

CASE STUDY:

Rear Impact Guard Testing and Certification



Date: April 2021

PAMI's Capabilities:

PAMI supports transportation manufacturers across Canada with:

- *Certification to CMVSS 223 and many other standards required for on-road vehicles.*
- *Proven test set-ups and analysis methodologies.*
- *Convenient locations at our facilities at Portage La Prairie, Manitoba, and Humboldt, Saskatchewan.*
- *Assistance with prototype design to accelerate development time.*
- *Computer modelling and analysis to save time and cost in developing prototypes.*
- *Design insights based on decades of engineering experience on methods to improve guard performance.*

Client's Challenge:

A semi-trailer manufacturer wished to redesign its existing rear impact guards to

- reduce trailer weight without diminishing guard impact performance,
- take advantage of new materials or changes in material availability,
- improve manufacturing efficiency and reduce cost,
- adapt new material cutting, forming, or fabrication methods, and
- adapt to new trailer designs and sizes.



Project Scope:

- Designed and fabricated test fixtures and set up the test apparatus.
- Tested the specimen to CMVSS 233 Standard requirements.
- Issued a Professional Engineering certified (stamped) report and certificate upon meeting requirements.

Value Created:

- **Confidence:** The Client's design/manufacturing team can observe tests at PAMI facilities and engage with our engineers.
- **Assurance:** PAMI ensures you understand the test set-up, results, and why a design may need to be retested.
- **Timely Results:** PAMI's combination of facilities, knowledge, and experience allows work to be performed quickly while maintaining thoroughness and accuracy. PAMI knows the importance of maintaining manufacturing schedules and costs.
- **Advice:** PAMI engineers go beyond producing a simple pass/fail report. In the case of a failure, PAMI can help your team make improvements quickly to avoid delays to manufacturing schedules or a product launch.
- **Quality:** PAMI operates under an ISO 9001 quality system and maintains complete test and certification records.
- **Confidentiality:** PAMI maintains strict confidentiality of your designs, products, and test results. You retain all intellectual property improvements resulting from PAMI's engineering input.