

## Motor Vehicle Requirements



Both two wheel and four-wheel drive vehicles will be permitted on the Variety Bash commencing 2023. Two-wheel drive vehicles entered in the Bash must have been manufactured **at least 25 years** prior to 2023. Four-wheel drive vehicles entered in the Bash must have been manufactured **at least 30 years** prior to 2023. Entrants may apply to bring a more modern four-wheel drive vehicle, with the agreement that the minimum fundraising target for such a vehicle be double the standard fundraising target.

All vehicles must be roadworthy, registered and insured as prescribed by State laws. All vehicles must have a minimum of two people and a maximum crew of four people. Motorcycles, buses, coaches, caravans, skateboards or wheelbarrows are not allowed.

All vehicles must carry the Bash door panels on the front driver/passenger doors onto which must be fixed the allocated Bash car number for that vehicle. The vehicle number must also be clearly visible, using fluoro 10cm numbers on the front window and fluoro 17cm numbers on the rear window (first set provided by Variety, replacements @ \$25/set). All cars must also display the sponsor's stickers, as supplied by the organisers, which includes a front window strip that doubles as a sun strip, and rear window strip advertising the Bash.

All vehicles are required to attend a nominated Checkpoint Day prior to the start of the Bash. Any vehicles unable to attend a Checkpoint Day need to obtain prior consent from the Motoring Events Manager.

***At all times all entrants must abide by the rules of the road as prescribed by State laws and statutes.***

### Getting Started with your Bash Car


You may wish to start fresh with a car you have bought or a family hand-me-down or you may wish to buy a pre-built and tested Bash car.

You will need a reliable, well-built vehicle, which will survive the trip and be noticed so that your sponsors receive some benefit. If you are starting fresh with an un-Bashed car you will need to make some adjustments to the car to make it safe in the remote areas we are travelling to. The transmission, engine and engine ancillaries must be as originally specified for the vehicle. Modifications to the brakes, suspension and fuel tanks are allowed for safety but no improvements for extra speed or performance modifications are allowed.

Modifications to the body shape are permitted where such modifications are designed to enhance the appearance of the vehicle for sponsorship purposes or for fun! Attention-grabbing and unusual decorations make for a great Bash car... the stranger the better.

***All modifications must comply with State Government Registration Rules.***

## Essential Equipment for your Bash Car:

Requirements	Done
Photocopy of receipted certificate of registration and third party property (minimum) or comprehensive insurance papers. This paperwork will remain with Variety. <i>(Your registration papers must clearly show the registration number, chassis number, engine number &amp; expiry date and all four identifiers must line up with your vehicle.)</i>	
Bash door panels displaying car number and sponsor decals	
Front and rear windscreen strips	
Windscreen fluoro car numbers: <i>Front 100mm – top right passengers side Rear 170mm – top right drivers side</i>	
Working UHF radio (5 watt)	
Rear facing amber dust light, tilted down over boot lid	
Revolving amber lights at rear of rack (no other colours permitted) <i>Red and blue flashing lights are prohibited as well as sirens mimicking emergency vehicles</i>	
Fire extinguisher fitted in cabin, fully charged, within 5 years of date stamp	
Snatch strap – Approved D shackles plus D shackle attachments eg. <i>Never attached snatch strap to a tow ball</i>	
10-20 litre water container	
Basic tool kit <i>An assortment of screwdrivers, shifters, small ring and open-ended spanners, pliers, side cutters, pocket knife, gaffer tape, electrical tape, some small and medium size cable ties, a pair of multi-grips and some insulated wire of the size used in cars.</i>	
Two spare tyres (minimum) <i>Two spare wheels and tyres together with two tubes. The tyres should be decent off-road tyres as they are more resistant to punctures.</i>	
Working seat belts for all occupants	
Cargo barrier in station wagons	
Engine restraint (chain motor in)	
Tail shaft restraint (catch strap)	
Laminated front windscreen	
Sump guard	
First aid kit	
Trip meter capable of recording distance travelled and intermittent distances	

## Recommendations / Recommended Equipment for your Bash Car:

Recommendations	Done
Securing for all loose equipment	
Additional fuel capacity	
Brake lines, fuel lines and shock absorber mounts protected by hose	
Spare parts applicable to your particular vehicle <i>Water pump, fuel pump, fuel filters (desirable but not essential), air filter, condenser, coil, exhaust gaskets and mounting straps, universal joint, rear axle with new bearing (wrap bearings in plastic). Selleys Knead-it is a good all-purpose epoxy repair for broken thermostat housings and general repairs.</i>	
Road maps	
Check mudflaps do not drag on ground when vehicle laden	
50mm tow hook fitted to front and rear / snatch strap hook fitted under front <i>For stiff pole towing, we recommend a removable tow ball/ fitting at the front, similar to a Haymen/Reese type towbar unit.</i>	
20 litres of fuel in approved containers plus funnel / syphon hose	
20 litres of water, suitable for drinking and cooling system top up	
5 litres of engine oil	
5 litres of auto-transmission oil (if applicable)	
1 litres of diff oil	
500ml of brake fluid	
Jumper leads	
One can of WD40 or equivalent	
One can/bottle of radiator stop leak	
Jack and jacking plate for soft ground plus wheel brace	
Fan belt	
Radiator hoses, length of heater hose	
Fuel hoses	
Fuses	
Heavy duty torch	
One roll of racing tape plus small roll of tie wire	
Tarpaulin <i>May be required to place in front of vehicle when crossing deep water</i>	

## Bash Car Preparation Checks

The following checks are recommended when preparing your Bash Car:

Preparations	Done
Lubrication and cooling – both systems should be drained, flushed and generally cleaned out. As temperatures may get below freezing at night it is recommended to add an Anti-Freeze/coolant. For engines that have been stationary for some time, this is a MUST. Remember the transmission and differential too!	
Engine and transmission mountings – check for any tears, perished/worn areas or oil damage. (Body mountings if applicable).	
Drive shafts – check the universals, yokes, centre bearings and their mountings if applicable.	
Protect exposed clutch and brake mechanisms.	
Brakes – check the linings, hoses, metal brake lines and their securing, wheel and master cylinders. Check brake fluid for moisture and age change as required.	
Wheel/Tyres – check for wheel cracks and seek out a good “off road” type of tyre. Go to a tyre retailer and seek their advice, explaining you will be doing a lot of dirt driving on mixed, country road conditions.	
Wheel/axle bearings – check seals, clean, inspect repack/grease.	
Engine – tune and waterproof the ignition.	
Wiper blades – replace. Ensure windscreen washers work efficiently.	
Electrical problems - to reduce the chances of having a problem get your car looked over by an auto electrician. Frayed wiring should be taped up and the generator or alternator checked over.	
Take along basic spares such as points, plugs, condenser, even a rotor, coil and distributor cap. Take along a spare fan belt.	
Make sure the battery is very secure and the battery holder is not rusted away.	
If you have an automatic car, take a spare starter motor.	

### Ground Clearance on your Bash Car

One of the recommendations for the Bash is giving your car some additional ground clearance. The easiest way to do this is use larger diameter wheels and tyres. Holdens can go for 14"x 6" steel wheels, (from an HK to HG Monaro) and 7.5 x 14 tyres to suit the Japanese utes (such as Holden Rodeos). Fords and Valiants already have 14" wheels and the 7.50 x 14 tyres can be used. The Yank Tanks can use 15" or 16" wheels with appropriately larger tyres. Ensure you still have full steering lock to lock.

If you need more ground clearance, the best way is to have the springs reset or add extra leaves. Do not try to raise the back using air shocks. They are renowned for their ability to punch the back floor out of cars due to the air pressure in one shocker increasing when the other shocker has been compressed. This makes the shocker act like a solid bar and if a bump comes along while it is in this condition, goodbye floor! With Holdens, it is wise to get a crossmember welded between the rear subframes as a mount for the top of the shockers, as Holdens are weak in the body where the shocker mounts are. If you raise the rear of the car, you should also raise the front to match.

Remember to get the front end re-aligned after you do this. Also, when raising the car, check to make sure the shockers don't run out of travel when the suspension moves.

Get professional advice when changing suspension.

***All modifications must comply with State Government Registration Rules.***

## **Bash Car Tow Balls**

Recommend a 50mm tow balls fitted front and back. This is so that we can tow a broken vehicle into the nearest place of repair with the straight bars that all workshops carry. These bars have trailer hitches on both ends and are a lot safer than tow ropes.

The back end is easy, just get a normal tow bar. A bit of thought needs to go into the front to ensure that the tow ball is mounted on a substantial part of the car, such as a subframe. Do not make the mistake of mounting it off-centre, as the car will be a lot harder to drive under tow and remember to check your local regulations for mounting details. Front tow ball to be removable.

## **Protecting your Bash Car's undercarriage and engine**

Sump and stone guards are essential for the underside of the car. These have different requirements so need slightly different approaches.

The sump guard is to prevent the sump and gearbox from damage sustained by hitting rocks on the road. This needs to be reasonably strong. For those who can afford it, aluminium checkerplate as used to make boat trailers etc. is ideal if given a little bit of bracing. Steel checkerplate is perhaps a little heavy, and a lighter gauge of metal could be used. The sump guard should be no wider than the sump of the engine to allow engine heat to get away from the engine bay. Remember to mount the plate securely and check that the steering doesn't touch it, even with the wheels off the ground.

The fuel tank guard is to prevent the fuel tank being pierced by stones and smaller rocks. Thus the guard can be made of lighter gauge metal. However, the guard should cover all exposed parts of the fuel tank.

As the going is likely to be dusty on the Bash, it is a good idea to get a good quality air cleaner element along with a couple of spares. They should be changed regularly on the Bash. Sand and dust getting into an engine through the air cleaner can do a very rapid job of reboring your engine, and without the necessary larger pistons and rings, can turn your motor into a pile of junk that even STP Oil Treatment can't fix.

For water crossings or holes — be careful as hitting the water too hard can cause water and mud to go through your air cleaner and into your engine with a fatal result.

## **Tail Shaft Loop**

This is highly recommended on the Bash. If the front universal joint breaks, the front of the tail shaft is stopped from hitting the road and acting as a pole vault. The loop can be made a number of ways. The easiest is to use some inch by eighth steel strap, make a loop under the tailshaft (give it plenty of clearance) and bolt it to the floor. It should be positioned about six inches behind the front universal. Another effective method is to use some chain and bolt it to the floor either side of the tailshaft with a loop hanging under the tailshaft.

## Engine Restraint

The engine restraint is required so that the engine can't move forward and damage the radiator or go backwards in a minor accident, or when the car goes into a big pothole or similar. The easiest way to achieve this is to get some heavy chain, bolt one end to the engine and weld the other end to the chassis. You can do this for both forwards and backwards directions by running the chain forwards and backwards, welding it both ends and bolting the middle to the engine.

## Fuel and Brake line protection

This isn't compulsory, but it is a good idea anyway. On most cars, the fuel and brake lines run alongside the chassis or subframes from front to back. They can be easily protected using garden hose. Take a length of hose long enough to do the job, split it lengthways with a knife and then slip it over the fuel and brake lines. You can then hold it on using nylon cable ties.

- Check copper brake pipes as after a couple of years they harden and crack. Best to replace with steel pipe.
- Cooling System
- Check cooling system for correct operation
- Clean and flush cooling system
- Check operation of thermostat (do not remove thermostat, if it is overheating there must be a problem)
- Check pressure cap
- Check air flow through radiator
- Check water circulation through radiator
- Check electric fan operation
- Check temperature gauge reading correctly
- Fit a low water level indicator with light and buzzer
- If you have a coolant leak in the radiator or welch plugs, etc during the Bash you can use a radiator stop leak, pepper can be used as a last resort.
- Warning gauges and lights are both good to have for oil pressure and water temperature.

## UHF Radios

Your vehicle must have a 40 channel UHF radio installed with an aerial that is not going to be broken by low branches. This should be set to Channel 20.

When driving in dust use your radio to advise the Bash vehicle behind about oncoming dips, corners, traffic, sheep, cattle, etc. Call up the vehicle in front when you want to overtake and WAIT until they call you through. Let the vehicle in front know your car number so they can direct advice to you. Always pass the information down the line.

In general terms the UHF radio will not broadcast further than a couple of kilometres around you although there are times when the signal will "skip" and carry a lot further. When chatting to other Bash cars remember that there are a lot of vehicles on channel so do not monopolise the frequency. If you want to have a long chat with another Bash vehicle (NOT in dusty conditions when driving), change to another channel – but remember to go back to Channel 20 to stay in touch with the rest of the Bash.

## **Fuel**

The way to avoid fuel problems on the Bash is to follow the below recommendations:

- Fit fuel filters before and after the fuel pump. Take along spare filters.
- Fit a new fuel pump and take the old one along as a spare (with a spare gasket).
- If the car has been standing a long time get the fuel tank and lines cleaned out. A good idea anyway as the bouncing around may shake rust flakes off the inside of the tank.
- Get the carbie rebuilt.
- Take some correct size fuel hose (about 1 metre will do) and some hose clips along. This is in case the fuel line is hit by a stone and crushed.

## **Door Panels, Window Strips and Sponsor Decals**

As part of the entry conditions, you will be required to fit door panels, window strips and sponsor identification decals as required. These items will be supplied to you at Checkpoint.

The door panels, which carry your car's identification number, are 50cm x 32 cm wide (portrait style) and are fitted on the front driver and passenger doors of the car. A window strip goes on top of the windscreen and doubles as a sun screen. A back window strip will also be supplied which will advertise the Bash. Additionally event sponsor identification decals (two per sponsor) are supplied and they must go on each side of the car.

## **Route Instructions**

The Bash organising team do several surveys of the event prior to the official start to set the route and make all the arrangements. Part of the planning process, is to provide you with daily route instructions. You'll receive these every morning at the start line (for the AM section) and mostly at the luncheon venue as well (for the PM section).

On occasion, no lunch stop will be organised and you are free to choose your own lunch stop and purchase lunch as required. You will be advised if these apply to your Bash before Day 1. On those particular days the route instructions are from start to finish on that day.

They are simple, easy to read distant measurements with an instruction such as SO (straight on) or TR (turn right) to get you through the set run for the day.

Never leave the Bash route without telling someone, preferably an official. The Bash is well serviced with officials who check you out at the start of a section and back in at the completion of a section. If you don't come through the finishing Checkpoint and our "Sweep" (last official in) has not seen you, then we put in a search and rescue plan. You will be liable for any charges if it proves to be a false alarm!

## **Road Rules**

The Bash is allowed to run because we adhere to the road rules of the given states we travel through. We have no dispensation to break any existing road rule set by the police or the state's ruling body, i.e., Roads and Maritime Service (RMS) in NSW.

## Support Vehicles

For those would-be Bashers who can't tell an upper control arm from an interior light switch – fear not! Travelling with the Bash are Mobile Workshops (MW) crewed by qualified and experienced mechanics, engineers and technicians whose job it is to look after all Bash vehicles.

If you were to break down on a Bash route, one of our MWs will carry out a minor repair to keep you going. In previous years, cars that looked as though they are beyond repair have been transformed by the mobile workshops into miracles of motion and have been shepherded into the next town. It is then your responsibility to have the car fully repaired and made roadworthy again.

We guarantee, if we can't get you going, we'll get you to the closest town where you can make your own arrangements to get the car repaired or transported to another location. Individual support vehicles are not allowed on the Bash, however, space is available on our Bash Baggage Truck which travels the entire Bash route to carry any spare parts that won't fit in/on your Bash car.

## Questions? Need help?

If you have any questions about the above information or getting your Bash car ready, please contact the Variety office and if we can't assist, we'll put you in contact with one of our expert Bash mechanics.

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