Eaton selects LMS Test.Lab for critical NVH development

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Eaton Corporation is using LMS's Test.Lab software to optimize the NVH performance of hydraulic systems and components. Specifically, Eaton uses LMS Test.Lab to reduce the radiated noise of hydraulic equipment, which is subjected to strict noise legislation, and to shape the sound quality of new product designs. In addition, LMS Test.Lab and the compact LMS SCADAS front-end allow Eaton engineers to run diverse qualification and troubleshooting tests at customer sites in support of hydraulic system integration activities.

Eaton recently standardized its noise and vibration engineering activities on LMS Test.Lab. The software platform was selected for its advanced capabilities and integrated support for key NVH test applications, including rotating machinery testing, modal analysis, acoustic intensity, and sound quality engineering.

"LMS Test.Lab covers the full scope of diverse testing needs, from operational noise measurements on hydraulic driveline systems up to the analysis of the modal characteristics of a hydraulic pump assembly," stated Mike Beyer, engineering specialist—NVH at Eaton Hydraulics in Eden Prairie, MN. "Our test engineers also value LMS Test.Lab's sequential workbook approach, which accelerates the execution of repetitive design verification measurements, as well as more specific development-related test assignments. Compared to previously installed test equipment, LMS Test.Lab reduces test throughput time in all process steps, while providing superior data monitoring and reporting capabilities."

Mike Beyer concluded, "The flexibility of LMS Test.Lab enables us to execute any laboratory and field test assignment and to realize significant productivity gains for both our regular and troubleshooting testing work. In combination with our new process for low-noise design, established together with Eaton Innovation Center in Southfield, MN, we expect to cut down NVH development cost and time by 50%.