Bolt Loosening easily seen with DIC

The progression of bolt loosening can be seen.

And rotating equipment can be monitored using these image correlation techniques to provide vivid representations of systems in operation with better understanding of response nature.

ARMY Missile Firing Applications

Optical, DIC, Laser methods used along with new approaches for real time operating data expansion techniques

Preliminary feasibility and proof-of-concept tests underway to prepare for actual firing of missile system

3D Laser Vibrometer measurements used for comparison with Digital Image Correlation and RTQ Expansion Results

Correlation of Modal Data to FEM is Enhanced with Availability of Abundant Optical Data

DIC techniques allows significant number of test data points to be obtained. Correlation to the FEM is greatly enhanced.

Testing Operating Systems

DIC & DP provides abundance of information - systems in operating condition can easily be evaluated

Measured response while rotating can be measured with actual data and removal of rigid body motion

Composite plate damage is easily recognized even though the visual appearance is not obvious.

Projectile impact on sheet metal plate is easily detected with DIC

Displacement of Top Edge of Blade

The relative displacement due to the loosening of individual bolts can be tracked and displacement monitored.

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