



# Breakdown Prevention and Tips

## Things to check before you set off:



### **TYRES**

Take a look at the condition of all your tyres, including the spare if you have one. Check the inner side wall, age, tread depth, and pressure.



### **V-BELT**

Check the general condition and tension, paying special attention to any signs of tears or damage. It's always good to carry a spare!



### **OIL**

Make sure the level of the oil is correct by using the dipstick, and also pay attention to the colour of the oil itself. If your oil is jet black, you're probably due an oil change!



### **BRAKE FLUID**

Make sure the level of the oil is correct by using the dipstick, and also pay attention to the colour of the oil itself. If your oil is jet black, you're probably due an oil change!



### **BRAKES**

Give your brakes a quick test before you set off, to make sure that they're all working as they should be and not pulling to one side.



### **LIGHTS**

Go around the vehicle and make sure that all the lights are working properly. If you don't have anyone with you to check the lights while you press the pedals and switches, you can use your phone camera to film a video and watch it back!



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## If you break down:

### ■ Has it stopped running?

- Has it over heated? The dip stick is a good way to see how hot the engine is, but be careful not to burn yourself. If the dipstick is too hot to touch, then the engine has overheated. If it's safe to do so, leave the engine to cool down and try to start it up again.
- Has the engine got enough oil? Check it with the dipstick, and if the level is too low then add oil to it gradually so you don't overfill it.
- Is the V belt still working? Is it properly adjusted? There should be some play in the V belt, but not so much that it does more than a  $\frac{1}{4}$  of a turn when you pull it by hand. If you find you need to adjust your V belt, we recommend using a 'C' spanner if you've got one in your breakdown kit, but you can do it with a regular spanner and a screwdriver.

### ■ Has it stopped running, but all of the above are okay?

- Has it run out of fuel? We've all done it, it's a rite of passage!
- Is there an issue with the fuel system? Check that there's fuel in the fuel filter. Also check for blockages in the fuel filter, which might be stopping enough fuel from getting through.

### ■ Has it stopped running, but it's not overheated or out of fuel?

- Does the engine have a spark? Check the spark plugs aren't burned out by removing them and taking a look at the end with the electrode.  
If it's blackened and covered in carbon built-up it's running too rich, if it's white then it's running too lean, and if it's wet and oily then you may have problems with the piston rings. You may find that replacing the spark plugs is enough to get you going again, but you'll want to take a proper look when it's safe to do so.
- Are all of the HT leads connected to the distributor cap correctly?
- Have the points closed up? You'll need to remove the distributor cap and rotor arm to take a proper look.
- Has a wire come loose on the coil? This may be easy to reattach, or require some creative use of electrical tape, but is usually a relatively easy fix.

### ■ Has it stopped and won't turn over?

- Is the battery flat? You can check this by putting on the lights and hazards, and seeing if they're slow or dim.
- Has one of the battery leads fallen off or come loose? If so, this is a nice easy fix, but something to keep an eye on if it keeps happening as you may need to adjust the connectors on the leads or replace them.
- Check the earthing on the gearbox to the body. This is the flat, braided cable which is made of copper but may have turned black with age. If you've got a slammed VW you may find it really difficult to check, as you'll need to get under the vehicle to check it.

### ■ Does it run, but it's lost power?

- Has the HT lead come off? Check both ends of each cable, and check to see if there are any issues with the cables which have caused them to come loose.
- Has a spark plug come out? They can be 'spat out' if the thread on the spark plug has been damaged?
- If you've got a twin port engine, has the manifold boot split?
- Is there fuel in the fuel filter? If so, is there anything in the fuel filter which is blocking it? If not, have you run out of fuel?
- Have the points closed up? You'll need to remove the distributor cap and rotor arm to take a proper look.

### ■ None of the above?

- It might be time to call for roadside assistance..



# Breakdown Prevention and Tips

## Ten of the most common breakdowns and tips on avoiding them

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### ■ Fuel issues

- Fuel can go bad, with modern ethanol-based fuels having a shelf life of less than 12 months, which can cause problems if you don't use your classic VW that often. These modern fuels also absorb moisture, and can then damage fuel lines, fuel pumps, and carburetors.
- Your fuel filter can also get clogged up with impurities and 'stuff' which blocks fuel flow. If this keeps happening, check your fuel tank to see if the 'stuff' is coming from there.

### ■ V-Belts

- Your engine's V-belt drives the cooling fan, as well as the dynamo or alternator for electrical power, so it's pretty important!
- Because they work so hard, they can become loose or break, which is why we recommend carrying a spare and the tools you'll need to replace it.
- If the V-belt does go, your engine will still run, but you won't have any cooling and your vehicle battery won't be charging either, so you'll quite quickly lose power to your lights and indicators.

### ■ Cables

- Accelerator, brake, and clutch cables seem to break at the most inconvenient moments possible. If they do break, it's likely that you'll need to replace more than just the cable, too, as the fittings tend to fall off around the same time.
- Keep an eye on the condition of your cables, and make a note of when they were last changed. In our experience, carrying a set of spare cables seems to mean you're less likely to need them!

### ■ Ignition issues

- Keep an eye on your distributor cap, as it's often overlooked but is vitally important. Cracks or damage to the cap can let moisture in, which will play havoc with your engine. Luckily they're easy to replace and inexpensive.
- Under the distributor cap, the rotor arm can also become damaged. At 3500 RPM, a 2-hour motorway journey will have that rotor spinning 400,000 times, so it needs to be in good shape! Check that the metal surface on the end of the rotor arm is clean and not corroded, and that there's no damage to the rest of the unit.
- The points are another vital part of your air-cooled engine which can cause problems. Check that the points gap is correct and adjust it if necessary. The majority of air-cooled engines need a points gap of 0.4mm (0.016 inches).

### ■ Spark plugs

- Your spark plugs can tell you a lot about how your engine is running. Take them out, and look at the electrode.
- If it's black and sooty, your engine is running too rich. Check whether the choke has stuck on, or if the choke wire has come loose.
- If it's gone grey or white, your engine is running too lean. Is the air filter blocked? If you've got a twin-port engine, has the manifold boot split?



# Breakdown Prevention and Tips

## Ten of the most common breakdowns and tips on avoiding them

(6-10)

### ■ Tyres

- Take a good look at your tyres, and check that they're in good condition, with no cuts or damage, good tread depth, and correctly inflated.
- If you do get a flat, you're usually better off writing off a tyre by driving slowly to a safe place to change it, than to risk jacking your vehicle up in an unsafe location.

### ■ Oil (or lack of it!)

- You should check your engine oil regularly, and pay attention to the level, condition, and colour of it.
- If the level is rising, then don't run the engine. It's possible that the diaphragm in the fuel pump has perished and fuel is getting into the oil, which is why the level is rising.
- If the oil is really dark, or feels gritty between your fingers, then it's time for an oil change.

### ■ Brakes

- If you feel like something is wrong with your brakes, then find somewhere safe to stop and call for breakdown assistance.
- Brake fluid can weep from the seals, and you can sometimes see the brake fluid on the wheels or brake backing plates. This can massively impact how effective your brakes are, and make your vehicle unsafe to drive until the brake fluid is topped up and the leaky seals replaced.
- Sometimes brakes can bind or stick on, which causes a lot of heat to build up. This can then boil the brake fluid, and render it useless. Again, this makes your vehicle unsafe to drive until the problem is resolved and the brake fluid levels topped up.

### ■ Wheel bearings

- A wheel bearing which is too loose or too tight can quickly produce a lot of heat, melting the grease packed around the bearings and causing it to drip out. Without this grease, the issues caused by the wheel bearing being too loose or too tight will become worse, which can cause damage to other components around it.

### ■ Electrical issues

- Bad earth connections are a common problem on older vehicles of all makes, which can lead to problems starting or running your engine. Check that the different earth cables are in good condition and securely connected.
- You'll also want to check the fuse boards for loose fuses, and ensure that you've not had any rodents chewing away at electrical cables, especially if you've stored your vehicle away for a few months.