

Quality Engineering Co-op

Ryan Downie



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INTRODUCTION

Ryan Downie was employed as the Quality Engineer co-op at Whitcraft Cleveland located in Euclid. The internship was active from May 2022 through August 2022 and was secured through the Cleveland State Engineering Department promoting openings at a variety of companies.

LEARNING OBJECTIVES

During this internship as a quality co-op, Ryan was expected to learn and understand the forging process while gaining common shop floor logic. He was also expected to learn each operation the parts ran through as well as how to recognize deviations in the parts.

RESPONSIBILITIES

- Dot peen process improvement
- Record retention and organization
- KPO Continuous improvement projects
- 5S, saw room, and tool room workshops
- CMM inspect various parts
- Yearly inventory



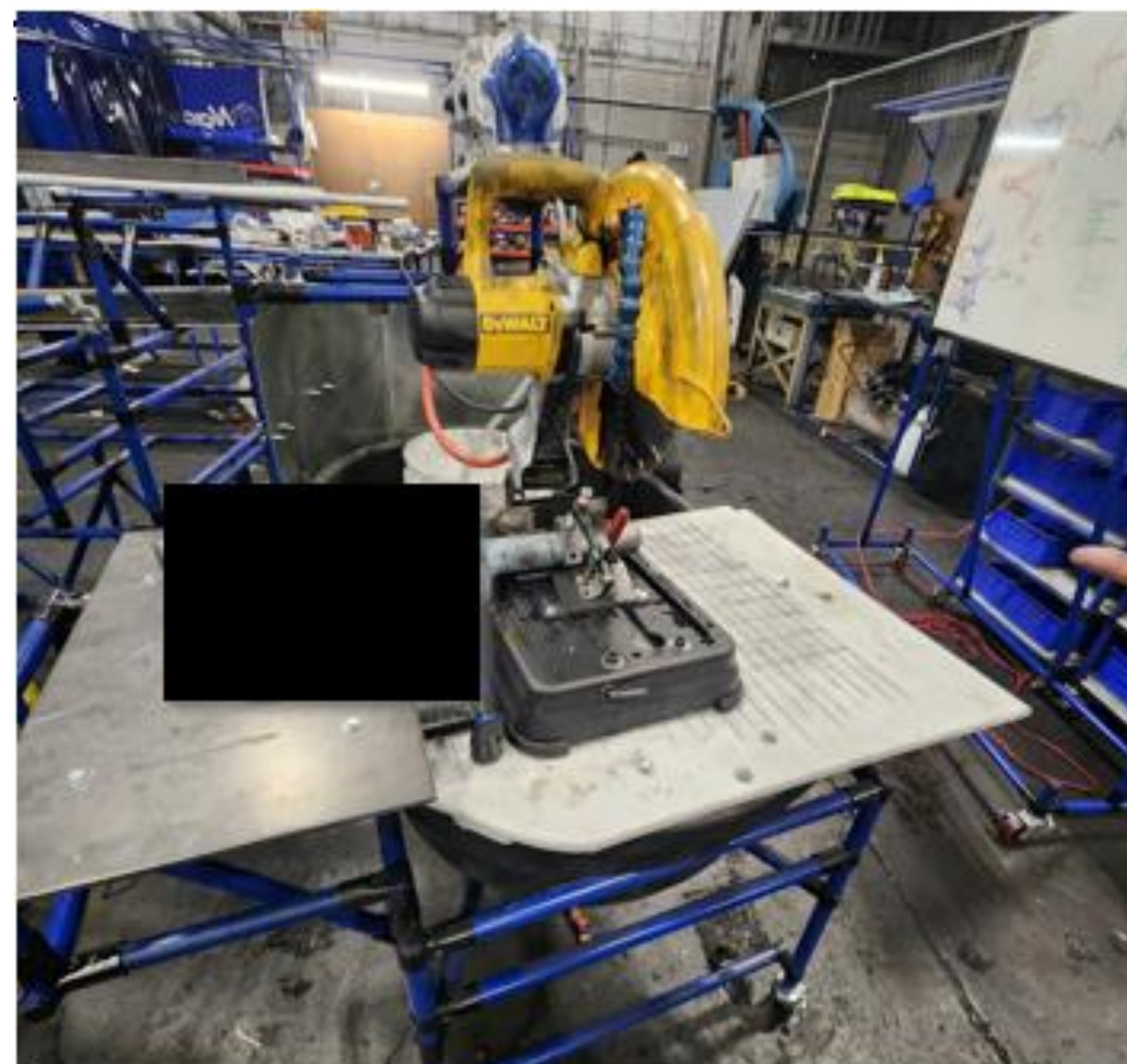
Grinding CNC locked axis and prepared for shipping.



Smoke elimination hood; to be hooked up to a downtorrit system.

APPLICATION OF COURSE CONTENT

- Pneumatics and hydraulics knowledge from Controls Lab with Professor Bogdan
- Deflection and stress calculations from Machine design with Professor Gallagher
- General furnace knowledge from Thermodynamics with Dr. Younessi
- General excel skills learned while in school



Wet chop saw with jig for quick clamp on part.

LESSONS LEARNED

During this internship, I learned massive amounts of general shop floor logic that keep me from making common mistakes on the floor. Extensive knowledge about the forging and inspecting processes was learned, as well as how to drive continuous improvements with the KPO department.



Part spacing rack made from titanium tubing.

FUTURE CAREER OBJECTIVE

My next step in my career is to join Whitcraft (now Pursuit Aerospace) as a Kaizen & Manufacturing Engineer with the KPO team. This would entail starting full time after May graduation and becoming an essential part of the team.

ACKNOWLEDGMENTS

Thank you Stephen Trompak (Senior Quality Engineer) and Eric Holman (Lead KPO) for taking me in and guiding me along my career path.