



Problem Validation Breakout Summary

**Commercial Vehicle Brake Safety
Symposium
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Design and Construction

- Disc brakes
 - More should use them
 - The variations of types and difficulty for inspecting them.
- Needs to be a better way for drivers to check brakes (i.e. sensors and in-cab monitoring systems)
- Long stroke chambers must be used more often (mandate), but cost is high and standard identification is problematic.
- Identification and use of substandard equipment.
More use of brake adjustment indicators.



Design and Construction

- Access to components for drivers and inspectors (e.g. dust covers).
- Tractor-trailer compatibility.
- Self adjusting brake adjuster, and other component education and training is needed.
- Better design of components is needed (e.g. lining, hoses and drums).
- Cost effectiveness is a major issue.

Inspection

- Training
 - Drivers
 - Enforcement and Inspectors
 - Periodic recertification
- Brake systems that are easier to inspect
- Brake systems that are self-diagnosing
- Restricted access due to dust covers and other components
- Ability to measure drum thickness and wear.
- Inspection uniformity for enforcement



Inspection

- Pencil-whipping and/or falsifying of DVIRs and Annual Inspections.
- Procedures for ABS to be developed and ABS should be checked.
- PBBTs should be used more frequently.
- Better quality pre-trip inspections and quality control/monitoring/follow up on drivers.
- Unqualified fleet personnel are conducting inspections.



Regulatory Compliance

- Regulatory Education/Training (free)
 - Carriers, mechanics, drivers and enforcement.
- State and Federal regulatory compatibility.
- Driver should carry pre-trip inspections with them.
- Require long stroke chambers.
- Vague and ambiguous regulations (i.e. brake inspectors)
- Require use of in-cab brake adjustment indicators.
- Better standards for mechanics/technicians/brake inspectors.
- Independent Annual/Periodic inspections.



Maintenance and Repair

- National qualifications for certified technicians on minimum requirements to repair or inspect.
- Maintaining SABA with better methods for identifying problem adjusters.
- Carriers need to ensure equipment is inspected on a scheduled PM. PM should be completed by qualified technicians and locations.
- Replacement components should be of OEM quality and specifications.
- Drivers not performing pre-trip inspections.
- Oversized brake drums.



Maintenance and Repair

- More education needed on ABS system.
- Small fleets and O/Os should perform and comply with inspection regulations.
- Container chassis maintenance.



Operation

- Better brake-related training to drivers, carrier employees and inspectors (both).
- Downtime for repairing and managing brake issues (JIT environment).
- Need cost-benefit data related to maintenance on brake components and systems.
- Empowering drivers to be in the decision loop (ability to say no).
- Periodic air brake testing for drivers needed.
- More driver-friendly method to monitor brake condition.

Crash Investigation and Reconstruction

- Crash investigations are very different from compliance inspections. More skills, knowledge and test procedures are involved.
- More training is needed and accredited training programs should be offered.
- The criteria for deciding when an investigative inspection is done should be standardized.
- Standardized information gathering and data sets need to be used in all investigative inspections. This information should also be compiled and analyzed in a standard manner.

■ More investigative inspectors are needed at state and local levels.



Other

- Driver Training for pre-trips.
- Regulatory/Policy changes need Law Enforcement input.
- More data and information on brake issues need to be made available to all types and sizes of fleets.
- Service personnel need to be subject to enforcement.
- Older drivers not as reachable/trainable as new drivers.
- Mandate more brake training in the CDL examination.
- During CDL exam, make drivers demonstrate knowledge and skills.
- Make drivers periodically do another licensing exam.



Other

- Data needed to determine what size of carriers are having crashes.
- Education to smaller fleets and O/O's.
- Clarify 393.53 and vehicle committee implementation procedure.
- Modify ASPEN to permit both units (T/T) to be individually placed OOS if both contribute to the 20% OOS Criteria.
- More driver training/coaching needed (graduated levels) and simulators.
- Need an aftermarket lining standard.



Other

- Cost of technology and equipment is out of reach for the average carrier.
- There is a disconnect between enforcement and industry on training issues.
- More emphasis on ABS system in training, and it must be checked at roadside.
- Tax incentives to encourage compliance.
- Industry and Enforcement must be in partnership to reduce brake-related crashes.
- Educate the general public about how to operate around heavy vehicles and stopping distances.



Other

- Is the lack of training on the proper inspection methods the reason for the number of brake violations at roadside inspections?
 - Yes = 74
 - No = 12
 - Multiple persons responsible
 - Need more PMs and pre/post trip inspections

Other

- What percent of roadside violations do you think are the result of a conflict or improper inspection?
 - 0-25% = 17
 - 26-50% = 4
 - 51-75% = 6
 - 76-100% = 1



Other

- Since we refer to the violations as out-of-adjustment. Is part of the problem the condition of the foundation brake and not adjustment?
 - Yes = 64
 - No = 7

Other

- Brake power stroke only measures if you have enough movement to obtain applied force. The brakes may still not be effective. Do we need a different method of checking Brakes?
 - Yes = 28
 - No = 10