



Contents

| | |
|---|-----------|
| 82 - Supplementary heating | 1 |
| 1 Auxiliary heater Thermo Top V | 1 |
| 1.1 Safety measures for working on vehicles with auxiliary heaters | 1 |
| 2 Notes on general repairs on vehicles with auxiliary heaters | 2 |
| 2.1 Starting conditions for auxiliary heating (preheater) | 2 |
| 2.2 Starting conditions for auxiliary heating | 2 |
| 3 Rules for cleanliness when working on the auxiliary heater and the fuel system | 3 |
| 4 Repairing auxiliary heater Thermo Top V | 4 |
| 4.1 Manufacturer's nameplate for Thermo Top V | 6 |
| 4.2 Removing and installing ambient temperature sensor G17 | 8 |
| 4.3 Removing and installing exhaust system | 9 |
| 4.4 Removing and installing remote control receiver for auxiliary coolant heater R149 | 9 |
| 5 Removing and installing auxiliary heater Thermo Top V | 11 |
| 5.1 Components of auxiliary heater Thermo Top V | 12 |
| 5.2 Removing and installing auxiliary heater Thermo Top V | 12 |
| 5.3 Dismantling and assembling supplementary heater | 17 |
| 5.4 Dismantling and assembling auxiliary heater Thermo Top V | 19 |
| 5.5 Inner components of auxiliary heater | 20 |
| 5.6 Removing and installing glow plug with flame monitoring Q8 | 22 |
| 5.7 Removing and installing temperature sensor G18 and overheating sensor G189 | 23 |
| 5.8 Removing and installing heater coolant shut-off valve N279 for vehicles with petrol engine | 23 |
| 5.9 Removing and installing heater coolant shut-off valve N279 for vehicles with diesel engine | 24 |
| 6 Connecting auxiliary heater Thermo Top V to coolant circuit | 26 |
| 6.1 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes BAG, BKG, BLF, BLN, and BLP | 26 |
| 6.2 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes BGU, BSE and BSF | 27 |
| 6.3 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes AXW, BLX, BLY, BLR | 28 |
| 6.4 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes AVQ, BKC and BLS | 29 |
| 6.5 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine code AZV, BKD | 30 |
| 6.6 Connection diagram for coolant hoses in vehicles with auxiliary heating (preheater), engine code BLS | 31 |
| 6.7 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine codes BLG and BMY | 32 |
| 6.8 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine codes BKP and BMN | 33 |
| 6.9 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes AXW and BLX | 34 |
| 6.10 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine codes BVX, BVY and BVZ | 35 |
| 6.11 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine codes BRU, BXE, BXF and BXJ | 36 |
| 6.12 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine code BMM | 37 |
| 6.13 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine code: CAVB, CAVC, CAVD, CDGA, CFHC, CFJA, CFJB, CLCA, CTHB and CTHC | 38 |
| 6.14 Connection diagram for coolant hoses in vehicles with auxiliary heater, engine code CAYB and CAYC | 39 |
| 6.15 Connection diagram for coolant hoses in vehicles with auxiliary heating, engine code: CBZB | 40 |



| | | |
|----------|---|-----------|
| 7 | Fuel supply for auxiliary heater Thermo Top V | 41 |
| 7.1 | Rules for cleanliness | 41 |
| 7.2 | Fuel feed to Thermo Top V | 41 |
| 7.3 | Removing and installing metering pump V54 | 43 |
| 7.4 | Testing quantity of fuel delivered | 44 |
| 8 | Regulation of auxiliary heater Thermo Top V | 48 |
| 8.1 | Functional description of auxiliary heater Thermo Top V | 48 |
| 8.2 | Functional description of "large" remote control | 50 |
| 8.3 | Functional description of "small" remote control | 52 |