DATA BULLETIN



# Torque-Drive® Synthetic Automatic Transmission Fluid

For use in Allison, MAN, Voith, ZF and other heavy-duty transmissions.

Engineered to eliminate deficiencies common to conventional petroleum ATFs, AMSOIL Torque-Drive provides superior performance and protection against thermal and oxidative degradation, sludge and varnish formation, viscosity shear down, cold-temperature oil thickening, poor friction stability, high component wear and shortened oil life. Automatic transmission operating expenses can be directly linked to transmission fluid quality. Immediate financial benefits are possible upon the installation of Torque-Drive. Vehicles stay on the road longer, unnecessary labor and maintenance costs are reduced, and the return on costly transmission investments is maximized. Torque-Drive is a multi-functional fluid ideal for mixed fleets of vehicles, meeting the most stringent heavy-duty transmission specifications and helping eliminate compatibility concerns and misapplication.



# **Wear Protection**

Transmissions operating under severe-service conditions can cause transmission fluid to break down and allow damaging metal-to-metal contact and increased wear. Torque-Drive is formulated to exceed industry requirements. Its top-of-the-line synthetic base oils and premium additives deliver superior viscosity retention and high film strength to help prevent wear and reduce operating temperatures during severe-service operating conditions.

### **Friction Durability**

Oxidation by-products destroy the sensitive friction characteristics of transmission fluids, resulting in the rapid degradation of shift quality. The thermal and oxidative stability inherent in Torque-Drive helps ensure consistent, smooth clutch engagement in heavy-duty applications throughout the life of the fluid. Torque-Drive maintains proper coefficients of friction, and helps prevent clutch glazing and elongated shift times.

## **Extreme-Temperature Performance**

Hot operating conditions are no excuse for poor transmission reliability. By delivering a slower-than-normal oxidation rate, Torque-Drive helps prevent sludge that blocks small valves and varnish that restricts component movement, and reduces oil thickening that slows shift times.

In cold temperatures, Torque-Drive easily flows, as it does not contain the wax found in conventional ATFs. Cold-temperature fluidity allows for the proper operation of small, delicate, electronically controlled solenoids that affect gear changes. Transmissions using Torque-Drive have quick response times during cold operation and can be used immediately upon startup.

## TYPICAL TECHNICAL PROPERTIES

## AMSOIL Torque-Drive® Synthetic Automatic Transmission Fluid (ATD)

| Kinematic Viscosity @ 100°C, cSt (ASTM D445)  | 7.6       |
|---|-----------|
| Kinematic Viscosity @ 40°C, cSt (ASTM D445)   | 37.1      |
| Brookfield Viscosity @ -40°C, cP (ASTM D2983) | 8410      |
| Viscosity Index (ASTM D2270)                  | 180       |
| Flash Point, °C (°F) (ASTM D92)               | 226 (439) |
| Pour Point, °C (°F) (ASTM D97)                | 55 (-67)  |
| Four-Ball Wear Test (ASTM D4172) Scar, mm     | 0.43      |

## **PRODUCT APPLICATIONS**

AMSOIL recommends Torque-Drive for use in heavy-duty, on-and off-highway automatic transmissions requiring any of the following specifications: **Allison** TES-295, TES-389, C-4; **Ford** MERCON V; **GM** DEXRON III-H; **Isuzu** SCS; **MAN** 339 Type V-1, 339 Type V-2, 339 Type Z-1, 339 Type Z-2, 339 Type Z-3, 339F; **MB** 236.91, 236.10; **Voith** 55.6335, 55.6336; **Volvo** 97340, 97341; **ZF** TE-ML 03D, TE-ML 04D, TE-ML 14A, TE-ML 14B, TE-ML 14C, TE-ML 17C, TE-ML 20B, TE-ML 20C.

Examples of operations that benefit from using Torque-Drive include municipal or transit buses, motor coaches, garbage haulers, motor homes, delivery vans, emergency vehicles, school buses, dump trucks, utility vehicles, cement trucks, line haul trucks, tow trucks and more.

## **SERVICE INTERVAL**

Torque-Drive is recommended for use according to the extended service interval established by the original equipment manufacturer for the performance specifications identified above under Product Applications.

#### **PRODUCT WARRANTY**

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.

## **HEALTH & SAFETY STATEMENT**

This product is not expected to cause health concerns when used for the intended applications and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available online at www.amsoil.com or upon request at (715) 392-7101. **Keep Out of Reach of Children**. Recycle used oil and bottle.



AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.