



## Jaguar Land Rover High Pressure Die Castings

During development of the 2017 Land Rover Discovery, the design of each part and the gauge of every panel was interrogated to optimize performance and minimize mass. Particular focus was paid to the large high pressure die castings. Optimization techniques were employed on the aluminium rear longitudinal and the magnesium front end carrier castings, developing rib patterns that considered local and global vehicle stiffness targets. A material efficient structure was developed with reduced wall thicknesses.

Category:  
**Module**

Application:  
**2017 Land Rover Discovery**

Weight Saving:  
**2.7kg**  
1kg rear casting  
1.7kg front casting

Methodology:  
**Design Optimization**

Presented in partnership with:



Supported by:

