

# Failure Mechanisms for Body Shops

## Identifying Mechanisms of Failures for OEM Automotive Body Shops

Practical Training Designed & Delivered by Real-World Practitioners

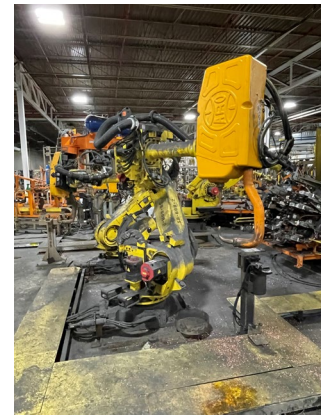


- Becoming a go-to resource in the maintenance and reliability field begins with a thorough understanding of how things fail.
- The manner in which parts fail is foundational to understanding the correct inspection methods and techniques as well as the ability to do RCA.
- Additionally, a deep understanding of how something fails is paramount to selecting the correct prevention, detection, or mitigation strategy as well as the correct frequency for these activities.

### 2-day – Practitioner’s Session

#### Core Concepts

- *Types of Failures of Most Common Parts and Components from the Most Common Body Shop Production Equipment and Tooling*
- *Specific (Chemical, Electrical, Mechanical, and Process) Failure Mechanisms*
- *Identification, Prevention, and Mitigation Techniques*
- *Failure Profiles for Common Component Types*



### What will you learn?

- Understanding what failure modes are and how to identify them
- The difference between a failure mode, failure mechanism, and a failure effect...and why these differences are pertinent
- The most typical **mechanical** mechanisms for the most typical parts of common industrial asset types and component types
- The most typical **electrical** mechanisms for the most typical parts of common industrial asset types and component types
- The most typical **chemical** mechanisms for the most typical parts of common industrial asset types and component types

### Who is this class for?

- Maintenance Managers
- Body Joining Engineers
- Body Joining Inspectors
- Operational Leaders
- Maintenance Engineers
- Maintenance Supervisors
- Operational Supervisors
- Plant Managers
- Body Shop Managers
- Maintenance Technicians

Email us today to begin your registration:  
lingram(at)netresultsinc(dot)com

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### Body Shop Equipment Types

- Fanuc Robots
- Laser Welding & Brazing
- Aluminum Spot Welders
- Steel Spot Welders
- Stud Feed Systems
- Hemming Operations
- Self-Piercing Rivet Gun
- Adhesive Dispensing Systems
- Sealer Dispensing Systems
- Arc Welding Systems
- Projection Welding Systems
- Body Conveyance Systems



### Sample of Common Parts & Components Covered in the Course

- Bearing & Gear Failures
- Lip & Labyrinth Seals
- Elastomeric, Grid, Disc, and Jaw Couplings
- Motor Winding Insulation
- Motor Rotors
- Pump Impellers & Volutes
- Compressor Screws & Rotors
- Transformers, Breakers & Starters
- Pipes, Tanks, & Pressure Vessels



The site has **two (2) options** for delivery of this class

**Option 1: Virtual Sessions: 3-Days from 11:00 – 3:00**

- **Delivered via Secure Microsoft Teams Meeting**

**Option 2: On-Site Session: 2-Days from 7:00 – 4:00**

- Real World Examples
- Breakout Exercises
- Case Histories
- Group Discussions

### Meet your Instructor – Andy Page, Ph.D.

- Andy is a Certified Maintenance & Reliability Professional (CMRP) with over 30+ years of Physical Asset Management & Operational Field experience in multi-technique Condition Monitoring, Maintenance Management, Process Reliability & Improvement, Defect Elimination & Facilitation of Staff Training, Development & Mentoring.
- He is recognized internationally as an expert in predictive maintenance and reliability. He has spoken at maintenance conferences in several countries, and regularly leads clients through successful implementations of maintenance and reliability improvements.



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