Orelube®

technical information

G GEAR OILS

SEMI-SYNTHETIC NON-LEAK ORGANIC MOLY EP GEAR OILS

Description

At start-up, conventional gear oil moves to the sides of the gear box by the centrifugal force of the rotating gears. As the gears turn, the splashing action eventually provides lubrication. But at start-up, when metal-to-metal wear is greatest, the gears lack sufficient lubrication.

G Gear Oils are different! Immediately when the gears start, they adhere to the gear teeth, and by resisting centrifugal force, they coat the gears providing protective lubrication at start-up and under all working conditions. The oil film resists throw-off during high speed operations, and will remain on the gears while the machine is idle.

G Gear Oils are tacky! They contain a shear stable polymeric tackifier agent for extra-adhesiveness preventing drip, leak or splatter. Gear box leakage is prevented especially where there are leaky or worn seals helping to reduce oil consumption.

These special gear oils contain a synthesized organic moly compound, which upon activation, forms a chemical mono-molecular lubricating film that reduces friction and protects metal surfaces against wear.

G Gear Oils are formulated to resist the formation of acidic-by-products that cause soft sludge deposits or hard varnish and lacquer coatings to form on metal surfaces. Deposits lead to friction, increased heat and eventual equipment breakdown -- gears will be kept free from deposits longer.

Benefits

- Blend of highly-refined, hydrotreated, high VI paraffin base oil and synthetic hydrocarbon fluid
- High EP properties -- forms a film by chemical reaction on metal surfaces which has lower shear strength than base metal preventing welding and seizing of contacting surfaces when oil film is ruptured
- Reduced friction, lower operating temperatures and decreased power consumption especially in heavily-loaded gear sets -- up to 20 F reduction in temperature and a 5% energy efficiency improvement
- Exceptional demulsibility separating readily from water
- Rust and corrosion protection during service and storage conditions
- Non-corrosive to copper, bronze and other non-ferrous parts of gear sets
- Special antifoam agent prevents foam formation and inhibits oil oxidation by allowing entrained air to release quickly from the system

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BOELUBE®

Applications

Mining, material processing, cement manufacturing, construction, steel and paper mills, tile, insulation, glass and textile manufacturing, farm equipment, printing and binding machinery, elevators, escalators and process industries using reaction vessels.

The proper type and grade of gear lubricant is important to the performance and life of a gear set. Selection of the correct lubricant viscosity is based on speed, load, operating temperature and gear geometry.

G Gear Oils are designed for enclosed spur, bevel, spiral bevel, herringbone, worm and hypoid gears, oil-lubricated bearings and chains operating under heavy loads and/or shock loads at temperatures up to 210 F. **G Gear Oils** exceed the performance requirements of U.S. STEEL 224, AGMA 250.04 and AGMA 251.02 for industrial gear oils and API GL-5 and MIL-L-2105D for automotive gear oils.

Typical Properties	G-75/80	G-40	G-90	G-90/140
Color	Green	Green	Green	Green
ISO Grade	68	150	220	460
AGMA #	2EP	4EP	5EP	7EP
SAE Grade	20	80W-90	90	140
Viscosity, ASTM D-445				
cSt @ 40 C	70.5	143.6	206.3	419.2
cSt @ 100 C	9.4	15.4	19.8	32.1
Flash Point, F	400	410	415	425
Pour Point, F	-30	-20	-10	0
Foam Test, ASTM D-892				
Seq. 1, 2 and 3, ml	0/0	0/0	0/0	0/0
Rust Test, ASTM D-665 A and B	Pass	Pass	Pass	Pass
Copper Corrosion, ASTM D-130				
3 hrs @ 100 C	1a	1a	1a	1a
4-Ball EP, ASTM D-2783				
Weld load, kg	400	400	400	400
Load wear index, kg	72.5	72.5	72.5	72.5
Timken EP Test, ASTM D-2782				
OK Load, lbs	75	75	75	75
4-Ball Wear Test, ASTM D-4172				
1200 rpm, 40 kg, 167 F, 1 hr				
scar diameter, mm	0.28	0.28	0.28	0.28
FZG Gear Test, 12 stages	Pass	Pass	Pass	Pass