

PRODUCT BULLETIN

SYNAVEX™ TRANS-FLUID 40

PRODUCT # 504

CAM2 SYNAVEX™ Trans-Fluid 40 is a full synthetic, extended drain heavy duty transmission fluid engineered for use where Eaton PS-386 is specified and is fully backward compatible to PS-164 Rev 7. Designed to provide improved fuel economy, maximum protection, and extended operating life to heavy duty manual and automated manual transmissions, **SYNAVEX™ Trans-Fluid 40** provides outstanding high temperature performance, oxidative stability, wear protection, and corrosion control making it suitable for non-EP commercial vehicle transmissions.

Outstanding performance in heavy-duty transmissions covered by **Eaton Roadranger** and Extended Warranties of 750,000 miles, with oil drains of **500,000 miles**. It is also recommended for use for **Mack TO-A Plus** 500,000 mile extended service classification for **Mack T300** series manual transmissions. **SYNAVEX™ Trans-Fluid 40** meets or exceeds the requirements of the API service MT-1 classification and is recommended by for use in transmissions and gear cases where API Service GL-1 through GL-4 (non-EP) gear protection is required.

The synergistic combination of a carefully selected viscosity improver along with a robust additive package provides up to 1.5% fuel economy improvement in high torque/ high horsepower engines over PS-164 fluids.

Features/Benefits

- **Specifically designed to provide optimum performance in Eaton transmissions**-supersedes and is fully compatible with Eaton PS-164 Rev 7 fluids
- **Extended Drain Intervals**-designed to provide extended drain capability up to 500,000 miles
- **Enhanced anti-wear protection and shear stability** - SYNAVEX™ Trans-Fluid 40 will help to extend the life and service intervals of your transmission, especially for transmissions experiencing more startup and/or shift cycles, or extreme loads or environments.
- **Holistic gains in fuel economy** - lower viscosity with improved friction modifier technology gives up to a 1.5% improvement in FE
- **Broad manual transmission application range** - Designed and approved for Eaton Manual and Automated Manual Transmissions such as Fuller Advantage, UltraShift PLUS, FR and RT Series.
- **Outstanding low temperature fluidity**- Reduces wear during cold temperatures and improves shifting with quicker starts
- **Excellent load carrying ability**- Advanced additive system provides outstanding protection in non-EP applications
- **Superior heat management** leads to lower sump temperatures and higher oxidative stability
- **Ecologically Friendly** - Reduced waste with CO2 reduction reduce effect on environment

This combination provides excellent shear stability while also keeping internal components cooler than competing fluids leading to smoother shifts throughout the drain interval.

Automated manual transmissions (**AMT's**) are becoming more popular and are available through multiple truck manufacturers. An AMT is fundamentally a manual transmission that retains its gear efficiency while allowing the shifting and clutch actuation to be controlled by the onboard computer system. This configuration keeps the engine in its most efficient RPM range while the driver experiences the ease of an automatic transmission. **SYNAVEX™ Trans-Fluid 40** provides the smooth shifting maximizing AMT efficiency.

For heavy-duty transmissions, friction control, wear protection, thermal stability, shear stability, rust and corrosion protection, and seal protection are features that must be balanced to provide extended gear and synchronizer life, smooth shift control, improved efficiency, and higher load capability over a wide range of applications and operating environments. **SYNAVEX™ Trans-Fluid 40** delivers unequalled performance in today's manual transmissions.

SYNAVEX™ Trans-Fluid 40 can be mixed with Trans-Fluid 50 in both service fill and top-off applications

June 25, 2018

CAM2 INTERNATIONAL, LLC

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Recommendations/Specifications

API MT-1
 Eaton PS-386
 Eaton PS 164 Rev 7 (obsolete)
 Mack TO-A Plus
 International TMS-6816
 Meritor O-81
 Emgard MTF 7000
 Navistar MPAPS B-6816 Type2
 Con Met

Average Fuel Economy Savings by switching to PS-386 fluids			
Miles Driver per yr	100,000	200,000	300,000
Annual savings	\$557	\$1,114	\$1,671
Payback period by switching to PS-386	3.3 wks	1.6 wks	1.1 wks

Payback estimates are based on diesel cost of \$2.45 per gallon, current MPG of 6.5, and a 1.5% fuel economy increase by switching to PS-386

Applications

- **As of January 1, 2017, recommended in all Eaton transmissions requiring PS-164rev7**
- Heavy-duty manual transmissions where extended service intervals and warranties are required
- Commercial line haul, vocational, off-road, pick-up and delivery, and bus applications
- Use as a companion with SYNAVEX™ Gear Oils in rear axles for maximum component life, service efficiency, and fuel economy improvement
- Synchromesh gearboxes
- **NOT suitable for hypoid gear applications in differentials and final drives, either for topping-off or refills, where API service GL-5, MIL-PRF-2105E, or SAE J2360 lubricants are specified**

CAM2 SYNAVEX™ TRANS-FLUID SAE 40

<i>Properties</i>	<i>ASTM D-</i>	<i>Typical Results</i>
SAE Grade		40
API Gravity	1298	34.9
Appearance	Visual	Clear/Amber
Flash Point, COC °F/ °C	92	460/ 238
Pour Point, °F/ °C	97	-49/ -45
Viscosity	445	
cSt @ 40°C		95.1
cSt @ 100°C		14.8
VI	2270	163
Brookfield @ -40C	2983	52,000

Typical test data are average values only.
 Minor variations which do not affect product performance are to be expected during normal manufacturing.

Special handling, notices or warnings

Use the same care and handling as with any synthetic oil.

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