per Gallon | 7.29 | 7.29 |
| Flash Point, COC, ASTM D92, °F (°C), Min. | 460 (238) | 453 (234) |
| Viscosity ASTM D445 | | |
| cSt at 40°C | 99.6 | 129.3 |
| cSt at 100°C | 13.9 | 13.7 |
| Viscosity Index, ASTM D2270 | 141 | 102 |
| Pour Point, ASTM D97, °F (°C) | -27 (-33) | -22(-30) |
| Color, ASTM D1500 | L6.0 | L6.0 |
| Carbon Residue, % (base stock) | 0.16 | 0.16 |
| Sulfated Ash, ASTM D874, m% | 0.90 | 0.90 |
| Total Acid No., ASTM D664 | 0.4 | 0.4 |
| Total Base No., ASTM D2896 | 7.0 | 7.0 |
| Phosphorus, m% | 0.06 | 0.06 |
| Oxidation Inhibitor | Yes | Yes |
| Corrosion Inhibitor | Yes | Yes |
| Detergent-Dispersant | Yes | Yes |
| Metal Deactivator | Yes | Yes |
| Antiwear | Yes | Yes |

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