



NEWS FOR IMMEDIATE RELEASE

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STURMAN INDUSTRIES' CAMLESS DIGITAL HYDRAULIC VALVE ACTUATION (HVAD), TECHNOLOGY DISPLAYED AT AACHEN AUTOMOBILE AND ENGINE COLLOQUIUM.

Sturman Industries of Woodland Park, Colorado, USA, has been selected by IAV GmbH, Germany to supply "Camless" HVAD (digital hydraulic valve actuation) technology to support enhanced combustion initiatives targeting reduced emissions and improved performance. Sturman Industries applies its proprietary DHOS® (Digital Hydraulic Operating System) technology to address the need for enhanced combustion control.

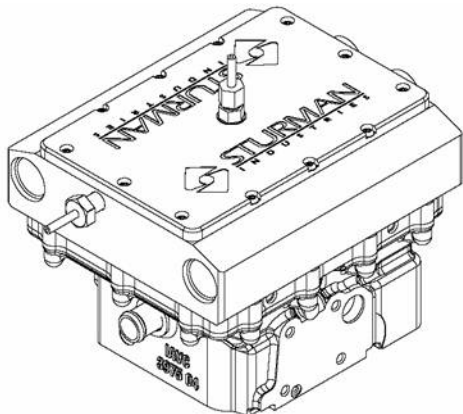
IAV is displaying Sturman's new HVAD technology at the Automobile and Engine Technology Colloquium in Aachen, Germany, October 3-5, 2005. This Colloquium is one of two major engine technology exhibitions in Europe. Sturman's HVAD system, shown below as displayed, is integrated into a single cylinder of a 2.2L, 4 cylinder diesel engine with variable lift functionality on an individual valve basis.

According to global engine producers and regulatory agencies, fully flexible engine valve control will be required to meet strict future fuel efficiency and emissions standards being adopted worldwide. Sturman Industries' CEO, Rick Dunagan says, "The primary driver for HVAD in gasoline engines has been to improve fuel economy, while diesel engine manufacturers target emissions reductions and downsizing the cost, size, and complexity of exhaust after-treatment. Sturman's HVAD camless systems help OEMs meet these continually increasing global requirements."

Dr. Gerhard Maas, Senior Vice President, Powertrain Engineering, IAV, stated, "We have investigated other systems and the Sturman HVAD platform is the best solution to achieve our Advanced Diesel Combustion System (ADCS®) optimizing engine efficiency and minimizing emissions. The Sturman HVAD camless system is robust and series production feasible."

When asked about the company's direction of using the HVAD technology, Eddie Sturman, founder and technical lead of Sturman Industries states, "It is our responsibility to deliver technology to address the continually increasing challenges of tighter engine emissions and rising fuel costs. We have a solution that is economically, technically, and logistically feasible."

Sturman Industries is supplying this HVAD technology to companies around the world for testing. The proprietary HVAD technology is being applied on engines ranging from 250cc gasoline motorcycles to Class 8 diesel trucks. Sturman's customer programs include many multi-year, multi-phase projects. To date, this technology has been applied to 9 single cylinder demonstrations, approximately 30 multi-cylinder demonstrations, and 4 vehicle demonstrations (including injection systems and engine mounted on-demand hydraulic supply systems).



To see a short video of the HVAD performance, [please click here](#).

To learn more about the HVA technology please contact: Eric Cefus: 719-686-6068, ecefus@sturmanindustries.com