## How a Webasto Airtop Heater Works



- 1. Heating Air Inlet
- 2. Hot Air Fan
- 3. Motor
- 4. Combustion Air Fan
- 5. Glowpin/Flame Detector
- 6. Heat Exchanger
- 7. Burner Chamber
- 8. Heater Body
- 9. Hot Air Outlet
- 10. Overheating Sensor
- 11. Exhaust
- 12. Fuel Line
- 13. Combustion Air Intake
- 14. Control Unit

When the unit is switched on the dosing pump feeds fuel from the vehicle's fuel tank to the heater. Here the fuel is automatically ignited by means of a glow plug. If combustion does not occur immediately the unit automatically repeats the start-up procedure. In the combustion chamber a flame is lit which heats up the heat exchanger. The unit takes air in from outside for combustion purposes and the combusted exhaust air is discharged back outside. During heating, the integrated fan sucks in the air to be heated through the inlet and feeds it through the unit. As the air flows through the heat exchanger it is heated up and is then distributed through the outlet.

The connected hot air ducting spreads the air evenly throughout the vehicle interior. Due to the unit's separation of the combustion cycle from the heating cycle there is no quality impairment of the hot air. A temperature sensor constantly measures the interior temperature and adapts the heating level by automatically adjusting the amount of air passing through the unit. In this way, the temperature selected by the user is rapidly reached and maintained at a constant level. After the unit has been switched off, the combustion process is terminated in a controlled manner. For this purpose the unit briefly goes into re-run mode to cool itself down. It is then immediately ready for restarting.

When the unit is switched on, the dosing pump feeds fuel from the vessel fuel tank to the heater. Here the fuel is automatically ignited by means of a glow plug. If combustion does not occur immediately, the unit automatically repeats the start-up procedure.

In the combustion chamber, a flame is lit which heats up the heat exchanger. The unit takes air in from the outside for combustion purposes and the combusted exhaust air is discharged to the outside.

During heating, the integrated fan takes in the air to be heated through the inlet and feeds it through the unit. As the air flows through the heat exchanger, it heats up and is then blown out. The connected hot air pipes now spread the air evenly throughout the vessel interior.

Due to the unit's own separation of the combustion cycle from the heat cycle, there is no impairment of the quality of the hot air. A temperature sensor (not HL90) constantly measures the interior temperature and adapts the heating level by automatically adjusting the amount of air passing

After the unit has been switched off, the combustion process is terminated in a controlled manner. For this purpose, the unit briefly goes into shut-down mode to cool itself down. It is then immediately ready for restarting.

