

Fuel system Most failures involve the fuel system. Each UI is a self-contained unit, with its own high-pressure pump operated by an engine-driven camshaft or, in the case of the Hydraulic Electronic Unit Injector (HEUD), by oil pressure. Operating at almost zero pressure, the return line conveys surplus fuel from the injectors back to the tank, filter, or to the inlet side of injector pump. For many applications, the connecting plumbing takes the form of dedicated lines from pump to the individual injectors. The unit pump system (UPS) is a hybrid, with each injector served by a dedicated pump plunger operating off the engine camshaft. This includes the tank strainer, in-tank pump (on many vehicles), water-fuel separator, filter(s), and lift pump. Low-pressure circuit.