Kim’s Tips: Extreme Winter Motoring – Take care; don’t be a Chilly Billy…

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Colder and colder… don't g[illegible]ght out…

Kim Henson advises: Stay safe, keep mobile and warm, and look after your car.

With temperatures already low and forecast to plummet still further, and with predicted heavy snowfalls across the U.K. this week featuring prominently in all the weather forecasts that I have seen/heard in the last few days and hours, now is the time to think seriously about any travel plans that you may have for the next week or so…

With temperatures set to fall to lows that we haven't experienced for many years, and with possibly disruptive snowfalls on the agenda, you need to take heed and prepare your vehicle and yourself for such eventualities.

I hope that these tips may help you…

YOUR VEHICLE

1. SAFETY
   Check all safety aspects NOW. Notably these include tyre pressures, condition and tread depth, the state of all wiper blades, and the screenwash. The normal low ratio of screenwash additive to water (typically 10 to 20 per cent) simply won't be enough in extreme conditions, to prevent the screenwash from freezing solid when you need it most. Be guided by the label on the container of screenwash; in the absence of specific guidance here, up the ratio to 50/50, which will help protect against freezing down to far lower temperatures.

2. ANTI-FREEZE
   Similarly, whether you intend to drive your car or leave it parked, think about the strength of anti-freeze mixture in your engine's coolant. If you are unsure of its strength, have it tested (or buy a tester from a motor accessory shop – these tools are inexpensive), or if you are still uncertain, consult a mechanic/add some neat anti-freeze as a precaution. Be guided by the advice in your vehicle's handbook on the required strength and type of anti-freeze product to use, in conjunction with the specific instructions printed on the label of the container in which the anti-freeze is supplied.

   Don't ignore this aspect, for if the coolant does freeze within the engine's water jacket or radiator, the pressure caused by expansion of water turning to ice can split a cylinder block or radiator or two, and/or will 'pop' the block's core plugs, and/or push the water pump out of the engine on stalks of ice.

   Any/all of these will be expensive to fix (and in extreme cases a replacement engine may be

required); in the short term when the temperatures rise again the car will not be driveable… Far better to sort out the anti-freeze NOW!!

Note that if you do add neat anti-freeze to the coolant, you need to run the engine for at least 15 minutes to fully circulate/distribute the freshly-added anti-freeze around the cooling system.

3. FLUID LEVELS – ENGINE, AUTOMATIC TRANSMISSION, POWER STEERING, BRAKES, FUEL
   Check all fluid levels on your vehicle; the last thing you want or need in severely cold conditions is a breakdown due to neglect of these items. Five minutes or less are all you need to check/top up as required all fluids. Note that if the levels in the power steering and (especially) brake fluid reservoirs have dropped at all, immediate investigation is required before you drive the car… (If the engine oil/auto transmission fluid levels have fallen, you still need to find out why; don't just top up and ignore!). If in doubt, seek professional assistance.

   Don't set off in severe weather with a low level of fuel in your vehicle's tank. Ideally fill it so that if you have to queue for long periods, you will not run out of fuel. In addition, if your car should come to a halt, at least you can run the engine to keep the heater operational (but in such instances ensure that the exhaust pipe is not buried in snow, and that the fumes from the exhaust can escape into the atmosphere without being drawn into the vehicle).

4. BATTERY
   If your car's battery condition is already below par, low temperatures will drag it down even more, to the extent that the available battery voltage may not be enough to crank and start the engine. In addition, with many modern vehicles, attempting to start the engine with low available battery voltage can damage the engine management system/Electronic Control Unit (ECU). If in doubt, have the battery checked and renew it if the test shows it is ailing already.

5. ITEMS TO CARRY WITH YOU IN YOUR VEHICLE

   Extreme weather calls for serious preparation. It is better to carry with you a few more things than turn out to be needed, than not to have them on board at a critical time.

   Especially useful can be a snow/ice scraper for the screens, plus plenty of de-icer spray (note that some of the cheaper sprays can actually freeze as you apply them…), a fully charged mobile phone, a similarly fully charged torch, a small shovel, some lengths of old carpet to put under the driving wheels to aid grip (or special, purpose-designed grippy 'track' mats can be purchased), a set of substantial, copper-cored jump cables (but go careful with modern vehicles; some can be damaged by 'jump' starting – consult the handbook BEFORE you have a go…).

   Carry a first aid kit too, and if you are subscribed to a vehicle breakdown service, make sure that you have up-to-date contact details with you.

YOUR JOURNEYS

1. DO YOU ACTUALLY NEED TO DRIVE?

   Before setting out in adverse conditions, ask yourself (honestly) whether you really need to take to the roads in your vehicle. If your journey isn't essential, postpone it; often appointments can be altered and often it would be better to stay put than risk a difficult or possibly dangerous trip. Consider public transport too; you might be able to make your journey by public transport, for example by train, if the trains are still running.

2. GETTING INTO THE CAR…

   The first step is to get into your vehicle. Possible problems in this respect, in very low temperatures, include unlocking/opening the doors and clearing the windows.

   The use of ice/snow scrapers, plus de-icer spray, can help clear all windows (ESSENTIAL for safety before you drive off).

   Door locks can freeze up, and sealing rubbers around the doors and their apertures, also

(even) the door hinges, can also freeze solid, especially if they are already damp from earlier rain or snow.

If your car is an older model with a slot for manual key operation, the use of special lock de-icer spray will help to prevent freezing, alternatively some owners apply water-dispellant spray in advance of the coldest temperatures arriving; this can provide protection against freezing for some time.

Another option is to use a special, battery-operated lock-de-icer, in which a small heating element is switch-activated to warm a probe that is inserted into the lock barrel; it usually takes just seconds to unfreeze a stubborn lock in this way.

When it comes to the door/aperture sealing rubbers, these can be treated with a rubber lubricant/silicone spray to help prevent ice from forming.

Light oil/spray-on grease will help to protect the door hinges against freezing.

Once you have the car doors open, some owners find it beneficial to use a small fan heater placed within the car, to warm the interior and help to melt snow/ice on the screens. However… TAKE GREAT CARE… Mains electricity and water do not mix (indeed, the mixture can be lethal), so don't run cables from the house through or over water or snow. In addition, do not allow the heater to get too close to interior trim, and NEVER cover the heater or it may overheat.

2. WARM IT UP?
   Normally, starting and running the car's engine before you drive off is considered inadvisable, from the points of view of security (someone could jump in your car and drive off in it) and fuel consumption/environmental concerns.

   However, in extreme conditions running the engine for a few minutes can be a safety aid, as it helps warm the interior so that you can concentrate on your driving, and will also kick-start the car's own heating system so that, for example, the screens don't re-freeze during

your first mile or two of driving.

While we are on this subject, have you checked lately that your car's heater warms up fully as designed? If it doesn't, it needs checking/attention before you venture out in very cold conditions. Often a simple adjustment may be all that's required to restore effective operation.

Whatever you do, DO NOT leave your car unattended with the engine running; it's an open invitation to thieves to relieve you of your vehicle…

3. JUST BEFORE YOU SET OFF – IF YOU MUST DRIVE, BE PREPARED
   Just before you drive off, make sure that you place in your car additional dry, warm clothing, plus warm footwear and extra pairs of warm socks, just in case you have to walk anywhere.

   In addition, take with you a flask or two of hot tea and/or soup, and some food (in each case, enough for all the vehicle's occupants). If you should have to endure forced halts, at least you can keep warm and not get hungry/thirsty.

4. TAKE IT EASY ON THE ROAD
   Snow and ice mean that your vehicle's tyres cannot grip the road surface as designed. It can be difficult to start off on slippery surfaces (keep the engine revs as low as possible, and use second or even third gear rather than first, if the drive wheels are spinning). Even cars with traction control systems cannot defy the rules of physics, so you can't rely on such systems to get the car moving in very slippery conditions…

   Once you are moving on slippery surfaces, plan much further ahead than usual with your driving, keeping road speed down and allowing much more space around your car on the road. Sudden activation, at any time, of the steering, brakes or accelerator can easily result in dangerous skidding; delicate operations are the order of the day, and will help to keep you mobile…

   In addition, ease up well in advance of hills and bends, and always brake as gently as

possible. Anti-lock brake systems, where fitted, are helpful but not infallible if the tyres cannot grip the road surface…

ALWAYS leave large gaps between you and other vehicles, and if you see vehicles sliding on difficult hilly sections, think twice before you attempt to tackle them.

Of course, if your vehicle is a four wheel drive machine, this can help in terms of making the most of available grip. However, check your car's handbook to ensure you know how to get the best from your car's system. Some vehicles have specific 'Snow' settings that maximise available grip to keep the car moving as safely and effectively as possible.

Whatever you are driving, DO NOT overtake gritting lorries or snowploughs; you could find yourself alone in very slippery places with little directional or braking control of the vehicle…

5. WHEN OUTSIDE THE CAR, KEEP WARM AND DRY
   When ambient temperatures are extraordinarily low, even if you are outside of your car for just a short while, you need to keep your body as warm as possible. It cannot be over-estimated how dangerous the 'wind chill' factor can be…

   Even if the thermometer indicates temperatures just above freezing, a cold wind can bring the effective temperature (and how it feels) down to many degrees below this. I don't mean to sound alarmist, but, particularly if you are obliged to be outside for any length of time, dangers can then include frostbite and hypothermia. This is especially likely if your clothing has also got wet and very cold; the evaporation of moisture from your skin results in you becoming even colder… Confusion can then set in too.

   Therefore… Your outer coat should be strong, warm and waterproof, and needs to be resilient against strong, freezing winds. Beneath that, you need to wear (or at least have with you in the car) as many layers of clothing as reasonably possible, including thermal vests/shirts, several pairs of socks and tough boots (preferably insulated against the cold). Wearing a warm, waterproof hat is also wise; much heat can be lost through your head…

IN CONCLUSION…

Take care, prepare well and if you do have to drive anywhere during extreme cold weather, at least you will have a better chance of arriving safely and not damaging your vehicle (or anyone else's). When it does warm up again, it's advisable to have the underside of your car power-washed to remove road salt and mud.

