

## Jacking

### General



**WARNING:** The following instructions must be adhered to before raising the vehicle off the ground:

- Position vehicle on a solid, level surface.
- Apply the parking brake.
- Select 'P' - PARK on automatic transmission selector or 1st gear on manual transmission and 'H' High on transfer case.
- Select low range in the transfer box.



**CAUTION:** To avoid damage occurring to the under body components of the vehicle the following jacking procedures must be adhered to.

**DO NOT POSITION JACKS OR AXLE STANDS UNDER THE FOLLOWING COMPONENTS.**

- Body structure
- Bumpers
- Fuel lines
- Brake lines
- Front radius arms
- Panhard rod
- Steering linkage
- Rear trailing links
- Fuel tank
- Engine sump
- Gearbox bell housing

### Vehicle jack

The jack provided with the vehicle is only intended for use in an emergency such as changing a tire. DO NOT use the jack for any other purpose. Refer to the Owner's Handbook for the vehicle jack location points and jacking procedures.



**WARNING:** Never work under a vehicle supported solely by the vehicle jack.

### Hydraulic jack

A hydraulic jack with a minimum lifting capacity of 1500 kg, (3,300 lbs) must be used.

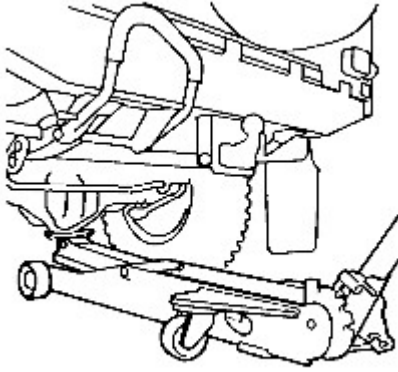


**WARNING:** Do not commence work on the underside of the vehicle until suitable axle stands have been placed in the correct position.



**WARNING:** Always chock the wheels when jacking. The parking brake may be ineffective when the wheel(s) are off the ground.

### Raising the Front of the Vehicle



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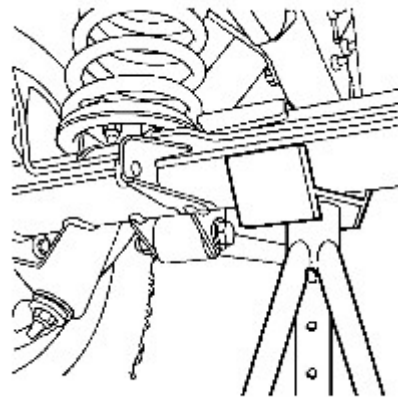
- Position cup of hydraulic arm under differential casing.

**NOTE:**

The differential casing is not central to the axle. Care should be taken when raising the front road wheels off the ground as the rear axle has less sway stiffness.

- Raise front road wheels to enable an axle stand to be installed under left hand axle tube.
- Position an axle stand under right hand axle tube, carefully lower jack until axle sits securely on both axle stands, remove trolley jack.
- Before commencing work on underside of vehicle re-check security of vehicle on stands.
- Reverse procedure when removing vehicle from stands.

## Raising the Rear of the Vehicle



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- Position cup of hydraulic arm under differential casing.
- Raise vehicle to enable axle stands to be installed under left and right hand axle tubes.
- Lower jack until axle sits securely on axle stands, remove trolley jack.
- Before commencing work on underside of vehicle re-check security of vehicle on stands.
- Reverse procedure when removing vehicle from stands.

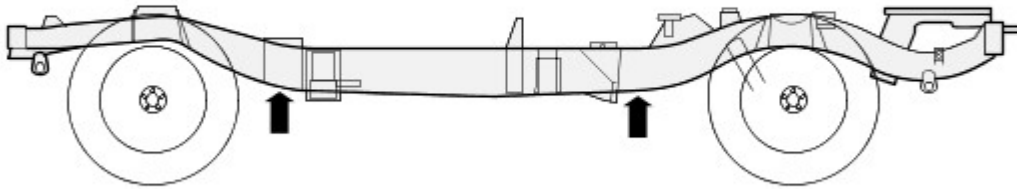
## Lifting

### Four post vehicle ramps

Position the vehicle on the ramp with the front and the rear of the vehicle equidistant from the ends of the ramp. Chock the wheels, select neutral on the transmission and where practicable apply the parking brake.

If a wheel free condition is required, use a wheel-free system which supports beneath the axle casings.

### Two post vehicle ramps



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**WARNING:** When raised to the desired height, make sure the vehicle is stable before starting work.



**CAUTION:** If the drive shafts are to be disconnected, release the parking brake and select neutral on the transmission in order that the shaft(s) can be rotated when the vehicle is raised to the desired height.

- Position the vehicle with the centre of the lifting pillars aligned with the front of the driver/passenger seat cushions.
- Extend the lifting arms and position the pads of each lifting arm beneath the body frame longitudinal lifting points, arrowed in the illustration.
- Raise the vehicle until the wheels are just clear of the ground and check that the pads of each lifting arm are still correctly positioned and are in full contact with the body frame longitudinals.
- Raise the vehicle to the desired height.
- Ensure that the vehicle is correctly supported on all four lifting pads, that the pads are still correctly positioned and are in full contact with the body frame longitudinals.

## Road roller testing

### Four wheel Rolling Road



**WARNING:** DO NOT attempt to drive individual wheels with vehicle supported on floor jacks or stands.

Provided that front and rear rollers are rotating at identical speeds and that normal workshop safety standards are applied, there is no speed restriction during testing except any that may apply to the tyres.

### Two wheel rolling road

**IMPORTANT: Use a four wheel rolling road for brake testing if possible.**

If brake testing on a two wheel rolling road is necessary, it must be carried out with propeller shaft to the stationary axle removed and neutral selected in BOTH main gearbox and transfer gearbox. When checking brakes, run engine at idle speed to maintain brake servo vacuum.