

Please see the attached list of approved fluids for our transmissions. A lot of users end up using an off-the-shelf diesel type engine oil, which generally works pretty well with frequent changes (250 hrs).

Hydrostatic transmissions, in general, run hotter than most multi component hydraulic systems so we developed a special fluid (HT1000) to use in our transmissions.

Most multi component hydraulic systems using our motors have a large reservoir and/or a heat exchanger to keep the system cool during operation. Because of this, most off-the-shelf hydraulic fluids for hydraulic systems should work fine for a multi component system (for 250 hrs).

The non-Zinc formulas would have to be tested to really understand if there was any difference though. And if there was a specific brand they wanted to use, the only way we could approve a specific oil for a specific hour would be to test it.

If there is enough interest in a specific oil, the cost of testing may be worth it.

One thing to note here, only the specific version, the exact name and viscosity listed below, are approved, other versions of each oil (different viscosity, slightly different name etc) may have very different performance.

Example 1: **Lucas Magnum High TBN CI-4 15W40** Truck oil did very well in testing, but **Lucas European spec engine oil 5W30 synthetic**, units failed within 200 hours of testing.

Example 2: **Valvoline 5W40** synthetic engine oil did very well in testing but **Valvoline 5W40mst** synthetic engine oil failed within 200 hours.

This is why we need to complete testing on any oil to get a realistic idea of performance/life.

Approved list:

Qualified Oils	Number of Hours
Parker HT-1000™ (P/N 406030) 1U.S. Gal. (3.8L)	1000
Castrol Edge 5W50	500
Amsoil AW ISO 68	500
Shell TTF-SB	500
Other*	250

\*must be premium grade synthetic based engine oil with a minimum viscosity grade of 15W40

JSR