

## GUIDE TO CAR PREPARATION

**MECHANICAL SUPPORT:** The 'Beast' a 4 WD Tilt Tray is our main support vehicle recently refitted for the OZ Outback Odyssey. Together with two 4WD mechanic's vehicles and six mechanics who have volunteered their time and work tirelessly during the 7 days on the Odyssey to help you keep your car on the road. They are there to help of course but to make their job a little easier we encourage you to prepare your vehicle as much as possible for the outback conditions. Also along the way if you're able, you could fix minor car issues yourself or even support local garages with repairs when passing through towns.

Below is a guide prepared by veterans of the Outback Odyssey event, having seen pretty much every conceivable breakdown that can possibly happen to a 30 year old vehicle we hope that these notes may give you some ideas for preventative maintenance and a few spare parts that may help keep you on the road.

### THE FRONT END

This bit does it pretty hard. Any vehicle can benefit from some basic work in this area.

Starting with the lower control arms or wishbones, they are always happy with a bit of extra 'beef' as they suffer from being hit and bent by large rocks, stumps, etc. They can also become bent by their own springs especially when fitted with heavy duty springs.

As for the springs, a good thing to aim for is a healthy dose of ground clearance. This is usually a set of V8 springs (on your 6 cylinder vehicle), or some special heavy duty ones (built for the job) - or on the Valiant, just screw the torsion bar adjustment in to jack the front up (wish they were all that easy!)

If you have a Holden, make sure you toughen up the shocker towers (top wishbone mount); they have a habit of breaking off!

Have a good look at your ball joints; newer/replacements may not have grease nipples. The problem being, they dry out and seize, then break off. If you're in doubt, replace them or carry spares.

### THE ENGINE

Most people do not have a great deal of problems in this area. Make sure you give the whole thing a good service and check nothing is going to fall off.

If you have a 'wet foam type' air filter, take your filter oil and expect to clean it during the trip. A standard dry type can be blown out with compressed air (see the Beast) if the need arises. Do not forget that spare fuel filter.

Give some thought to the alternator which has to cope with all the extra lights, fridge, sirens etc. The standard 15amp alternator will not make the grade if you get stuck driving at night.

Do not forget a skid pan as sumps are not that thick.

## THE GEARBOX

Not much to say here. Just make sure it is full of that slippery stuff and the linkages are not too worn. Jammed or lost linkages are very frustrating. If you have an automatic transmission, you may consider fitting a separate oil cooler. The standard radiator cooled set up can help overheat the engine and even cause it to boil if it is working hard at lesser speeds, like sand for example.

## THE DIFF' AND REAR END

This may bring back some (best forgotten) memories for some of our vehicles (the Tanami!). What a nasty piece of work that turned out to be.

The Diff' centre rarely gives much trouble depending on your driving!

The standard 'banjo type housings tend to bend with the extra stress and weight. This can be avoided by welding a strap or gussets on the underside of the housing. Weld in a straight line from the bottom of the centre to the bottom of the axle tubes and at the ends and on both sides. The Borg- Warner type housings don't really bend, but tend to break in half, where the axle tubes fit into the 'cast' centre housing. This can be avoided by giving it the above treatment. These breakages are in extreme conditions.

Don't forget to check those wheel bearings and carry a spare as it will not take up much room A bearing can be replaced but not fixed.

## THE SUSPENSION

This gets severe punishment.

The key word you will hear is shock absorbers but the biggest problems come from the mounting points. HQ Holden owners take time to toughen up the bottom mounting points as we weld them up almost every Odyssey.

The top mounting can also give way which can be avoided by welding an extra plate over/around the shocker mount - like a very big washer. Last time we went up the Birdsville track most vehicle shockers got badly peppered with stones and rocks (bludgeoned to oblivion). Some failed so badly they were actually bent like bananas.

So - protect those shockers. This is best achieved using a piece of heavy rubber (old mudflaps, conveyor belt etc.) and a bit of ingenuity to keep it where you want it. Make sure you bring spare shockers - best to have them and not use them.

Check any anchor points for suspension, like radius rods (if fitted), rear control arms and the front mounting point for the rear springs. Ensure you have some good bump stops as they will be used.

## SPARE BITS?

While it is vitally important to carry spare parts you don't need all that much stuff. Some parts worth finding space for would be:

- Rear wheel bearing
- Carry axles with bearings
- Front bearings
- Upper and lower ball joints
- A tie rod end
- Air and Fuel filter
- Spare shocks
- A tube of alumseal radiator leak fix
- Duct Tape, assorted nuts 'n' bolts

All these parts (still in their boxes) should fit into a space about the size of a shoe box.

## THE INTERIOR AND OTHER BITS

Fridge! Ensure all items in the vehicle are restrained. Loose objects become missiles when hitting that invisible ditch. Restraining items and installing cargo barriers may well be cheap insurance.

ROOF RACKS - Make sure it is well mounted to the roof, keep it low and maybe weld or bolt a diagonal brace from the top of one bar to the bottom mounting of the next. It would not be the first time that a car has stopped suddenly and the roof rack has continued on by itself. Try to avoid overloading the top of the vehicle - they handle badly enough as they are.

Check the vehicle for stress cracks and bent and worn bits. Most first time well prepared vehicles do not give any trouble for a couple of years. Then the fatigue, wear 'n' tear and previous punishment shows its ugly head causing trouble. We hope the above has given you some ideas on preparing your vehicle. Breakdowns will still happen but hopefully they can be minimised and reduce some problems.