



TRIAX SYNERGY GEAR HD

Full-Synthetic SAE 50 Heavy-Duty Manual & Automated Transmission Fluid

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DESCRIPTION

TRIAX Synergy Gear HD is a full-synthetic transmission lubricant engineered for high-torque heavy-duty manual and automated manual transmissions in Class 8 trucks — including Mack, International, and Freightliner units built around Eaton Fuller, ZF FreedomLine, and powershift transmissions. It is formulated for extended drain service and balanced specifically for heavy-duty manual gearboxes, combining improved friction control, wear reduction, thermal and shear stability, rust and corrosion inhibition, and seal protection. That balance is what delivers extended gear and synchronizer life, smooth shift control, fuel efficiency, and high load capability across a wide range of applications.

PERFORMANCE HIGHLIGHTS

3×
EXTENDED DRAIN INTERVAL

500,000 mi
HIGHWAY SERVICE

SEVERE
DUTY CAPABLE

- **Excellent wear protection** — helps prevent gear pitting, scuffing, and scoring across demanding operating conditions
- **Smooth shift characteristics** — helps prevent shudder, sticking, and slipping for consistent, precise shifting
- **Yellow-metal corrosion protection** — protects brass, copper, and aluminum alloys throughout the gearbox
- **High-horsepower capability** — protects gears under high-speed operation and sustained mechanical and thermal loads
- **True full-synthetic formulation** — arctic-grade low-temperature flow with superior fluid longevity
- **Extremely high oxidation stability** — resists varnish, sludge, and deposit build-up on transmission components
- **Seal compatibility** — keeps seals pliable, helping prevent seal deterioration and fluid leaks
- **Extended drain capability** — up to 3× the drain interval of conventional and synthetic-blend gear lubricants, and up to 500,000 miles in long-haul highway service

SPECIFICATIONS & APPLICATIONS

For use in applications requiring the following specifications:

- API Service Category MT-1
- Eaton PS-386, PS-164 Rev 7 (Roadranger extended drain)
- International TMS 6816
- Mack TO-A Plus
- Meritor O-81 (Publication TP-90014)
- ZF FreedomLine
- Spicer Transmission Extended Drain
- Dana synchronized & non-synchronized transmissions
- Volvo I-Shift transmissions
- Mack mDrive transmissions

TRIAX Synergy Gear HD is formulated for Fuller CD-50 performance and for Rockwell, Eaton Fuller, Spicer, Fabco, Warner, and other large-truck manual transmissions. It can also be used in Caterpillar, Allison, Komatsu, Clark, Hurth, Borg-Warner, Twin Disc, Voith, ZF, Funk, and Brockhouse powershift-type transmissions.

TYPICAL PROPERTIES

Property	TRIAX Synergy Gear HD	Test Method
SAE Viscosity Grade	SAE 50	SAE J300
Specific Gravity @ 60 °F	0.8381	ASTM D4052
Kinematic Viscosity @ 40 °C, cSt	122	ASTM D445
Kinematic Viscosity @ 100 °C, cSt	18	ASTM D445
Viscosity Index	164	ASTM D2270
Flash Point, °C	220	ASTM D92
Pour Point, °C (°F)	-51 (-60)	ASTM D97

Small deviations from these results are expected during the manufacturing process and do not affect product performance, and product formulations are subject to change without notice.