

AVRO ARROW

As recalled on May 22, 2007-05-22

Gerald A. Orr worked on the AVRO ARROW jet engine compressor blades at ALCAN, Kingston.

Gerald was a die and toolmaker, and crafted the steel dies for each blade on a scale of 1:5. in 1,000 of an inch tolerance. The smallest of the blades was about 3" long, and the longest was about 7". There were seven stages of blades making up the compressor. The die was then used on a large machine which traced the die while cutting the full size titanium blade. He stressed that if a minute mistake was made, it would be magnified five times on the final product.

The plans/specifications from which he worked were on a vinyl sheet that was viewed on a special back-lit glass surface. There were no dimensions indicated, only scale drawings. The drawings were measured with a special 6 3/8" X 2 7/8" glass ruler in two different graduations. The inscription on the ruler is " Jones & Lamson Machine Company, Springfield Vermont". The ruler was supplied in a felt-lined, hinged mahogany case with a metal hook fastener. It was used for the duration of the project.

This was a most impressive project that Gerald worked on. He has spoken of it often since his retirement from ALCAN.

An interesting side note is that it is his understanding that the Arrow technology was sold so that Canada would buy the protection that they needed to prevent the Russians from attacking North America from the North.