Strong price increase for refrigerant R134a |

Significant implications for workshops and drivers

General situation

EU Regulation 517/2014, effective since January 1 , 2015, was the trigger for price increases of several 100% currently taking place for refrigerants with high GWP value (Global Warming Potential). The regulation aims at protecting the environment by reducing F-gas emissions and thereby causing a switch to alternative, more environmentally friendly refrigerants.

F-gases, and R134a for use in vehicles is among them, are subject to a quantity restriction inside the EU. Accordingly, the amount to enter circulation is intended to be gradually reduced (until 2030) to 21% of the original amount used in 2015. However, the actual need for refrigerants due to servicing and maintenance will not go down to the same extent. Offer and demand determine the price, as we know. Additional significant price increases will therefore be the consequence. Prices for the new environmentally friendlier and, at present, extremely expensive refrigerant R1234yf and the old refrigerant R134a will increasingly converge.

What does this mean for workshops and drivers?

Workshops will have to pass on price increases of that scope to drivers during maintenance and repair of air-conditioning systems.

This raises the question: will it be possible to continue offering air-conditioning services in their existing form? And if yes, how can they be billed?

In the past, the refrigerant's price variations were minor so that services could be offered year-round for e.g. € 69 (incl. refrigerant). In the future, the current refrigerant price will need to be taken into account for billing. Maintaining flat rates for the entire season will require the respective stockpiling of refrigerants. Alternatively, the additionally required refrigerant can be billed as a separate position.

No matter which refrigerant is used, the costs for drivers will increase significantly. Workshops should openly explain the reasons for this to their customers. It is furthermore essential to point out the necessity for regular air-conditioning system maintenance. It is possible to use supporting marketing materials (e.g. info flyers, posters) here. Despite the significant additional costs, this might make it possible that drivers will continue to opt for air-conditioning services.

What risks exist for workshops?

The significant price increases can mean that vehicles will be filled with cheaper but illegal "alternative refrigerants". For avoiding contamination with own air-conditioning devices and, therefore, other vehicles, we recommend conducting a refrigerant analysis prior to any air-

conditioning service. Special analysis devices can determine whether the refrigerant in the vehicle is actually the one that the vehicle manufacturer intended and/or okayed. The use of illegal refrigerants (e.g. propane) means significant dangers (flammable) and will in most cases result in the vehicle losing its operating license. Furthermore, these refrigerants have a different performance profile and are frequently unsuitable for the air-conditioning components and the used oil. This can lead to premature breakdowns.

What will the future look like?

In addition to the automotive industry, the EU regulation also affects other areas. Refrigeration units of e.g. hospitals, supermarkets and industrial buildings are also subject to these regulations and the affiliated changes and challenges. This results in the increased utilization of air-conditioning systems using the "climate-neutral" refrigerant CO2. Maybe the cost explosion of the refrigerant will contribute to more automotive manufacturers using CO2 as refrigerant in the future.

The challenges are not insignificant but we recommend that workshop will continue to favor professional air-conditioning maintenance and to convince drivers thereof -- for the expected costs will be even higher if the air-conditioning system breaks down prematurely due to insufficient maintenance because of e.g. a defective compressor.