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TECHNICAL DATA SHEET

HB-1160

STARFILM E.P. GEAR LUBE

Single Viscosity

SAE Grades 80, 90, 140, 250

DESCRIPTION:

- A ruby red, superior multi-purpose gear lubricant with extreme pressure additives and full bodied cohesive and adhesive agents added to maintain maximum protection and increased service life of manual transmissions, differentials, worm gears, power dividers and similar equipment using a gear lubricant as a primary lubricant.
- Provides maximum lubricity, protection from extreme pressures, shock impact loading and waterproofing in order to prevent expensive replacements and down time caused by structural failure of teeth, bearings, and other vital parts caused by galling, corrosion, overheating, and shearing in gears, transmissions, and differentials.

COMPOSITION:

- Premium quality mid-continent base stocks and wear preventing additives as well as anti-foam agents, silicones, corrosion inhibitors, and extreme pressure additives are used in the blending of this excellent lubricant.
- The performance levels and qualifications of the additive package alone, allow a comfortable safety margin over the protection required by normal service in heavy duty equipment operating under high stress conditions.

PERFORMANCE CHARACTERISTICS:

HB-1160 Starfilm E.P. Gear Lube meets or exceeds these important specifications.

Mil-L-2105B/C	ASTM D-665B Rust Protection U.S. Steel 220,224
API Service Classifications GL2, GL3, GL4, and GL5 Mack GO-F, GO-G	AGMA Specifications
DCEA (French Army)	CS 3000 A/B
FIAT (LS Differentials)	SQM 209002 - AA (Ford Germany) Borg/Warner
I-H BT-10	

HB-1160 Starfilm E.P Gear Lube has also demonstrated limited slip capability equal to, or better than products specifically formulated for such applications.

USES:

HB-11 60 Starfilm E.P Gear Lube is recommended as a service fill of axles, manual transmissions, transfer cases & power dividers, differentials, all heavy duty hypoid and spiral bevel axles, all automotive and industrial worm gears, and particularly on conventional axles using phosphate treated gears.

APPLICATIONS:

The S.A.E. weight selected for any particular type of equipment should correspond with the recommended weight and temperature recommendations in the owner’s manual or current check chart of the equipment.

HB-11 60 Starfilm E.P Gear Lube is available in four single viscosities: S.A.E. 80, 90, 140, 250.

TYPICAL SPECIFICATIONS:

S.A.E. Grade Number	80	90	140	250
Viscosity SUS@ 210°F	70	100	155	226
Viscosity Index	115	115	115	106
Flash Point, C.O.C. °F	515	540	565	585
Fire Point, C.O.C. °F	570	590	615	635
Pour Point °F	-20	-15	-5	+10
Gravity °API	30	28	26	25
ASTM D-982-58T Foam	TestNo foam	No foam	No foam	No foam
Sulphur % by weight	1.65	1.65	1.75	1.75
Phosphorus % by weight	.11	.11	.11	.11
Thermal Stability	Excellent	Excellent	Excellent	Excellent
Timken Load Test - lbs	60	60	60	60

SAFETY:

Label use directions should be followed carefully. OSHA Material Safety Data Sheet available.

Note: HB-1160 will blend readily with any approved petroleum base gear lubricant of the same SAE weight; however, it delivers optimum performance when used exclusively in any gear box or application to which it is introduced.