

# Did You Know?



DYK 2: November 2008

## 2010 Emissions technology - We are not on a deserted island

### Isolation leads to uncertainty...

We have all seen the movies where people are marooned on an island and the isolation and loneliness consumes rational thought. Isolation can make you question your actions. On the other hand, if you have company on the island, you can validate your thinking and your actions.

When Navistar announced in October 2007 that we would achieve full 2010 emissions compliance without the use of additional SCR after-treatment, we made what appeared to be a bold move. Aside from Cummins, we were the only manufacturer to announce an in-cylinder advanced EGR solution. Then isolation set in, Cummins announced that they were no longer offering two solutions for 2010 but only SCR. Navistar was the lone manufacturer not using SCR. We were alone on an island. Human nature took its course and isolation generated uncertainty. Well there is good news: We are not alone...

In September 2008 at the 62nd International Automobile Show in Hanover, Germany, two major European companies, MAN and Scania, announced they will offer EGR-only solutions for the next round of European emissions standards. In short, these companies that have been promoting and offering SCR to their customers since 2005 are now going to use the same technologies MaxxForce™ engines will use to achieve compliance. MAN refers to their EGR path with phrases like "Pure Diesel" and "Add Nothing" (referring to the need to add urea (AdBlue®) for the SCR solution). Scania EGR similarly claims "just add diesel." Well that sounds very close to Navistar's message of "Simplicity vs. Complexity." Actually we are in some good company, because like us these two European leaders have invested in modern diesel technology and designed their basic engine structures to accommodate that technology.

### What is the technology?

**There are four key technologies used by Navistar, MAN and Scania to achieve an in-cylinder solution:**

1. Advanced high-pressure fuel injection technology
2. Combustion bowl optimization
3. Sophisticated air-management system
4. Proprietary electronic calibration strategies

*Continued on next page.*

# Did You Know?

2010 Emissions technology - We are not on a deserted island

## Why are MAN and Scania offering an EGR solution when Europe is using SCR?

First the technology is rapidly advancing and the tools to achieve in-cylinder results have advanced rapidly with advances in fuel injection pressure capability. That technology advancement allows forward-thinking companies to focus on solutions that benefit the customer.

### The advantages of the EGR solution are many:

1. As Scania and MAN state, you “Add Nothing” - “Just Diesel.” Urea is not needed. No secondary fuel, no storage issues, no availability uncertainty or as we say, just “Business as usual for our customers.”
2. Clearly MAN and Scania recognize the value of less hardware, less weight and more room for body applications.
3. Even after many years of planning for urea distribution and actual use of the technology since 2005, there are now only 2,044 locations with retail urea pumps in Europe.\*



**Fact: Urea distribution in Europe is supplemented by high-cost pre-packaged urea containers like those shown in this photo taken in Germany.**

\*Source: Integer Research, London, October 2008

## No need for uncertainty, just confidence...

It is important to understand that Navistar is not alone with this strategy. We would even go as far to say that if other companies had invested in their base engine designs as we did six years ago with the in-cylinder advanced EGR strategy in mind, they would do what we are doing. Instead they have extended engine platforms that may not handle the cylinder pressures required for customer-focused solutions. That path has driven them to additional after-treatment and urea to meet clean air goals.

Knowing we are not alone should give you renewed confidence that our strategy is right for your fleet and a competitive advantage for your business.