



**Multivan
Caravelle
Transporter**

Tips and Maintenance



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Petrol

The fuel used by your vehicle can be found listed in Booklet 3.3 "Technical Data" and on the inside of the tank flap.

General notes

- Unleaded petrol must comply with DIN EN¹⁾ 228.
- If in an emergency the octane rating of the available petrol is lower than that required by the engine, only drive with medium engine speeds and low engine loading. **High engine loading with full throttle or high revs can cause engine damage.** Fill tank with petrol of the correct rating as soon as possible.
- Fuel with a higher octane rating than that required by the engine can be used without limitation. There are however no advantages regarding output and consumption.

✿ **On vehicles with catalytic converter only unleaded petrol may be used.**

✿ **Even one tankful of leaded petrol will detract from the efficiency of the catalytic converter.**

Please also refer to the notes in Booklet 3.1.1, "Filling up".

¹⁾ Euro-Norm

Petrol additives

The quality of the fuel has a decisive influence upon the running behaviour, performance and service life of the engine. The additives which are mixed into the petrol are of particular significance. It is therefore advisable only to use **good quality petrol containing additives.**

If such fuel is not available, or if engine troubles such as starting difficulties, stalling during idling, vibration and loss of power occur, the appropriate additives should be mixed with the petrol when filling the tank. At temperatures between about 0 and 15 degrees C, these additives prevent possible icing up of the carburettor, have an anti-corrosion effect, clean the fuel system and prevent deposits building up in the engine.

Not at all petrol additives available in accessory outlets have shown themselves to be effective. Therefore tested additives sold under the name "Volkswagen/Audi Genuine petrol additives for petrol engines" are available from Volkswagen dealers in Germany and in many export countries. The Volkswagen dealers are also informed concerning the use of additives, and they know what to do in cases where deposits have already built up.

Other petrol additives should not be mixed with the petrol.

Diesel

Diesel fuel

Diesel fuel must correspond to DIN EN¹⁾ 590.

CN²⁾ not lower than 51.

RME fuel (diester)

corresponding to DIN 51 606.

Vehicles with diesel engines can also run on **RME fuel** (Rapeseed Methyl Ester).

Please use only RME fuel when filling up with diester!

Please ask your Volkswagen dealer or an automobile club where diester is available.

Please also refer to the notes in Booklet 3.1.1, "Filling up".

Notes

- Performance figures may be slightly lower.
- Fuel consumption may be slightly higher.
- **The fuel filter could block up if fuel is used that deviates from the norm.**
- RME can be used in winter to temperatures down to approx. -10°C.
- We recommend that diesel fuel be tanked at ambient temperatures of under -10°C.

Smoke could develop if the percentage share of RME in the mix is higher than 50 %.

¹⁾ Euro-Norm

²⁾ Cetane Number - Measurement of diesel fuel ignitability.

Driving in winter

When using summer Diesel trouble may be experienced at temperatures below 0°C because the fuel thickens due to wax separation.

For this reason, "winter Diesel", which is more resistant to cold, is sold during the winter in Germany.

In countries with different climatic conditions the Diesel fuels offered have a different temperature characteristic. Check with Volkswagen dealers or filling stations in the country concerned regarding the characteristics of Diesel fuels.

The vehicle is fitted with a filter preheater. This will ensure that the fuel system remains operational down to approximately -24°C provided that the winter Diesel used is cold resistant down to -15°C.

If, at temperatures below -24°C, the fuel is waxed to such an extent that the engine will not start it is sufficient to place the vehicle in a warm room for a while.

Fuel additives (anti-waxing agents), petrol and similar agents may not be mixed into the diesel fuel.

Supplementary heating unit*

Additional heater* (65, 75 and 111 kW engines only and in conjunction with the additional heat exchanger)

The supplementary heating unit increases the output of the heating system when the engine is running and the ambient temperature is low. The unit switches itself on and off automatically.

The exhaust gases which are produced as a result are guided out through an exhaust pipe which is fitted in the area of the front left mud guard.

Smoke could develop if the percentage share of RME in the mix is higher than 50 %, during short journeys or at low ambient temperatures.

- Every time the engine is switched off the blower will continue to run for a while to cool the heater down quicker. When filling tank it is not necessary to wait to end of run-on.

Note

Vehicles with a supplementary heating unit and an additional water heater use the same exhaust pipe in the wheel housing of the front left wing.

Brakes

General notes

- Brake lining wear depends to a large extent on the operating conditions and style of driving. On vehicles which are used mainly in town traffic and stop/start conditions or are driven hard it may be necessary to have the thickness of the brake linings checked by a Volkswagen dealer in between the intervals given in the Service Schedule.
- Change down in good time when driving downhill, in order to make use of the engine braking effect. This relieves strain on the brake system. When the brakes are applied do not keep them on continuously, apply and release alternately.

Warning

- **New brake linings must be run in and thus do not have the optimum friction properties during the first 200 km. The slightly reduced braking effect can be compensated for by more pressure on the brake pedal. This also applies when new linings have been fitted.**

What can have a negative effect on the brakes?

Wetness or grit

Warning

- **Under certain conditions e.g. after driving through water, heavy rain falls or after the vehicle has been washed, the brakes could set in later than normal due to damp, or in winter-frozen, brake discs and linings – the brakes must first be dried through careful braking.**
- **Full braking power might also set in later than normal even when driving on gritted roads if you have not braked for some time – the layer of salt on the brake discs and brake linings must first be worn down whilst braking.**

Please also read the warning notes on the next page.

Overheating of the brakes**Warning**

● **Never let the brakes "rub", by pressing the pedal too lightly when you do not really need to brake. This causes the brakes to overheat, leads to longer braking distances and to a higher level of wear.**

● **Before starting on a long stretch of road in a very hilly area, please reduce your speed, change to a lower gear (manual gearbox) or choose a lower position (automatic gearbox). In this way you will use the braking power of the engine and relieve pressure on the brakes.**

● **If a front spoiler, full size wheel trims etc., is retrofitted, it is necessary to ensure that the flow of air to the front brakes is not restricted – otherwise the brakes can overheat.**

Brake pressure regulator

The vehicle is fitted with a pressure/load sensitive brake pressure regulator (brake pressure reducer) which limits the brake pressure on the rear axle to the set value. See also sticker on the side of the seat frame of the driver's seat. The regulator is set at the factory so that normally even after fitting a body, the brakes should work perfectly.

Only in special cases when it is found during a road test that the braking effect on the rear axle is too low or too high, must the regulator be reset by a Volkswagen dealer.

Brake servo**Warning**

The servo is operated by vacuum which is only generated when engine is running. For this reason the vehicle should not be allowed to roll with the engine switched off.

When the brake servo is not working because, for example, the vehicle is being towed or because a defect has occurred on the brake servo itself, the brake pedal must be pressed considerably harder to compensate for the absence of servo assistance.

Anti-locking brake system*

The ABS plays a major part in increasing the active safety of the vehicle. The big advantage when compared with a conventional brake system is that even when braking hard on a slippery road surface the best possible steerability is retained for the road condition because the wheels do not lock.

However, one must not expect the ABS system to shorten the braking distance under all conditions. When driving on gravel or on fresh snow covering a slippery surface, i.e. when one should be driving very slowly and carefully, the stopping distance may even be slightly longer.

Modifications to the vehicle (e.g. to the engine, brakes system, running gear or a different wheel/tyre combination) can affect the functioning of the ABS, EDL, ESP and TCS.

Please refer therefore to the notes on page 53.

How the ABS system works

An automatic check is made when a speed of approx. 7 km/h is reached. When this happens a pumping noise can be heard.

When the turning speed of a wheel reaches a level which is too low for the vehicle speed and it tends to lock, the brake pressure to this wheel is reduced. On the front axle the brake pressure is regulated for each wheel individually, whereas on the rear axle, the pressure is regulated for both wheels at the same time. As a result the braking effect is the same for both rear wheels and the driving stability is retained as far as possible.

This regulating process makes itself known by movement of the brake pedal and is accompanied by noises.

This is done deliberately as a warning to the driver that a wheel or the wheels are in the locking range. So that the ABS can regulate effectively in this range the brake pedal must remain depressed – on no account should it be pumped!

Warning

However the ABS system cannot overcome the physical limits. This must be borne in mind particularly on slippery or wet roads. When the ABS comes into the control range the speed must immediately be adapted to the road and traffic conditions. The increased amount of safety available must not tempt one into taking risks.

Electronic Differential Lock (EDL)*

Vehicles with anti-lock brakes (ABS)* can also be equipped with an electronic differential lock.

The EDL makes it much easier, or even possible, to pull away, accelerate and climb steep gradients under unfavourable conditions.

The EDL works fully automatically – the driver does not need to do anything at all.

It uses the ABS sensors to monitor the speed of the drive wheels.

Up to a speed of about 80 km/h (50 mph), a difference in speed of the drive wheels of approximately 100 rpm caused by a slippery road surface on **one side** is balanced out by slowing down the wheel which is slipping and thereby applying more driving force to the other drive wheel through the differential.

This control procedure can be noticed through the sound it makes.

Warning

When accelerating on a slippery road surface, e.g. on ice or snow, use the accelerator pedal carefully. The wheels can spin, even with EDL, and thus impair driving stability.

To ensure that the brake disc of the braked wheel does not overheat, the EDL will automatically switch itself off if excessive demands are placed on it. The vehicle remains operational and has the same characteristics as a vehicle without EDL. For this reason, the switching off of the EDL is not indicated.

As soon as the brakes have cooled off, the EDL will switch itself back on again.

If the ABS warning lamp lights up there may be a fault present in the EDL. Take the vehicle to a Volkswagen dealer as soon as possible!

Warning

The style of driving must always be adapted to suit road surface and traffic conditions. The increased safety offered by the EDL should not encourage one to take unnecessary risks.

Modifications to the vehicle (e.g. to the engine, brakes system, running gear or a different wheel/tyre combination) can affect the functioning of the ABS, EDL, ESP and TCS. Please refer therefore to the notes on page 53.

Electronic Stability Programme*

Vehicles with anti-lock brake system (ABS)* can also be fitted with an electronic stability programme* (ESP) and a traction control system* (TCS).

How the ESP system works

The ESP reduces the risk of spinning by braking individual wheels.

In assessing the angle of the front wheels and the speed of the vehicle, the driver's intended direction of travel is determined and then compared with the actual movement of the vehicle. If any deviations are calculated, e.g. the vehicle is starting to skid, the ESP will automatically brake the appropriate wheel.

The vehicle will be stabilised again through the braking forces acting on the wheel. If the vehicle is oversteering (rear end tends to break away) the brake will primarily be applied to the front outside wheel, and if the vehicle is understeering (tends to push out of the curve) to the rear inside wheel.

Warning

The limits defined by the laws of physics cannot be negated by the ESP. This is particularly applicable to icy and wet roads as well as when driving with a trailer.

The driver's style of driving must always be adapted to suit the current road quality and traffic situation. The increased safety aspect offered by the ESP should not encourage the driver to take unnecessary risks!

How the TCS system works

The TCS prevents the driving wheels on vehicles with front wheel drive from losing traction during acceleration by reducing the engine output. The system works at all speeds together with ABS. If there is a fault in the ABS, the TCS will not function.

The TCS makes it much easier, or even possible, to pull away, accelerate and climb steep gradients under unfavourable conditions.

Warning

The style of driving must always be adapted to suit road surface and traffic conditions. The increased safety offered by the traction control system (TCS) should not encourage one to take unnecessary risks.

General notes

In order to guarantee a fault-free function of the ESP or TCS, all four wheels must have the same tyres. Different roll circumferences on the tyres could lead to an unwanted reduction in engine performance.

Modifications to the vehicle (e.g. to the engine, brakes system, running gear or a different wheel/tyre combination) can affect the functioning of the ABS, EDL, ESP and TCS. Please refer therefore to the notes on page 53.

