Career Opportunity Posting

Division: MPT Muncie
Job Title: Maintenance Apprentice to Maintenance Technician Development Program
Hiring Manager:
Date Posted:
Date Removed:
FLSA Status: Non-Exempt Hourly

Phase 1 – Safety

- Arc Flash
- In depth LOTO
- Aerial Lift / Fork Truck
- Basic Rigging / Lifting Safety

Objective: Ensure employee understands safe work practices and can participate in work activity safely.

Phase 2 – Print Reading

- Hydraulic, Electrical, and Pneumatic diagrams
- Basic GD&T / Blue print

Objective: Read and understand prints – German and Japanese standards also. Identify components by symbol. Understand detail prints to make components. Understand section views from assembly prints.

Phase 3,4,5 – Electrical

- Basic Electricity
- Motor Controls
- Drives – AC, DC, and Frequency
- Electrical Troubleshooting
    - Controls
    - Manufacturer specific
- Electrical Coding

Objective: Troubleshoot electrical systems using prints, ladder diagrams, and multi meters. Test devices for function using our test equipment. Isolate components to test for failure – drive, cable, or motor. Understand basic electrical code to determine needs – electrical wire size, GFCI requirements, and liquid applications.

Phase 6 – Robotics

- Fanuc

Objective: Understand robot function. Manipulate robot using pendant. Use pendant for troubleshooting / diagnosing problems. Use pendant to teach / touch up points in current program.

Phase 7 – Hydraulics, Pneumatics, and Coding

Objective: Troubleshoot and diagnose issues within systems. Understand specific components and their function. Understand standards to replace components – pressure rating, capacity

Phase 8 – Tool Room

- Machinist tasks
- Fabricating
- Welding

Objective: Learn operation of tool room equipment. Learn welding techniques and apply.

Phase 9 – Mechanical Power Transmission

- Ball Screws and Gibbs
- Bearings
- Motor Couplings, Belts, and Sheaves

Objective: Troubleshoot machine issues – inspect ball screws. Check bearings. Adjust machine gibbs. Understand types and applications of bearings. Understand how to check and replace couplings, belts, and sheaves.

Graduation from Apprentice to **Technician I** based on the following requirements.

- Subject to an 85%, pass rate of written test. In the event that a score of min 85% is not achieved, the test cannot be attempted again for 60 days.
- Minimum of 4160 hours completed

Graduation from Apprentice to **Technician II** based on the following requirements.

- Minimum of 6240 hours completed
- Demonstrated competency of maintenance skills. Evidence of completed work order to be submitted to Training Coordinator for record of activity.

Formal Training Classes –

Arc Flash
Electrical system fundamentals / Blue Print Reading
Electrical – PLC Controls
Electrical – Motors and Drives

Hydraulics
Pneumatics
Robots
Mechanical – Ball Screws, Spindles, Work Holding, Turrets, Axis & Slides

Competency Testing – Must demonstrate skills to advance to Tech II

TOOL ROOM

1. Make detail per print. (Mill & Grinder) (square up block, drill hole on location, drill and tap a hole on location, grind 2 faces to be within .0002 of size and parallel.
2. Lathe. Setup a piece of material cut 3 dia. To be +/-.0015 to size and cut 3/4 x 10 thread.

Welding

3. Cut material and weld box tubing or angle into a box shape, shape needs to be square.

Mechanical

4. Check turret alignment and align if needed.
5. Check Axis for backlash, and list where lost motion could be.
6. Check Axis and Adjust Gibbs.
7. Tear down work holding, clean and assemble, then indicated to run within .0003 or less.

ROBOT/GAUGES

8. Recover and teach 2 points on a Fanuc Robot.
9. We have 3 different Fuji Robots, recover and teach point on each of the models.
10. Clean and master gauges on Fuji lathes.

HYDRAULIC

11. Set Hydraulic pressures on a shaper or some other machine.

ELECTRICAL

12. Find a bit address and see if it's made.
13. Check and see if 24 volt power supply is good.
14. Check incoming voltages and record voltage on each incoming line.
15. Trouble shoot a machine loader system (example, Wera, CSD Fuji, etc).
16. Make a list of Materials used in 480 volt 60 amp power drop that would be used from the buss to the machine.

QUALITY

17. Explain the 4 section of an M&M gear report. Then explain the repairs to fix each section if there was a problem.
18. Give 2 examples of causes chatter on a part.

19. Give 2 causes of runout in a part.

SAFETY

20. Name the steps in locking out all power sources to a machine, then go to a machine and preform a LOTO.