

Brussels, 30th August 2012

MEETING NOTES EGEA Working Group 9 – Mobile Air-Conditioning Systems

Wednesday, 29th August 2012, 09.00h-16.30h

EGEA Offices (c/o FIGIEFA) Boulevard de la Woluwe, 42 BE – 1200 Brussels

Participants:

AICA/ Brain Bee spa	Andrea Cantadori
AICA/ Ecotechnics spa	Giovanni Ottantini
AICA/ Luvata Italy	Stefano Collavini
AICA/ SPX Italy	Alessandro Carluccio
ASA/ Dometic Waeco International	Guido Sasse
ASA/ Hella	Pete Bradley
ASA/ Texa spa	Oliver Schilling
STM/ Sosnowski	Michal Kotarak
EGEA Secretariat	Neil Pattemore

1. Opening and welcome

On behalf of EGEA, Neil Pattemore and Pete Bradley welcomed all participants and thanked them particularly for their support for this third Working Group 9 meeting.

2. Approval of the minutes of the last Working Group 9 meeting held on 6th June 2012 in Brussels

With no further remarks, the minutes of the last WG9 meeting held on 06th June 2012 were unanimously approved.

3. Review of the latest German Vehicle Manufacturers' equipment specification document

The latest version (4.2) was reviewed. There were no direct impacts on the proposed EGEA equipment specification document. The refrigerant flow chart was noted as being particularly good as a 'best practice' guide.

4. EGEA HFO 1234YF specification

- The working group members discussed the various points of the specification document. Feedback was requested after the meeting in June and the AICA version was used as the basis for the discussions.
- The legal advice taken by EGEA (from Osborne Clarke) of the use of a refrigerant identifier was discussed in detail, with reference to the 'duty of care' responsibilities if an identifier was integrated in a unit, or recommended as part of the EGEA equipment specification.

Decision:

- After further detailed discussions, it was agreed that a refrigerant identifier would NOT be included on the EGEA specification (due to commercial reasons) and therefore no USB interface definition would be required either. This would not stop an equipment manufacturer from creating a unit with an integrated identifier, but that would be their choice.
- The use of a refrigerant identifier would be 'highly recommended' as part of the operating 'best practice' guidance. This would also include a reference to the SAE J2912 and J2927 for refrigerant identifier specification and performance.
 - The EGEA specification document was reviewed and agreed to the end of the section covering the equipment specification and functionality, but did not progress into the testing centre requirements and EGEA best practice/operating manual recommendation.

Action:

- As a next step, the EGEA specification will be sent to all WG9 members for the equipment specification review.

4.1. Discussion on Best practice

It was discussed and agreed to include the following in the operating manual.

Best practice topics:

There were a number of key points discussed that needed to be included in the operating manual as part of the 'best practice' guidance and duty of care information. These included:

- FGas certification although not required for 1234yf should still be recommended for all work on MAC systems.
- Refrigerant bottle analysis prior to filling machine for safety, machine serviceability and prevention of vehicle contamination.
- Use of Refrigerant analysis due to safety, warranty, professionalism and integrity of the system that contributes to the overall minimisation of vehicle exhaust emissions.
- Usage of UV dye. Minimum spec of UV dye needs to be defined and reason for use as preventative maintenance on older vehicles.
- Prevention of cross contamination of refrigerant and oils to maintain equipment serviceability, contamination of vehicles and vehicle emissions

- Oil refilling process when not done automatically by the machine
- Release of refrigerant into the atmosphere 1234yf is not an Fgas, however, should be handled as such due to cost of refrigerant, technician certification and the fact that there are other refrigerants that are Fgas (GWP of 150 or above).
- Replacement of filters is important due to machine serviceability, warranty, accuracy and purity considerations.

 \rightarrow Decision that the 'Best practice' document will be also a separate document for publication as well as being available for inclusion in the manual, at manufacturers' discretion, although EGEA would recommend to include it.

5. Questions and actions resulting from the EU letter to the OEM about HFO 1234YF

A copy of the response from the EC was shown to the working group members and the details discussed.

Action: Copy of this document to be circulated again for information.

6. Fitness check study of the legal framework for the type approval of motor vehicles organized by the EC.

Although a copy of this document had been circulated prior to the meeting, it coincided with the holiday period and had not been reviewed by many WG9 members.

<u>Decision & Action</u>: It was briefly discussed, but it was then agreed that a short summary of the key points impacting on MAC would be made by NP and circulated to the WG9 members for comment. The feedback is needed **URGENTLY** by EGEA to allow a response to be formulated to the EC.

7. Next European A/C convention – 17th/18th September in Frankfurt

A short overview of the topics to be included in the EGEA presentation at the above conference was shown and discussed. Group feedback about the various topics and points was included in the draft presentation.

8. Any other business

There were no further topics for discussion.

9. Workplan and schedule for future meetings

Next meeting is scheduled on Wednesday 24th October 2012 at 9h00 in Brussels. A dinner will be organized on October 23rd and hotel rooms will be block-booked for WG9 members arriving the night before.

10. Thank you and closure

The Chairman thanked all participants for an active and productive meeting.

Neil Pattemore Technical Advisor * * *