

PC-10 Performance Requirement: Engine Tests

Performance Criteria	Fuel Sulfur, Wt %	Engine Tests	PC-10 2006
Aluminum Piston Deposits, Oil Consumption	0.05	Caterpillar 1N	X
Viscosity Increase Due to Soot at 6.0%	0.05	Mack T-11	X
Roller-Follower Valve Train Wear	0.05	GM 6.5-Liter PC – Diesel	X
Aeration	0.05	Navistar HEUI 7.3-Liter EOAT	X
Valve Train Wear, Filter ΔP and Sludge	.05	Cummins ISM	X
Valve Train Wear	15 ppm	Cummins ISB	X
Oil Consumption and Piston Deposit	15 ppm	Caterpillar C-13	X
Ring, Liner Bearing Wear & Oil Consumption	15 ppm	MackT-12*	X
Oil Oxidation	0.10	See III G or III F or Neither	X
Steel Piston Oil Consumption / Deposits	0.05	Caterpillar 1P	X

*Low Temperature Pumpability Test (ASTM D 4684) (MRV TP-1) / Mack T-10A?

Yet to Be Decided



PC-10 Performance Requirement: Bench Tests

Performance Criteria	Bench Tests	PC-10 2006
Foam	Bench Test Sequence I, II, III	X
Elastomer Compatibility	D-471, Ref. Oils	X
High Temperature/High Shear	Bosch Injector	X
Shear Stability – 90 Cycles	Bosch Injector ASTM D 3945	X
Volatility	Noack D 5800 or Distillation D 2887	X
Corrosion	HTCBT (135°C) ASTM D 6594	X