



January 10th, 2022

Chief Sollberger,

The City of Peoria Fire Garage has performed road tests, as well as visual inspections, to lead to the conclusion that our frontline Engine 20, #843, needs an engine overhaul to maintain the reliability of this machine. The engine's head gasket is leaking a significant amount of engine oil daily. Upon further inspection, I hooked up our Cummins diagnostic tool to Engine 20 to evaluate any further concerns. Findings presented multiple codes logged for engine crankcase pressure recognized at severely high levels. While driving the engine, crankcase pressure should be in the range of 0-4 in Hg (inches of Mercury, a unit of measure for pressure). Engine 20 is logging pressures in excess of 14 in Hg. Judging by these consistent high-pressure levels, there is combustion pressure getting past the piston rings, indicating the wear concern of the engine's internal parts. This engine will fail soon. It is my professional recommendation to have Engine 20 sent to Cummins in Normal, IL for an engine overhaul. I have provided you with a worst-case scenario quote. Cummins, in Normal, IL, has done all of our engine overhaul work in the past and is the only authorized Cummins Engine Service dealer in our area. Please let me know if you need any further information.

Colton Roberts

Peoria Fire Lead Mechanic