

PACCAR MX-13 EPA2010 Maintenance Recommendations

PACCAR recommends the following for best operational performance for the MX-13 EPA2010 engine:

- Prolonged periods of low idle RPMs and high idle times at low ambient temperatures, along with low coolant temperature levels, can cause damage to the engine and the aftertreatment system (See the PACCAR MX-13 Engine Operator's Manual).
 - The recommended range for Engine Idle Shutdown Timer (EIST) to be active is between 25°F and 75°F. Prolonged periods of idle between 25°F and 35°F (current low-end EIST setting) within this temperature range may not provide significant comfort benefits to the operator.
 - If a truck must be idled in cold ambient temperatures, increase the engine speed to 1,000 RPM to warm up the cab and reach a coolant temperature of at least 150°F. Once warm, decrease engine speed down to 850 RPM. If idling for extended periods of time in extremely cold ambient temperatures, it may be required to increase the engine speed above 850 RPM. Idling at this slightly elevated RPM generates the necessary heat to prevent components from becoming clogged with soot.
 - If the engine has been idling long enough for the Diesel Particulate Filter (DPF) warning lamp to illuminate, perform a stationary regen prior to driving.
- A good way to eliminate premature cold-start cranking faults or failures is to turn the key to the ON position and allow for the system to complete its checks before starting the engine. Depending on the truck application, the driver will hear four to six clicks (this is the ABS system doing its key-on checks). The system has finished when the air compressor pressure release valve purges a quick shot of air.
- For best practice, fill the Diesel Exhaust Fluid (DEF) tank before it gets below 25% of full. The same recommendation applies to the fuel system, always refill before the fuel gauge drops to "E" (Empty), as this will help prevent the system from running out of fuel.
- Update MX software to the most current version.

Engine Oil Intervals and Specification:

- SAE 15W-40 API CJ-4. 10W-30 can be used if the engine has received Engine Service Bulletin E070 or more current software.
- Line Haul oil change interval is 40,000 miles when above 6 MPG.
- Vocational oil change interval is 25,000 miles (or 800 hours) and applies when fuel economy is less than 6 MPG and higher than 80,000 GVW.

Fuel Filters (If Fuel Quality or % of Bio Diesel is Unknown):

- Replace both the primary (Frame Mounted) and secondary filter (Engine Mounted) twice as often as the engine oil is replaced.

DEF Filter in the DEF Pump Module (if DEF Quality is Unknown):

- Replace every 100,000 miles (160,000 km) or annually: Initial Style (White mesh), replaced by pleated paper filter.
- Replace every 200,000 miles (320,000 km) for Line Haul and 100,000 miles or annually for Vocational use with the pleated paper DEF filter.



Initial Style

Pleated Paper filter

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Additional Items to Check:

- Visually inspect engine and aftertreatment wiring harnesses annually for signs of wear.
- Valve Adjustment – Complete the initial valve adjustment at 40k miles (1,200 hours), again at 160,000 miles (4,800 hours) and then every 160,000 (4,800 hours) for the life of the vehicle. (Schedule: 40,000 miles, 160,000 miles, 320,000 miles, 480,000 miles, 640,000 miles...etc.)
- Diesel Particulate Filter (DPF) - Clean every 200,000 miles.
- Exhaust Gas Recirculation (EGR) Cooler - Clean every 80,000 miles.
- [L073] - Hydrocarbon (HC) Doser – Inspect annually before winter. Clean and/or replace if necessary.
- [5] - DEF Doser Nozzle - Clean annually by running a DAVIE4 forced regeneration.
- [F802] - Boost Pressure Sensor – Remove, inspect and clean sensor and the port in cylinder head every 80,000 miles and replace if packed with soot.
- Inspect and clean the following components every 80,000 miles as they can become packed with soot:
 - [F826] - Before Turbine Sensor and Supply Tube (Check tube by inserting mechanic’s wire through the tube to check for a midstream obstruction. Clean with EGR Cooler Flush Solution)
 - [F751] - EGR Pressure Sensor/Tubes/Fittings
 - [F837] - DPF Differential Pressure Sensor

Sensor Locations:

