

Big 7

Gear Box Lubricant



Big 7 Gear Box Lubricant is a high-performance extreme pressure oil formulated to protect gears and metal surfaces under severe operating conditions. Available in SAE 80W/90 and 85W/140, this multi-purpose lubricant delivers strong film protection, superior adhesive qualities, and outstanding resistance to oxidation, rust, and water contamination.

SULFUR/ PHOSPHORUS EP ADDITIVE SYSTEM

Big 7 uses a maximum-level sulfur/ phosphorous EP additive system that enhances load-carrying capacity while maintaining strong film strength between gear surfaces. An anti-foam agent prevents pressure buildup from entrapped air — keeping operating temperatures low and helping seals remain pliable.

PRIMARY APPLICATIONS

Big 7 is engineered for demanding gear and transmission applications across industries:

- Enclosed gear systems — spur, worm, hypoid, helical, and spiral-bevel gears
- Differentials, transmissions, steering gears, and speed reducers
- Gearboxes in steel mills, paper mills, and industrial processing facilities
- Heavy-duty equipment requiring multi-viscosity EP gear oil
- Automotive axles requiring Hypoid EP lubrication, including limited slip

KEY BENEFITS

- Maximum-level EP additive protects against scoring and gear welding
- Excellent adhesion provides immediate lubrication at startup
- Performs across a wide range of temperatures and environments
- Will not emulsify with water in wet gear systems
- Powerful additive package for rust, corrosion, and oxidation resistance
- Anti-foam formulation reduces pressure buildup and extends seal life

MAXIMUM EP ADDITIVE PROTECTION

Big 7's maximum-level sulfur/phosphorous EP additive system provides superior anti-wear and anti-scuff lubrication even under the most severe gear loading — protecting against the scoring, scuffing, and welding that destroys gear teeth prematurely.

STRONG ADHESION AT STARTUP AND UNDER LOAD

Excellent adhesive qualities cause Big 7 to cling to metal surfaces and follow gears instantly at startup — providing critical immediate protection when oil films are thinnest and gear surfaces are most vulnerable to wear.

MULTI-VISCOSITY GRADES FOR ALL CONDITIONS

Available in SAE 80W/90 and 85W/140, Big 7 provides the right viscosity for different operating environments and equipment requirements — from lighter industrial gear units to heavy-duty differentials and transmissions.

OUTSTANDING RUST AND OXIDATION RESISTANCE

A powerful multi-component additive package inhibits rust, corrosion, and oxidation — extending oil life and protecting gear surfaces in equipment exposed to moisture, condensation, or water contamination.

WATER RESISTANCE WITHOUT EMULSIFICATION

Big 7 will not emulsify with water, maintaining its lubricating properties and protective additives even in gear systems subject to water intrusion from cooling systems, washdowns, or humid operating environments.

ANTI-FOAM PERFORMANCE FOR STABLE OPERATION

The anti-foam agent quickly collapses entrained air bubbles, preventing foam-related pressure inconsistencies, temperature increases, and premature pump and gear wear — contributing to longer equipment life.

Typical Physical & Performance Characteristics

Property / Test Method	SAE 80W/90	SAE 85W/140
Color	Dark Red	Dark Red
Texture	Tacky	Tacky
Kinematic Viscosity, cSt @ 40°C, ASTM D-445	180	420
Kinematic Viscosity, cSt @ 100°C, ASTM D-445	13.5–19.0	24.0–32.5
Viscosity Index, min., ASTM D-2270	90	90
Flash Point, °C / °F (typ.), ASTM D-92	204 / 400	221 / 430
API Gravity (typ.), ASTM D-1298	26.2	24.7
Specific Gravity (typ.), ASTM D-1298	0.8973	0.9050
Weight, lbs./gal. (typ.)	7.472	7.544
Timken OK Load, lbs., ASTM D-2509	70	70
Four Ball EP – Weld Load, kg, ASTM D-2596	400	400
Four Ball EP – Load Wear Index, kg, ASTM D-2596	85	85
Four Ball Wear – Scar Diameter, mm, ASTM D-2266	0.30	0.30
Pour Point, ASTM D-97	0°F	20°F

CHEM AND LUBE

Clinton, NJ 08809 USA • Phone: 908.455.1984

customer.service@chemandlube.com • www.chemandlube.com

