

Accredited under ISO 17025 Standards. Testing methods conform to industry standard specifications including SAE, ASME, ANSI, FMVSS/CMVSS and MIL-STD

CLARK Testing Services, LLC A Division of Clark Testing Group

Clark Testing Services Field Data Acquisition & Analysis



Field Data Acquisition & Analysis



Clark Testing Services has been performing field duty cycle studies for over 50 years. Field tests have been conducted in 30 states and in nine foreign countries. CTS expertise includes diverse product evaluations of on-highway and off-highway vehicles in the trucking, material handling, recreational, agricultural and military industries.



Capabilities

CTS provides start-to-finish services for product development, for process development, and troubleshooting.

- Powertrains
- Hydraulics
- Noise and Vibration
- Structures
- Field Data Acquisition
- Environmental

Field Testing

- Field Testing conducted at the customer plant, laboratory, work site or proving grounds.
- Multiple Parameter Recording & Correlation: stress, strain, pressure, torque, force, flow, displacement, speed, acceleration, and temperature.
- Histogram and Distribution Analyses: fatigue life estimates for welded and non-welded structures using rainflow cycle count with or without mean, equivalent damage conversion and Miner's Rule cumulative damage summation, level crossing, percent time distributions, revolutions at torque or pressure, average speed, horsepower, energy, and event counting.
- Performance Investigations: short-term and "cause and effect" studies.
- System Simulation: field duty cycles-to-lab test correlation, accelerated testing, durability test programs, and failure analysis.
- System Evaluation: on-vehicle performance, prototype testing, efficiency studies, fatigue analysis, and long-term recording capability.

Field Test Equipment

- Digital: SoMat 24-channel recorder and signal conditioning unit with 440 MB data storage designed for long term, on-board data acquisition. Recording systems equipped with time history, frequency, or digital inputs, DC, telemetry and temperature multiplexing. Data playback oscillograph capability. Data reduction at 64 times "real time".
- Digital: 24-channel field computer system with 100,000 samples per second (per channel) sample rate for a variety of data acquisition scenarios (strain, RPM, torque, pressure, temperature, ect.). Computer software for performing "state-of-the art" fatigue life estimates. Also, one Dataq 16-channel field computer systems equipped with 512 MB data storage for long term on-board data acquisition.
- Mobile test van equipped to transport personnel and equipment for on-site instrumentation, data recording and analysis.



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