

## CHASSIS/SUSPENSION

The caravan/trailer was inspected for an upgrade the ATM. The suspension has been modified to accept higher load rating. The chassis deflection measured with a uniform load of 3400kg was 0.63% measured using a beaming test program. The chassis has had 4mm fish plates welded to the side of the chassis to assist in chassis strength. The chassis has adequate rigidity for caravanning and to cope with the extra load of the new ATM of 3400kg an increase of 310kg.

Spring load rating is 3400kg with a total load on springs of 3060kg. The OEM fitment independent axles remain in place, single axle load is 1515kg per axle (3060kg total). The original caravan tow hitch which had a higher rated hitching capacity as original equipment has a capacity of 3500kg and remains in place. The fitted wheel rims are OEM Jayco 15x6jj alloy construction safety wheels, and tyres fitted (4240kg) have a load rating greater than 20% of the ATM of the caravan. The maximum tow ball load rating is now 340kg only.

## SUSPENSION

The trailers suspension has been upgraded by fitting heavier load rated Jayco springs (part# Jayco C1047B, 4 new springs fitted)(100kg extra load rated for each spring) sourced from a heavier ATM version of the same caravan. Springs supplied by Jayco and fitted by professional workshop. All suspension components fitted have a higher load rating than original ATM, the suspension has been raised by approximately 25mm over OEM specification, therefore are considered to be satisfactory.

## ADR COMPLIANCE

### ADR23/02 PASSENGER CAR TYRES

The vehicle is fitted with 235/75/R15C 110S (1060kg per tyre) tyres as mentioned above, correctly rated for the purpose intended.

### ADR38/03 TRAILER BRAKE SYSTEMS

The vehicle is fitted with breakaway electric braking from OEM, braking is fitted to cope with extra mass from OEM. These are connected to the vehicle through breakaway system, which in the event of a breakaway will apply the brakes. The trailer is compliant with this rule.

### ADR42/04 GENERAL SAFETY ITEMS

The vehicle electrical meets the requirements of clause 9 of this ADR, wheel guards which meet clause 14 of this ADR are fitted and tyre and rim meets the requirements of clause 25 of this ADR. Trailer meets the requirements of this ADR.

### ADR43/04 VEHICLE CONFIGURATION AND DIMENSIONS

Section 8 of this ADR states that tyres fitted to trailers with ATM less than 4500kg must be rated to 120% of nominal load carried by that axle. The tyres meet this requirement, axle load rating is 3060kg, and the caravans ATM is 3400kg, tyres 110S, (4 tyres total 4240kg) which is equal to 125%. Compliant with rule.

### ADR62/02 Mechanical connections between vehicles

The function of this vehicle standard is to specify requirements for devices for mechanical connections between vehicles and their fitment, in order to ensure positive mechanical engagement for vehicle combinations and to prohibit the opening or disengaging of devices under the action of any forces to which they may be subject to during normal use. The trailer has been fitted with the OEM 3500KG ball coupler, this remains in place for continued use. The suspension height change has had no effect to the coupling locking mechanism as it is designed to remain in the locked on position throughout a greater than 25 degree angle change, the modification represents a 1.1 Degree increase in angle of draw. Typically the trailer would not use all of this articulation on the horizontal plane. Trailer is compliant with rule.