

PRAIRIE AGRICULTURAL MACHINERY INSTITUTE HUMBOLDT. SK & PORTAGE LA PRAIRIE. MB

TEST SERVICES

Real Life, Real Tests, Real Benefits,

PAMI is committed to continuous improvements. We're passionate about machines and we provide state-of-the-art testing facilities and simulation technology for our clients to learn more. Our goal is to create efficiencies, find solutions and provide insight by studying, designing, building and testing machines and their components in real life situations.

PERFORMANCE TESTING

Utilize our Vehicle Performance Centre that is temperature controlled and equipped with a chassis and PTO/engine dynamometer. This test bay is commonly used for engine installation and cooling system validation tests on vehicles and machines.



VIBRATION TESTING

Multi Axial Simulation Test System

Find six degrees of freedom motion to produce a number of tests including sinusoidal, random, and field simulation tests. Our MAST system is ideally suited for testing ground based vehicle or machine components to evaluate how they will respond to vibration anticipated during operation, or transit, and to verify how the product is expected to survive through its entire service life.



INSTRUMENTATION & DATA COLLECTION

PAMI can supply and install instrumentation for measuring an array of parameters including temperature, strain, force, displacement, pressure, power, torque, RPM, GPS and CAN Bus data (SAE J1939*). Somat eDAQ data acquisition systems provide mobile data collection for recording all the data.

*Society of Automotive Engineers standard SAE J1939 is the vehicle bus recommended practice used for communication and diagnostics among vehicle components.



IN-FIELD VEHICLE & MACHINERY TESTING

We assist vehicle and machinery manufacturers with the instrumentation and data collection requirements of their on-road or in-field testing. In addition, PAMI's technical staff can provide supplementary support to client-lead field test programs.



EXTREME TEMPERATURE TESTING

Test how well your product performs under extreme cold or hot temperatures. The Arctic Test Centre runs from -40 degrees to +40 degrees. It's outstanding capacity can accommodate items as large as a commercial bus. Perform cold starts, defogging, windshield defrost, ROPS, durability, product conditioning, material handling, and more in a controlled environment.



STRUCTURAL DURABILITY & FATIGUE TESTING

Access an assortment of hydraulic actuators and an MTS FlexTest controller for customized structural lab testing. With this test equipment, we have the ability to perform a broad range of test control options from simple square wave and sinusoidal inputs to full simulation of complex field data with up to four independently controlled actuators.



PROTECTIVE STRUCTURES (ROPS/FOPS/OPS) TESTING

Perform roll-over (ROPS) and falling object (FOPS) protective structures testing of industrial and agricultural machinery cabs in accordance with numerous regulatory standards, such as ISO, SAE, OECD, and CSA. Our test equipment is capable of applying up to 145.000 lb horizontal loads and up to 200.000 lb vertical crush loads.



TILT & ROLL STABILITY TESTING

Access tilt tables up to 20' x 20' in size, with capacities up to 80,000 lb. Our tilt tables are commonly used for measuring vehicle and machine roll stabilities, grade holding capabilities for park brakes, and machine functionality tests at steep grades.



HYDRAULIC CYLINDER PERFORMANCE TESTING

Our hydraulic cylinder capabilities include cylinder friction test, cycle test, impulse endurance test, drift rate test, and proof pressure test. The hydraulic cylinder test system can be configured for testing single-acting and double-acting hydraulic cylinders with rated pressures up to 3,000 psi.



REAR IMPACT GUARD TESTING

Allow us to perform specialized tests in accordance with CMVSS 223* requirements. We support transportation manufacturers across Canada with certification at facilities in Saskatchewan and Manitoba.

*Canada Motor Vehicle Safety Standard - CMVSS 223 - Rear Impact Guards.



SEAT & SEATBELT ANCHORAGE TESTING

Meet requirements with seat and seat belt anchorage testing in accordance with Federal Motor Vehicle Safety Standards - FMVSS 207-210. Long stroke actuators are controlled with the MTS Flex Test Controller to ensure the test loads meet the requirements.



COMBINE LOSS EVALUATION

Our combine loss evaluation system is most commonly used for combine capacity testing - measuring grain loss versus combine feed rate. This equipment is capable of measuring four components of loss:

- 1. Rotor/Separator Free Grain
- 2. Rotor/Separator Unthreshed Grain
- 3. Cleaning System Free Grain
- 4. Cleaning System Unthreshed Grain





TRANSPORTATION

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