

# ROAD TO RECOVERY

Sand driving for dummies

In the first of our new six-part series, we provide you with the hands-on knowledge required to take your brand-new 4x4 vehicle off-road for the first time in a safe and practical manner. Off-road expert Johan de Villiers gives us the rundown and puts you on the road to recovery.



**M**ore than 95 per cent of SUVs and 4x4s sold are never utilised for anything other than pavement driving. This column will take you through the most basic steps necessary to venture off-road with confidence, and ensure that you derive the full pleasure of 4x4 ownership whilst limiting any risk.

When you first venture onto sand with your new 4x4, it is wise to keep two things in mind: Firstly, always ensure that your vehicle's tyres float over the surface area of the sand in order to increase traction. This can be achieved by lowering the pressure of your tyres down to about 1.0 bar or even lower.

However deflating too much can cause the tire to climb off the rim with disastrous results. In addition to that, the lowered pressure will lead to an increase in sidewall flexing, which, in turn, heats up the core temperature of the tyre and could lead to premature failure. As a result, keep the vehicle's speed down to 50km/h and less, depending on the air pressure.

Always make the vehicle turn as wide as possible whilst driving on sand, as the front wheels could act as rudders. Therefore, radically reduce your forward momentum. Rule number two: Ensure that you maintain your 4x4's forward momentum at all times. Once you've lost significant speed driving in soft sand, it is difficult to regain momentum. Try not to use the brakes when stopping on sand, but rather coast to a halt. Using the brakes will cause a build-up of sand ridges in front of the tyres, which makes pulling away more difficult.

Using your 4x4's high range gearbox, (first gear) should be fine on firm surfaces, but

on soft with a heavily loaded vehicle, use second low to prevent damage to your clutch, and to create more torque. If you are cresting a dune, ensure that the nose of the vehicle is pointing downhill and that the front wheels are straightened out. This will ensure that the front tyres don't dig in.

Dune driving can be exciting, but there are a number of safety factors to consider. Never attempt to make a U-turn on a sand dune, and ensure at all times that you approach it at a right angle, regardless whether you are going up or down. Failing this could see the rear tyres of your vehicle digging in, which could lead to the vehicle rolling over. Should you get stuck going up a dune, gentle reverse back the way you came.

Going down a sand dune can often be riskier than the ascent, as the back of the vehicle tends to slide out. Naturally, novice drivers will hit the brakes with dire consequences. Rather apply power gently to ensure that the back of the vehicle straightens out.

From a practical perspective, always follow the tracks of other vehicles. Remember that tracks generally have more compacted sand underneath, which helps with traction, not to mention lessening any damage to the environment.

Experienced 4x4 drivers never lock their differentials while driving on sand as this decreases your turning circle tremendously and you run the risk of overturning your vehicle. Always ensure that you carry a good quality air compressor and tyre pressure gauge. Once you are on a hard surface, stop your vehicle and inflate the tyres to the correct air pressure.

Should you experience wheel spin while driving on sand, resist the urge to apply more power, as this will only make matters worse by letting the wheels dig in. Rather let the vehicle come to a complete halt, engage reverse and backup on your existing tracks for a couple of metres. Remember, your own tracks are compacted and, therefore, provides better traction than the surrounding areas.

If you find that your new 4x4 is getting completely stuck, deflate the tyres by another 0.2 bar. Walk around the vehicle and clear any sand ridges in front of the wheels before attempting to reverse out, or get another vehicle to snatch recover you. If there's no help nearby, try placing stones or branches underneath the wheels for traction. We will cover recovery techniques such as snatching, hi-lift jacking, and winching in future articles. In the meantime, safe 4x4ing!

## ABOUT JOHAN DE VILLIERS



Trained by the 1994 West German Camel Trophy team, Johan has extensively traversed a number of Central and East African countries. On his return to corporate life, Johan continues to enjoy the outdoor lifestyle and has led numerous expeditions through Southern Africa. In addition to being a qualified Land Rover recovery expert, Johan is a qualified helicopter pilot and a regular contributor to various 4x4 publications. His personal vehicle is a highly modified Land Rover Defender 110 TD5.