

# Emissions *Report*

## SCR Rocks in Europe

European fleet sees 10 percent economy gain with SCR technology



PHOTOS: STF

**E**urope's 10th largest trucking operation has seen fleet fuel consumption improve by nearly 10 percent as it switches to the most modern truck equipment. LKW Augustin, a major carrier with 750 tractors, serves the pan-European transportation market with container carriers, reefers, and curtain-side van trailers and truck-and-trailer trains.

In an interview with company executives at the Salzburg, Austria, headquarters, Rudolf Ebner, equipment vice president, had figures showing fuel mileage has gone from a fleet average of 6.27 mpg to 6.91 mpg with the adoption of Euro 5 MAN and Mercedes-Benz trucks featuring selective catalytic reduction technology.

We were in Salzburg on an SCR fact-finding mission while guests of German component and transmission supplier ZF at its Passau, Germany, facility. Journeying over the Austrian border to Salzburg, we had the best part of a day to see LKW Augustin in action and ask about its experiences with the introduction of Euro 5 emissions requirements – particularly the SCR component.

Because of LKW Augustin's aggressive equipment acquisition to fully modernize the fleet, SCR has become

*Augustin generates part of its revenues from third-party maintenance and leasing operations. Because it buys so many trucks, its additional cost for SCR-equipped trucks is lower.*

equivalent to 2 liters per kilometer. Chief executive Berger said that being cautious, that meant a net gain of one liter to the bottom line. For his 750 trucks, that means a savings of up to 2 million Euros a year (\$3.2 million).

### Dealing with Hiccups

What about those hiccups? According to Berger, Ebner, and CFO Gerhard Engleder, there were some small issues. The consensus was that the SCR dosing device had some valve problems that meant dosage rates were too aggressive at times, wasting Ad Blue and adding to the cost. Also, they have found the urea fluid is very corrosive and there were initial problems with leaks.

As some fear here in the United States, the availability

an everyday experience for managers, maintenance staff and drivers.

The introduction of SCR and the necessary Ad Blue exhaust treatment fluid is not a big deal, said Ebner and owner and chief executive Oskar Berger. There were a few hiccups in the initial stages, but two years or so down the road, SCR has proven to be one of the best things that could have happened to the fleet. They said they had picked up 3 liters per 100 km – for this fleet, that was better than a half-mile per gallon in mpg. Allowing for the cost of the SCR reagent (Ad Blue, what we're calling diesel exhaust fluid in this country), the net fuel economy gain was

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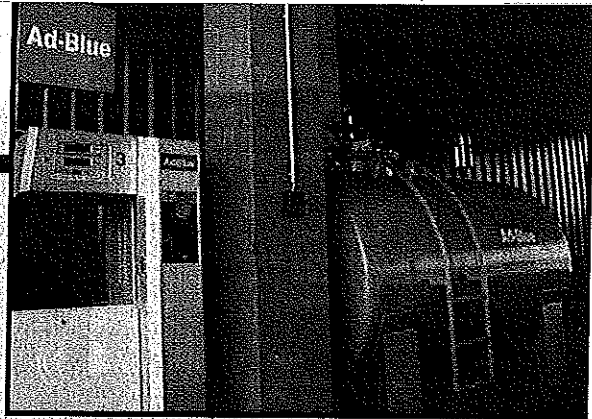
of the exhaust fluid on the highway was spotty at times in the early days of SCR in Europe. Those availability issues were initially covered by Ad Blue suppliers spotting tank trailers at fuel stops. Now there is widespread availability at truck fueling points. These are freeway and tollway fuel stops that cater to heavy trucks by providing diesel pumps that deliver the fuel at a much higher flow rate than those for cars.

Augustin has Ad Blue fueling facilities at its terminals in Austria, with a 5,000-liter above-ground tank at its headquarters. That distribution pump is heated during the winter, as are the tanks on the trucks, and there have been absolutely no issues with the urea solution freezing.

Other than these minor irritations, there have been no issues whatsoever with the SCR technology on the fleet's MAN TGX and Mercedes-Benz Actros high cabovers.

### **Recouping Equipment Costs**

Augustin generates 40 percent of revenues from third-party maintenance, from fuel-card diesel fuel distribution to other fleets and from leasing vehicles. It buys around 400 trucks a year (main fleet plus lease vehicles).



*Despite being at the foot of the Alps where winter temperatures are severe, Augustin has had no issues with the diesel exhaust fluid freezing in its above-ground tanks, thanks to tank heating.*

This is a lot in Europe, so the company has extremely favorable pricing. Berger says his Euro 5 trucks cost around \$4,500 more than non-SCR trucks, where most buyers spend as much as \$9,000 more. At 100,000 miles a year and fuel at \$8-plus a gallon, this cost is quickly recovered out of the fuel savings.

Euro 5, while not required till November 2009, is a real plus from an operational standpoint. Berger cites the route to Italy – his main customer base – as an example. The Brenner Pass is closed to trucks at night unless they comply with the upcoming standard.