



Re: Recommended Lubricants for Converters & Transmissions

Requirements:

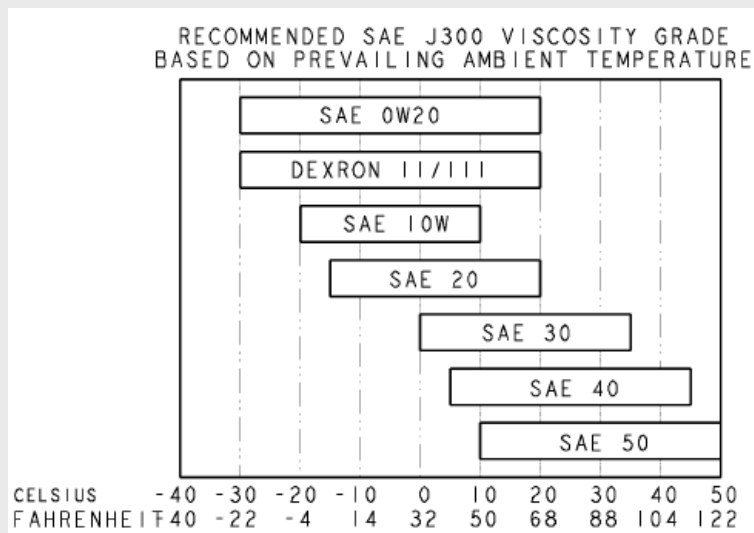
- Transmission lubricant must be qualified by one of the following specifications in order of preference:
 - Caterpillar TO-4
 - John Deere J20 C,D
 - MIL-PRF-2104G
 - Dexron[®] IID or Dexron III quality level*

* For the use of Dexron lubricants in combination with graphitic friction plates (used in 1000, HR36000, and T40000 series) a specific engineering approval is required. For electronic-modulated transmissions (like the TE series) only Dexron[®] III is approved.

- GL-5 and engine oils are not approved. The lubricant must be designed for transmissions.
- Multi-viscosity lubricants are approved.
- Preferred oil viscosity:
 - Select a lubricant with a viscosity grade that fully covers the prevailed ambient temperature on the Oil Application Chart (see the following page).
FOR EXAMPLE:
Ambient temperature from 14 to 68°F / -10 to 20°C
Select 10W30
 - When multiple viscosity grades are suitable, select the grade where the ambient temperature is closest to the middle of the viscosity range.
FOR EXAMPLE:
Ambient temperature from 68°F / 20°C
SAE30 is preferred over SAE40 or SAE50
- Fire-resistant fluid – See Vehicle Original Equipment Manufacturer (OEM) recommendations.
- Sump pre-heaters – Before operating, the transmission fluid must be preheated to a minimum temperature, according to the viscosity grade, to assure sufficient pumping viscosity.

- Warm up – For full load transmission functionality, a minimum sump temperature of 68°F / 20°C is required. Before reaching the minimum sump temperature, only neutral gear or unloaded driving is allowed. Engine is not to exceed 1500 RPM or more than half-throttle.
- Extended oil change interval – Extended oil service life may result when using synthetic fluids. Appropriate change intervals should be determined for each transmission by measuring oil oxidation and wear metals over time to determine the baseline. Wear metal analysis can provide useful information but a transmission should not be removed from service based solely on this analysis.
- Any deviation from the above requirements must have written approval from the Application Engineering Department of Dana Off-Highway.

Oil Application Chart



For Additional Information Contact:

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NOTE: This bulletin replaces all previously published converter and transmission lubricant guidelines.

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