Production-Intent Lost-Motion Variable Valve Actuation Systems





Poster Location – P8

Contributors:

Steven Ernest, Director of Technology Development Krishna Kumar, Senior Engineer John Schwoerer, Principal Engineer Bruce Swanbon, Project Engineer

Poster Summary



Jacobs Vehicle Systems™

- VVA with on/off IEGR pre-bump is an enabling technology for HCCI,
 PCCI, LTC and other advanced combustion techniques
- Production-intent VVA designs have been developed which:
 - Are durable, consistent and reliable
 - Revert to partial mechanical lift for cold start and failsafe capability
 - Package compactly on the valve or push-tube side of the rocker
 - Offer individual cylinder and cycle-to-cycle control
 - Inherently protect against valve to piston contact
- The poster describes the system with test & simulation results for:
 - Valve lift capabilities over the range of operation
 - Over-speed and cold start behavior
 - Endurance status
 - Parasitic loss

Poster Location – P8