

Case Study: Doosan Moxy

Doosan Moxy, a leading manufacturer of Articulated Dump Trucks (ADT) asked Eminox to engineer a bespoke exhaust system for the MT36 / 41 ADT. By moving from standard exhaust components to a complete purpose designed system, Moxy were targeting specific improvements, including;

- Greater durability of flexible section and silencer unit
- Improving system alignment for easier installation and maintenance
- Vibration suppression to avoid transmission to the operators cab
- Resistance to corrosion

The challenge was to achieve these improvements at minimum cost by working within the existing space envelope and maintaining interchangeability. The new system must also perform to strict limits on back pressure, transmission loss and acoustic performance.

Eminox used its exhaust manufacturing experience, combined with advanced modelling, prototyping and testing capabilities to develop an exhaust system meeting all of these challenges.

By re-routing the flexible section in the front pipe the length was optimised giving significant durability improvements. The two silencers and also mounting cradles were re-designed, improving adjustability in the system, almost eliminating stress and tensions. Other tension and alignment issues were reduced by replacing a single inter-pipe between the two silencers, with five adjustable components, creating adjustability on two previously fixed axis.

As well as increasing durability of key components, these changes allowed easier installation of the system, and resolved vibration issues. High grade stainless steel provides corrosion resistance.

