



# CITGO® Pacemaker® Gas Engine Oil 1200 Series

## OVERVIEW



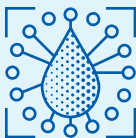
- Premium quality, ashless stationary natural gas engine oils fortified with a latest-generation dispersant additive package in combination with corrosion, oxidation, and foam inhibitors, and a premium antiwear additive package.
- These qualities make the Oil 1200 Series the best choice for universal ashless gas engine oils in a wide variety of low- and high-speed 2- and 4-cycle engines.

## FEATURES & BENEFITS



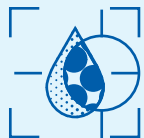
- The use of high viscosity index base stocks with low carbon residue minimizes carbon and varnish formation and provides maximum oxidation resistance.
- Contain no bright stock.
- Provide superior protection against ring belt and port deposits in 2-cycle engines.
- Ashless formulation provides maximum protection against spark plug fouling.
- Ashless dispersant system provides excellent cleaning action to keep piston rings free in their grooves, extending overhaul periods and engine life.
- Excellent resistance to oil nitration and oxidation.
- Promote lower oil consumption, fewer deposits, and reduced maintenance costs.
- Provide superior corrosion protection to vital engine and compressor components.

## APPLICATIONS



- Recommended for naturally aspirated and turbocharged 2-cycle and 4-cycle gas engines.
- Meet the performance requirements for Dresser-Rand Categories I and II, as well as requirements for other gas engine manufacturers requiring ashless engine oils.
- Can be used in compressor cylinder lubrication.

## PROPERTIES



## Typical Properties for CITGO Pacemaker Gas Engine Oil 1200 Series:

Product Name	1215	1230	1240
<b>SAE Grade</b>	<b>15W-40</b>	<b>30</b>	<b>40</b>
Material Code	632037001	632035001	632036001
Gravity, ASTM D4052, °API	30.8	30.0	29.6
Pounds Per Gallon	7.26	7.3	7.31
Flash Point, COC, ASTM D92, °F (°C), Min.	482 (250)	496 (258)	543 (284)
Fire Point, COC, ASTM D92, °F (°C), Min.	514 (268)	518 (270)	576 (302)
Viscosity ASTM D445			
cSt at 40°C	98.2	96.7	124.6
cSt at 100°C	13.7	11.2	13.2
Viscosity Index, ASTM D2270	141	101	100
Pour Point, ASTM D97, °F (°C)	-17 (-27)	15 (-9)	-10 (-12)
Color, ASTM D1500	L2.0	L2.5	L3.0
Carbon Residue, % (base stock)	0.02	0.02	0.02
Total Base No., ASTM D2896, mg KOH/g	1.2	1.2	1.2
Phosphorus, ppm	500	500	500
Oxidation Inhibitor	Yes	Yes	Yes
Corrosion Inhibitor	Yes	Yes	Yes
Dispersant	Yes	Yes	Yes
Antiscuff/Antiwear	Yes	Yes	Yes
Total Acid No., ASTM D664, mg KOH/g	0.61	0.55	0.65

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