

# Jaya Hind Ind now also makes large aluminium structural parts



JAYA HIND INDUSTRIES, part of the Dr Abhay Firodia Group of companies and a 'end-to-end solutions' provider for aluminium castings to leading domestic and global OEMs, has begun manufacturing structural components for automobiles.

In technical association with a leading European company for producing complex aluminium structural parts, it has concluded the development and manufacture of its first structural part for an auto OEM's upcoming model using the high pressure die-casting route.

The castings company says that use of aluminium for various engine components like engine blocks, cylinder heads, clutch housing and transmission components, has been proven and adopted for a long-time. However, adoption of aluminium for structural parts has not been on most OEMs' agenda in India, primarily due to non-availability of component makers who had the capability to do concurrent engineering with OEMs and develop such complex structural parts.

In the drive for improved fuel efficiency, lower emissions, OEMs are looking for ways to reduce vehicle weight. The lightweight cast components made from aluminium are now becoming increasingly popular as they meet the weight reduction objectives without

compromising on strength, reliability and durability. In this case, the component identified for replacement with aluminium was a critical part – the chassis cross-member assembly that supports and takes the load of the transmission.

Jaya Hind Industries says that moving to the aluminium cross-member helped the OEM achieve a weight reduction of 4kg (35%) without compromising on bending or torsional strength. Simulation tests indicate improvement of bending rigidity and torsional strength by over 60 percent as well as better NVH performance and consistency.

Other benefits for the OEM were that this is single-stage manufacturing with higher dimensional accuracy, without any additional processes like machining, primer application or top coat-paint application. This part goes straight to the final assembly line.

Prasan Firodia, MD, Jaya Hind Industries said, "Though automobile manufacturers abroad are regularly using aluminium structural parts, this is being done in India for the first time. I am sure, given the severe pressure on OEMs to lightweight vehicles, it will open up a whole new avenue of opportunities for Jaya Hind Industries."