General information

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Identification

The locations of the various identification numbers quoted in this section indicates their main positions. The numbers may also be found in other places depending upon the specification of the vehicle. Build sequence numbers will usually be found on the majority of main assemblies.

Vehicle identification number (VIN)
The vehicle identification number consists of seventeen digits as shown in figure A2-1.

A check digit is used to ensure the VIN is correct i.e. if the VIN is incorrect at any one digit, the check digit will show this.

Note The letters I, O, and Q are not used in a VIN, because they can be easily confused with the figures 1 and 0.

Vehicle identification plates are fitted below the upper hinge of the right or left-hand front door pillar depending upon the specification of the vehicle. The vehicle identification number is also shown between

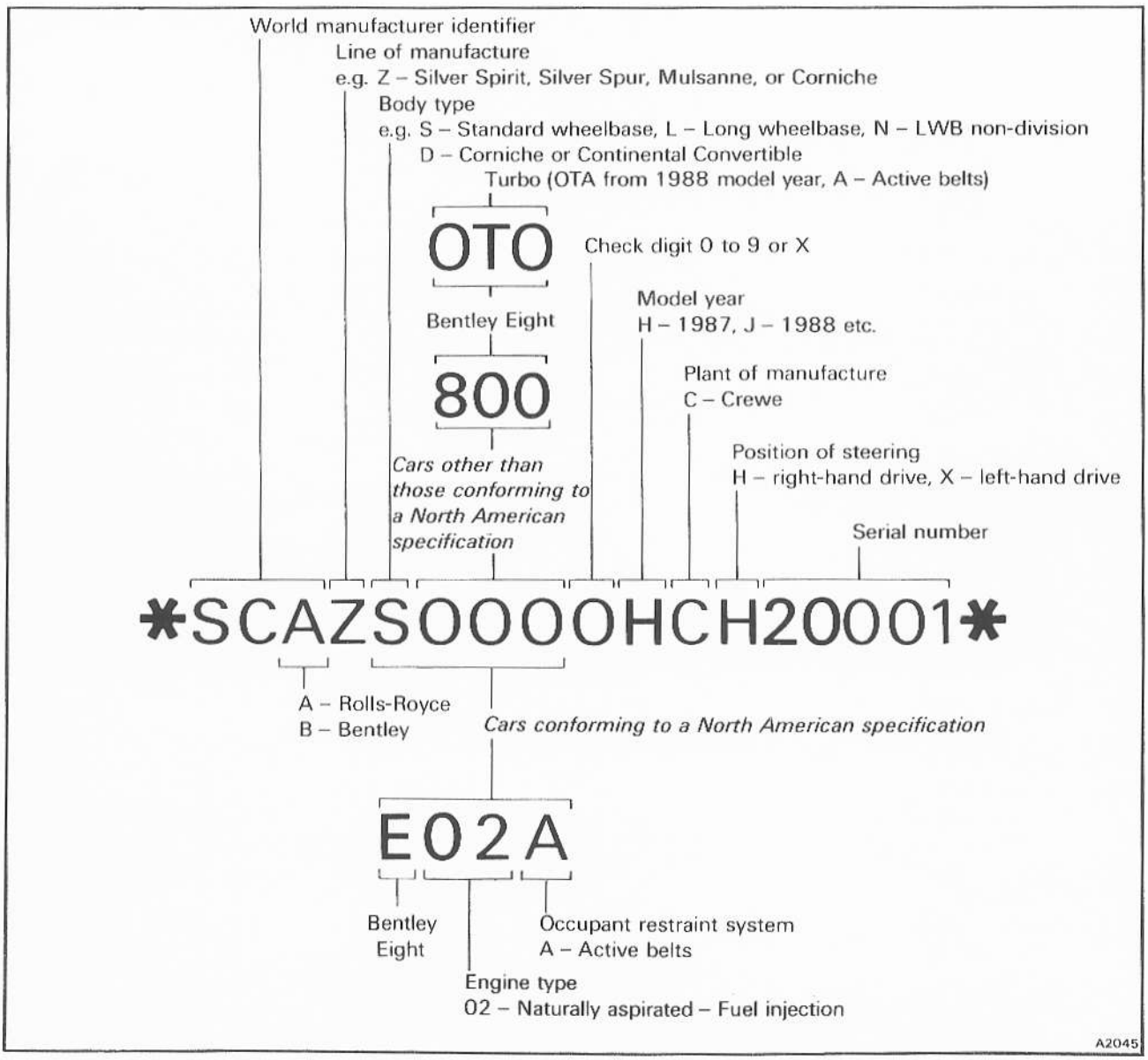

Fig. A2-1 Vehicle identification number (including 1988 model year Bentley Turbo R cars)

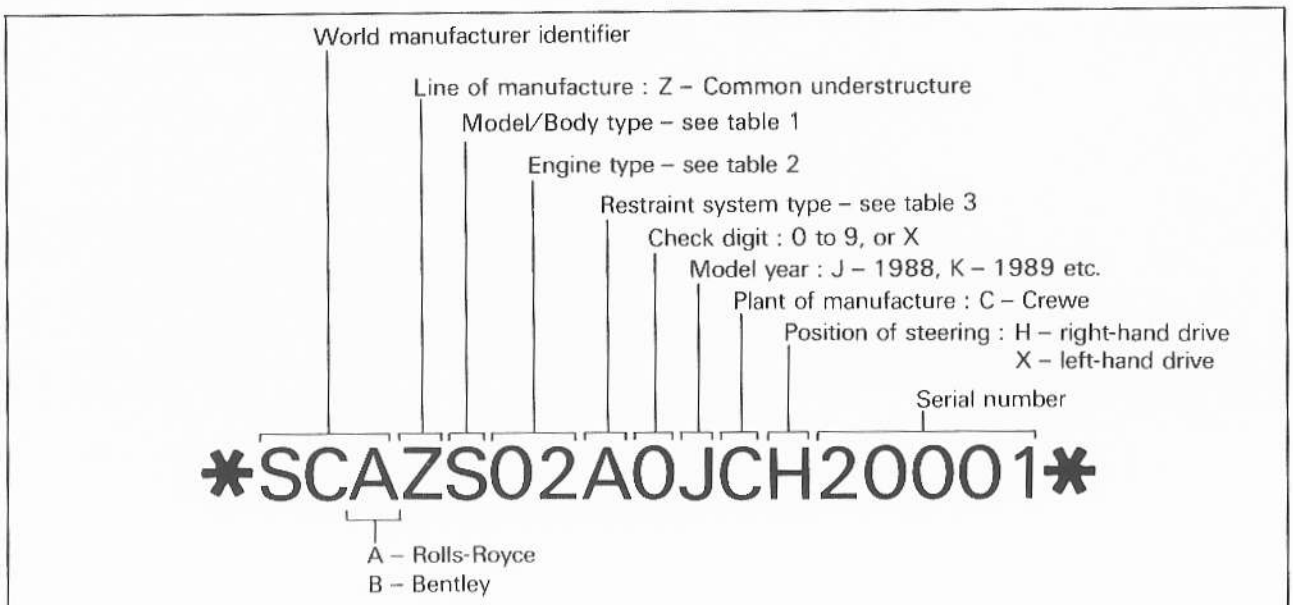

Table 1 – Body type

S – Silver Spirit, Mulsanne S
N – Silver Spur, Mulsanne S (Long wheelbase)
E – Eight
F – Eight (Long wheelbase)
D – Corniche II, Continental
X – Silver Spur Limousine
R – Turbo R – From 1989 model year
P – Turbo R (Long wheelbase) – From 1989 model year

Table 2 – Engine type

00 – L410I naturally aspirated, fuel injection
02 – L410I naturally aspirated, fuel injection, catalyst equipped
03 – L410ITI turbocharged, catalyst equipped
04 – L410ITI turbocharged

Table 3 – Restraint system

A – Active seat belts
B – Passive seat belts – front

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Fig. A2-2 Vehicle identification number (1988/1989 model year, excluding 1988 model year Bentley Turbo R)

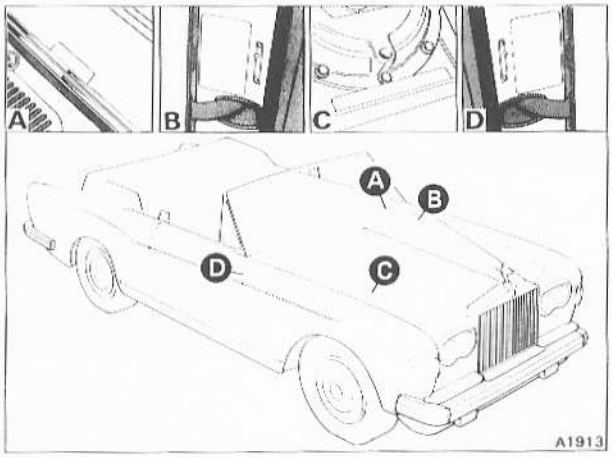

Fig. A2-3 Locations of the vehicle identification number (Corniche/Continental)

A Left-hand lower corner of the windscreen – *Cars conforming to a North American specification*
B Left-hand door hinge pillar – *Left-hand drive cars*
C Right-hand valance in the engine compartment
D Right-hand door hinge pillar – *Right-hand drive cars*

the supports of the right-hand front road spring pot, either stamped directly into the body, or on a plate attached to the wing (see figs. A2-3 and A2-4).

On 1989 model year four door cars, the vehicle identification number is stamped directly into the body, forward of the right-hand front road spring pot (see fig. A2-4, inset F).

On cars conforming to a North American specification, an identification plate is fitted on the left-hand side of the windscreen surround, visible from outside the car.

On cars conforming to a Swedish specification, a further VIN plate is fitted beneath the carpet in the luggage compartment on the right-hand side.

When making any enquiries to Rolls-Royce Motor Cars Limited (or any appropriate member of the group) relating to the car, it is essential that the full vehicle identification number is quoted.

Engine identification number

The engine identification number is stamped on a crankcase boss adjacent to the ignition distributor (see fig. A2-5), and is made up of the following components.

1. A five digit build sequence number which commences at 60000.

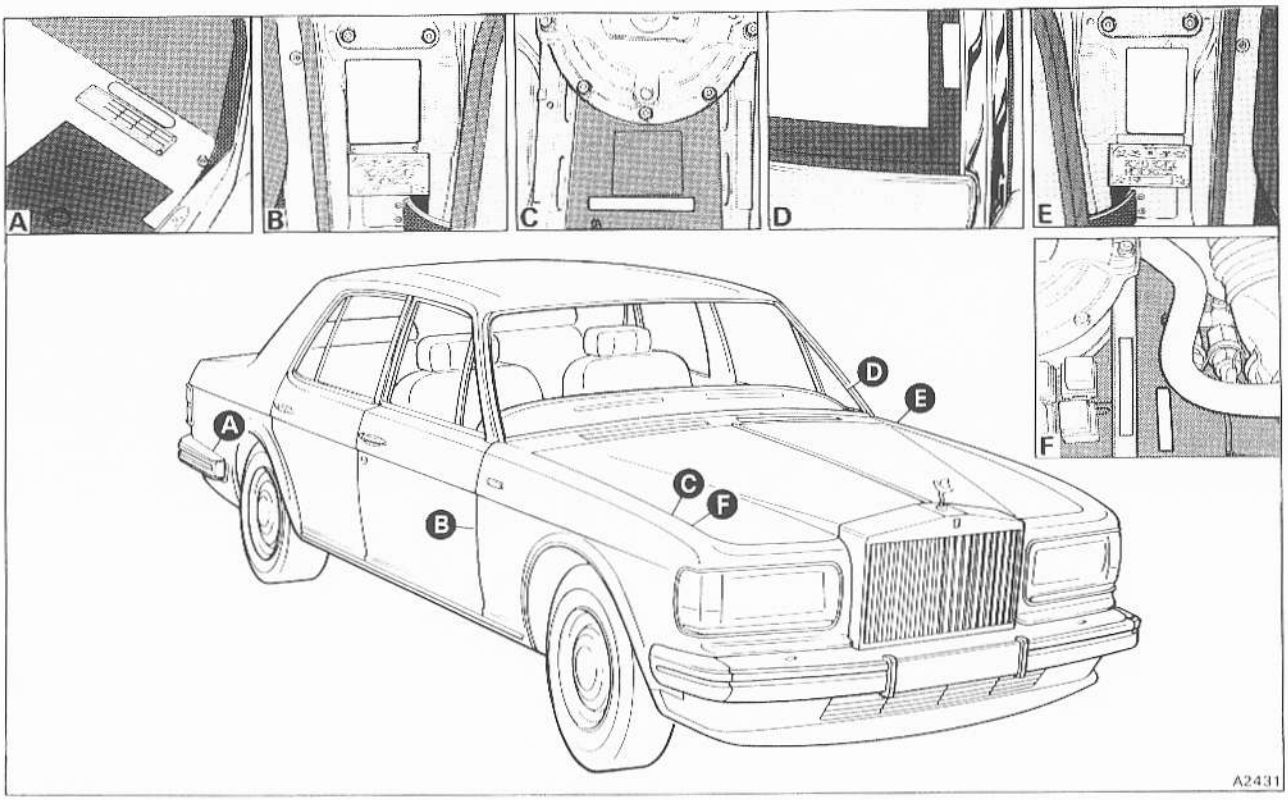

Fig. A2-4 Locations of the vehicle identification number (Four door cars)

A Right-hand side of the luggage compartment – *Cars conforming to a Swedish specification*

B Right-hand front door hinge pillar – *Cars other than those conforming to a Middle East or North American specification*

C Right-hand valance in the engine compartment – *Cars prior to 1989 model year*

D Left-hand side of the windscreen surround – *Cars conforming to a North American specification*

E Left-hand front door hinge pillar – *Cars conforming to a Middle East or North American specification*

F Right-hand valance in the engine compartment – *1989 model year cars*

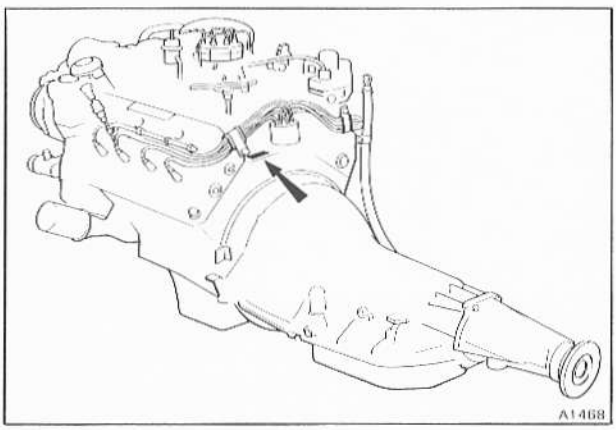

Fig. A2-5 Engine identification number

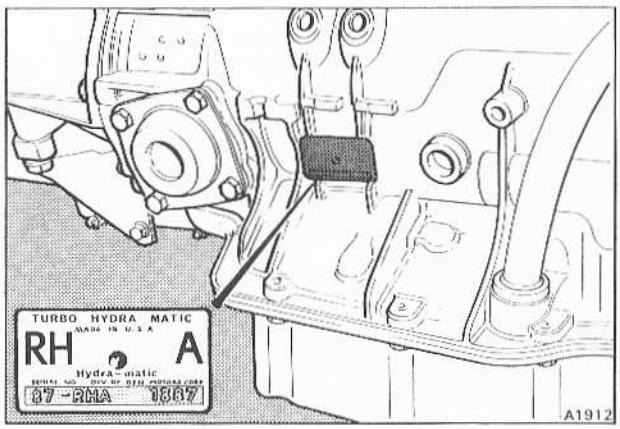

Fig. A2-6 Transmission serial number

2. A 5 or 6 character engine type code which denotes whether the engine is naturally aspirated or turbocharged (L410I or L410IT).

3. A single digit compression ratio identification, either 8 (8:1 compression ratio), or 9 (9:1 compression ratio).

Example

60001 L410IT/8 = Turbocharged with 8:1 compression ratio.

In addition, 1989 model year turbocharged cars have the letter I as the final digit.

Example

60001 L410IT/I = Turbocharged with intercooler.

This is now the only number stamped on the engine and should be used for all identification purposes.

Transmission serial number
The transmission serial number is located on a metal plate attached to the right-hand side of the transmission casing as shown in figure A2-6.

Body serial number
The body serial number is stamped on a metal plate which is attached to the front support bracket adjacent to the right-hand front road spring pot (see fig. A2-4, inset C).

Precautions

The information contained within this section highlights important notes, warnings, and precautions listed in the appropriate Chapter of the manual. This section should be used as a quick reference guide to any features considered essential for the safety of either the operator or the vehicle.

The list is not exhaustive.

In the interests of health and hygiene, items normally used in service workshops such as anti-freeze, hydraulic system mineral oil, lubricants, engine oil, adhesives, cleaning agents, etc., should all be treated with extreme caution. As these items can be of a toxic nature they must not be swallowed and contact with the skin must be kept to an absolute minimum. Manufacturers' instructions should be followed carefully.

Workshop safety

Whenever any work is being carried out on the vehicle with the engine running, always ensure that the gear range selector lever is in the park position, the parking brake is applied, and fuse A6 is removed from fuse panel F2 on the main fuseboard.

Towing the vehicle

Before towing the vehicle note the following.

Do not tow the vehicle to start the engine.

Do not tow the vehicle if any mechanical damage to the transmission is suspected.

Do not tow the vehicle with a low fluid level in the torque converter transmission.

If it is necessary to tow the vehicle for even a short distance a solid tow bar must be used. A speed of 56 km/h (35 mile/h) and a maximum distance of 80 kilometres (50 miles) must not be exceeded.

For towing distances in excess of 80 kilometres (50 miles) either disconnect the propeller shaft or transport the vehicle.

Always tow the vehicle with the torque converter transmission in neutral.

Metric components

A number of the nuts, bolts, and setscrews used in the manufacture of these cars are dimensioned to the metric system. It is important therefore, that when new parts become necessary the correct replacements are obtained and fitted.

Chapter B – Special processes

Storage

When the car is stored, always ensure that the battery master switch is turned to the OFF position.

If any electrical connections or disconnections are required, always disconnect the battery.

Recommissioning

Always ensure that the battery is removed from the car before charging.

Chapter C – Air conditioning

Danger – Exhaust gases

Due to the danger from inhaling exhaust gases the engine should not be operated for long periods in a confined space e.g. private garage. Sitting in the car with the air conditioning system operating does not eliminate this danger.

First aid – Refrigerant burns

If the skin is injured by refrigerant it should be bathed with clean cold water and medical attention sought immediately. Do not apply any localized heat, hot dressings, etc.

An eye injured by refrigerant must be immediately washed with clean cold water. The eye must not be rubbed as this will aggravate the injury.

A doctor should be consulted as soon as possible after administering emergency treatment.

Chapter E – Engine

Engine oils

Prolonged and repeated contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation, and dermatitis. In addition, used engine oil contains potentially harmful contaminants which may cause skin cancer. Adequate means of skin protection and washing facilities should be provided.

Health protection precautions

Avoid prolonged and repeated contact with oils, particularly used engine oils.

Wear protective clothing, including impervious gloves where practicable.

Do not put oily rags in pockets.

Avoid contaminating clothes, particularly underpants, with oil.

Overalls must be cleaned regularly. Discard unwashable clothing and oil impregnated footwear.

First Aid treatment should be obtained immediately for open cuts and wounds.

Use barrier creams, applying before each work period, to help the removal of oil from the skin.

Wash with soap and water to ensure all oil is removed (skin cleansers and nail brushes will help). Preparations containing lanolin replace the natural skin oils which have been removed.

Do not use petrol, kerosine, diesel fuel, gas oil, thinners, or solvents for washing skin.

If skin disorders develop, obtain medical advice.

Where practicable, degrease components prior to handling.

Where there is a risk of eye contact, eye protection should be worn, for example, chemical goggles or face shields; in addition an eye wash facility should be provided.

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Environmental protection precautions
It is illegal to pour used oil onto the ground, down sewers or drains, or into water courses.

The burning of used engine oil in small space heaters or boilers is not recommended unless emission control equipment is fitted; in cases of doubt check with the Local Authority.

Dispose of used oil through authorized waste disposal contractors to licensed waste disposal sites, or to the waste oil reclamation trade. If in doubt, contact the Local Authority for advice on disposal facilities.

Chapter F – Propeller shaft

Propeller shaft – To remove
The crossmember centre section must not be allowed to hang on the parking brake cables.

Chapter G – Hydraulics

WARNING

Use only hydraulic system mineral oil (LHM) to replenish the braking and levelling systems.

Do not use brake fluids (Castrol RR363, Universal, or any other type). The use of any type of brake fluid, even in very small amounts, will cause component failure necessitating extensive rectification to the braking and levelling systems of the car.

Always ensure before fitting any seals, hoses, pipes, etc., that they are suitable for a mineral oil system. For details of correct component identification reference should be made to Chapter G.

Always ensure that two sealed containers of hydraulic system mineral oil (LHM) are fitted in the luggage compartment.

Always ensure that no foreign matter enters the systems when work is being carried out.

It is of the utmost importance that Service Personnel should fully appreciate that the hydraulic systems operate at high pressures.

The systems are designed to operate safely under normal working conditions, but, when work is performed on the systems, certain precautions must be observed to ensure adequate safety to personnel and equipment.

Cleanliness
To ensure correct functioning of the hydraulic systems it is imperative that meticulous care is taken to ensure complete cleanliness at all times.

Operation of the brakes (engine not running)
The service brakes (i.e. footbrake) consists of two independent all power systems. The power for these systems in the form of hydraulic pressure is provided by two engine driven hydraulic pumps. When the engine stops, a limited reserve of pressure remains stored in the hydraulic accumulators. Due to brake operation, natural internal leakage, and height control system operation this energy will be slowly depleted. Although a number of brake applications will be available immediately after the engine stops, it is recommended that the service brakes are not utilized when the engine is not running.

Finally, always remember that if the car is being manoeuvred without the engine running, the footbrake will not stop the car if the pressure in the hydraulic systems is exhausted.

Precautions before working on the car
Before any work, except bleeding and specified tests, is carried out on the car hydraulics, the systems must be depressurized (refer to Section A7 or Chapter G).

With the exception of bleed screws, components must never be disturbed when the systems are in a pressurized state.

Hydraulic system mineral oil
The hydraulic braking and height control systems of the car are filled with hydraulic system mineral oil which is green in colour. Always refer to Chapter D – Lubricants, for the correct type of approved hydraulic system mineral oil to use in the system.

Warning Hydraulic system mineral oil is not miscible with conventional brake fluids (i.e. RR363 or Universal types).

Under no circumstances should any fluid other than the genuine hydraulic system mineral oil be used.

Contamination of the hydraulic systems with a conventional vegetable or synthetic type brake fluid will cause the seals and hoses to deteriorate which could result in eventual brake faults.

To avoid contamination, all mineral oil containers and components should be stored in a clearly defined area away from that used for conventional brake fluid.

Before topping-up the system, if contamination is at all suspect, check the contents of the mineral oil reservoirs using the contamination kit RH 2841, available from Rolls-Royce Motor Cars Limited at Crewe.

Component identification
All components which are susceptible to damage from brake fluid are colour coded **Green** and have a **GMF** prefix part number e.g. **GMF 1062.**

Other components which are not susceptible to brake fluid damage (i.e. metal pipes and connectors) are not colour coded and do not have a **GMF** prefix part number. It must be stressed however that these parts must not become contaminated with brake fluid, as this fluid could circulate to other components in the hydraulic systems.

Hydraulic accumulator and gas spring spheres
The accumulator and gas spring spheres are charged on one side of their diaphragms with nitrogen gas prior to despatch from the factory.

Each sphere is marked with a band of white paint or a yellow stick-on label when charged. The charge pressure in 'bars' (1 bar = 14.50 lbf/in^2) is stamped on the non-return valve cap at the lower end of the sphere. It is recommended that spheres are stored and issued from stock in date sequence.

Storage and transportation

To avoid contamination, it is of the utmost importance that brake fluid and hydraulic system mineral oil containers and components are kept completely separate. Conventional brake fluids have a detrimental effect on rubber seals and hoses used in a mineral oil system.

Chapter H – Sub-frames and suspension

Urethane foam filled components

The suspension crossmember and final drive crossmember are filled with urethane foam. When using cutting or welding equipment on the crossmembers suitable precautions should be taken not to inhale the toxic gases given off when the temperature exceeds 200°C (392°F).

Shock dampers

Each shock damper contains nitrogen gas under pressure. On no account should the damper be subjected to undue force of any description. Do not clamp the damper in a vice.

If the spring support has seized onto the damper, renew the shock damper and spring support.

To render a shock damper safe for disposal, drill a small hole 25 mm (1.0 in) from the closed end of the outer tube. The escaping gas should not be allowed to come into contact with eyes or skin whilst under pressure.

Immediately the hole has been drilled, stand clear and allow the nitrogen gas to disperse to atmosphere.

Front road springs

Use of the road spring retaining tool RH 8809 should be restricted to a maximum of 200 applications.

Inspection of the long bolt threads must be made at frequent intervals. The person lifting the compressed assembly out of the car must keep their head and body clear of the tool.

Caster and Camber angles

The caster and camber angles must always be checked at the same time, as adjustment of one affects the other.

'Jacking up' the car

Care must be taken not to leave the car jacked up for long periods without support to the trailing arms, otherwise damage may result to the trailing arm mounting points.

When using a hydraulic jack to raise the car ensure that a hardwood block is placed between the jack and the underneath of the car.

The engine front pulley should not be used to support the engine.

Rear suspension

Warning

Before any work is carried out on the rear suspension frame tubes, etc., reference must be made to the appropriate section in the Workshop Manual.

Chapter K – Fuel system (Refer to TSD 4737)

Fuel – To drain

The fuel is highly flammable, and extreme care must be exercised whenever the system is opened (i.e. pipes or unions disconnected) or when the fuel is drained. The following basic rules should apply.

1. Disconnect the battery.
2. Place 'No Smoking' signs in the vicinity of the vehicle.
3. Ensure that adequate fire fighting equipment is available in the vicinity of the vehicle.
4. Depressurize the fuel system.
5. Protective clothing including safety goggles, gloves, and aprons should be worn at all times by the operator.
6. If fuel is to be removed from the tank, it should be siphoned into a suitable covered container.

Do not run the engine to completely drain the system as damage to the fuel pump could occur. Damage to the catalytic converter (if fitted) in the exhaust system could also occur if the engine is allowed to run until the fuel system is completely empty.

Health risk

Fuel may contain up to 5% of Benzene as an anti-knock additive. Benzene is extremely injurious to health (being carcinogenic) **and therefore all contact should be kept to an absolute minimum, particularly inhalation.**

Fuel has a sufficiently high vapour pressure to allow a hazardous build-up of vapour in poorly ventilated areas. The vapours are irritant to the eyes and lungs, if high concentrations are inhaled it may cause nausea, headache, and depression. Liquid fuel is an irritant to the eyes and skin and may cause dermatitis with prolonged or repeated contact.

If there is contact with fuel the following emergency treatment is advised.

Ingestion (swallowing)

Do not induce vomiting. Give the patient milk to drink (if none is available water can be given). The main hazard after swallowing fuel is that some of the liquid may get into the lungs. Send the patient to hospital immediately.

Eyes

Wash with a good supply of clean water for at least 10 minutes.

Skin contact

Immediately drench the affected parts of the skin with water. Remove contaminated clothing and then wash all contaminated skin with soap and water.

Inhalation (breathing in vapour)

Move the patient into the fresh air. Keep the patient warm and at rest. If there is loss of consciousness give artificial respiration. Send the patient to hospital.

Cleanliness

It is extremely important to ensure maximum cleanliness whenever work is carried out on the system.

The main points are.

1. To prevent the ingress of dirt, always clean the area around a connection before dismantling a joint.

2. Having disconnected a joint (either fuel or air) always blank off any open connections as soon as possible.
3. Any components that require cleaning should be washed in clean fuel and dried, using compressed air.
4. If it is necessary to use a cloth when working on the system, ensure that it is lint-free.

Fuel injection system
During manufacture, the components of the fuel injection system are precisely adjusted in order to comply with the relevant emission control regulations. Therefore, alterations to any of the settings should not normally be necessary.

Before carrying out any tests, ensure that the battery is in a fully charged condition.

The control piston, if removed, should be handled with care as it is machined to very fine tolerances.

Fuel pressure
The fuel injection system contains fuel that may be under high pressure [approximately 5,2 bar (75 lbf/in^2)]. Therefore, to reduce the risk of possible injury and fire, always ensure that the system is depressurized.

Turbocharging system
The turbocharger assembly should never be dismantled. If the turbocharger is faulty, a service exchange unit should be fitted.

Prior to the turbocharger being fitted to the engine, it should be primed with engine oil through the oil feed pipe.

Never run the engine with the oil feed pipe to the turbocharger disconnected.

Whenever any components are removed from the turbocharging system, they should be handled with care to avoid damaging the machined faces.

An application of Neverseez or similar anti-seize lubricant should be applied to any exhaust bolts whenever they are removed to aid dismantling at a future date.

The wastegate assembly when removed from the car should be tested with air pressure only and care should be taken to avoid blanking off the spring cover vent hole whilst doing so, as this can cause damage to the diaphragm.

Do not run the engine with the air cleaner disconnected. The only possible exception being in the workshop, where care should be taken to avoid dirt and foreign matter entering the system.

A knock sensor is fitted between cylinders two and three on both 'A' bank and 'B' bank. Therefore, when any work is being carried out in these areas, special care must be taken.

Do not use an exhaust extraction system on the vehicle. Failure to observe this caution may result in a temporary leak from the turbocharger oil seal arrangement.

Chapter L – Cooling system

Cooling system – To flush
Under no circumstances use a strong alkaline compound or detergent to clean the cooling system. Such compounds have a detrimental chemical action on aluminium alloys.

Thermostat – To test
Important If the water is heated too quickly, or if the circulation is poor, a false reading may result.

The thermostat has its opening temperature stamped on the base of the unit, e.g. 88°C (190°F).

When fully open, the valve should have travelled a minimum of 9,50 mm (0.375 in).

Chapter M – Electrical system
(Refer to TSD 4701 and TSD 4848)
Before commencing work on a particular circuit the following precautions **must** always be observed.
1. Whenever possible the gear range selector lever should be placed in the park position, the gearchange isolating fuse (fuse A6) removed from fuseboard F2, and the ignition key removed from the switchbox.

In addition, turn the battery master switch (if fitted) to the OFF position and disconnect the battery.
2. When reactivating a seat memory **ensure** that contact with the seat or seat mechanism is avoided. Immediately the seat is reactivated it will automatically move to a pre-set adjustment position.
3. **Never** disconnect the battery when the engine is running.
4. When working on the windscreen wiper system with the wiper mechanism cover removed, **always** disconnect the battery.
5. **Always** ensure correct polarity when making cable connections.
6. **Never** use a test lamp on circuits that contain electronic components.
7. When working on or in the vicinity of the air conditioning micro-processor, anti-static precautions, in particular, the wearing of an anti-static wristband connected to a good earth, must be observed.

Battery
It is imperative that the battery is disconnected before commencing work on the electrical system or components, or if any electric arc welding is to be used on the car.

Battery – To charge
The gases given off during charging are highly flammable.

Always remove the battery from the car before charging.

Chapter N – Steering system
Damage can be caused to the steering column and power assisted steering rack boots if the steering is operated without the engine running, i.e. distortion to the column, broken column mounts, and cut rack boots.

Rack and pinion unit
Do not strike this unit with a hammer as extreme damage could result.

Belt tension
A slipping belt will squeal and produce judder at the steering wheel nearing full lock. Belt dressing must not be applied to prevent slip.

Steering pump – Priming and filling
When filling an empty system with the engine running, it is essential that at no time the fluid level in the pump reservoir be allowed to drop sufficiently for air to be drawn into the system. If this occurs, irreparable damage will result.

Chapter R – Wheels and Tyres
Tyre – To fit
Dunlop tyre bead lubricant TBL1, TBL2, or Tip Top 593063 is recommended for use when fitting tyres. It is most important that soap or other similar agents are not used.

Tyre service
Periodically the balance of each wheel should be checked and corrected if necessary. In the interest of increased tyre life, the wheels may be changed back and forth on any one side. **Do not** change the wheels from one side of the car to the other.

To ensure the designed handling characteristics of the car are achieved, it is important to maintain the differential in tyre pressures between the front and rear wheels. For full information refer to Chapter R.

Under no circumstances should any tyres be fitted which have been branded 'Regraded Quality', 'Remould Quality' or 'Seconds', or those which have had the speed rating removed or altered.

Care of tyres
Clean any oil or grease from the tyres using a soap solution and water, then rinse off with clean water. Always remove any oil spillage from the tyres immediately as certain oils, in particular hydraulic system mineral oil, have a harmful effect on the tyre rubber if not cleaned off immediately.

Chapter S – Body
Before using adhesives, paints, primers, thinners, solvents, etc., refer to Section S3 – Safety procedures.

Urethane foam filled cavities
The lower 'A' post and 'D' post (from waist downwards) are filled with urethane foam. When using cutting or welding equipment on these areas suitable precautions should be taken not to inhale the toxic gases given off when the temperature exceeds 200°C (392°F).

Chapter T – Transmission
Torque converter transmission – To remove
When removing the transmission from the car always use the retaining clamp RH7952 (J-21366), otherwise the converter may fall as the transmission is withdrawn.

TSD 4737 Engine Management Systems
Exhaust emission control system
The exhaust emission control system is designed to reduce the carbon monoxide, hydrocarbon, and oxides of nitrogen content in the exhaust gases.

The system does not eliminate the danger caused by inhaling exhaust gases in a confined area.

Before commencing work on the exhaust emission control system, care should be taken to ensure that the relevant components are not hot.

Unleaded fuel
Use the correct grade of unleaded fuel only. The use of leaded fuel will result in a substantial reduction in the performance of the catalyst. Under no circumstances add fuel system cleaning agents for induction into the engine, as the materials may have a detrimental effect on the catalytic converter.

Do not allow the vehicle to run out of fuel. If the vehicle does run out of fuel at high speed, possible damage to the catalyst could result.

General precautions
Cleaning agents and solvents
Throughout this Workshop Manual various cleaning agents and solvents are recommended. The following precautions should be observed in their storage and use.

Reference should also be made to the Safety procedures section contained in Chapter S when carrying out work on the items covered in Chapter S.

1. Cleaning agents and solvents should only be used in well ventilated areas.
2. Ensure that cleaning agents and solvents are kept in clean containers. Also ensure that the lids fit securely and are replaced immediately after use.

   Do not store or carry solvents in open containers.
3. Clearly label all containers.
4. The issue of all solvents should be closely controlled. Containers should be kept in locked storerooms with a responsible person in possession of the key.
5. In the event of a major spillage, the area should be evacuated and then thoroughly ventilated.
6. Do not dispose of any solvents into open drains.
7. Avoid skin contact as far as possible. If contact is likely, wear PVC gloves and an appropriate barrier cream, such as Rozalex No. 9.
8. Always protect the eyes with goggles if there is any danger of the solvents coming into contact with the eyes.
9. Use solvents sparingly, cleaning only small areas at a time. After use, cloths should be deposited into a closed metal container.
10. Care should be taken when working in an inspection pit to avoid being overcome with the vapours from some solvents i.e. Genklene. These vapours are heavier than air, and therefore collect at low levels.
11. Do not smoke in the vicinity of any solvents.
12. Do not allow solvents near any naked flames, hot surfaces, or welding arcs.

Genklene
Genklene is the I.C.I. trade name for 1:1:1-trichloroethane. It possesses anaesthetic properties and the inhalation of high concentrations of vapour will cause drowsiness, headache, and giddiness.

Vapours exposed to high temperatures degrade and produce toxic gases (e.g. Phosgene).

Important Anyone suffering from over exposure to Genklene vapour should be moved into the fresh air and medical attention sought immediately. **Do not** walk the patient.

Methylated spirit/Petroleum ether

The main hazard of methylated spirit or petroleum ether is fire, its low flash point making it easily ignited by heat or flame.

Avoid prolonged or frequent contact with the skin as it removes the natural oils, which can lead to dermatitis.

Paraffin

Prolonged or frequent skin contact with paraffin can cause defatting of the skin, which can lead to dermatitis. Therefore, it should not be used for cleaning the hands. Protective clothing should be worn to prevent contact with the skin, either directly or through contaminated clothing.

Paraffin is flammable, therefore, the creation of spray, mist, or vapours, not only increases the fire risk, but also introduces a health hazard. The inhalation of high concentrations, may cause dizziness, headache, and nausea. The vapour is also irritating to the eyes and mucous membranes.

Fuel (Petrol)

Fuel is a narcotic and inhalation of heavy concentrations of vapour should be avoided.

Repeated or prolonged contact with the skin can cause skin disorders. It should not be used for cleaning the skin as it removes the natural oils.

Fuel may contain up to 5% of Benzene as an anti-knock additive. Benzene is extremely injurious to health (being carcinogenic) therefore, all contact should be kept to an absolute minimum, particularly inhalation.

Suitable protection should always be used e.g. gloves, aprons, and goggles.

Fuel has a sufficiently high vapour pressure to cause a hazardous build-up of vapour in poorly ventilated areas.

The vapours are irritant to the eyes and lungs and if high concentrations are inhaled it may cause nausea, headache, and depression.

White spirit

The major hazard of white spirit is skin irritation, therefore, it should not be used for removing grease, grime, paint, etc., from the skin. Skin contact should be avoided and gloves, aprons, etc., should be worn. If there is any risk of splashes entering the eyes, goggles should be used.

White spirit should only be used in well ventilated areas and unnecessary breathing of the vapours should be avoided.

Treatment in the event of poisoning

In the event of acute poisoning occurring as a result of exposure to methylated spirit, paraffin, petrol, or white spirit, the patient should be removed from the hazard, into the fresh air, and medical attention obtained immediately.

Handling and disposal of components containing asbestos

These notes are provided for the guidance of Service Personnel handling components containing asbestos.

1. There is no application on current Rolls-Royce or Bentley cars involving the use of free asbestos fibres. All components containing asbestos are produced with the asbestos bonded into a matrix.

Asbestos is used in the following components.

a. Heat shields.
b. Parking brake pads.
c. Engine gaskets.
d. Gearbox brake bands.

In non-current cars asbestos is also used in service brake pads and linings and, where applicable, in the brake servo linings.

2. The form of asbestos used in these applications is chrysotile asbestos.
3. When disposing of parts identified as containing asbestos, the following procedure is advised.

a. Hard waste, i.e. parts where the asbestos is bonded by a matrix, may be handled and disposed of without special precautions [ref. United Kingdom Control of Pollution (Special Waste) Act 1980].

b. Dust containing asbestos, should be removed by vacuum cleaning. In the United Kingdom the vacuum cleaner must be approved to BSI 5415 Amendment 4, Section 2.2 1976 – Vacuum Cleaner Wet and/or Dry. The bags containing the dust should be disposed of by a method approved by your Local Authority.

When cleaning or servicing vacuum cleaners it is necessary to wear an air fed, or approved disposable, mask. Use of a wet cloth for cleaning is advised, which should after use, be disposed of in a similar manner to the asbestos dust.

c. It is not recommended to cut, abrade, or machine parts containing asbestos. In the event of it being necessary, dust formation is reduced by wetting of the work piece, hand tools, or low speed tools where possible. Use of local extraction and approved masks is recommended. The extracted material may need to be treated as asbestos dust.

4. Further information regarding the handling of asbestos can be obtained in the United Kingdom from local Health and Safety Offices.

Specification

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Audio equipment *Cars other than those conforming to an Australian, Japanese, North American, or South African specification prior to 1989 model year*	Combined radio/ cassette unit. Bosch 'Bremen', 'Toronto', or 'New York', depending upon the car's specification	as 1	as 1	Combined radio/ cassette unit. Bosch 'Vancouver'	as 1
1989 model year	Combined radio/ cassette unit. Bosch 'Bamberg'	as 1	as 1	Combined radio/ cassette unit. Bosch 'Bremen'	as 1
Japanese cars prior to 1988 model year	Combined radio/ cassette unit. Pioneer 8800	as 1	–	Combined radio/ cassette unit. Pioneer KEH 8800/ZRR	–
1988 model year	Pioneer KEH 8020	as 1	–	as 1	–
1989 model year	Pioneer KEH 8050/J	as 1	as 1	as 1	–
North American cars prior to 1989 model year	Combined radio/ cassette unit. Delco 2000 ETR VF	as 1	–	as 1	as 1
1989 model year	Pioneer KEH 8050 /UC	as 1	as 1	as 1	Pioneer KEX M700/UC
Australian cars	Combined radio/ cassette unit. Clarion 9000 E	as 1	as 1 *from 1989 model year*	as 1	–
South African cars	Combined radio/ cassette unit. Pioneer 8800 SA	as 1	as 1	as 1	as 1
Automatic air conditioning system	Supplies hot or cold air to independently ducted upper and lower systems. Air temperature sensors, air temperature selectors, electronic actuators, and a micro-processor board form the basic system. With the exception of when switched to the Economy mode (where the refrigeration compressor is disengaged), all air is refrigerated. Refrigeration is provided from a compressor, through a condenser, to an evaporator matrix. Twin auxiliary engine cooling fans are fitted to aid refrigeration. The fans are switched from either engine coolant temperature or from refrigerant pressure.				
Braking system  *1987 model year cars other than those conforming to an Australian, Japanese, or North American specification. In addition, all cars from 1988 model year*	Castrol hydraulic system mineral oil. Refer to Chapter D – Lubricants	as 1	as 1	as 1	as 1
	The system incorporates anti-lock braking features (ABS)	as 1	as 1	as 1	as 1 *from 1988 model year*
	Maximum operating pressure (pump cut-out pressure) 180,0 bar (2610 lbf/in^2). Pump cut-in pressure 140,0 bar (2030 lbf/in^2)	as 1 as 1	as 1 as 1	as 1 as 1	as 1 as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Caliper type Front Rear	Four M16 calipers Two T11/11 calipers	as 1 as 1	as 1 as 1	as 1 as 1	as 1 as 1
Brake pads Service (power) Parking brake	Ferodo 3416F FF Mintex M68/IGG	as 1 as 1	as 1 as 1	as 1 as 1	as 1 as 1
Pad area Service brake – Front Rear Parking brake	260 cm^2 (40.30 in^2) 238 cm^2 (36.90 in^2) 41,03 cm^2 (6.360 in^2)	as 1	as 1	as 1	as 1
Swept area Front Rear	1503 cm^2 (233 in^2) 1596 cm^2 (247 in^2)	as 1	as 1	as 1	as 1
Disc diameter Nominal Actual – Front Rear	279,40 mm (11.00 in) 281 mm (11.060 in) 277 mm (10.90 in)	as 1	as 1	as 1	as 1
Disc width Front (ventilated) Rear	31,80 mm (1.250 in) 12,70 mm (0.50 in)	as 1	as 1	as 1	as 1

Capacities	**Metric**	**Imperial**	**US**			
Braking and levelling hydraulic systems	5 litres	8.8 pt	10.50 pt	as 1 and 2	as 1 and 2	as 1 and 2
Cooling system	18 litres	31.7 pt	38.0 pt	as 1 and 2	as 1 and 2	as 1 and 2
Engine oil Sump Filter Cooler Refill capacity Total capacity **Note** When changing the oil filter the loss from the oil cooler is negligible.	8,4 litres 1,0 litre 0,5 litre 9,4 litres 9,9 litres	14.7 pt 1.75 pt 0.9 pt 16.5 pt 17.4 pt	17.7 pt 2.1 pt 1.0 pt 19.8 pt 20.8 pt	as 1 and 2	as 1 and 2	as 1 and 2
Final drive unit	2,30 litres	4 pt	4.80 pt			
Fuel tank	108 litres	23.75 gal	28.50 gal			
Steering system	0,87 litre	1.53 pt	1.84 pt	as 1 and 2	as 1 and 2	as 1 and 2
Torque converter transmission (dry)	10,60 litres	18.70 pt	22.50 pt			
When changing fluid in sump only	2,80 litres	5 pt	6 pt			
When changing fluid in sump and renewing intake strainer	4,50 litres	8 pt	9.60 pt	as 1 and 2	as 1 and 2	as 1 and 2
Windscreen washer reservoir	5 litres	8.80 pt	10.50 pt	as 1 and 2	as 1 and 2	as 1 and 2
Headlamp power wash reservoir	6,50 litres	11.50 pt	13.70 pt	as 1 and 2	as 1 and 2	–
Windscreen/headlamp power wash reservoir – 1989 model year	10 litres	17.60 pt	21.0 pt	as 1 and 2	as 1 and 2	–
Power operated hood	–	–	–	–	0,43 litre 0.75 pt 0.9 pt

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Dimensions **Wheelbase**	3061 mm (120.50 in)	3162 mm (124.50 in)	as 1 LWB as 2	as 1	as 1
Track Front	Silver Spirit 1537 mm (60.50 in) Mulsanne/S 1549 mm (61.0 in)	1537 mm (60.50 in)	Bentley Turbo R 1549 mm (61.0 in) Bentley Turbo RL 1549 mm (61.0 in)	Steel wheels 1537 mm (60.50 in) Aluminium wheels 1549 mm (61.0 in)	Corniche/II 1537 mm (60.50 in) Continental 1549 mm (61.0 in)
Rear	Silver Spirit 1537 mm (60.50 in) Mulsanne/S 1549 mm (61.0 in)	1537 mm (60.50 in)	Bentley Turbo R 1549 mm (61.0 in) Bentley Turbo RL 1549 mm (61.0 in)	Steel wheels 1537 mm (60.50 in) Aluminium wheels 1549 mm (61.0 in)	Corniche/II 1537 mm (60.50 in) Continental 1549 mm (61.0 in)
Overall length *Cars other than those conforming to a North American specification*	5268 mm (207.42 in)	5370 mm (211.42 in)	5268 mm (207.42 in) **LWB** 5370 mm (211.42 in)	5268 mm (207.42 in)	5196 mm (204.60 in)
Cars conforming to a North American specification	5277 mm (207.75 in)	5379 mm (211.75 in)	5277 mm (207.75 in)	5277 mm (207.75 in)	5270 mm (207.50 in)
Overall width Excluding door mirrors Including door mirrors	1887 mm (74.29 in) 2008 mm (79.05 in)	as 1 as 1	as 1 as 1	as 1 as 1	1836 mm (72.33 in) 1956 mm (77.05 in)
Overall height	1485 mm (58.46 in)	as 1	*Prior to 1989 model year* 1480 mm (58.27 in) *1989 model year* – as 1	as 1	1518 mm (59.75 in)
Ground clearance	165,1 mm (6.50 in)	as 1	*Prior to 1989 model year* 160,1 mm (6.30 in) *1989 model year* – as 1	as 1	152,4 mm (6.0 in)
Electrical system **Alternator**	Delco CS 144 (108 amperes)	as 1	as 1	as 1	as 1
Battery (Negative earth) *Cars other than those conforming to a North American specification*	Chloride 069 Low maintenance type (12 volts)	as 1	as 1	as 1	as 1
Cars conforming to a North American specification	Delco Freedom Maintenance free type (12 volts)	as 1	as 1 *from 1989 model year*	as 1	as 1
Ignition timing *Cars other than those incorporating a catalytic converter*	30° btdc ± 1° at 2000 rev/min, with the hose to the vacuum advance capsule disconnected at the reducer connection and the exposed hose to the throttle body blanked off	as 1	*Prior to 1989 model year* Not adjustable. Idle check 7° btdc ± 1° at 580 rev/min. Check settings 30° btdc ± 3° at 1500 rev/min, set with the hose from the induction manifold to the EZ 58F electronic control unit disconnected and the exposed induction manifold tapping blanked off. 20° btdc ± 1° at 2000 rev/min. 21° btdc ± 1° at 3000 rev/mm.	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Ignition timing (continued)			*1989 model year* Not adjustable. Idle check 6°btdc± 1° at 580 ± 20 rev/min. Check setting 27°btdc± 1° at 1500± 50 rev/min.		
Cars conforming to a Middle East specification	25°btdc± 1° at 2000 rev/min	as 1	*Prior to 1989 model year* Not adjustable. Idle check 7°btdc± 1° at 580 rev/min. *1989 model year* 6°btdc± 1° at 580± 20 rev/min.	as 1	as 1
Cars incorporating a catalytic converter	20°btdc± 1° at 1400 rev/min	as 1	*1989 model year* Not adjustable. Idle check 8°btdc± 1° at 580 ± 20 rev/min. Check setting 23°btdc± 1° at 1500± 50 rev/min.	as 1	as 1
Ignition coil	Lucas 32 C5	as 1	Twin Bosch	as 1	as 1
Ignition distributor	Lucas 35 DLM8 constant energy electronic	as 1	*Prior to 1989 model year* Twin rotor 8 cylinder distribution for use with Bosch EZ 58F digital ignition system *1989 model year* Twin rotor 8 cylinder distribution for use with Bosch K-Motronic digital system	as 1	as 1
Rotation	Anti-clockwise, viewed from the top	as 1	as 1	as 1	as 1
Advance mechanism	Automatic centrifugal advance	as 1	Electronically controlled	as 1	as 1
Firing order	A1, A3, B3, A2, B2, B1, A4, B4. 'A' bank is on the right when viewed from the driver's seat	as 1	as 1	as 1	as 1
Drive	Through camshaft skew gears	as 1	as 1	as 1	as 1
Sparking plugs *1989 model year cars incorporating a catalytic converter*	NGK BPR 5 EV NGK BPR 4 EVX	as 1 as 1	as 1 as 1 – All cars	as 1 as 1	as 1 as 1
Gap setting	1 mm (0.040 in)	as 1	as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Starter motor	Nippondenso 1.4 kW	as 1	as 1	as 1	as 1
Windscreen wipers	Two 457 mm (18 in) wiper blades operated by a two-speed 28W permanent magnet motor	as 1	as 1	as 1	16W motor, otherwise as 1. 29W motor from mid-1988
Headlamp power wash *Cars other than those conforming to a Japanese or USA specification*	Two jets mounted in bumper; one central to each headlamp unit	as 1	as 1	as 1	–
Cars conforming to a Japanese or USA specification	Four jets; one mounted above each headlamp unit	as 1	–	as 1	–
	1989 model year Mulsanne S Two twin jet modules; one central to each pair of headlamps	–	*1989 model year* Turbo R as 1	*1989 model year* Eight as 1	–
Engine Type	Over square 90° Vee formation	as 1	as 1	as 1	as 1
Number of cylinders	Eight, in two banks of four	as 1	as 1	as 1	as 1
Bore	104, 14 mm (4.10 in)	as 1	as 1	as 1	as 1
Stroke	99,06 mm (3.90 in)	as 1	as 1	as 1	as 1
Total capacity	6,75 litres (411.90 in^3)	as 1	as 1	as 1	as 1
Compression ratio	8:1 or 9:1 according to the car's specification	as 1	8:1	as 1	as 1
Engine and transmission mounting points	Flexibly mounted on rubber at three points; one at the front, two at the rear	as 1	as 1	as 1	as 1
Camshaft Material	Alloy cast iron	as 1	as 1	as 1	as 1
Bearings	Surface machined in crankcase	as 1	as 1	as 1	as 1
Thrust taken	On front end	as 1	as 1	as 1	as 1
Drive	Through helical gears	as 1	as 1	as 1	as 1
Connecting rods	'H' section forgings, balanced before fitting to engine	as 1	as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Connecting rods (continued) Material	Chrome molybdenum steel	as 1	as 1	as 1	as 1
Big-end bearings	Split steel backed shells lined with 20% tin-aluminium	as 1	as 1	as 1	as 1
Small-end bushes	Pressed into connecting rod small-end bosses	as 1	as 1	as 1	as 1
Material	Lead-bronze, steel backed	as 1	as 1	as 1	as 1
Crankshaft	Dynamically balanced two plane crankshaft with four crankpins and integral balance weights	as 1	as 1	as 1	as 1
Material	Chrome molybdenum steel. Nitride hardened	as 1	as 1	as 1	as 1
Damping	Bonded rubber vibration damper	as 1	as 1	as 1	as 1
Direction of rotation	Clockwise (when viewed from front of engine)	as 1	as 1	as 1	as 1
Cylinder block Type	Monobloc casting	as 1	as 1	as 1	as 1
1989 model year	Ribbed and cross-bolted	as 1	as 1	as 1	as 1
Material	Cast aluminium alloy	as 1	as 1	as 1	as 1
Cylinder heads	Two detachable heads, each having four separate inlet and exhaust ports	as 1	as 1	as 1	as 1
Material	Aluminium alloy, with phosphor bronze exhaust valve guides, cast iron inlet guides, and valve seat inserts of austenitic alloy	as 1	as 1	as 1	as 1
Cylinder liners Type	Detachable wet liners	as 1	as 1	as 1	as 1
Material	Cast iron	as 1	as 1	as 1	as 1
Main bearings	Split steel backed shells lined with 20% tin-aluminium	as 1	as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Pistons	Aeconoguide pistons. The crown of the pistons differ to give a compression ratio of either 8:1 or 9:1 dependent upon the car's specification	as 1	as 1 (8:1)	as 1	as 1
Material	Aluminium alloy with steel struts	as 1	as 1	as 1	as 1
Number of rings	Two compression and one 'H' flex oil control ring	as 1	as 1	as 1	as 1
Valve gear Inlet valves	Overhead push rod operated	as 1	as 1	as 1	as 1
Material	Alloy steel	as 1	Austenitic steel with stellite tip	as 1	as 1
Cars from approximately mid-March 1988	Austenitic steel with stellite tip	as 1	as 1	as 1	as 1
Exhaust valves	Overhead push rod operated	as 1	as 1	as 1	as 1
Material	Austenitic steel with stellite tip and valve seat	as 1	as 1	as 1	as 1
Tappets	Self-adjusting hydraulic tappets. The base of the tappets have a spherical radius	as 1	as 1	as 1	as 1
Material	Alloy cast iron	as 1	as 1	as 1	as 1
Push rods	Rods are hollow and have spherical ends	as 1	as 1	as 1	as 1
Lubrication system Type	Wet sump	as 1	as 1	as 1	as 1
Relief valve setting	2,74 bar (40 lbf/in^2)	as 1	as 1	as 1	as 1
Oil pump	Helical gear type with fine mesh strainer	as 1	as 1	as 1	as 1
Oil filter	Sealed disposable type; full flow with filter by-pass relief valve	as 1	as 1	as 1	as 1
Oil cooler	Mounted forward of radiator	as 1	as 1	as 1	Mounted forward of right-hand front wheel
Cooling system Type	Pressurized system	as 1	as 1	as 1	as 1
Pump type	Centrifugal	as 1	as 1	as 1	as 1
Pump drive	Twin 'V' belts	as 1	as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Cooling system (continued) Radiator matrix type	Aluminium tube and fin construction, with plastic top and bottom tanks	as 1	as 1	as 1	as 1
Thermostat opening temp.	85°C to 89°C (185°F to 192°F)	as 1	as 1	as 1	as 1
System pressure	1,03 bar (15 lbf/in^2)	as 1	as 1	as 1	as 1
Engine fan	Viscous drive coupling with a seven blade 508 mm (20 in) dia. plastic fan located at the rear of the radiator	as 1	as 1	as 1	Viscous drive coupling with a seven blade 483 mm (19 in) dia. metal fan located at the rear of the radiator
Auxiliary fans	Twin electrically operated four blade 250 mm (9.813 in) dia. plastic fans located forward of the radiator	as 1	as 1	as 1	as 1
Turbocharging system	–	–	Engine fitted with a Garrett AiResearch TO4B exhaust driven turbocharger. Boost pressure limited by a 'wastegate' in the exhaust system *1989 model year* Behr intercooler; lowers compressed air temperature	–	–
Exhaust system Type	Twin pipe system down right-hand side of car	as 1	Single downtake pipe leading to a twin pipe system	as 1	as 1
Silencers *Cars other than those incorporating a catalytic converter*	Two	Two	Three	Two	Two
Cars incorporating a catalytic converter prior to 1989 model year	One (plus a catalytic converter)	as 1	–	as 1	as 1
1989 model year cars incorporating a catalytic converter	One (plus a catalytic converter)	as 1	One (plus one warm-up and twin main catalytic converters)	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Fuel system **Fuel recirculation system**	Excess fuel not required by the engine returned to the fuel tank via a non-return valve	as 1	as 1	as 1	as 1
Fuel filters Main fuel filter	Disposable canister	as 1	as 1	as 1	as 1
In-tank filter	Strainer on inlet to pre-pump	as 1	as 1	as 1	as 1
Fuel tank	Located behind the trim panel at the forward end of the luggage compartment	as 1	as 1	as 1	as 1
Fuel grade *Cars other than those incorporating a catalytic converter*	97 octane (minimum) 4 star where BS 4040 is applicable	as 1	*Prior to 1989 model year* as 1 *1989 model year* as 1 **or** 95 octane (minimum) premium unleaded fuel	as 1	as 1
Cars incorporating a catalytic converter	Unleaded fuel only 91 RON (87 AKI in North America) minimum	as 1	*1989 model year* Unleaded fuel only 95 RON (91 AKI in North America) minimum	as 1	as 1
Fuel pump(s)	Roller cell type main pump, a pre-pump unit fitted inside the fuel tank primes the main pump	as 1	as 1	as 1	as 1
Fuel cooler *1989 model year*	Incorporated in ACU refrigerant system	as 1	as 1	as 1	as 1
Fuel injection system	Bosch K-Jetronic continuous fuel injection	as 1	*Prior to 1989 model year* Bosch KE2-Jetronic, also incorporates electronic control of mixture strength *1989 model year* Bosch KE3-Jetronic. Fuel injection and ignition systems controlled together. Collectively known as Bosch K-Motronic system	as 1	as 1
Cars incorporating a catalytic converter	The fuel injection system also incorporates 'closed loop' mixture control	as 1	*1989 model year* as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Kerb weights Car unladen but complete with oil, coolant, and a full tank of fuel *Cars other than those incorporating a catalytic converter prior to 1989 model year*	2245 kg (4950 lb)	2295 kg (5060 lb)	2315 kg (5105 lb) **LWB** 2341 kg (5161 lb)	2245 kg (4950 lb)	2360 kg (5203 lb)
Cars incorporating a catalytic converter prior to 1989 model year	2263 kg (4990 lb)	2286 kg (5040 lb)	–	2263 kg (4990 lb)	2359 kg (5200 lb)
1989 model year cars other than those conforming to a Canadian or USA specification	2320 kg (5120 lb) Mulsanne S LWB 2350 kg (5180 lb)	2350kg (5180 lb)	2390 kg (5270 lb) **LWB** 2410 kg (5310 lb)	2320 kg (5120 lb)	2420 kg (5340 lb)
1989 model year cars conforming to a Canadian or USA specification	2290 kg (5050 lb) Mulsanne S LWB 2300 kg (5070 lb)	2300 kg (5070 lb)	2390 kg (5270 lb) **LWB** 2410 kg (5310 lb)	2290 kg (5050 lb)	2370 kg (5230 lb)
Suspension Front Rear	Independent coil spring arrangement with lower wishbones, compliant controlled upper levers, telescopic dampers, and anti roll bar mounted on the front sub-frame. Independent coil spring arrangement with semi-trailing arms, suspension struts, gas springs, and anti-roll bar. Automatic levelling achieved by displacement of hydraulic system mineral oil in the struts.				
Steering	Power assisted, rack and pinion steering with centre off-take	as 1	as 1	as 1	as 1
Steering ratio	17.5:1	as 1	as 1	as 1	as 1
Turns of steering wheel lock-to-lock	3.25	as 1	as 1	as 1	as 1
Front and rear hubs	Taper roller bearings	as 1	as 1	as 1	as 1
Front wheels steering geometry Camber	0.5° ± 15′ negative	as 1	as 1	as 1	as 1
Caster	2°30′ to 3°30′ positive	as 1	as 1	as 1	as 1
Kingpin inclination	11.5°	as 1	as 1	as 1	as 1
Toe-in	12′ ± 5′	as 1	as 1	as 1	as 1
Turning angle of inner steered wheel for 20° turn of outer steered wheel	21°6′	as 1	as 1	as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R		4 Bentley Eight	5 Corniche Corniche II Continental
Rear wheels geometry Unloaded sub-frame settings removed from car, mounted on setting jig						
Camber	0° ± 15′	as 1	as 1		as 1	as 1
Maximum difference in Camber across the sub-frame	15′	as 1	as 1		as 1	as 1
Total toe-in	28′ ± 4′	as 1	as 1		as 1	as 1
Turning circle Kerb to kerb	Silver Spirit 12,05 m (39.5 ft) Mulsanne/S 12,16 m (39.9 ft) Mulsanne S LWB 12,62 m (41.4 ft)	12,50 m (41.0 ft)	Bentley Turbo R 12,16 m (39.9 ft) Bentley Turbo R LWB 12,62 m (41.4 ft)		Steel wheels 12,05 m (39.5 ft) Aluminium wheels 12,16 m (39.9 ft)	Corniche/II 12,05 m (39.5 ft) Continental 12,16 m (39.9 ft)
Transmission **Final drive unit and drive-shafts**			*Cars without catalytic converters*	*Cars with catalytic converters*		
Crown wheel teeth	43	as 1	41	43	as 1	as 1
Bevel pinion teeth	16	as 1	18	16	as 1	as 1
Final drive unit ratio	2.69:1	as 1	2.28:1	2.69:1	as 1	as 1
Top gear speed per 1000 rev/min	48,3 km/h (30 mile/h)	as 1	Avon tyres 57,3 km/h (35.6 mile/h) 48,4 km/h (30.1 mile/h)		as 1	as 1
Overall gear ratios – Forward	6.73:1 4.04:1 2.69:1	as 1 as 1 as 1	5.70:1 3.42:1 2.28:1	6.73:1 4.04:1 2.69:1	as 1 as 1 as 1	as 1 as 1 as 1
Reverse	5.38:1	as 1	4.56:1	5.38:1	as 1	as 1
Final drive unit	Hypoid bevel	as 1	as 1		as 1	as 1
Torque converter transmission Type	Automatic torque converter	as 1	as 1		as 1	as 1
Make	General Motors Turbo Hydramatic Model 400 – 3 speed	as 1	as 1		as 1	as 1
Converter gear ratios – Forward	2.5:1 1.5:1 1.0:1	as 1	as 1		as 1	as 1
Reverse	2.0:1	as 1	as 1		as 1	as 1
Gearchange	Electrically operated, steering column mounted selector	as 1	as 1		as 1	as 1

	1 Silver Spirit Mulsanne Mulsanne S	2 Silver Spur	3 Bentley Turbo R	4 Bentley Eight	5 Corniche Corniche II Continental
Torque converter transmission (continued)					
Transmission lock	Engaged when gear range selector is in 'park' position, or when ignition key is removed from switchbox	as 1	as 1	as 1	as 1
Wheels and Tyres **Wheels**	Silver Spirit 6JK x 15 Mulsanne/S 6½J x 15	6JK x 15	7½J x 15	Steel wheels 6JK x 15 Aluminium wheels 6½J x 15	Corniche/II 6JK x 15 Continental 6½J x 15
Type	Silver Spirit Pressed steel Mulsanne/S Aluminium alloy	Pressed steel	Aluminium alloy	Pressed steel or Aluminium alloy	Corniche/II Pressed steel Continental Aluminium alloy
Fixing	5 stud, right-hand wheel nuts have right-hand threads; left-hand wheel nuts have left-hand threads	as 1	as 1	as 1	as 1
Tyres	235/70 HR15 (HR70 HR15) **or** 235/70 VR15 (HR70 VR15) steel braced radial ply dependent upon the car's specification	as 1	255/65 VR15 **or** 275/55 VR15 steel braced radial ply	as 1	as 1
Recommended tyre inflation pressures – cold	Refer to Chapter R – Wheels and Tyres	as 1	as 1	as 1	as 1