

CITGO HIGH-EFFICIENCY
HYDRAULIC FLUID



Date 5/09

DESCRIPTION: CITGO High-Efficiency Hydraulic Oil is formulated with premium paraffinic base oils and antiwear additives to provide outstanding protection for demanding systems. This oil offers outstanding resistance to sludge formation, are chemically stable, and exhibit excellent antiwear protection.

- BENEFITS:**
- Increased pump efficiency leading to improved productivity
 - Exhibits excellent thermal stability
 - Provide rust and corrosion protection.
 - Contain inhibitors to minimize foaming and air entrainment.
 - Provide antiwear protection to pumps, motors and other hydraulic circuit components.
 - Offer extended fluid service life with a balanced additive system to handle severe operating conditions.

APPLICATIONS: CITGO High-Efficiency Hydraulic Oil is recommended for service in vane, piston, and gear pumps when used in accordance with the manufacturers' recommendations. The oils are designed to provide maximum service life to these pumps as well as to other circuit components such as motors and servos.

This oil offers optimum antiwear protection to pumps, motors, valves, and other hydraulic circuit components. They are approved against stringent performance requirements including Cincinnati Lamb (formerly Cincinnati Milacron) P-70, Denison HF-O, Eaton/Vickers M-2950-S and I-286-S. Also meets John Deere J-20C.

TYPICAL PROPERTIES:

CITGO HIGH-EFFICIENCY HYDRAULIC OIL

Grade	HVI 46
Material Code	622680001
Gravity, ASTM D 4052, °API	31.9
Density, lb/gal	7.211
Flash Point, COC, ASTM D 92, °F (°C)	446 (230)
Viscosity, ASTM D 445, cSt at 40°C	48.0
cSt at 100°C	9.0
Viscosity Index, ASTM D 2270	170
Brookfield Viscosity @-35 °C, cP, ASTM D2983	45,000 Max.
Pour Point, ASTM D 97, °F (°C)	-40 (-40) Max.
Color, ASTM D 1500	2.0
Copper Corrosion, ASTM D 130, 3h at 100°C	1B
Rust Test, ASTM D 665 A, B	Pass
Four Ball Wear, ASTM D 4172, at 40 kg, mm	0.35
Foam Test, Seq. I, ml	25-0
Seq. II, ml	50-0
Seq. III, ml	25-0
Zinc, ppm	1,390
Calcium, ppm	3,340