Skills 101 – Putting together a breakdown kit

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Spend enough time on the road, and something is bound to go wrong. Murphy's Law tells us that this will happen at the worst possible moment, in the worst possible location, in (likely) the worst possible weather. Few seem to find flat tires in their driveway on a sunny weekend afternoon; instead, flats are generally encountered on a snowy or rainy highway commute to work. Likewise, breakdowns rarely occur next to a service station or automobile dealer; instead, when components fail, they tend to do so far from the potential aid of businesses and passers-by. In the days before cell phones, drivers were much more inclined to travel with a "breakdown kit" containing essential tools and supplies, but many have tucked such kits into the corner of a garage, believing that help is now just a phone call away.

We live in an imperfect world, and Murphy's Law likely has an addendum about cell phones lacking signal or charge when needed the most. Thus, there's still merit in the self-reliance delivered by carrying a breakdown kit, particularly for longer trips that involve desolate stretches of road. Carrying all the materials needed for every roadside repair is a virtual impossibility, unless one is willing to tow a (heavy) trailer filled with tools and spares on every trip. There is art and science, then, in preparing a breakdown kit that is compact and light enough to be practical, yet still comprehensive enough to get you through emergency roadside repairs. It's worth noting that this will likely differ from vehicle to vehicle (especially true with vintage vehicles, as each seems to have its own special set of needs), as well as from location to location.

Case in point: Traversing the Colorado Rockies in wintertime, it's prudent to carry things like a warm sleeping bag, a change of clothes (preferably in a waterproof bag) and even

a spare pair of winter boots. A few boxes of energy bars are also a good idea, as is fresh water if you can keep it from freezing. Experience tells us that when things go wrong in the mountains during the winter, they tend to go very wrong, very quickly. More than one motorist has been stranded by the side of the road (or worse, on the road) during a blizzard, and facing the thought of spending the night in a car is much more palatable when wrapped in a warm sleeping bag, eating energy bars washed down by fresh water.

Carrying these supplies in summer is likely overkill, unless you live in regions where summer is the month-long period in between snow storms. For the rest of us, there's likely a breakdown kit that takes up a minimal amount of room while delivering maximum peace of mind. At the very least, it should contain a first aid kit (the complexity of which will depend upon the level of your formal first aid training); road flares or a reflective triangle; an emergency blanket; a bright flashlight (our preference is for LED headlamps, which make nighttime tire changing much easier); a small 12-volt air compressor with a pressure gauge; a string-type tire patch kit (buy the professional grade kits, not the kind found at your local auto parts store) with extra rubber cement (because the tube will be evaporated just when you need it most); basic tools such as a standard and a Phillips screwdriver, a pair of pliers, a few adjustable wrenches, a set of locking pliers, and a multi-tool (which should help to cover the tools you may have forgotten or removed from your breakdown kit); electrical tape and Gorilla tape; jumper cables; and a 12-volt adapter to power or charge your cell phone.

While we'd consider these "need to have" items, the "nice to have" list includes things like a proper air pressure gauge; a folding lug wrench (which greatly simplifies roadside tire changes); a fire extinguisher (though, admittedly, this goes on the "need to have" list for vintage or prized cars); a set of mechanics gloves or several sets of latex gloves; rags; spare flashlight batteries; a waterproof jacket; spare fuses (though changing a blown fuse is generally a temporary solution to a more serious problem); and any essential failure-prone spare parts unique to the car. Should sediment in the gas tank or fuel lines be an issue, carry a spare fuel filter or two; if oil consumption is a problem, carry a few extra quarts of oil in the breakdown kit, too.

While that generally covers on-road needs, driving off road (especially in remote locations) requires a bit more preparation. Our own off-road kit contains items like a 20-foot towing strap, rated at 20,000 pounds; a pair of towing shackles; a stouter 12-volt compressor (necessary for reinflating tires after airing down for additional traction on loose surfaces); an air pressure gauge; tie-down straps and a few bungee cords; a handful of light sticks; a plastic tarp; additional first aid supplies; and all the contents previously recommended above. Those venturing further afield may want to include additional items, but the line between a breakdown kit and a survival kit can easily get blurred. In any event, experience tells us that items carried are rarely needed, meaning that those with the most comprehensive breakdown bags are the least likely to encounter trouble.