

VEHICLE REQUIREMENTS

What is a 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.

- ✓ Manufactured prior to or during 1972.
- ✓ Current registration plus third party property insurance.
- ✓ Attention-grabbing and unusual decoration ... the stranger the better!
- ✓ Modifications are allowed for safety but no improvements for extra speed.
- ✓ 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!
- ✓ The engine, transmission and engine ancillaries must be as originally specified for the vehicle. Modifications to brakes, suspension and fuel tanks are permitted.
- ✓ Vehicle preparation costs are not to come from your fundraising money. These are your own expenses.
- ✓ Two-wheel drive vehicles only. No charabancs, omnibuses, motorbikes or motorised wheelbarrows!

Be Prepared

As many Bash vehicles are rescued from farm sheds, out of a paddock or underneath layers of dust and sundry spare parts in workshop corners, it is advisable to pay attention to some important areas when preparing for a Bash.

1. **Lubrication and Cooling** – both systems should be drained, flushed and generally cleaned out. For engines that have been stationary for some time, this is a MUST. Don't forget the transmission, too!
2. **Engine and transmission mountings** – check for tears, perished, worn or oil damaged. (Body mountings if applicable).
3. **Drive shafts** - check the universals, yokes, centre bearings and their mountings if applicable.
4. **Protect exposed clutch and brake mechanisms**
5. **Suspensions** – check the cross members for cracks and worn/perished mounting rubber joints, links, pins and bushes etc., shock absorbers, springs, shackles, leaves and centre bolts.

6. **Brakes** – check the linings, hoses, metal brake lines and their securing, wheel and master cylinders.
7. **Wheel/Tyres** – check for wheel cracks and seek out a good “off road” type of tyre. Go to a tyre retailer and seek his advice, explaining you will be doing a lot of dirt driving on mixed, country road conditions.
8. **Wheel/axle bearings** – check seals, clean, inspect repack/grease.
9. **Engine** – tune and waterproof the ignition.
10. **Wiper blades** – replace.

Essential Equipment

The items listed below should be carried in your vehicle as a minimum requirement. These items will be checked at scrutineering.

- ✓ Fire Extinguisher
- ✓ First Aid Kit
- ✓ Two spare wheels/tyres, mounted and inflated (one can be carried on the Bash baggage truck)
- ✓ Towing Rope, preferably a "snatchem strap". Wire cables are NOT acceptable
- ✓ 40 Channel UHF CB radio in working order
- ✓ Roof mounted Flashing amber light with rear roof mounted, downward facing reversing amber light – **NO RED, BLUE, GREEN OR OTHER COLOURED LIGHTS PERMITTED**
- ✓ Tow ball or hook (front and rear – see further information below under Tow Balls)
- ✓ 20 Litres of fuel in approved containers plus funnel or syphon hose
- ✓ 10 Litres of water, suitable for drinking
- ✓ 5 Litres of engine oil
- ✓ 5 Litres of auto-transmission oil (if applicable)
- ✓ Jumper leads (automatic vehicles included)
- ✓ 500mls of brake fluid
- ✓ One can of WD40 or equivalent
- ✓ Jack and jacking plate for soft ground plus wheel brace
- ✓ Fan belt
- ✓ Spark plugs, plug spanner and points
- ✓ Radiator hoses

- ✓ Fuel hoses
- ✓ Fuses
- ✓ Heavy duty torch
- ✓ One roll of racing tape, small roll of tie wire
- ✓ Basic tool kit: screwdriver, multigrips, spanners etc.
- ✓ Water pump, fuel pump, fuel filters (desirable but not essential)

Radios

Your vehicle must have a 40 channel UHF radio fitted. This should be set to Channel 20 which is used by many other road users including - truckies, caravan drivers, property owners etc. For most of the Bash you will not interfere with other users but on highways and in towns there will be a lot of people on the channel so please be mindful that others are using Channel 20.

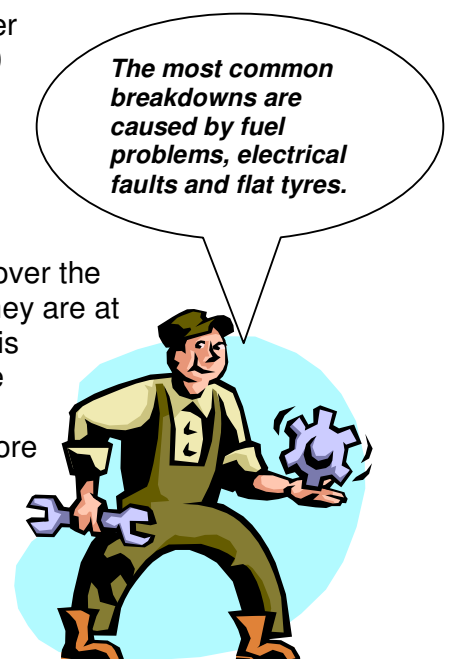
When driving in dust use your radio to advise the Bash vehicle behind about oncoming dips, corners, traffic, sheep cattle, etc. Call up the vehicle in front when you want to overtake and wait until they call you through. Let the vehicle in front know your car number so they can direct advice to you. 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 change to another frequency - but remember to go back to Channel 20 to stay in touch with the rest of the Bash.

Do not go off to another Channel when travelling close to other Bash cars in the dirt and limit the conversation on Channel 20 to directions and passing requests.

Tips from the Mobile Workshops

The Mobile Workshop teams are there to help everyone and over the years they have proved adept at keeping Bash cars going. They are at all times cheerful and enthusiastic and if there is a problem it is usually caused by the bad attitude of a Basher rather than the Mobile Workshop team. Remember, when you're stuck with a broken vehicle miles from anywhere, you need them much more than they need you!



Fuel problems

- The way to avoid fuel problems on the Bash is to ensure your fuel system is top notch.
- 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.

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

Wheels & Tyres

- As the roads can be fairly rocky you should take along two spare wheels and tyres together with two tubes. The tyres should be decent off-road tyres as they are more resistant to punctures.
- Take tubeless tyre plugs repair kit and a small compressor.

Ground Clearance

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.

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.

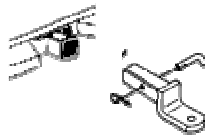
REMEMBER TO ROAD TEST YOUR CAR FULLY LOADED BEFORE THE BASH!

Tow Balls

A compulsory fitting on a Bash car is 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.

The front tow ball or tongue must not protrude past the front bumper/bull bar. A favoured solution is the Haymen Reese style of removable tongue as seen below.



Protecting your Vulnerable bits

Other compulsory pieces of tackle are sump and stone guards 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.

Air Cleaners

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 couldn't fix.



For photo shots at 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 compulsory 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 6 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.

Use some restraint

The engine restraint is recommended 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, 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.

Cool it

- ✓ 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 radiator or welch plugs, etc, you can use pepper to stop leak
- ✓ Warning gauges and lights are both good to have for oil pressure and water temperature.

What to take with you

Tool Kit – nothing too large. 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.

And we know this will sound stupid – BUT – as your car is older than your day-to-day car. So make sure your spanners fit, i.e., does your car require metric or imperial?

First Aid Kit – the ones for sale through St Johns Ambulance are a good choice.

Water – you must carry 20 litres of water. It can be in one jerry can or in a number of bottles, whichever is the easiest to pack.

Fuel – a 20 litre jerry can is the minimum you must carry even if you have an extra large tank. Also carry a funnel and some hose (for sucking out if necessary). You should always have enough fuel for your vehicle to travel 400kms.

Radio – it must be a UHF 40 channel set correctly installed with an aerial that is not going to be broken by low branches. Carry a spare aerial in case. The radio is your eyes and ears when travelling through heavy dust in traffic - make sure it is always working.

Jack & Wheel Brace – both vital when changing a tyre. Choose your jack carefully as some can be difficult to get under a car. You will need a jack plate so the jack doesn't sink into soft ground. Steel or wood is acceptable.

Spare Parts – a selection of fuses, one metre of heater hose, fan belts, radiator hoses, brake fluid, one litre of gearbox and diff oil (four litres of auto fluid if your vehicle is automatic), one litre of engine oil, a length of rubber fuel hose, condenser, coil, fuel filter, air filter, exhaust gaskets and mounting straps, universal joint, kitchen sink, 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.