

A Forward Look at Retrofitting

The Bendix Tech Tips Series typically addresses maintenance and upkeep issues that fleets and owner-operators face regularly, with the goal of helping maximize highway safety and vehicle uptime. In this installment, though, Bendix Commercial Vehicle Systems LLC is looking down the road a bit in anticipation of a developing need – exploring what will help make retrofitting advanced safety systems successful for vehicle operators, as well as industry-wide training efforts for trucking technicians across North America.

“With electronic stability control – ESC/full stability – now a requirement on Class 7 and 8 trucks, the foundational components for more advanced safety systems, such as collision mitigation technology, will be in place on a rapidly growing number of vehicles,” said Lance Hansen, Bendix North America regional vice president – fleet/trailer sales & service engineering. “So being able to upgrade in-service vehicles already equipped with ESC, with powerful safety solutions like collision mitigation and other advanced driver assistance technologies, will play a huge role in increasing adoption levels and putting greater numbers of safer trucks on the road.”

Complex Systems, Thorough Training Solutions

Advanced driver assistance systems bring together a variety of component technologies, including speed and directional sensors, radars, cameras, Electronic Control Units (ECUs), and control valves across the braking system. This means that maintenance and installation require both a broader knowledge base and a deeper understanding of how they interact with other components as well as the vehicle itself.

“Retrofitting these systems can be a very different, more complex job than replacing brake friction or servicing air dryers,” Hansen said. “Because in addition to the mechanical aspects of the install, it involves electronics know-how and the possible use of diagnostic software like Bendix[®] ACom[®].”

Although many technicians are highly capable, with solid technical and mechanical skills, thorough training is a significant consideration when properly preparing them for the unique technical challenges associated with these systems. “Technicians who handle safety system vehicle upgrades should be immersed in brake system theory, including the function of both pneumatic and electronic components,” Hansen said.

Examples of training for the component technologies could include proper mounting locations, alignment, calibration of sensors, harness routing, and J1939 communication.

All these elements will better equip tomorrow’s retrofitting technicians. Classroom or on-line training alone typically won’t be enough to prepare them to do the job right.

“Retrofitting in-service vehicles with leading-edge, fully warrantied driver assistance systems will mark a major step forward in terms of driver, vehicle, and highway safety,” Hansen said. “Getting to that point, however, requires recognition of the unique nature of retrofits – and the need for experienced suppliers, installers, and OEMs to support these efforts. To ensure that retrofitted vehicles operate correctly every time, engaging qualified, knowledgeable support will be essential.”

Information in the Bendix Tech Tips series can be found in the Bendix multimedia center at knowledge-dock.com. Further instructional videos and interactive training on foundation drum brakes and friction are available at the Bendix On-Line Brake School, www.brake-school.com. For more information on wheel-end and air dryer maintenance, contact the Bendix Tech Team at 1-800-AIR-BRAKE.