



Early Stage Services

Production Development and Program Transition

Background

- OEM designed a new diesel engine governor, desiring to outsource the manufacturing process and source development for the initial production, and then transition to a high volume production source upon reaching a target production level
- 308 unique components with 30 top-level part numbers
- 1,500 Engineering Change Modifications (ECM's) in one year

OEM Dynamics

- Difficult to schedule time on production assets for small initial production runs
- History of unknown price creep
- Limited resources for manufacturing process and source development for non-production programs

QCC Solution

- OEM transitioned all early stage manufacturing processes to QCC
- QCC developed 30 new production sources, including roughly 1/3 internal, 1/3 external and 1/3 offshore resources
- Defined DFM models, created manufacturing, assembly and production test procedures
- Coordinated the design and manufacture of four full-function test stands
- Managed internal and external manufacturing resources, along with varying levels of on-hand inventory to support production levels from concept to 4,000 units per year
- Requirements included sequencing top-level part production to a daily engine-build schedule
- Successfully executed a turnkey transition to a high-volume producer upon achieving annual demand of greater than 4,000 units per year



Diesel Engine Governor