Diesels in the (racing) news

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There certainly is a great deal going on in the motorsports community with respect to Diesel technology. I find motorsports to be a great venue for proving new technologies, and lately modern Diesel technology has been in racing news more and more often. The combination of the Diesel's durability and relatively low fuel consumption make it particularly ideal for long distance competitions such as round-the-clock racing. I realize this does not entirely have to do with biofuels (nor with Sacramento area activities), but any advances in Diesel technologies will definitely have a positive impact on biodiesel use.

I think Audi kicked everything off when they unveiled their R10 TDI racer in France shortly before winning the 12 hours of Sebring in March of this year. Audi's "silent Diesel" also won the 24 hours of Le Mans in June, while setting several records including fastest lap by Tom Kristensen (who is also the winningest driver of this famous endurance race), the most laps on a single fuel load (for this class of car), and the most distance covered overall in 24 hours. See details at www.audi.com.

Recently, I learned about the Earthrace team (see www.earthrace.net), a New Zealand team that built an 80 foot tri-maran specifically intended to raise awareness of the viability and benefits of biodiesel by trying to set the record for circumnavigating the globe by water. The team will be using 100% biodiesel for the record attempt, powering the twin Cummins Mercruiser Diesel engines. The current record is 75 days, set in 1998 by a British boat named Cable & Wireless, and the Earthrace team is targeting 65 days. The boat is currently on a promotional tour of North America ports until the race starts in March of 2007.

I also recently learned about a one-off Diesel-powered motorcycle called the Die Moto which is being built by a team of environmentally conscious vehicle enthusiasts, engineers, and artisans led by Michael Sturtz at the Oakland, CA based The Crucible (see www.thecrucible.org). The team took a BMW motorcycle, cut it up, and added a high performance automotive diesel engine from the European market. The team intends to take the motorcycle to Speed Week at the Bonneville Salt Flats in August 2007 to break ("shatter" in the team's words) the existing diesel motorcycle world speed record and establish new land speed records for both bio-diesel and straight vegetable oil powered motorcycles.

Finally, I've learned that BMW of North America (www.bmwusa.com) is bringing over a pair of 335d Diesel sedans to race in the NASA 25 Hours of Thunderhill (located in Willows, CA just a few hours north of Sacramento) the first weekend in December in partnership with Car And Driver magazine to demonstrate the high performance capability of their new diesel engines. See www.caranddriver.com for more information. The engine is truly amazing, putting out more horsepower and over 85% of the torque of a Ford Powerstroke Heavy Duty truck engine of just 4 years ago… and this is for a relatively small sedan!! The engine sports twin turbochargers arranged sequentially; one small for quick spool up and one large for better top end performance. Maximum torque is achieved just off idle at 1750 rpm. Acceleration from 0 to 60mph is in the 6 second range, as quick as a Mazda MX-5 (formerly known as Miata). That's not super-quick, but compared to the 11 second times of a VW Golf TDI, it's pretty impressive. Even so, the sedan can still get well over 30mpg, unheard of for that size of car with that kind of performance. Rumors have it that BMW will start to import this model in 2008.

I look at all this as good news because it raises awareness of the advances that have been made in Diesel technology, and it's showing that auto-related companies are seeing the benefits of these advances. I believe the Diesel engine provides the most logical path in the near term toward U.S. fuel independence because 1) even on petroleum-based diesel fuel, a Diesel vehicle will exceed the fuel economy of an equivalent gasoline vehicle, 2) switching to a renewable fuel such as biodiesel can be done with no modifications to the Diesel vehicle (unlike switching to ethanol which requires either a vehicle designed for ethanol or requires several modifications), and 3) a Diesel can actually run on other fuels such as straight vegetable oil, which would not be possible for a gasoline vehicle. I think an ideal vehicle would be a Diesel hybrid, as that could provide the best combinations of flexibility… choice of renewable fuels, super-high mileage, and the ability to plug into the grid for trips under 100 miles. THAT is something I'm looking forward to.

Have a great Thanksgiving!!