WHEEL ALIGNMENT & STEERING CHECK

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When Fitting OME Suspension Systems There Are A Number Of Changes Occurring To The Geometry Settings And Alignment Parameters.

(a) Most vehicles exhibit a lower caster angle than with OE springs. This can result in the customer reporting a decrease in directional control or simply stating the vehicle 'wanders'. Fitting caster wedges to leaf sprung vehicles, or caster bush kits to coil sprung vehicles can correct this situation, ie. increased caster angle.

(b) The height increase of the body compared to the wheels/axles, effectively 'shortens' the rod between pitman arm and steering arm (steering rod or drag link). Where an adjustable rod is provided, this should be lengthened to ensure the steering box remains 'centred'. An off centre box can create poor control and steerability.

(c) The 'minimum' alignment that should be undertaken is the resetting of the 'toe', which is the only simple adjustment means on most 4WD vehicles. In the absence of any optimum advice, the toe is generally set to zero or parallel.

Common Factors Contributing To The Need For Alignment Check.

(a) Advent and popularity of the expensive wide flotation radial tyre requiring more critical alignment criteria to ensure economical tyre life.

(b) Importation of 4WDs to Australia creates often 'less than optimum' geometry settings suited for our high-crowned road surfaces; the resulting 'pull left effects' and nett effect of a wheel camber change on this 'crowned' surface.

(c) Increased owner insistence on the modern 4WD being compared to the family car in ride, steerability, handling and general executive status of a late model sedan, where of course better suspension and steering design is possible, most having simple adjustments for camber, caster and toe.

(d) The manufacturers' wide tolerances are quite often 'not within' suitable parameters for good straight steerability and optimum tyre life expected by the owner.

(e) The often seen misconception among owners of 4WDs who, after spending money on a suspension system, "thought that these problems would be fixed in the service" or find that after fitment of a suspension system that the problems existing prefitment now become more obvious.

Resellers should also be aware of further 'specialised alignment services' involving 4WD vehicles that can correct the majority of 'problems' met in today's higher standards of alignment excellence.

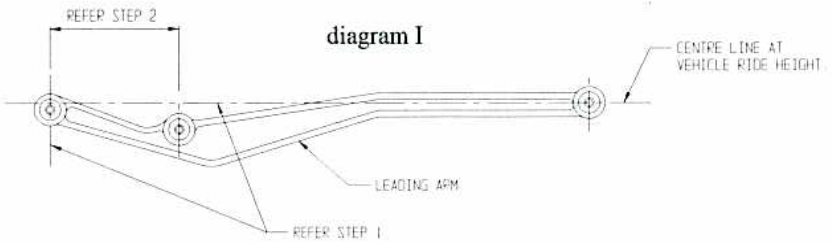
CASTER KIT FITTING INSTRUCTIONS

kit:
4 steel outer eccentric bushes filled with 70 duro polyurethane

tools required:
Garage press
Torque wrench & suitable spanners & sockets

1. After raised suspension system has been fitted, and while vehicle is on a flat surface mark the vertical and horizontal positions through the centre of the two front original bushes on each leading arm, diagram I.

diagram I

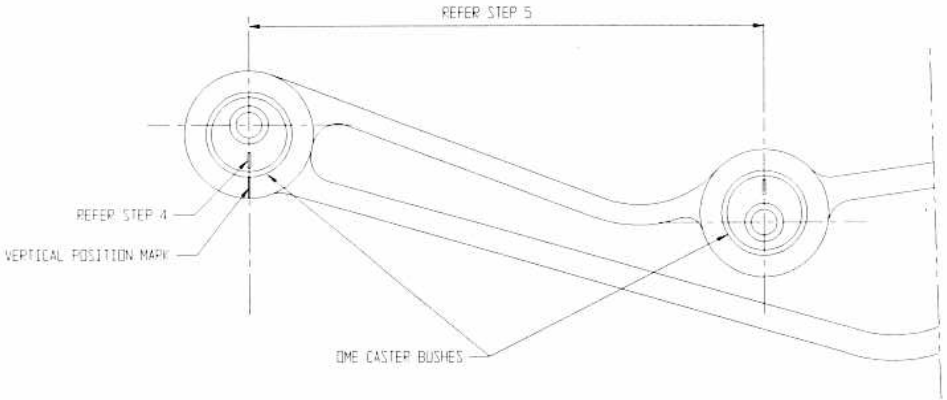


2. Note down the measurement between the centre of the two front eyes on each arm.

3. Remove front leading arms from vehicle and press out the two front bushes of each arm.

4. Align the OME caster kit bush in the front hole of the leading arm ensuring the engrave mark on the bush is pointing DOWN toward the previously marked vertical line. Press bush into leading arm, diagram II.

diagram II



5. Install the second bush by positioning the bush pin centre at the same centre spacing previously taken from the original bush centres in 2. above.
Note: The engraved mark on the OME caster kit bush must face UPWARD, diagram II.

6. Refit leading arms and torque retaining bolts to manufacturer's specification.