

## Consumer Tests Show 3% Fuel Saving Using Type-Approved Aftermarket Exhaust Systems

Independent fuel efficiency tests have shown that a common vehicle such as a 1.6L petrol Vauxhall Astra fitted with a poor quality, non-type approved exhaust uses 3% more fuel than it does when fitted with a better quality type-approved replacement, proving that supplying, or fitting, non type-approved costs both the motorist and the environment.

The test was carried out at the Longbridge Emission Test Facility (ETF) on 1998 Vauxhall Astra 1.6 L petrol. The car was tested in a range of driving conditions using the original OE exhaust system as a control and the OE figures as a benchmark. The car was then tested using a standard replacement fit Klarius exhaust, designed, manufactured and fully type approved in the UK. The car was then re-tested with a non-type approved product from another manufacturer fitted; on the urban cycle where the difference was most pronounced, the Astra used 3% more fuel than either the OE or the Klarius replacement.

Doug Bentley, R & D Manager at the Klarius factory in Stoke arranged the test.

"We wanted to understand the financial impact of choosing a non-approved exhaust. We chose an average family car, with an exhaust taken directly off-the-shelf, and subjected the vehicle to the fuel consumption drive cycles tests, just as car manufacturers do. This was done independently at ETF UK's Emissions Laboratory (Longbridge). The tests were repeated, with competitors (none type approved) parts for comparison, we then analysed the results. The results showed that in all 3 drive cycle tests conditions, a non-approved part used more fuel.

The non-type approved exhaust was chosen at random, and judging by the quality of other products on the market, by no means the worst quality replacement exhaust available. One of the main differences, caused by poor design and a lack of testing, is incorrect back pressure.

When manufacturing a type-approved product at Klarius, back pressure is measured very precisely on the OE system, and is matched to very close tolerances by the replacement. The tests on the replacement are repeated until the design passes testing, while still matching OE noise figures. The VCA (Vehicle Certification Agency) then visit the Klarius test track and independently audit the test, issuing a conformity certificate for every single design.

Klarius International Business Development Director, Paul Hannah comments, "The supermarket chains have shown that a saving of 3p per litre at the pumps can be a tremendous motivator to change buying habits with the average motorist, very few people realise that the decision they make (or is made for them) when buying a replacement exhaust can have the same impact on fuel economy for the life of the vehicle."

Choosing a type-approved exhaust or insisting on one being fitted solves the problem immediately. Across Western Europe fitting non-type approved exhausts is not allowed to happen, all replacement exhaust and catalyst products have to be type approved before they can be sold and fitted to a car, the UK however is different.

The fuel tests prove that type-approved exhaust products offer a higher level of quality to the customer as standard. Although the DfT is currently engaged in talks about the subject, UK law still allows non-type approved exhausts to be fitted, allowing some distributors and retailers to still supply non-type approved product; any marginal cost savings made on buying poorer quality exhausts however are rarely, if ever, passed on to the customer.

## About the KLARIUS Group

Klarius Group is the largest European manufacturer of aftermarket car parts today. The Klarius Group operates five high-volume Manufacturing Plants, a Research & Development Centre, four European Technical Centres, eight International Logistics & Distribution Hubs, and eighteen national and regional Stock Warehouses based across Europe. Klarius Group Headquarters are located in Manchester (UK).

The Klarius Group employs 1,200 personnel across Europe, and has an annual turnover of 200 million Euros.

The two current major market brands within the Klarius Group are Klarius Emission Control Products and QH Automotive parts. Both the QH and Klarius product brands represent a range of OE quality replacement automotive products. Klarius Group companies now offer over 100,000 parts, covering the majority of the European Car Parc, supplying over 80,000 parts every day, to over 5,600 delivery points in more than 136 countries.

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