

CASE STUDY



REDUCTION OF CAMSHAFT LOBE POSITION SCRAP

An international automobile engine manufacturer was experiencing high scrap in their camshaft machining process. These scrap costs accounted for almost \$1 million. The largest contributor was due to out of print lobe position. This in turn played an influence within the intake and exhaust timing, performance and emissions.

THE PROBLEM

A progressive multi-vari was performed, measuring camshaft lobe position at various points in the manufacturing process. The test results and following analyses discovered that a large change in position occurred in the lobe hardening operation. It was company folklore that the lobes grew in the hardening process. However, with further investigation techniques it was found that they actually move when they cook them.

THE APPROACH

Since the amount and direction of lobe movement was consistent, a programming change was made to the camshaft lobe grinders to compensate for the move.

BENEFITS

1. The implementation of the corrective actions reduced the overall scrap costs by \$560,000 per year.
2. The complete implementation cost of the corrective actions accounted to only \$5,000.

