



Vehicle Preparation ‘Suggestions’

Introduction

Here at Classic Car Adventures (CCA), we firmly believe in a sense of “Adventure”. The Adventure portion of our events is partially planned through our use of secret routes, great roads and event format. A larger portion of the Adventure seems to come from things which are unplanned. This side of the Adventure finds its way in through changing weather, vehicle breakdowns and things which are generally out of our control.

After seven years of running events we’ve come to determine that vehicle preparation for our events is an area which deserves more attention. Unanticipated vehicle breakdowns will always be a part of our events, we can’t avoid it with classic cars, but a large number of on-event breakdowns have been avoidable, or could have been easily repaired if the vehicles and driving teams has been better prepared.

We certainly don’t expect to eliminate the breakdowns completely. There is an amazing amount of teamwork, solidarity and bonding which happens on the side of the road as entrants work to repair fallen comrades. We do, however, want to see each of these moments be successful and quick...so that everyone, sweep included, can enjoy our group dinners together.

Vehicle Mileage

The first step to preparing your vehicle for one of our events is to ask yourself a simple question: “How often, and how long, do I drive my classic car?” If you’re car is only used on sunny days, for short trips to the coffee shop, you definitely need to schedule some pre-event testing. If you’re car is currently at a restoration shop, being prepared for the event, you need to schedule some pre-event testing into your plans. A car driven short distances, or infrequently, can behave quite differently when asked to do 700mi / 1200km over the course of three days. Similarly, a car which has been sitting for some months undergoing restoration or repairs is quite likely to see a failure in an unrelated component upon release from the shop. We’re not sure why, but it seems one system (for example the charging system) always gets upset when you spend money on another system (like the bodywork). Despite your best efforts to find good replacement parts, even new components used in the restoration can fail.

So our first suggestion in terms of preparation is schedule some time to drive the car! Take it for a 30min spin on the first day, an hour long spin on the next day, and a 3-hour non-stop drive after that. Before the event, with plenty of time to repair any problems that surface, be sure you run the car from full to empty on the fuel tank, preferably in a non-stop drive. Four one-hour drives spaced apart do not equal a 4-hour non stop drive, as far as classic car reliability is concerned.

Prep for Precipitation

If the word “rain” makes you recoil in horror, we may not be the event company for you! We run three day events, typically in mountainous or remote areas, and we’re driving long distances each day. We may start the day in one weather system, and drive through three or more before the end of the day. Rain happens.

If you’ve never driven your classic car in the rain, now is the time to test it. Start your vehicle in the driveway, open the engine hood and set your garden hose on a “light mist” setting. Thoroughly mist down the engine,

(avoiding the air filters), and listen for any changes. Stumbles, coughs or strange running conditions mean you have a potential issue which could strand you...and if it does, its going to be somewhere cold and wet. Better to find any glaring issues now, in the safety of your driveway.

Do the windshield wipers work? Set the hose on the windshield, and run the wipers for a good 10min. We're guessing your co-driver would appreciate knowing your wiper motor won't burn out, and that the wiper arms stay tight on the pivots! How about leaks? You might not be able to solve them all, but perhaps knowing exactly where to place some tape or rags will keep your feet dry and everyone smiling.

Prep the Windshield

Often forgotten while preparing for precipitation, but just as important, is preparing the windshield. Most of our cars are notorious for poor defrosting abilities, but testing and repairing your vehicle's systems will come in quite handy. If your event does experience some precipitation, and we're travelling in mountains, you can be sure your windscreen is going to fog up. Are you able to defog effectively? If the factory system isn't efficient enough, Rain-X anti-fog or a well placed set of cloths can help immensely.

Packing Spare Parts

Some vehicular issues you simply can't plan for. When your connecting rod *really* wants to experience the open road for itself, you just can't stop it from coming through the side of the block. But large terminal failures are actually pretty rare on our events. Over the years we've come to recognize that most of our road-side issues come from a fairly common set of components. In almost every case the parts have been "working beautifully for years" and there was no indication they were going to fail. Here is our list of parts you really should be carrying in your vehicle. *For 2016 these are likely (or going) to become required equipment:*

- **Fuel Pump** - Fuel pump failure is pretty common. If your vehicle has an easy to access mechanical fuel pump, it probably makes sense to carry one of those. If *you don't personally know how to change it* or you're unsure of your pump type, then you should carry a universal electric fuel pump. You're looking for a pump that has pressure similar to what your car needs, and can be jimmy-rigged into your engine bay. No one wants to lie under your car in wet gravel to swap out that vintage SU pump with points. But we can quickly toss a universal pump in your engine bay to get you to the finish!
- **Fuel Lines and Wiring** - A pump is no good sealed in the package if you haven't planned some wiring, extra fuel lines and the barbs needed at either end of the pump. You don't necessarily need to know how to install it, but it sure helps if you have the bits necessary so someone can help you!
- **Points and Condenser** - Even if your vehicle runs electronic ignition components like a Pertronix setup, having a spare set of points and condenser to put in your vehicle is a wise idea. If you don't know how to install them, *you should carry a photocopy from a repair manual showing the timing settings for your car.* This way someone else can help you set your points up correctly.
- **Ignition Coil** - An engine needs four things to run: Fuel, Air, Compression & Spark. A spare ignition coil (combined with points and condenser) gives us the best hope of creating spark.
- **Spare Nuts/Bolts** - You, or your mechanic, should know the commonly used sizes found on your vehicle. It's helpful to have a small selection of these sizes available on-tour should something rattle loose.

Lastly, you (or your mechanic) knows your individual make/model better than we do. There might be vehicle specific parts that you should be carrying. A Volkswagen Beetle owner, for instance, usually carries a clutch cable and accelerator cable as these are common failures. Saab 2-strokes carry spare plugs since they're prone to fouling. British cars need oil to replace that which is always leaking and Italian cars...well, we'll stop there so we don't get flooded with emails!

The entire collection of parts we're suggesting will likely fit inside the rim of your spare tire, so we're not asking you to carry an overbearing amount of spares in terms of dimensions or weight.

Packing Tools

The tools you carry are going to depend on your individual vehicle, and your knowledge of how to use them. You should, at the very least, pack the tools that are only used with your vehicle (and not likely to be carried by someone else). A lead hammer, for instance, to take off your knock-off wheels. A Volkswagen owner should probably carry the 36mm Axle nut emergency tool. If your British car uses Whitworth wrenches, you probably want to carry a set as you're unlikely to find them in the car travelling beside you.

Regardless of your mechanical knowledge, carry the tools which are specific to your car and unlikely to be found amongst other entrants. Past that, pack your tools based on your ability to use them and comfort level with your vehicle's ability to finish the total event distance.

Pre-Event Inspection

Some events require a pre-event inspection report be completed by a registered mechanic. While that would certainly help reduce the number of failures on our events, it sort of goes against our philosophy of self-reliance and keeping the event budget friendly! We are, however, going to require each and every entrant completes a pre-event inspection, and submits the completed report at registration. If you're the one who works on your car, you're welcome to complete the inspection yourself. If you're not comfortable with the form, we ask that you have your regular mechanic complete the form.

A Word on Sweep and Sweep Procedures

As of June 2015, our definition of sweep and sweep procedures is changing for all our events. In the interest of clarity, here are the exact details of our intentions with sweep, and how things will work on the roadside during events:

If you were lucky enough to be a new driver in 1966, you may have been traveling up to the newly opened Whistler Ski Resort, probably in the Porsche 356 you bought off your neighbour for \$250. There was no sweep behind you, nothing but your road sense, a healthy dose of enthusiasm and whatever car knowledge was combined between you and your ski-mate in the passenger seat. By today's standards, each trip was an incredible adventure! Truthfully, that's our ideal scenario for CCA. We'd *love* to leave our cellphones at home, and set out on a three-day adventure with just our collective knowledge and resources to get us all to the finish. Fortunately, we recognize that stranding some of you each year in the middle of nowhere will probably result in lower entry numbers...so we have a sweep vehicle!

The role of our sweep crew is supposed to be simple; their job is to transport stranded entrants to a place with telephone service so they may call Hagerty Roadside Assistance (included for each entrant in the 2015 events). Our sweep crews are volunteers or sponsors, and often so kind that they completely ignore our instructions and do everything they can to help out stranded entrants! At the 2015 Hagerty Spring Thaw Robert from RWM&Co tirelessly replaced fuel pumps, coils, points, shift linkages and fuel lines on a vast number of cars throughout the day. It was wonderful, selfless, extremely appreciated...but a problem.

You see, Robert & Jaclyn volunteered their time as sweep. They sponsored the event with prizes, and they missed it all. If one fuel pump takes 45min to diagnose and replace, and you do five or six throughout the day, suddenly you're so far behind that dinner is long over by the time you arrive at the hotel. So we, collectively as entrants, need to improve both our preparation, and our on-event procedures to ensure that *everyone* makes it to dinner each night.

- **Sweep is not a white-glove mechanic service** - Some of our sweep teams do indeed own restoration shops, and some most certainly don't. The basic requirement for sweep is a willingness to drive at the back of the event, and check on each stranded car to ensure they aren't stuck in an area with no phone coverage. Outside of that, anything extra is a bonus! Entrants are strongly advised not to rely on sweep as their personal mechanic, and should always be willing to roll up their sleeves to assist in any repairs on their own vehicles (whether done by sweep or other volunteers).

- **Sweep will stop for 30min** - Presuming you have a problem on the road, and need to wait for sweep, they will stop for a total of 30min. 30min should give enough time to diagnose the problem, and determine if it's road-side repairable. If the problem can't be determined in 30min, then using the Hagerty Roadside Assistance package makes the most sense.
- **If a road-side repair is possible** - Sweep *may* assist with the repair (not guaranteed by any stretch), but will ensure they don't leave you in an area without cell coverage. Even though your repair seems to be doing well, they may insist one of you travel forward in the sweep vehicle to call roadside assistance while the other continue repairs. This way, if you do manage a repair its a simple matter of you calling and cancelling the service once you're underway. Sweep can continue moving forward, knowing a tow-truck is on the way if you're unsuccessful.
- **Be prepared to shorten your route** - Sweep will have detailed maps of where we're going. In the case of a breakdown sweep may ask you to shorten your day by taking a shortcut to advance further ahead. This is our way of getting you back 'ahead of sweep' as they run the full route. While perhaps a bit disappointing to miss a favourite section, please assist the event by taking shortcuts if directed by Sweep.
- **Be prepared to text sweep** - Hopefully you're co-driver is the type who can text on your phone, if not...its an important skill to learn for our events. In the event that sweep needs to pass you while you finish a repair, a set of text messages can be quite helpful. "**3:30pm, car 22 off and running**" tells us you're back on the road, and we can do the math to figure out your estimated arrival time. "**4:45pm, car 22 passing through Springfield**" tells us that you've made it beyond a short cut, are back on the route and in front of sweep. Text messages are great, because you can send one of those while out of service, and the moment your phone is back in service it will send. If sweep was out of service when you sent it, they will get it the moment they're back in service.
- **A note on eclectic vehicle choices** - CCA event timing is based on the assumption that your classic car is basically able to meet the speed limit over the course of the event (with time added for fuel and food stops). Occasionally we have an entrant or two with a car that travels at a slower pace, or a much slower pace up hills. Once identified, sweep will often ask if they may pass you, so they don't end up hours behind the regular pack. This is where the text messages and keeping in touch help to ensure that while you don't have sweep behind you, we aren't going to leave you stranded anywhere.

On Event Inspections

Your organizers have not been problem free over the years. One year an organizer's Mini was blowing coolant out the bonnet on day one. An organizer's Beetle seized an engine in year two. The Rally Bug, in general, hasn't been the most reliable car (but always makes it to the finish!). A couple of years ago we noticed something about the cars and driving teams that never seem to have a problem. At the end of each day, as we're enjoying the 'parking-lot-tailgate-party', they're doing a once-over inspection of their vehicles. In the morning, they're always the ones who have warmed up and checked their vehicles before the driver's meeting. At the very least, there are a **tonne** of knowledgeable people at the driver's meeting. Once the organizers dismiss the group, that number shrinks very quickly! Be sure to check your vehicle over each evening before you finish for the day, and each morning before you start off.

Conclusion

Ultimately, we want all our entrants to enjoy their weekend on a CCA event. We're hoping the above sweep procedures, the vehicle preparation checklist and the required spare parts will help towards this goal. If vehicles are well prepared, already carrying the most common spare parts and sweep knows they can move forwards so guests aren't waiting hours and hours at the side of the road, we're going to have better events for every participant. The pre-event check list is attached as the final pages to this document.



CCA Vehicle Inspection Form

The CCA Vehicle Inspection form should be filled out by a competent mechanic. **Please note we said “competent”, not “licensed”.** If you or a friend do the mechanical work on your car, you’re welcome to save inspection fees by completing the inspection yourself. Do not simply check things off the list because your car is “well maintained”, our expectation is that you have actually done a proper inspection of each component listed below. Completing the tech inspection properly will (at minimum) require the vehicle to be on axle stands with the wheels off. Vehicles submitting a form with any failed areas are not automatically barred from entry, but will need to be reviewed by CCA staff for approval to continue on the event.

	Pass	Fail	Comments
Road Equipment:			
Tail Lights	<input type="checkbox"/>	<input type="checkbox"/>	
Brake Lights	<input type="checkbox"/>	<input type="checkbox"/>	
Turn Signals F	<input type="checkbox"/>	<input type="checkbox"/>	
Turn Signals R	<input type="checkbox"/>	<input type="checkbox"/>	
Headlights / High Beams	<input type="checkbox"/>	<input type="checkbox"/>	
Windshield Wipers	<input type="checkbox"/>	<input type="checkbox"/>	
Horn	<input type="checkbox"/>	<input type="checkbox"/>	
Suspension:			
Steering - No free play (well, excessive play...they are classics!)	<input type="checkbox"/>	<input type="checkbox"/>	
Front Shocks - Not leaking, still damping	<input type="checkbox"/>	<input type="checkbox"/>	
Rear Shocks - Not leaking, still damping	<input type="checkbox"/>	<input type="checkbox"/>	
Tie Rod Ends - No play, no cracked boots	<input type="checkbox"/>	<input type="checkbox"/>	
Wheel Bearings - No play	<input type="checkbox"/>	<input type="checkbox"/>	
Brakes:			
Fluid Level Correct, Fluid Clean	<input type="checkbox"/>	<input type="checkbox"/>	
Fluid Replaced within the last 24mo	<input type="checkbox"/>	<input type="checkbox"/>	
Brake Pedal Firm	<input type="checkbox"/>	<input type="checkbox"/>	
Flexible hoses - No leaks, no cracks	<input type="checkbox"/>	<input type="checkbox"/>	
Pad and Shoes at least 1/3rd 'new' thickness	<input type="checkbox"/>	<input type="checkbox"/>	
Battery / Electrical:			
Battery securely mounted	<input type="checkbox"/>	<input type="checkbox"/>	
Wiring Harness - No exposed, bare wires (check whole harness)	<input type="checkbox"/>	<input type="checkbox"/>	
Fuel System:			
No Leaks (tank, lines, pump, and carbs)	<input type="checkbox"/>	<input type="checkbox"/>	
Flexible Fuel Lines: no cracks	<input type="checkbox"/>	<input type="checkbox"/>	

Fuel Filter replaced - Month / Year of replacement: _____
 (Maximum 24mo for vehicles driven regularly, 12mo for new restorations, 3mo for 'barn finds' and new purchases.)

Engine:

- Fluid leaks: Haemorrhaging
 Leaking
 Slightly Leaking
 Weeping
 Wet, not dripping
 Leak Free.

Fluids currently leaking: _____

	Pass	Fail	Comments
Belts No cracks, no glazing, replaced in the last 24mo	<input type="checkbox"/>	<input type="checkbox"/>	
Hoses No cracks, no leaks	<input type="checkbox"/>	<input type="checkbox"/>	
Throttle Return Spring	<input type="checkbox"/>	<input type="checkbox"/>	
Exhaust Free from leaks, mounts in good shape	<input type="checkbox"/>	<input type="checkbox"/>	
Transmission / Clutch:			
Clutch Cable - No frays, signs of wear	<input type="checkbox"/>	<input type="checkbox"/>	
Transmission fluid (changed within the last 5 years)	<input type="checkbox"/>	<input type="checkbox"/>	
Shift Linkage: <input type="checkbox"/> No Play <input type="checkbox"/> Some Play, identified as unlikely to fail.			<input type="checkbox"/> Mysteriously Sloppy (Failed)

Body:

- No structurally weakening rust
- Windshield - No cracks
- Mirrors secured
- No loose trim, sharp edges

Wheels and Tires:

- Minimum tread depth
 (will not end up on wear bars during the event)
- No sidewall cracks
- No cords/belts showing
- Tires replaced (with new) within the last 5 years

Lugs torqued - Torque value used: _____



Vehicle Inspection forms are valid for 30 days from date of inspection

Date of Inspection: _____

Name / Event / Car #:

Inspected by:

(Name of inspector and shop (if applicable))