



## Contents

|  |           |
|--|-----------|
| <b>00 - Technical data</b>   | <b>1</b>  |
| <b>1 Safety information</b>  | <b>1</b>  |
| 1.1 Safety precautions for working on vehicles with auxiliary/supplementary heater     | 1         |
| 1.2 Safety measures when working on vehicles with a start/stop system                  | 2         |
| 1.3 Safety precautions during work on fuel system                                      | 2         |
| 1.4 Safety precautions when working on the cooling system                              | 3         |
| 1.5 Safety precautions when using testers and measuring instruments during a road test | 3         |
| <b>2 General information</b>   | <b>4</b>  |
| 2.1 Starting conditions for auxiliary/supplementary heater                             | 4         |
| 2.2 Rules for cleanliness when working on auxiliary heater and fuel system             | 5         |
| 2.3 Type plates  | 5         |
| <b>3 Repair notes</b>  | <b>7</b>  |
| 3.1 General information  | 7         |
| <b>82 - Supplementary heating</b>  | <b>8</b>  |
| <b>1 Fitting locations</b>   | <b>8</b>  |
| 1.1 Overview of fitting locations – auxiliary/supplementary heater                     | 8         |
| <b>2 Auxiliary/supplementary heater</b>  | <b>10</b> |
| 2.1 Assembly overview - auxiliary heater   | 10        |
| 2.2 Assembly overview – attachments of auxiliary/supplementary heater                  | 11        |
| 2.3 Assembly overview – auxiliary/supplementary heater, interior                       | 12        |
| 2.4 Removing and installing auxiliary/supplementary heater                             | 14        |
| 2.5 Dismantling and assembling auxiliary/supplementary heater                          | 19        |
| 2.6 Removing and installing air intake silencer  | 20        |
| 2.7 Removing and installing recirculation pump V55                                     | 21        |
| 2.8 Removing and installing exhaust system   | 24        |
| 2.9 Removing and installing auxiliary/supplementary heater bracket                     | 25        |
| 2.10 Removing and installing cover   | 25        |
| 2.11 Removing and installing glow plug with flame monitoring Q8                        | 27        |
| 2.12 Removing and installing temperature sensor G18 and overheating sensor G189        | 27        |
| 2.13 Dismantling and assembling combustion chamber insert                              | 28        |
| 2.14 Removing and installing auxiliary heater control unit J364                        | 30        |
| <b>3 Coolant circuit with auxiliary/supplementary heater</b>                           | <b>31</b> |
| 3.1 Connection diagram - coolant hoses   | 31        |
| 3.2 Removing and installing coolant pipes for auxiliary heater                         | 33        |
| <b>4 Fuel supply system</b>  | <b>38</b> |
| 4.1 Overview of fitting locations - fuel supply system                                 | 38        |
| 4.2 Checking fuel delivery rate  | 39        |
| 4.3 Removing and installing metering pump V54  | 40        |
| <b>5 Regulation of auxiliary/supplementary heater</b>                                  | <b>43</b> |
| 5.1 Functional description   | 43        |
| 5.2 Supplementary heater mode  | 44        |
| 5.3 Auxiliary heater mode  | 44        |
| 5.4 Switching off auxiliary/supplementary heater                                       | 45        |
| <b>6 Other controlling and regulating components</b>                                   | <b>46</b> |
| 6.1 Removing and installing remote control receiver for auxiliary coolant heater R149  | 46        |
| 6.2 Functional description of remote control for auxiliary/supplementary heater        | 47        |