



# Newsletter June 2022

Monthly Meetings are held on the 4<sup>th</sup> Wednesday of each month at the Manning Seniors Centre, 3 Downey Drive, Manning.

*Arrive at 7.15 pm, grab a cuppa and be ready to start at 7.30pm.*

## Presidents Message

Hi everybody.

Well all of a sudden it's June. In the previous newsletter we were looking forward to Barry's Julimar Jaunt, and it was as promised a great day. The trip report is in this newsletter. Thanks again Barry for planning and leading the trip. Everybody enjoyed the trip and the rain held off so that it didn't turn into a mud adventure as Julimar can. All returned with vehicles a little dirty but intact. It is time to start thinking about renewing your membership. Earlier this year your committee moved to increase the membership fees to \$100 this coming year to bring us in line with other clubs but, given the rise in fuel and other costs involved with our sport, we have reviewed this and decided that we will only increase the fees to \$85.00 this financial year. Membership expires on June 30<sup>th</sup> and need to be renewed in time for the AGM in August. Only fully paid up members can nominate for committee and vote at the AGM.

This coming year we will again be issuing membership cards so

please be sure to include your full name on the application as you would

like to see it printed on the card. Generally your first and surname and your partners first and surname will be printed, but names like Billy-Joe and Mary-Louise Von Scuttlebutt the third may be too much of a challenge to our printer and may have to be shortened. Please consider submitting your renewal application even if you are not paying until later so we can get the printing underway.

The renewal application form will be sent out soon.



Planning is underway for the November 4x4 show and any input and photographs are welcome. See you all at the next meeting

Tony Allender President.

## Why add a lift?

Many four wheel drive enthusiasts will add a "lift" to their vehicle to improve its off road capabilities. There are two ways to raise the lift of a vehicle and it is important to know the difference between a **Body lift** and **Suspension lift**.



**Body lift:** Used to raise the vehicle without any adjustments to the suspension, *body lift* is one of the simplest kinds of lift. A body lift gives the desired raise by lifting your vehicle up a few inches while leaving suspension and wheels at their original height. You need to add spacers over the vehicle's original body mount bushings. Body lifts do not affect the ride quality or handling of the car in any way and precisely retains the factory suspension geometry and alignment. That being said, the body lift is really only an aesthetic modification.

**Suspension lift:** This type of lift raises the height of the vehicle's suspension. The *Suspension lift* replaces the stock suspension components entirely to give an

increase in its height. The modification also renders extra inches of ground clearance, helping the vehicle with an improved off road performance and provision for more aggressive and larger tyres. Taller kits, however, can have severe impact on the car's handling, making them precarious to drive on roads. In Australia, the maximum "lift" using either method is 50mm.

Higher lifts are really only used for specialist sports like rock crawling and other competition events. These vehicles require engineering permits and are mostly not road licensed. There are some significant engineering reasons for this limitation but unfortunately they are not considered by our law makers who usually have no engineering or off road driving experience at all.

Considering the engineering limitations, the first that comes to mind is that changing the height of the suspension changes the angle between the output shafts of the transmission to the input of the differential. This is usually absorbed by the Universal Joint(s) or constant velocity (CV) joint(s), but does put an extra load on the joints and drive train bearings. Think of it as a tow ball towing a trailer. When the car and trailer are level there is no problem, but if you lower the trailer height, or raise the vehicle by 50mm, the tow ball and socket now has an increased angle to cope with, which will limit its travel when the trailer falls into a hole. The UJs and/or CVs on most vehicles can cope with an angle change produced by a 50mm lift, but over that the angles produced will start to produce a significant increase in transmission component wear.

A second unwanted side effect is the change in geometry to the front suspension. Changing the height of the front coil suspension effectively changes the steering alignment and the castor and camber. These can all be adjusted out for a 50mm lift but anything over that would require the fitting of longer steering control arms and major changes to the suspension components. Not compensating the front end geometry changes will result in high tyre wear, non centralised steering, tyres rubbing on the chassis and other possible effects which may render the vehicle unstable, uncontrollable and dangerous.

There is another effect that not all people, including some vehicle mod shops, are not aware of. Many vehicles have a brake bias compensating spring fitted to the rear chassis somewhere. This changes the

balance of the rear brakes and consists of an angle bracket connected by a spring to the chassis of the vehicle. The easiest way of keeping this accurate is to extend the chassis mounting point down by the amount of lift being installed. Failure to adjust this point may result in rear wheel lockup when the brakes are applied. So what are the advantages of "lifting" a vehicle? As mentioned the body lift really only changes the appearance of the vehicle as it only raises the body off the chassis. This may give a slight improvement to the entry and exit angles, but really only provides a bigger gap between the top of the tyre and the guard.

The suspension lift raises the entire chassis and body, giving a higher ground clearance and a better entry and exit angle allowing the vehicle to traverse deeper variations in ground level. The new shock absorbers and springs fitted allow the wheels to travel over a greater range but stay within the design limits of the components. This means that with the proper lift kit fitted and the correct alignment and adjustments made to the suspension, larger tyres can be fitted which will also give more road clearance under the differentials.



Unfortunately this can cause a problem with legality. As mentioned earlier, law makers and enforcers often have no engineering experience and apply the letter of the law without thought. An inspector may

measure the distance from the road surface to the bottom of the guard and deem that to be the lift measurement. If this measurement is compared to the manufacturers' specifications it may well exceed the allowed 50mm. If you install a lift kit, raising the vehicle 50mm (legal) and also fit larger tyres, still within the legal size for that vehicle you may add another 25mm to the road to guard measurement. This can be misinterpreted as a 75mm lift and bang you have a yellow sticker. This measurement will also vary depending on the load in the vehicle, if you are towing and the age of the modification, as older springs will sag a bit over the years. Putting a bag of sand in the passengers' footwell and letting the tyres down may bring the vehicle back to legal specification. Pointing this out to authorities may not be a positive move. Despite all this, a properly engineered and maintained chassis lift combined with larger tyres and sump bash plates can make your vehicle, safer, much stronger and more capable off road.

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## Julimar Jaunt 22 May 2022

Six vehicles gathered in Duidgee Park in Toodyay in preparation for a drive through the Julimar State Forrest. The forecast was for heavy rain and strong winds in the afternoon, somewhat at odds with the fine morning skies the group gathered under. This gave a sense of urgency to proceedings as rain would make a steep hill descent midway through the drive very dangerous due to lack of traction. Having brakes on a steep descent was considered to be a useful thing. Rain would result in curtailment of the trip as there was not a viable alternate route past this hill.

Setting off at 1000, the group travelled 23km on bitumen to the southern entrance to Julimar Forrest via Heine Road. Actually, calling it a road was being very generous. A

short way in, the group aired down to around 30 psi, not to gain traction but to soften the impact on caprock which was in abundance.



Along the track, sorry road, there were erosion gullies, dips, and puddles which for some strange reason were a source of excitement to a couple of members.

Morning tea was taken in a very large clearing at the end of Mortimer Road. Animated discussion then revolved around tables, periodic not kitchen, as well as the history of the banana. Thoroughly enlightened



the group sent off along the Western Boundary Road (another overrated track). After a short distance the hill was reached. The drivers were invited to gather and judge the

chance of a successful descent. After stroking of beards, both physical and metaphorical, it was decided a safe descent was statistically possible. To test the theory, it was unanimous that the Trip Leader go first to prove it since he was the leader after all. A cautious descent was done at 5 km/hr without drama. The rest of the group followed. Ted and his X trail

made it down with only a couple of protest noises (X trail, not Ted).

After that, the rest of the trip was an anticlimax. Lunch was held a little earlier than planned due to the threat of rain. It was a good move as rain began to lightly fall about 15 minutes later.

Back on the track the Leader's Hema again suffered a couple of small geographical glitches but not as severe as on the reconnaissance the previous week



where it suddenly corrected its position in a single leap of up to a kilometre. With rain falling steadily the group navigated

around fallen trees and large puddles on the track. Mature members chose to go around puddles of unknown depth whilst thrill seekers went straight through them. Around 1510 the group exited Julimar and aired up the Stephens Road.



The Trip leader called the end of the trip. As the group moved off it was suggested we visit The Bindoon Bakehaus.

The suggestion was accepted, and the pace picked up to successfully get there before the 1600 closing time bringing a relaxing end to the Julimar Jaunt



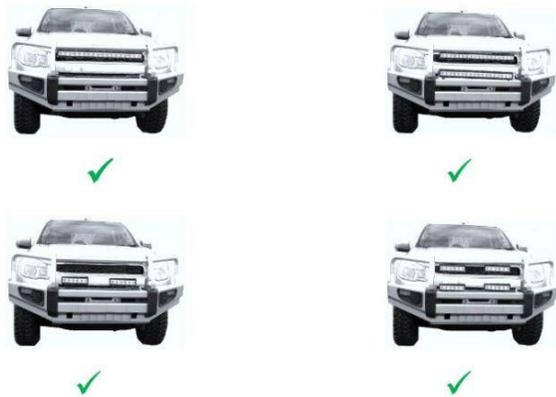
Barry & Francesca

## Where can I (legally) install a light bar on my vehicle in WA

Source: [http://www.transport.wa.gov.au/mediaFiles/licensing/LBU\\_VS\\_IB\\_132A.pdf](http://www.transport.wa.gov.au/mediaFiles/licensing/LBU_VS_IB_132A.pdf)

There has been and still is some confusion about this. This download may help.

- Light bar(s) must be installed at the front of the vehicle and not higher than the front edge of the bonnet.
- Light bar(s) must be installed horizontally and located symmetrically about the longitudinal centre line of the vehicle.
- Light bar(s) must be forward facing and positioned in a way that the light produced does not cause the driver of the vehicle discomfort, either directly or by reflection while in the normal driving position.
- Light bar(s) must only operate when the high-beam headlights are in operation and must automatically turn off when the high-beam headlights are turned off.
- A manual switch must be provided to allow the light bar to be deactivated, so that it is not on whether the high beam is on or off. This switch must be accessible to the driver of the vehicle from the normal driving position.
- Light bar(s) must only emit white light.
- Light bar(s) shall not obstruct the driver's view of the roadway more than 11 metres ahead of the driver's eye position when looking through the windscreen, with the driver's seat in the rearmost position
- One or more (to a maximum of four) LED light bars may be fitted as additional driving lamps



The diagram on the left only shows the placement of lights on the front of the vehicle.

A light bar can also be fitted to the top of the vehicle as shown in the diagram below. It is important to note that lights must only point forward, especially when mounted on the roof. Rear pointing lights are considered work lights and come under completely different legislation.

It is not clear in the legislation if a light bar mounted on the roof counts toward the maximum of four lights, but it is best to assume that this is the case.

The legislation changes from time to time and it is advisable to keep up with requirements in your state. It is also very important to check on the requirements in each state that you may be driving in. There are many stories of drivers on the eastern seaboard getting defect stickers as they travel across state borders.

Although it is not in this legislation, be aware that your headlight and light bar horizontal deflection may change if you are towing a trailer or caravan. Even correctly loaded and leveled caravans may change the ride level of the vehicle, possibly blinding oncoming drivers. The angle of the headlights can be adjusted on many modern cars, but not so the driving or spot lights.



## Jokes and puzzles.

### Places I've been

I've been in many places, but I've never been in Cahoots.

Apparently, you can't go alone. You have to be in Cahoots with someone.

I've also never been in Cognito. I hear no one recognizes you there.

I have, however, been in Sane. They don't have an airport; you have to be driven there. I have made several trips there, thanks to my friends, family and work. I live close so it's a short drive.

I would like to go to Conclusions, but you have to jump, and I'm not too much on physical activity anymore.

I have also been in Doubt. That is a sad place to go, and I try not to visit there too often.

I've been in Flexible, but only when it was very important to stand firm.

Sometimes I'm in Capable, and I go there more often as I'm getting older.

One of my favorite places to be is in Suspense! It really gets the adrenalin flowing and pumps up the old heart!

At my age I need all the stimuli I can get!

And, sometimes I think I am in Vincible but life shows me I am not.

People keep telling me I'm in Denial but I'm positive I've never been there before!

So far, I haven't been in Continent; but my travel agent says I'll be going soon.

What town in WA is that.

Just to give you a start, the first one is Collie

A black and white dog –

**C** \_ \_ \_ \_ \_

A triple jump –

**T** \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

A girl's name –

**B** \_ \_ \_ \_ \_

A horse race or a hat –

**D** \_ \_ \_ \_ \_

A happy noise –

**M** \_ \_ \_ \_ \_

A girls name watercourse.-

**M** \_ \_ \_ \_ \_

An unused male. –

**N** \_ \_ \_ \_ \_

Answers at the meeting.