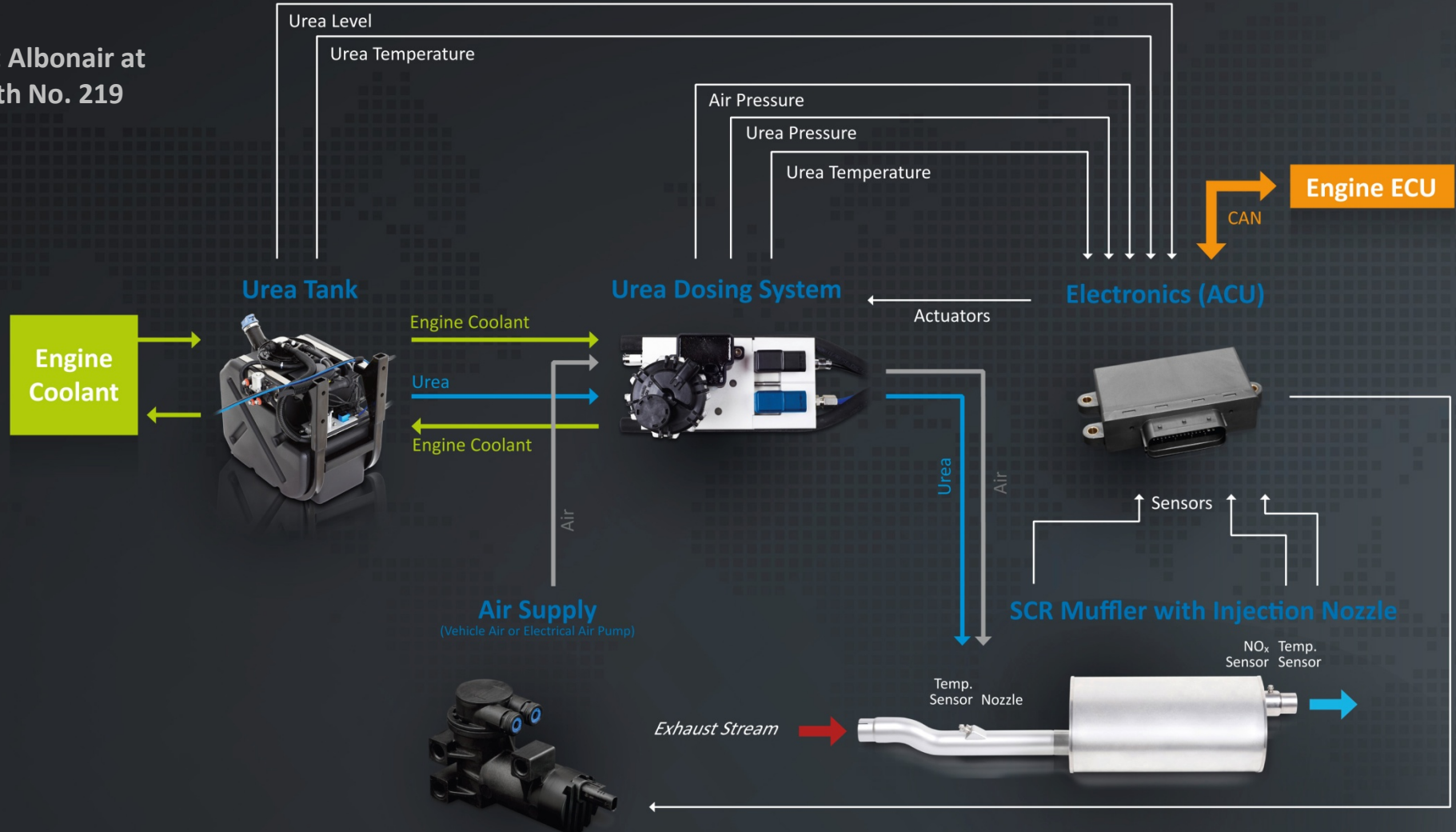


A NEW APPROACH IN UREA DOSING TO IMPROVE PERFORMANCE AND DURABILITY OF SCR SYSTEMS FOR THE USE IN OFF-ROAD APPLICATIONS TO FULFILL TIER 4 FINAL

Poster P-17

Visit Albonair at
Booth No. 219



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DEF/AdBlue: an aqueous urea solution blended with 32.5 % high purity urea and 67.5 % deionized water

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The key to an optimal SCR catalysis lays in the homogeneous distribution of the urea in the exhaust gas as well as in the fast evaporation of the droplets. In addition, the fast hydrolysis in a very short length behind injection helps to avoid unwanted wall contact and condensation. Any deposits of crystallized urea in the exhaust pipe are avoided. The problem of deposits of an airless system with large droplets compared to no deposits of the air-assisted Albonair system is shown, as well as the influence of droplet size for the evaporation process of urea.



Albonair System



Airless Benchmark System

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The comparison test was conducted with an airless dosing system and the Albonair system with external air mixing over a duration of five hours each at a stationary operating point with 300°C exhaust gas temperature in front of the urea injector.