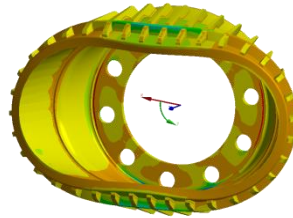


# Success Story: Brake Drum

## Requirements:

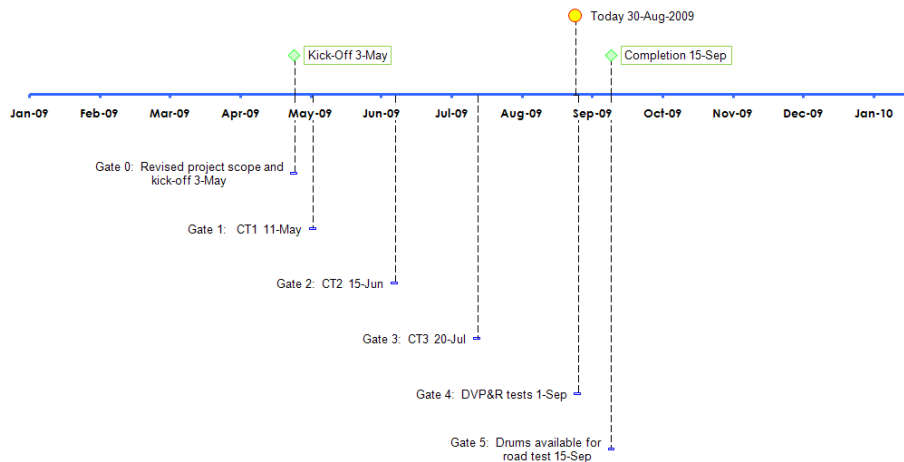
- 45% weight reduction vs. cast iron brake drum
- Improve brake drum integrity (strength, ductility, porosity)
- Qualify brake drum for on-road mileage accumulation & evaluation
- Critical timing



## Processes:

- Advanced proprietary MMC technology
- Iterative casting & ceramic pre-form trials
- Gated reviews, risk assessments & mitigation
- DFMEA
- DVP&R, vehicle & dynamometer
- Finite element analysis
- Fracture mechanics

## Timing:



## Results:

- 45% weight reduction *achieved*
- *Improved* brake drum integrity
- DVP&R *completed successfully*
- *Brake drum released for on-road testing*
- *On time & on budget*
- *Innovative, high-impact lightweight solution*

