# Introduction

In the event of a flat tyre, drivers should follow closely the procedure for wheel changing and jacking given in this section. The correct jacking points and how to locate them are shown. It is important that only the correct jacking points are used.

# Spare Wheel and Jacking Equipment

The spare wheel, jacking equipment and wheel chock are stored under the luggage compartment floor panel.

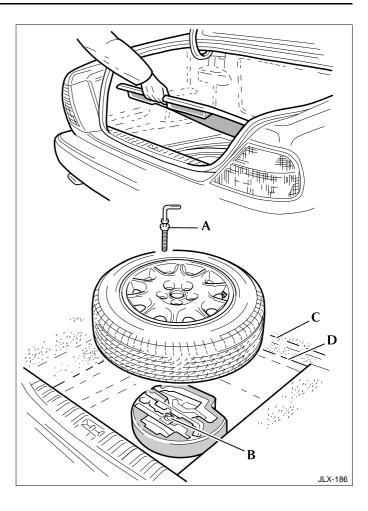
To remove the spare wheel, remove the luggage compartment floor panel and unscrew the retaining screw (A).

The tray containing the jacking equipment kit can be removed from the luggage compartment by unscrewing the yellow securing bolt (**B**).

The kit comprises: the jack; jack ratchet handle with socket extension; wheel nut wrench with telescopic extension and a wheel chock. For vehicles fitted with locking wheel nuts, a wheel locking nut extractor tube and key socket are included in the tray.

**Note:** Examine the jack occasionally, clean and grease the threads to ensure it is always ready for an emergency.

Stow the replaced road wheel in the luggage compartment so that it fits over the jacking equipment tray. Reposition the luggage compartment floor panel in the upper location slots (C). (D) is the panel location slots for vehicles with a space saver wheel.



# 4-2 Roadside emergency service

# Wheel Changing and Jacking

Be prepared for a flat tyre. Know where equipment is stowed and read the wheel changing and jacking instructions carefully.

# Stopping the Vehicle

Pull off the road completely, clear of all traffic and park on as level, solid ground as possible. Switch on hazard warning lights and, where legally required, display the warning triangle.



It can be dangerous to change a wheel when the vehicle is on a slope or soft, uneven ground.

Remove the spare wheel (see page 4-1) to obtain the jack and wheel changing tools.

## To Gain Access to the Wheel Nuts:

## Alloy Wheels with Plain Wheel Nut Covers

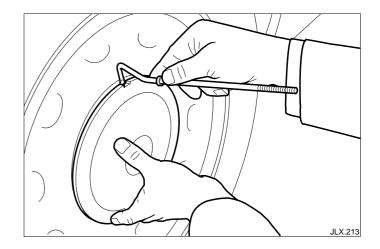
Carefully remove the wheel nut cover using the flattened end of the spare wheel retaining screw.

#### Loosening the Wheel Nuts

Always slightly loosen the wheel nuts before raising the vehicle.

A label showing correct use of the wheel nut wrench is printed on its shaft, as shown opposite and states:

WHEEL NUT REMOVAL WHEEL NUT TIGHTEN





Removing Locking Wheel Nuts (where fitted)

Some vehicles are fitted with one locking wheel nut on each wheel. These can only be removed using the extractor tube and key socket from the jacking equipment tray.

The locking wheel nut is provided with a cover which makes it visually similar to standard wheel nuts. The top of the cover has an indentation (A) to aid identification.

Push the extractor tube firmly over the locking wheel nut cover, as shown at (**B**), until it is fully located.

Withdraw the extractor tube to remove the cover.

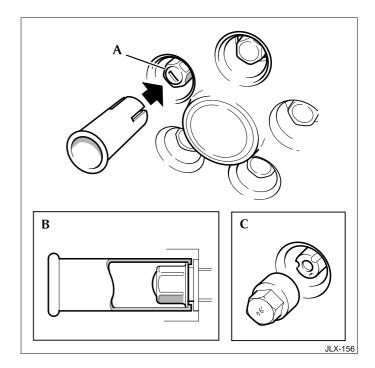
Fit the key socket over the locking wheel nut as shown at (C).

Fit the wheel nut wrench over the key socket and loosen the locking wheel nut.

# Locking Wheel Nut Security Coding

Locking wheel nuts have a letter stamped on their upper surface. The key socket is stamped with a corresponding number. Only key sockets with the correct matching number will fit the locking wheel nut.

Should a new key socket be required, note the letter on the locking wheel nut and contact your Jaguar Dealer. Proof of vehicle ownership will be required.



**Before Lifting the Vehicle** 



Before attempting to lift the vehicle with the jack, chock one of the <u>front wheels</u> to prevent the vehicle from rolling when jacked up.

A folding wheel chock is supplied with the jacking equipment. The chock must be unfolded into a triangular form before use.

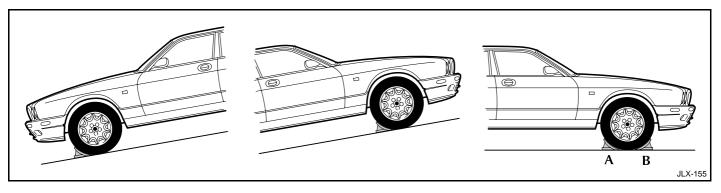
Chock the front wheel on the opposite side of the vehicle to the side being jacked up, as detailed below:

#### Note:

- 1. Ensure that all passengers are in a safe place, clear of the vehicle.
- 2. Firmly apply the handbrake and select gear position 'P' (Park).
- 3. Ensure that the jack is on firm and level ground.

Using the wheel nut wrench with the handle extended, slacken, but do not remove, the wheel nuts.

VEHICLE FACING DOWN A SLOPE Chock the front of the front wheel VEHICLE FACING UP A SLOPE Chock the rear of the front wheel VEHICLE HORIZONTAL Front wheel change: Chock at **A** Rear wheel change: Chock at **B** 



Jacking



Never work under the vehicle using only the jack as a support, always use axle stands or suitable supports under the jacking points.

Observe the instructions printed on the jack.

Use the jack only for lifting the vehicle during wheel changing, and only use the jack which is stored in the vehicle.

Do not start or run the engine while the vehicle is only supported by a jack.

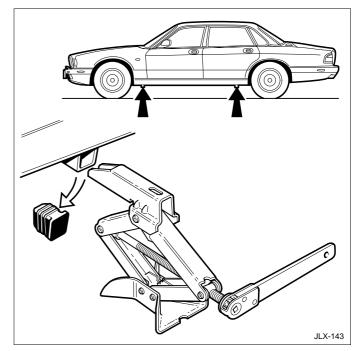
**Note:** When one rear wheel is lifted off the ground the automatic transmission 'P' (Park) position will not prevent the vehicle from moving and possibly slipping off the jack.

There are four jacking points, two each side. These provide positive location for the jack and are on the underside of the floor near each wheel. Remove the rubber cover from the end of the jacking point adjacent to the road wheel to be changed.

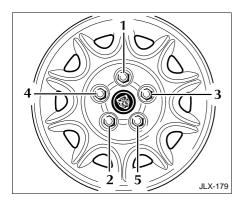
Caution: Never use bumpers or any other part of the body to lift the vehicle.



Do not attempt to lift the vehicle unless the jack arm is fully engaged in the jacking point square socket.



Place the jack squarely beneath the appropriate jacking point and insert the jack arm in the jacking point square socket.



Ensure that the jack arm is fully engaged. Carefully raise the vehicle by turning the ratchet handle. Stop jacking the vehicle when the tyre just clears the ground. Minimum tyre lift gives maximum vehicle stability. Remove the wheel nuts and the wheel.

Fitting the Spare Wheel



When using the wheel nut wrench, use the extension handle only for removing wheel nuts, NOT for tightening.

Fit the spare wheel and secure with the wheel nuts.

Using the wheel nut wrench, lightly tighten the wheel nuts alternately using the sequence shown in the illustration. Ensure that the taper on the wheel nuts is seated fully onto the taper faces of the wheel disc.

Lower the jack and, with the wrench handle not extended, tighten the wheel nuts alternately. At the earliest opportunity have the wheel nuts tightened with a torque wrench to 50 - 60 lbf.ft (68 - 82 Nm) for steel wheels, and 65 - 75 lbf.ft (88 - 102 Nm) for alloy wheels. This torque must not be exceeded.

Remove the jack from the vehicle and replace the jacking point rubber cover.

Re-fit the Centre Badge or Wheel Nut Cover

# Alloy Wheels with Centre Badge

Carefully remove the centre badge to allow the wheel to be stowed. Transfer the badge to the replacement wheel . Press fit the centre badge into position on the wheel.

#### Alloy Wheels with Plain Wheel Nut Covers

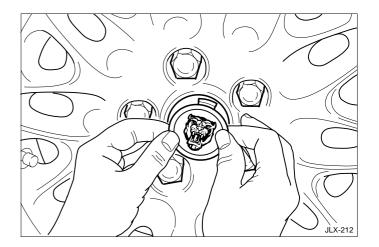
Push the wheel nut cover firmly into position on the wheel.

# Stowing the Equipment

Remove the chock and fold flat.

Stow the jack, wheel chock and tools in the jacking equipment tray. If removed, refit the equipment tray in the luggage compartment and secure with the yellow securing bolt.

Place the road wheel over the equipment tray and refit the luggage compartment floor panel.



# **Emergency Starting**

#### **Rolling Start**

A start by pushing or towing cannot be achieved on a vehicle with automatic transmission.

#### **Emergency Starting using Jump Leads**

Both the booster and discharged battery should be treated with great care when using jump leads. Always use high quality leads capable of carrying the starter current of the vehicle to be started.

Before commencing, the following precautions must be taken:

- 1. When the battery of another vehicle is being used, ensure that the vehicles do not touch. Alternatively, remove the charged battery and place near to, not on, the vehicle with the discharged battery.
- 2. Ensure that both vehicles have all electrical services OFF, the handbrake is ON and the transmission is in Park.
- 3. Where the jump leads are of a different colour, e.g. red and black, use red for positive (+). This aids identification and helps to avoid crossing positive (+) to negative (–). Take extra care to avoid crossing the polarity when using cables of the same colour.

#### **Caution:**

- 1. If using a jump start vehicle, under no circumstances should the vehicles come into contact with each other. This could establish an earth connection, which may cause sparks and damage.
- 2. Do not run the jump start vehicle's engine when boost starting a Jaguar Vehicle. If the jump start vehicle's engine is running and the jump leads are disconnected, damage to the Jaguar vehicle's electrical system will result.
- 3. The booster battery voltage must not exceed 12 volts.

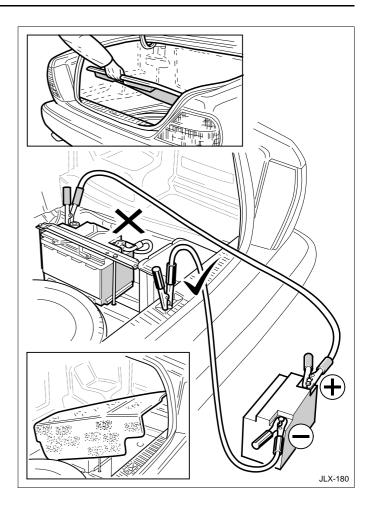
# Emergency Starting (continued)

The following procedure must be followed exactly, being careful not to cause sparks.

- 1. Apply the handbrake, select Park and turn off all the vehicles electrical services.
- 2. Remove the luggage compartment floor panels.
- 3. Unclip the battery positive (+) terminal cover.
- 4. Attach one end of the red jump lead to the positive (+) terminal of the **booster** battery and the other end to the positive (+) terminal of the discharged battery. **Make sure that a good connection is made.**

# Caution: Do not connect the negative jump lead directly to the negative (-) terminal of the discharged vehicle.

- 5. Attach one end of the black jump lead to the negative (–) terminal of the **booster** battery and the other end to an earth point on the vehicle being started. (See illustration). The earth point must be at least 12 inches (305 mm) from the discharged battery. Make sure that a good connection is made.
- 6. When started, allow the engine to idle for 5 minutes before disconnecting the cables.
- 7. Disconnect the black jump lead from the earth point and the booster battery negative (–) terminal.
- 8. Disconnect the red jump lead from the positive (+) terminals of both batteries.
- 9. Refit the positive (+) terminal cover.
- 10. Refit the luggage compartment floor panels.



# Vehicle Recovery

The preferred vehicle recovery method is by using a flat bed transporter or rear suspended tow. The front and rear towing loops are primarily for emergency use when towing for SHORT DISTANCES, e.g. removing the vehicle if it is causing an obstruction or for winching the vehicle onto a recovery transporter.

## Transporting

If the vehicle is being transported on a trailer or vehicle flat bed transporter, the handbrake must be applied, the wheels chocked and the gear selector lever moved to position 'N' or 'D' but NEVER to 'P'.

The vehicle must be securely tied down to the transporter or trailer. There are four transporter tie-down brackets on the vehicle underbody. Do not attach tie-down hooks to the towing loops.

#### **Suspended Towing**

Ensure that the recovery team follow these instructions:

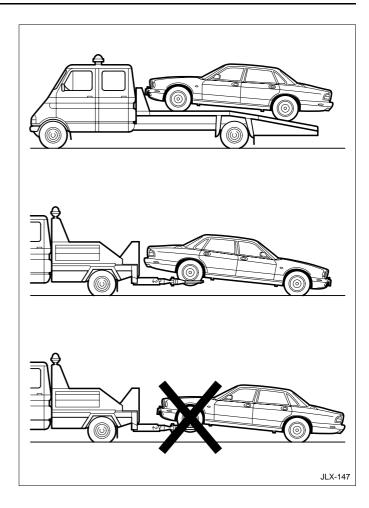
**Do not** tow with sling-type equipment since damage to the bodywork may result.

## Caution: Do not tow vehicle by suspending the front end.

- 1. Remove the key from the ignition switch.
- 2. Raise the rear of the vehicle using a 'spectacle frame' type lifting device where a cradle is positioned under each rear wheel, as indicated.

## Vehicles with Defective Automatic Transmission

The vehicle must be towed with the rear wheels clear of the ground.



#### **Towing Loops**

Caution: The towing loops are not suitable for 'solid bar towing'.

Care must be taken to avoid damaging the bumpers and front apron.

The front loop is welded to the right-hand bumper mounting bracket.

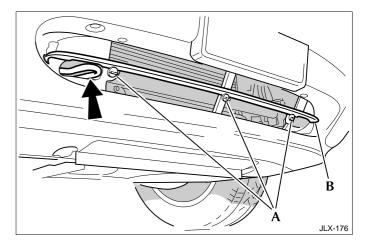
Turn the three fasteners (A) anti-clockwise and remove the grille vane (B) before using the front towing loop.

The rear eye is welded to the right-hand side of the luggage compartment underfloor panel.

Always obey towing regulations: In certain countries the registration number of the towing vehicle and an 'ON TOW' sign or warning triangle must be displayed in a prominent position at the rear of the vehicle being towed.

When being towed, the vehicle's gear selector lever must be in neutral (position 'N') with the ignition key turned to position 'll' to release the steering lock and render the indicators, horn and brake lights operational.

Vehicles may be towed for SHORT DISTANCES (maximum 0.5 mile/0.8 kilometre) with the gear selector lever in position 'N' provided a speed of 30 mph (48 km/h) is not exceeded.





When the engine is not running the steering and brakes will no longer be power-assisted. Therefore, be prepared for relatively heavy steering and the need for greatly increased brake pedal pressure.

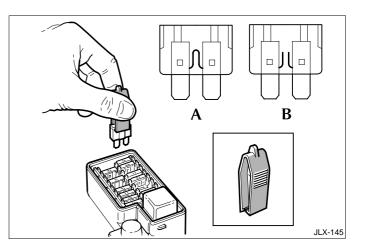
# **Fuses and Fuse Boxes**

Fuse failure is identified by an inoperative circuit.

Do not fit a new fuse if the wiring is damaged; contact a Jaguar Dealer. After renewing a fuse have the circuit checked by a Jaguar Dealer.

A special tool for removing and replacing the fuses is supplied underneath the electrical carrier lid in the luggage compartment, together with spare fuses.

Use only the spare fuses supplied. Replace the spare with a Jaguar approved fuse of the **same** amperage rating.



## Checking and Renewing a Blown Fuse

Make sure the new fuse is the correct rating (amperage). Fuses are colour coded according to the amperage and the rating is also marked on each fuse. The colour code is as follows:

TAN	5 amp	CLEAR	25 amp
RED	10 amp	LIGHT GREEN	30 amp
LIGHT BLUE	15 amp	BRIGHT ORANGE	40 amp
YELLOW	20 amp		

Push the tool on to the suspect fuse and withdraw it. If the wire in the fuse is broken, the fuse has blown.

A – Fuse in good condition. B – Blown fuse.

Fit a new fuse using the tool.