THUBAN® GL-5 EP

SAE 80W-90 and 85W-140
Extreme Pressure Automotive Gear Oil

PRODUCT CODE
2116, 2117

PACK SIZES
205L, 60L, 20L, 4L.
SAE 80W-90 also available in 1L

DESCRIPTION
High performance, multipurpose, thermally stable, EP automotive gear lubricant formulated with "clean gear" technology for applications where API GL-5 and/or API MT-1 performance is required.

APPLICATIONS
- Automotive hypoid gear differentials operating under high speed and/or low speed, high torque conditions where API GL-5 performance gear oils are required or permitted. Heavy-duty, non-synchronised manual transmissions and transaxles requiring this type of lubricant.
- Heavy-duty, non-synchronized manual transmissions where API MT-1 performance gear oils are specified.
- Automotive steering gears where API GL-5 performance gear oils are permitted.

Not recommended for manual transmissions other than as mentioned above except where the manufacturer explicitly allows the use of API GL-5 performance oils.

BENEFITS
Reduced maintenance costs
Special dispersant in the "clean gear" technology additive package suspends sludges and carbonaceous deposits in the gear oil, preventing their deposition on gear components and oil seals, thus avoiding the need for premature overhaul due to deposit-induced seal wear or leakage. Outstanding thermal stability minimises the total amount of deposits that the dispersant has to deal with.

Extended gear equipment life
High performance, sulfur-phosphorus EP additive system provides load carrying capacity to protect gear equipment against surface distress (i.e., spalling, pitting, scoring and wear) under heavily loaded conditions. Inhibitor system resists corrosion of copper alloys and ferrous metals.

Prolonged oil service life
Highly refined base oil and inhibitor system provides oxidation stability to resist oil degradation and thickening during long periods of severe high temperature operation.

PERFORMANCE STANDARDS
- API GL-5, GL-4, MT-1
- Mack GO-J

SERVICE CONSIDERATIONS
Modern automotive and heavy-duty equipment places severe demands on gear oils. Heavier loads, diverse driving conditions, terrain and more aerodynamically designed body shapes have resulted in higher operating temperatures for differentials, transmissions and steering gear units. At elevated gear oil temperatures, it has been found that many gear oils used in manual transmission and differential applications can allow sludge and hard carbonaceous deposits to form which cause oil seal wear, leading to leakage and premature equipment failure. Consequently, more thermally stable, "clean gear" oils are required to resist oil degradation and deposit formation. Thuban GL5 EP is a thermally stable, "clean gear" technology gear oil, incorporating additional dispersant chemistry in its additive package to suspend any sludges and carbonaceous deposits which form, and prevent their deposition on oil seals, gears and critical yellow metal components of transmissions. For a minority of automotive drive axles of the spiral bevel types API GL-4 performance lubricants are specified. Thuban GL5 EP may be used in such applications as long as there is not a prohibition on the use of API GL-5 performance lubricants due to, for example, the presence of copper alloy materials such as bronze bushes. In all cases the manufacturer's operating instructions should be consulted. Some European heavy duty drive axles, such as those from Mercedes Benz, MAN and ZF require gear oils that meet specific builder additional requirements in addition to API GL-5. API MT-1 designates the type of service that is characteristic of non-synchronized manual transmissions, as commonly used in North American heavy-duty equipment. Lubricants meeting the requirements of API MT-1 provide protection against the combination of thermal degradation, component wear and oil seal deterioration, which is not provided by lubricants that meet the requirements of API GL-5 alone. Except for the North American heavy-duty manual transmissions for which API MT-1 performance oils are acceptable, and a very small number of other manual transmissions, Thuban GL5 EP is in general not suitable for use as a manual transmission fluid (MTF). Manual transmission fluids are now generally highly specialized products, and there is significant divergence of OEM requirements and diversity of product types. It is true that many MTFs meet API GL-4, but this is largely incidental, as primarily they are defined by other requirements including but not limited to materials compatibility, synchromesh performance and durability, shift feel properties, and gear wear and pitting protection. API GL-5 and GL-4 class drive axle gear oils are not required to meet these requirements, as their specification requirements and qualification tests are wholly drive axle-based.

Bennett's Petroleum Supplies Pty. Ltd.
ABN 71 009 508 285
Self's Point, Hobart TAS 7008 | PO Box 436, Moonah TAS 7009
T +61 3 6242 8200 | F +61 3 6228 0139 | E orders@bennettspetrol.com.au