Colwall Orchard Group:

Safe Way of Working: SWOW 15 - Off Road Driving

Prepared by: C. Blake April 2021

Review: Annually thereafter (or in the event of an accident)

 Reviewed by: C Blake 3rd December 2024

Next review: by 3rd December 2025

 **COG does own an Off Road Driving vehicle.**

**ISUZU D-Max Yukon 2.5 pickup**

**Registered 2012 on a 62 index plate CV62XRA**

**Any off road vehicle and or trailer combination used in an authorised activity relating to COG must comply with the relevant Acts and Regulations and take note of the following SWOW and related Trailer SWOW.**

**OFF ROAD DRIVING IN GENERAL**

The use of OFF ROAD DRIVING within our Orchards and others, should be **kept to a minimum** due to the impact on ground consolidation, especially in wet conditions, and the need to have someone who is competent in the use of such OFF ROAD DRIVING.

This should only be undertaken by people who feel confident and physically capable of doing so. Lone working should not be allowed where implications exist from both off road driving issues, such as getting stuck and dealing with any bulky loads etc.

Drivers should be wearing appropriate sturdy footwear with good grip, and clothing should be appropriate for the situation.

**The key to safe driving on any terrain** is a robust knowledge of your vehicle and what it can do.

Before you venture off road, equip yourself with a clear mental picture of the underside of your 4x4. Learn the location of the fuel tank, engine sump, differentials and gearbox. You will be less likely to snag these on rocks and other obstacles if you can see them in your mind’s eye. Memorising some basic statistics will help you deal confidently with off-road obstacles. Get to know your vehicle’s height and width, its lowest point, its wading depth and angles if relevant. Get to know your vehicle’s on-board technology and mechanical features, you’ll find everything you need to know in the manual.

If possible, plan your journey beforehand by checking the terrain and topography of the area you’ll be travelling in. Most, if not all of the current Orchards and Land which is accessible to COG is relatively level and should already be familiar to drivers and volunteers. You can view Ordnance Survey maps or Google Maps Earth for further detailed information prior to any visit, required if a new area, as an option. Consider the current and recent weather, and how it might affect the land. Before you set off, make sure your tyres are properly inflated. Secure anything in your 4x4 that could move or fall during a bumpy ride, and do not overload any roof rack. **Wear a seatbelt.**

**Loading**

Loads must be securely tied down or restrained with straps that are of sufficient strength for the purpose. Wherever possible, loads should be evenly distributed across the vehicle and positioned in such a way as to keep the weight within the recommended limits.

**OFF ROAD TECHNIQUE**

Drive as slowly as possible, and as fast as necessary. Always keep both hands on the wheel, even when reversing. Don’t hook your thumbs inside the steering wheel. Kickback from rough terrain could sprain them. Use progressive throttle, gentle steering and progressive braking. Never make harsh movements unless it’s vital to do so. Keep steering precise and braking to a minimum. Use the driver display to check your wheels are straight, and assess any potential risks ahead. Where necessary, get out of your vehicle and check the terrain. Avoid gear changes while negotiating tricky terrain.

**Be aware of the Countryside Code and never damage the environment**

1. Stay within the bounds of existing tracks and give way to wildlife.
2. If you don’t have permission, don’t drive there.
3. Know your limits and always plan ahead. Going off road can be perilous: think about what could go wrong, and how you’d deal with it.
4. Make sure you have more than enough fuel for your journey. You definitely don’t want to be stranded off road with an empty tank.
5. Tell someone where you’re going and when you’re due to arrive. That way, people will know where to look for you if something goes wrong.
6. Always carry a mobile phone with a fully charged battery. It’s a good idea to have an in-car charger.
7. If in doubt, don’t do it. **Can you achieve the activity without having to go off road?** You should always keep risk to a minimum
8. Always try to avoid wheel spin as it results in loss of momentum and can cause environmental damage.

**Gear Selection**

To climb, always use the highest practical gear. To descend use the lowest, and/or engage Hill Descent Control if available. If you have an automatic gearbox and Terrain Response, select this and the vehicle will cope with whatever conditions you throw at it. When driving on icy, slippery or muddy surfaces in an automatic 4x4, move off in second gear as it reduces the risk of wheel spin. If you’re in a manual vehicle without low range, use first gear. The key is to find the right balance between traction and momentum. If you have decent traction, use less momentum.

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**In Deep Mud**

You need steady momentum to carry you through. Use a low-range gear like 2nd or 3rd. Your tyres will cut through mud to find traction on firmer ground below. Some 4 x 4’s have built-in Traction Control, which drives power to the wheels with the most traction. If your wheels do start to spin, ease off the throttle and slow the tyres to regain grip.

**Ruts**

 A rut is a long, deep track created by the repeated passage of vehicles. Try to straddle deep ruts, as this keeps your environmental impact to a minimum. If muddy conditions force you to drive in ruts, make sure you know where your front wheels are pointing. Try to keep your lowest point clear of the ground at all times. When climbing muddy hills, remember that you’ll need more momentum to balance the decrease in traction. Always try to avoid wheel spin, as it results in loss of momentum and can cause environmental damage.

If possible, ask someone outside the vehicle to guide you through the area.

**DRIVING ON HILLS**

**Traversing**

Before navigating uneven ground, secure anything inside the vehicle that could fall. If possible, remove any roof-rack items. Use the lowest gear possible and approach at a crawl. Avoid the temptation to steer up the slope. If you slide, steer downhill and gently apply the throttle. If you lose traction on your uphill wheels, stop immediately, reverse away and choose a more suitable route. Keep an eye out for anything that could unbalance the vehicle, like rocks or potholes. Approach logs, rocky steps or ditches diagonally: you want three wheels on the ground at all times. **Danger of rolling!**

 **Driving Uphill**

 Wherever possible, investigate the area on foot. You should always know what’s on the other side of the hill. Remember your approach angle; is the wheel or nose going to hit the ground first? Approach the hill straight on, rather than diagonally, to avoid a roll. Use the highest gear in which the vehicle will ‘pull’ comfortably. Never attempt to turn your 4x4 on a steep slope. Be prepared for a failed climb, it happens to the best drivers. Work out an escape route and take note of where the obstacles are.

 **Driving Downhill**

Stop one vehicle-length before the descent, so you have time to make any corrections. Remember your departure angle. Is the back of your vehicle going to hit the ground? Choose the lowest gear possible and select Hill Descent Control (HDC), if available. If using HDC, try to keep your foot away from the pedal and avoid the temptation to brake. If you do need to brake, apply progressive rather than strong pressure. If you don’t have HDC, just use your lowest gear. Follow the natural fall line—the route water would take down the slope—and keep your wheels straight. Should the vehicle start to slide, increase throttle to match the ground speed and regain steering control. If driving a manual, never roll or reverse downhill in neutral or with the clutch depressed. And never turn your 4x4 on a steep slope, as it could lead to sideways sliding.

**DRIVING THROUGH WATER**

Try to work out how deep the water is. In static shallower water, explore on foot and use a stick to gauge the depth—or watch another vehicle go through. It’s a good idea to keep a pair of wellingtons or waders in the boot. If there are other vehicles ahead, wait until they’ve left the water. Unsettled water can make a safe passage more challenging. Drive through the water very slowly at first, and then build up momentum. Do not slip/ride the clutch as this reduces control of the vehicle. Ease off the accelerator as you reach the other side. A 4x4 can manage some submersion. Refer to your manual to find your maximum wading depth. Never attempt to cross deep, fast-flowing streams and always prioritise safe driving. **As a general rule, don’t drive into water unless you really have to.**

**DRIVING IN SNOW AND ICE**

When off-road driving on icy surfaces, use the highest gear possible for the conditions. Use steady momentum to carry you through: it’s important to keep the wheels rolling. Most but not all 4x4s have built-in Traction Control, which drives power to the wheels with the most traction. If your wheels do start to spin or slide, ease off the accelerator until you feel the tyres regain grip. Harsh braking may cause you to skid; so start gently, and then progressively increase pedal pressure. Hill Descent Control, if fitted, (HDC) will take the guesswork out of steep, slippery slopes by automatically braking to maintain a steady speed. On corners, brake before you approach, steer through the corner at a safe speed, then accelerate once you’ve straightened up. Don’t steer while braking or accelerating, and vice versa.

**RETURNING TO THE ROAD**

Stop and check for damage. Look for debris and cuts in the tyres, including inside the walls, and debris lodged in the underside of the vehicle. Clear any excess grass, mud or snow from your 4x4, paying particular attention to your lights and number plates. Make sure that any equipment is secure. If you’ve lowered your tyre pressure to tackle a surface, remember to revert to the correct pressure as recommended by the manufacturer. Set off slowly, as mud on the wheels could affect handling and braking. Always check for a firm brake pedal and ensure there is no resistance in the steering.

**WORKING WITH OFF ROAD VEHICLES**

Any task involving working with Off Road Vehicles should be supervised by a competent person, who is:

* capable of instructing volunteers in the safe use and
* able to supervise and monitor the activity.

**INCIDENTS**

Incidents likely to lead to damage to the vehicle or property (e.g. collisions, falls etc) must be reported to the Owner and a COG Board member who should ensure that the safety of the vehicle is checked prior to further use and any necessary precautionary measures are put in place.

Any accidents or near misses must be entered into the Accident book.

**FURTHER INFORMATION**

Please also refer to

1. Any available COG Site Based Risk Assessments for the site being visited
2. HSE – Workplace Transport Safety (INDG199)
3. SWOW14 - Use of Trailers