

PC-10 Performance Requirement



Performance Criteria	Fuel Sulfur, Wt % / ppm	Test	PC-10 2006
Engine Tests			
Aluminum Piston Deposits, Oil Consumption	0.05	Caterpillar 1N	1
Forged Steel Piston Oil Consumption / Deposits	0.05	Caterpillar 1P	2
Oil Consumption and Piston Deposit	15 ppm	Caterpillar C-13	3
Viscosity Increase Due to Soot at 6.0%*	0.05	Mack T-11	4
Ring, Liner Bearing Wear & Oil Consumption	15 ppm	MackT-12	5
Valve Train Wear, Filter ΔP and Sludge	.05	Cummins ISM	6
Valve Train Wear	15 ppm	Cummins ISB	7
Roller-Follower Valve Train Wear	0.05	GM 6.5-Liter PC – Diesel	8
Aeration	0.05	Navistar HEUI 7.3-Liter EOAT	9
Oil Oxidation	0.10	See III G or IIIF or Neither	10
Bench Tests			
Foam	–	Bench Test Sequence I, II, III	1
Volatility	–	Noack D 5800 ASTM D 892	2
Elastomer Compatibility		D-471, Ref. Oils	3
High Temperature/High Shear		Viscosity After Shear D 4683	4
Corrosion		HTCBT 135°C D 6594	5
Shear Stability – 90 Cycles	–	Bosch Injector ASTM D 3945	6
<i>Total Number of Engine and Bench Tests</i>			16

Yet to Be Decided

*MRV TP-1 and 90 Cycles Shear