

NEW SYSTEM REDUCES DIESEL NOx EMISSIONS BY 60%!

(PRWEB) January 20, 2000 -- FREEDOMAIR TESTS PROVE NOX REDUCTIONS! FOR IMMEDIATE RELEASE: automotive / diesel / emissions For more information contact: 248-449-3108 Jan 18, 2000 -- (Detroit, Michigan) -- ROTEC DESIGN, LTD, today announced its patented FreedomAirÂ□ system had successfully reduced diesel engine NOx emissions by nearly 60% after completing "Before & After" comparison tests on a 4-cylinder Peugeot passenger car diesel engine. Robert Rutherford, ROTEC DESIGN, LTDÂ□s Managing Director, said the FreedomAirÂ□ NOx test result figures represented a major break through -- allowing engine OEMs and diesel users to immediately gain significant NOx emission reductions, in both mobile and stationary engine applications. Utilization of the FreedomAirÂ□ system effectively removes the need for expensive aftertreatment catalysts, filters, and traps and the capital expenditures for further R&D required to implement them. The company said FreedomAirÂ□ has been designed as a low cost mechanical system for OEMs to achieve the "simultaneous at-source reduction" of both NOx and PM emissions from diesel engines. In addition to the actual NOx reductions achieved, the company said that preliminary test models indicate an 80% PM (soot) reduction potential from FreedomAir . Utilizing Rotec □s patented TwinStroke □ technology, the system requires no expensive high-tech electronics, nor major changes to any of the OEMÂ□s engine designs, manufacturing processes, materials, or warranty procedures. The FreedomAir system is sulfur insensitive, easily maintained and is virtually tamperproof. "FreedomAirÂ□ almost certainly means engine manufacturers can immediately meet USA EPA and Euro IV legislative requirements, as well as help the environment $\hat{A} \square$ and all of this at an extremely low cost and with little additional R&D expenditures". "The consumer wins because they do not need to pay huge amounts for expensive, uncertain technologies, many of which require costly reformulated fuels, that may or may not actually work", Mr. Rutherford said. Paul Dunn, ROTEC DESIGN, LTDÂ □s Director of Technology, said testing was based on attaching Freedom Air to a 2.1 liter 4 cylinder indirect injection diesel engine with fuel injection timing set at S.O.I. 1 DEGREE BTDC. He further stated that independently audited test results on power / torque and overall engine durability have been successfully completed and that the company was finalizing tests on FreedomAir $\hat{A} \square PM$ (soot) reduction capabilities. "We know we can get 70% torque improvement with no changes to durability, but the biggest achievement for us comes from our emission reductions ability". "When compared with an identical 4-stroke diesel, under identical test conditions, the FreedomAirÂ□ system reduced engine-out NOx emissions by more than 57% at



1500 rpm / 100 NM. And at idle speeds, engine-out NOx emissions were reduced by about 54%", said Mr. Dunn. ROTEC DESIGN, LTD., with FreedomAirÂ□ and TwinStrokeÂ□ patents registered in more than a dozen countries, said a complete report with comprehensive data and a thorough analysis of all test results and procedures was now being finalized and would be made available to interested parties early in 2000. For more details and information visit Rotec \(\text{S}\) Website at: \(\text{www.rotec.com.au}\) **ROTEC USA** Northville, Michigan PH:248-449-3108 FX:248-348-4561 Email: RotecUS@aol.com ROTEC DESIGN LTD Brisbane, Australia PH:(617)- 3216-2760 FX:(617)-3216-2864 Email:rotec@ozemail.com.au Keywords: Automotive, engines, CIDI, emissions, technology, NOx, PM, diesel, emissions reductions, EPA, CARB, ARB, environment, vehicle OEMs, engine OEMs, electrical generators, HD Trucks, USCAR, PNGVÂ□ END Â□



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