



# DEFENDER 90·110·130

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Specification details set out in this Handbook apply to a range of vehicles and not to any particular vehicle. For the specification of any particular vehicle owners should consult their Distributor or Dealer.

The Manufacturers reserve the right to vary their specifications with or without notice and at such times and in such manner as they think fit. Major as well as minor changes may be involved in accordance with the Manufacturer's policy of constant product improvement.

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## **MODELS COVERED**

The information in this handbook covers current versions of Land Rover Defender 90, 110 and 130 petrol and diesel models. It is presented in sections to guide the reader progressively from reception of the vehicle through familiarisation with controls and instrumentation, driving techniques, basic day to day attention and longer term workshop maintenance. The final section lists technical data, recommended lubricants and fluids and electrical data.

**Advice on operating Tdi turbo-charged diesel models is also included in this book. On these models, it is particularly important that the proper engine starting and stopping procedures are followed and that the correct engine lubricating oils are used.**

Where specific information is sought, first consult the list of contents (at the front of the book) which will direct you to the relevant page or pages.

### THE NEW VEHICLE

With every new Land Rover special literature is provided which should be read by all owners and drivers to help obtain the best operating results. The literature consists of the following:

1. Handbook: This book, which you are now reading, gives general information about the Land Rover, also incorporates notes on service, the Vehicle Warranty and full information on how to carry out the necessary day-to-day running maintenance.
2. Service Record which gives details of the maintenance required and includes spaces for the Distributor or Dealer to sign and stamp to certify that the work has been carried out at the appropriate intervals.

The operations carried out by your Distributor or Dealer will be in accordance with current recommendations and may be subject to revision from time to time.

Upon receiving the new Land Rover the owner should immediately:

3. Examine the Handbook for advice on new features and as an aid to getting the best out of the vehicle.
4. Arrange with a Land Rover Distributor or Dealer to carry out regular maintenance attention.

### VEHICLE WARRANTY

Land Rover issue under the heading of Vehicle Warranty an undertaking regarding its Service Policy. The Vehicle Warranty is supplied in the Literature Pack and the following notes are given for guidance in the event of a claim being put forward:

1. The Land Rover or the part in respect of which a claim is made must be taken immediately to a Land Rover Distributor or Dealer. This should, wherever possible, be the Distributor or Dealer responsible for the sale of the vehicle to the owner.
2. The Distributor or Dealer will examine the parts or Land Rover and will without charge advise on the action to be taken in respect of the claim. It will be noted that the Company must reserve the right to examine any alleged defective parts or material should they think fit prior to the settlement of any claim.
3. It must be understood that the factors of wear and tear and any possible lack of maintenance or unapproved alteration will be taken into consideration in respect of any claim submitted.
4. It will be noted that tyres and glass are expressly excluded. The manufacturers of those tyres which the Company fits as standard to its vehicle will always be prepared to consider any genuine claim.



### PARTS AND ACCESSORIES

When new parts or accessories are required, obtain Genuine Land Rover parts, or parts supplied through sources approved by the Company.

Land Rover Distributors and Dealers are obligated to supply only such parts.

Other sources often sell parts suitable for Land Rovers but frequently these are not made to the same standard or specification as the Company part and are therefore less likely to give the requisite performance.

**Genuine Land Rover parts and accessories are designed and tested for your vehicle and have the full backing of the Land Rover Vehicle Warranty. ONLY WHEN GENUINE LAND ROVER PARTS ARE USED CAN RESPONSIBILITY BE CONSIDERED UNDER THE TERMS OF THE WARRANTY.**

Safety features embodied in the vehicle may be impaired if other than genuine parts are fitted. In certain territories, legislation prohibits the fitting of parts not to the vehicle manufacturer's specification. Owners purchasing accessories while travelling abroad should ensure that the accessory and its fitted location on the vehicle conform to mandatory requirements existing in their country of origin.

### MAINTENANCE ATTENTION

Regular maintenance is one of the main factors in ensuring continuing reliability and efficiency. For this reason detailed schedules have been prepared so that at the appropriate mileages or times owners may know what is required.

The **Pre-delivery Inspection** is a very important first step in the work of preventive maintenance. The Dealer responsible for the sale of the new Land Rover will have completed the work involved.

There is provision in the Service Record for certification that this work has been carried out.

**Normal day-to-day attention** required is described in Section 4 of this handbook.

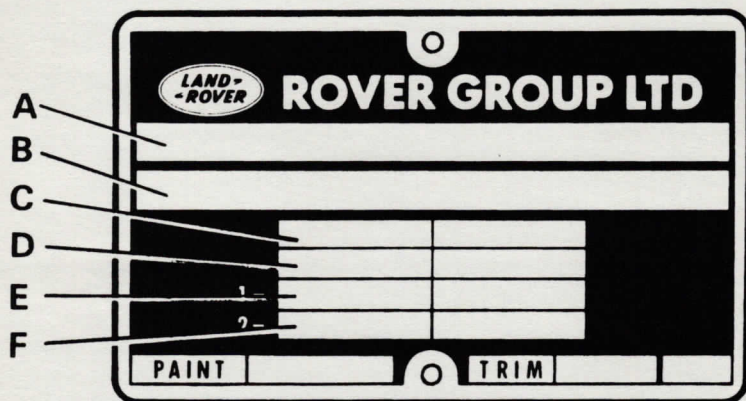
The **first Service Inspection** should be carried out by the Dealer responsible for the sale of the Land Rover to the owner at or about 1500 km (1000 miles). A charge is made only for the lubricants, etc. used in carrying out the service.

Where for any reason it is not convenient for this first service to be carried out by the Dealer responsible for the sale, it can, by prior arrangement, be carried out by any other Land Rover Distributor or Dealer.

### WORKSHOP MAINTENANCE

This is the necessary work to keep the vehicle reliable, and should be done at 10000 km (6000 mile) intervals, or six months, whichever is first, as described in Section 5 of this handbook.

## VEHICLE IDENTIFICATION NUMBER (V.I.N)



## J242

The Vehicle Identification Number and the recommended maximum vehicle weights are stamped on a plate that is rivetted to the top of the brake pedal box in the engine compartment.

The number is also stamped on the right-hand side of the chassis forward of the spring mounting turret.

Always quote this number when writing to Land Rover or your Distributor and Dealer on any matter concerning your Land Rover.

## KEY TO VEHICLE IDENTIFICATION NUMBER PLATE - FIG. J242

- A Type approval
- B V.I.N (minimum of 17 digits)
- C Maximum permitted laden weight for vehicle
- D Maximum vehicle and trailer weight
- E Maximum road weight - front axle
- F Maximum road weight - rear axle

The Vehicle Identification Number identifies the manufacturer, model range, wheel base, body type, engine, steering/transmission, model name and place of manufacture.



**FOR YOUR SAFETY**

As you read through this manual you will see several places marked **WARNING**, **CAUTION** or **NOTE** presented in the following form. These have been included to remind you of areas where you should use extra care to avoid personal injury or damage to the vehicle or components.



**WARNING:** Procedures which must be followed precisely to avoid the possibility of personal injury.

**CAUTION:** This calls attention to procedures which must be followed to avoid damage to components.

**NOTE:** This calls attention to methods which make a job easier to perform.



As you attend to your vehicle you may see labels with this **WARNING** symbol. It means **WARNING**; **DO NOT** touch or attempt adjustments until you have read the special instructions contained on the relevant pages in this manual.



A label with this symbol **WARNS** that there are very high voltages in the ignition system on some models. **DO NOT** touch any ignition component while the ignition is switched on, especially where you see this label.

**SAFETY**

In the interests of road safety, your attention is drawn to the following important safety hints.

- Regular servicing, including day to day attention by the driver/owner as described in Section 4 and the longer term workshop maintenance described in Section 5, is essential to help provide safe, dependable and economical motoring and to ensure that the vehicle conforms to the various safety regulations in force.
- Always use the seat belts, even for the shortest journeys.
- Before driving, learn the layout and use of all controls, gears and switches.
- Before driving the vehicle adjust the seat as necessary to achieve a comfortable driving position with full control over the vehicle.
- Always start vehicle and operate controls from the driving position.
- Ensure that the vehicle speed is low enough for an emergency stop to be made safely under all road and vehicle loading conditions.
- Never leave unsupervised children in the vehicle.
- Keep the windscreen, rear and side windows clean to give clear vision. Use a solvent in the screen washer reservoir.
- Maintain all external lights in good working order and correct setting of headlamp beams.
- When a steering lock is fitted, **DO NOT** turn the ignition key to the lock position or try to remove the key whilst the vehicle is in motion.
- When fitted, ensure the power take-off (pto) universal joints are shielded.
- Before working on pto driven implements always disengage the pto and switch 'off' the engine.
- Maintain correct tyre pressures. These should be checked at least each month, or more often when high-speed touring or under cross-country conditions, even to the extent of a daily check.



**WARNING:** Your Land Rover Defender has a higher ground clearance and hence a higher centre of gravity than an ordinary passenger car to enable it to perform in a wide variety of off-road applications. An abrupt manoeuvre at an inappropriate speed or on an unsuitable surface could cause the Land Rover to go out of control.



**WARNING:** DO NOT mix Cross-Ply and Radial-Ply tyres on this vehicle. Recommended tyre replacements are given at the end of DATA Section 6.



**WARNING:** DO NOT remove the expansion tank filler cap when the engine is hot, because the cooling system is pressurised and personal scalding could result.



**WARNING:** Additions, alterations or repairs to the electrical or fuel systems can create fire hazards if carried out incorrectly. Adhere strictly to methods described in this Owner's Manual or to instructions supplied with genuine Land Rover parts.



**WARNING:** Many liquids and other substances used in motor vehicles are poisonous, they must not be consumed under any circumstances and must be kept away from open wounds. These substances include anti-freeze, brake fluid, fuel, windscreen washer additives, lubricants, battery contents and various adhesives.



**WARNING:** Some components on your vehicle, such as gaskets and friction surfaces (brake linings or clutch discs), may contain asbestos. Inhaling asbestos dust is dangerous to your health. Before commencing any work on these components, read the warnings and instructions in Section 5.



**WARNING:** Keep hands, hair and clothing well clear of the fan blades and other rotating parts, when the engine is running. To avoid the possibility of personal injury.



**WARNING:** DO NOT replace the road wheels with any type other than genuine Land Rover wheels, as they are designed for multi-purpose on and off road use and have very important relationships with the proper operation of the suspension system and vehicle handling. Replacement tyres should be one of the makes and sizes recommended in this manual and all be the same make, ply rating and tread pattern. If in any doubt, consult your Land Rover Dealer for advice.



**KEY NUMBERS ON MODELS FITTED WITH STEERING COLUMN LOCK**

For security reasons the key numbers are not marked on the locks. If the key for the steering column lock is lost, the vehicle cannot be driven. For this reason and because the keys are of a special type, obtainable only from a Land Rover Distributor or Dealer, two steering column lock keys are supplied with each vehicle.

Owners are advised to take the following action:

- (a) Immediately on receipt of the vehicle, record all the key numbers so that in case of loss, new keys can be obtained.
- (b) Keep a spare steering column lock key away from the vehicle in a safe place, but where it is readily accessible.

The steering column lock if properly used reduces the possibility of theft.

**Remember the breakdown safety code**

If breakdown occurs while travelling:-

- Wherever possible, consistent with road safety and traffic conditions, the vehicle should be moved off the main thoroughfare preferably into a lay-by. If breakdown occurs on a motorway, pull well over to the inside of the hard shoulder.

- Switch on hazard lights.

- Consider evacuating passengers through nearside doors on the verge as a precaution in case of your Land Rover being struck by another vehicle.

If a portable **Warning Triangle** is available place it a safe distance behind your vehicle.

**A Simple Solution?**

Many causes of breakdown are often simple and easily resolved. If the engine will not start refer to the fault finding chart in Section 3.

