

Automobile OEMs to switch to rare-earth magnet alternatives

DELAYING TACTICS. China yet to approve 30 applications from Indian auto-makers

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With no respite in sight, Indian automakers are moving towards rare-earth magnet alternatives for the manufacture of electric vehicles (EVs). Original Equipment Manufacturers (OEMs) are also planning to introduce components entirely free of rare-earth magnets.

Indian automobile makers have submitted 30 applications to China for procuring rare-earth magnets.

"None of the applications of heavy rare-earth magnets have been approved yet. We are not in a position to say when the supply will resume. We have, however, moved towards light rare-earth magnets which are not under restrictions. We have started to receive their supply. How-



ever, they are under scrutiny of China, as often light rare-earth magnets and heavy rare-earth magnets get mixed up," said Rakesh Sharma, Executive Director, Bajaj Auto.

LIMITED ALTERNATIVES

"There are limited technologically proven options available today to replace rare-earth magnets. EVs have a high functional requirement for magnets

— high performance, small form factor, long life, ability to withstand vibrations and so on. Alternatives like Ceramic Magnets, Graphene-based Technologies, Nano crystalline, Synthetic meteorite magnets, Iron Nitride Super Magnets, Rare-Earth Magnet-free design etc. are being developed, but are not yet proven for large-scale production," Anurag Singh, Advisor, Primus Partners,

CHANGE IN COMPONENT

OEMs are also looking to develop component systems free from rare-earth magnets

toldbusinessline.

Companies are also looking at procuring light rare-earth magnets from other countries. Mahindra & Mahindra has stated that it does not see any concern on its born-electric vehicles (BEVs) with the rare-earth magnet scarcity.

"We are comfortable for the coming and next quarter; we have taken actions including replacing rare-earth magnet with light earth," said Rajesh Jejurikar, Executive Director & CEO (Auto and Farm Sector), M&M.

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"We are also developing a non-light rare-earth magnet and high rare-earth magnet component system that does not require sourcing," said Sharma.

DELIBERATE EFFORT

Experts have pointed out that the restrictions are deliberately imposed by China.

"China's putting in restrictions on the export of rare-earth magnets, which is a deliberate strategy to promote their components and assemblies as well as push prices up. China has invested, over the last decade, to develop the entire value chain and ecosystem. There are limited non-China origin sources available," added Singh.