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Loading Dock Vehicle Restraints and Truck Trailer Rear Impact Guards

Truck trailer manufacturers are continuously modifying designs of their trailers' Rear Impact Guards (RIG) to improve safety based on impact testing. In North America these modifications are also due to changes in regulations from both the Canada Motor Vehicle Safety Standard (CMVSS) and Federal Motor Vehicle Safety Standards (FMVSS) in the US. Both require RIGs to maintain protection from a certain degree of impact.

In the past the most common design of a trailer's RIG bar has been a simple square or rectangle shape. For reinforcement, some truck trailer manufacturers also added a vertical center plate to those RIGs. In 2021 throughout North America, the industry and members of the Loading Dock Equipment Manufacturers (LODEM) group started to see some RIG bars with a pentagonal design that comes to a point in the front. Soon after, others appeared with a notched center section presumably lending itself to be more easily restrained. Since then, several other large truck trailer manufacturers have announced that they would also be adopting this new pentagonal RIG design.

While improving safety of a truck trailer is of course an important matter, facilities must also consider the effectiveness of the existing vehicle restraints at their loading docks. Manufacturers of loading dock equipment, such as Systems and its brands, constantly evaluate the designs of their vehicle restraints and make modifications in response to customer needs to ensure the restraints are as effective as possible.

An example is the TPR Vehicle Restraint from Poweramp, McGuire and DLM. This has been for years, and continues to be, an effective and reliable truck restraint. In January 2022, the hook profile of this restraint was modified to be even



TPR with new hook profile on pentagonal RIG.

more effective when securing the new pentagonal RIG design on some trailers. Facilities should continuously evaluate the type of truck trailers they're servicing at their loading docks. If the facility is beginning to see trailers with the new RIG design, they should consider either retrofitting existing TPR restraints with a new hook profile, or upgrade to the UniLock® Vehicle Restraint, as the Unilock's patented locking mechanism makes it more universally effective.

Systems will continue to evaluate its full vehicle restraint product line and make any necessary modifications in responses to regulatory or RIG design changes. Please look for these periodically and contact Systems or its brand representatives with any questions or requests for retrofit upgrades.