Buying A Series Landy, What to look for??.....Part One.

Perhaps you went to an off-road day, or you have friends who have a Landy, and you see how much fun they get out of it, and you're thinking, "Why not me??"

Perhaps the very first things you want to examine are your reasons for wanting a Series Landy! The greatest appeal of a Landy is perhaps that it will tackle just about any job you ask of it. Of course there will be people who don't want a Landy for its off-road ability; you may fall into this category. Perhaps you may be more interested in its working potential…load carrying or towing…. Perhaps you just want a 'collectors' vehicle, to show and be admired. Whatever your reasons for wanting a Landy it's hoped that this article will help you in your search for the Landy of your dreams, and not of your nightmares!

There are a few varieties of series models…Starting with the 'family', the series I, II, IIA, IIB, and III, and then there are varieties within the family, so firstly a brief look at some of the options available.

For off-road you really can't get better than a Short Wheel Base model (SWB), purely because it has less length to get caught on various obstacles when driving on rough terrain, though that said, all Landies are very capable off-road in the right hands.

The 101 inch forward control is particularly impressive in its off-road abilities with its V8 engine, its greater ground clearance and larger wheels. This is probably a vehicle for a 'committed' Land Rover enthusiast given the escalating cost of replacement parts, the running costs and the sheer, basic and Spartan nature of the beast.

If you are more interested in a respectable road speed from the basic Landy, then you will most probably be looking at one of the petrol-engine models….Probably six cylinders or a V8. Even I, a die-hard diesel enthusiast, have to admit that even though the diesel engine is a real workhorse, longer journeys can be very tiring, and can drive you (and the Euro-box drivers stuck behind you!!) to distraction and despair!

Having said that, the 2.25 diesel engine, is a hardworking engine. If it's load carrying ability you are after and you aren't in a hurry then that's the choice for you as they have a higher payload than the petrol equivalent.

If you want to carry passengers a 109" station wagon with 10/12 seats is a good choice – but perhaps again, if you intend to do longer journeys a 6 cylinder or V8 engine would make the longer trips more bearable.

It is **very** important to remember that even though a Landy is a very capable ‘all round’ vehicle, like everything else in life it does have its limitations. Many new owners have found themselves in difficulties through not appreciating these limitations, either getting stuck off-road, or struggling with maintenance through not appreciating the time and effort (and money!) involved in keeping a Landy in a safe working condition. This forum, of course, is a good place to find help, and advice…and pointers on what you should, or should not be doing.

So, after all that has been said, what to look out for? Well, having decided roughly what model you are after you will probably scan the small ads, the Landy magazines and the auto magazines….. When you find a potential purchase and go to look at it, ask yourself first of all what it has been used for. Many Landies will have been bought for a working life, and many will have had a hard one! The very first thing to look at is the general overall condition; it is fairly easy to spot an ‘abused’ vehicle and it is important to remember that one so abused will in all probability turn out to be a ‘cash black hole’! The pointers to follow will hopefully help you avoid such a purchase by pointing out some of the commonest failings that Landies suffer from.

Buying a Series Landy, What to look for.....Part Two, Chassis and Bodywork

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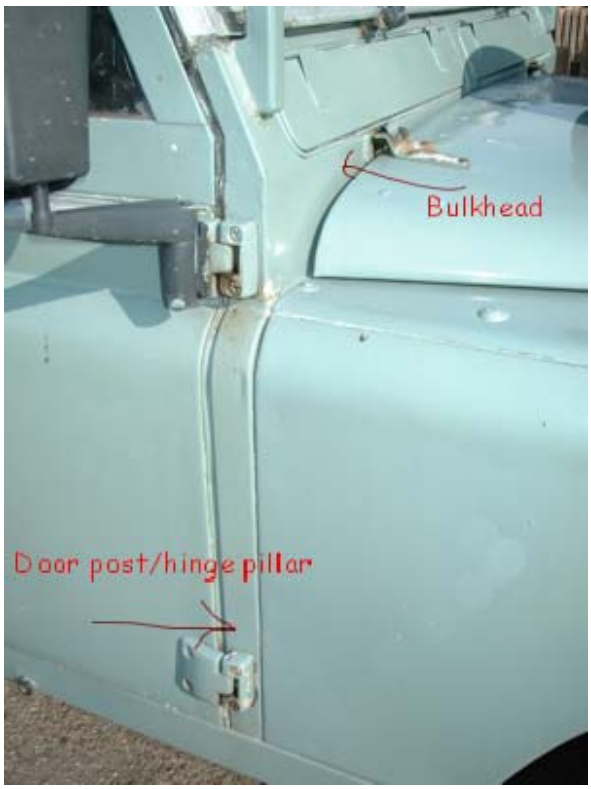
The very first bit of advice for the complete ‘newbie’ would be to take somebody with you who has some experience of Land Rovers; even if you are armed with all the best advice, a second pair of eyes is very useful…they may spot something that you miss!

Bodily….well, there really isn’t a lot to be said here. Most of the panels on the body are of aluminium alloy, and even though they may have scratches in them there really isn’t much to worry about. There are some steel panels in the bodywork, and you should bear this in mind as they are well known for rusting, as with all vehicles. The most common areas to find rust and rot in the bodywork are; the bulkhead;

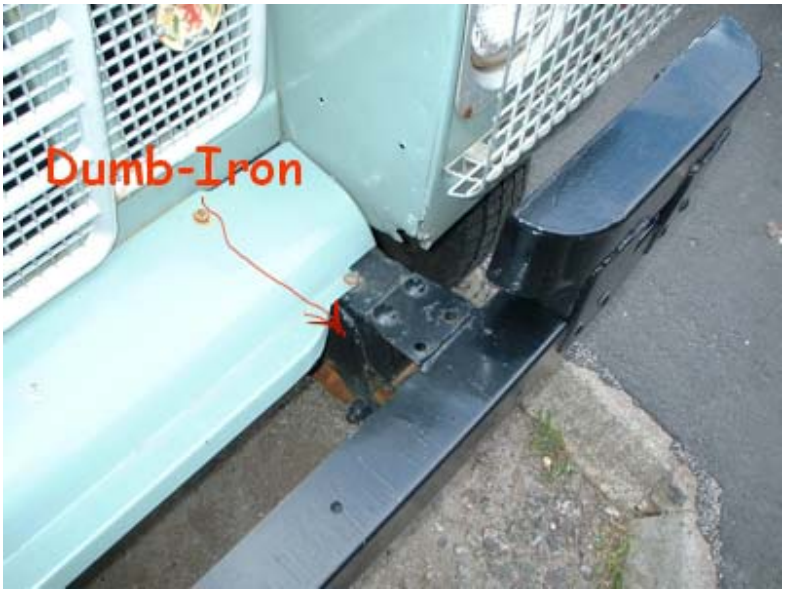


the foot wells;

around the hinges where the doors attach to the bulkhead; around the fresh air vents in the bulkhead; and in the door frames around the bottoms of the doors and around the door tops.

Looking at the front of the vehicle you will also need to check in behind the wings…look at the headlight fittings for starters, as they can suffer from rust caused by the dirt and water being thrown up on to them by the front wheels. Later models are often fitted with plastic headlight bowls, so in this case it isn't too much of a problem. Also, whilst under the wing, have a look at where the steel inner wing meets the front foot well, as this again can be a source of rot owing to the splash-back from the wheels.

Check the hand-brake is applied before venturing further under the Landy. The chassis is of steel box construction, and when the drain holes get blocked up it can lead to problems with corrosion. There are a few common areas for problems so, starting at the front of the vehicle, have a good look at the front dumb-irons (where the bumper bolts on) and check for rust holes here...



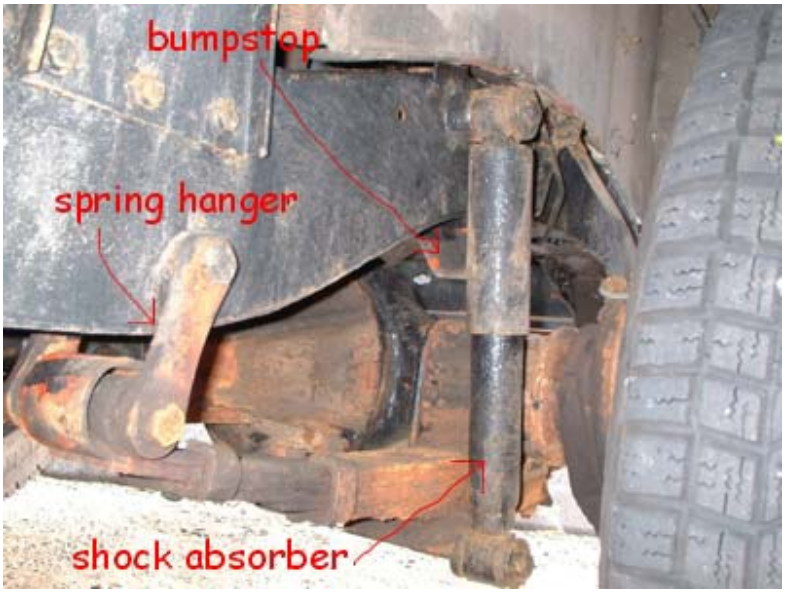
this is a very common place for problems due to the lack of proper drainage holes.

At this point it is worth mentioning that it's a good idea to have a small spanner with you to lightly tap the chassis. You will soon hear the difference between sound metal and badly corroded metal. A sound piece of steel will "ring" and a bad section will have a dull sound. It's also worth mentioning that a 'genuine' seller really won't object to you checking the chassis in this way.

So, moving back from the dumb-irons, inspect the spring hangers, pay particular attention to above the spring in the hanger, as often holes can form here.

Moving further back, check the condition around the shock absorber/damper fittings, and check the shock absorbers

themselves for oil leaks. Check the security of the bump-stops (rubber blocks above the springs and axles), and look for rust holes in the surrounding area.

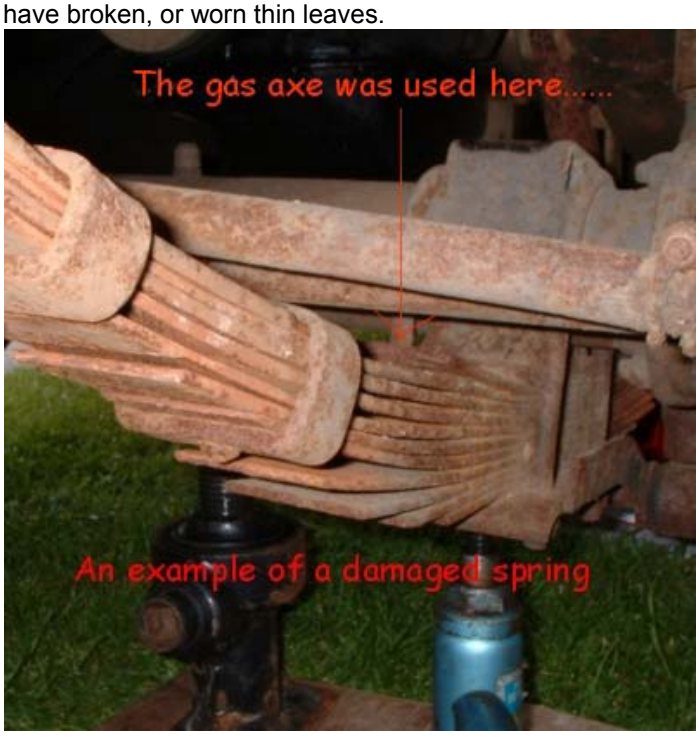


Next you can check the bulkhead outriggers (where the bulkhead joins the chassis) which again get a lot of dirt and water thrown at them by the wheels. Check the crossmember that lies beneath where the engine and gearbox meet, as this can often be a source of corrosion, and can be damaged (and even ripped off!!!) whilst off road.

Having checked the main chassis sections and outriggers, turn your attention to the rear crossmember. With LWB (long wheel base) models pay particular attention again to the area where the shock absorbers are fitted and the spring mountings.

Whilst under the Landy you should also have a good look at the brake pipework. Look for signs of corrosion in the pipes, and look for leaks of fluid from the bottom of the brake drums. You should also check the fixings which hold the brake pipework in place, as these can often corrode and leave the pipes unsupported, just waiting to get broken.

Check the condition of the road springs…the standard leaf springs have several leaves, and they should not be separating from each other, and should not have broken, or worn thin leaves.

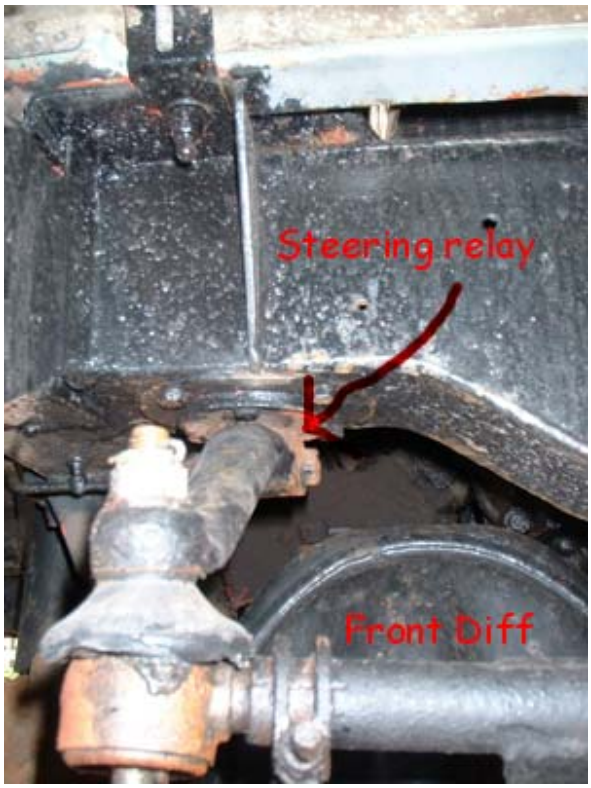


Parabolic springs may have been fitted as an after market option,

they usually have less leaves, sometimes 3, 2, or even a single leaf, but in all cases you should satisfy yourself to the security of fixings, and the condition of bushes…. There should be no, or at least minimal, wear. Check too the position of the spring hangers, the hangers on the front springs should be almost vertical, and the rear ones should be at no greater an angle than 45 degrees.

Now check the condition of the handbrake. Check for oil leaks coming from the handbrake drum at the back of the gearbox. Oil leaks coming from here are fairly common, and are fairly easily cured by the provision of new oil seals and brake shoes.

At the front of the vehicle again, have a good look at the condition of the track rod ends, and the track rods. The rods themselves should be straight, and there should be no free play at the track rod end. The rubber boots on the joints should not be perished or split, though the joints and boots are fairly easy to replace for the competent home mechanic. Also check the steering relay for security of fixing; there should be no movement here! Also check the steering relay arms…there should be no side to side, or up and down movement of the arms.



Have a good look at the swivels…the chrome ball which the front wheel rotates upon to provide steering. Ideally they should not be pitted or rusty, though that is rare!

There may be some seepage of oil, which is normal, but a really bad leak will be expensive to repair and to combat it the vendor may well have inserted grease into the housing instead of EP90. This is only a stopgap measure though…eventually the Railko bushes and bearings will wear due to starvation of lubricant, and the whole lot will need to be replaced at an average cost of around £80 per side (at 2005 prices)

Still underneath the landy…..**Chock the wheels** and with the gearbox in neutral, release the handbrake. Take hold of the propshaft, and see how much you can turn it. Any more than ¼ of a turn indicates that there is an excessive amount of backlash in the differential, and expensive problems are probably not too far away. There may well be wear in the crown wheel and pinions, and clunks whilst pushing up and down on the propshaft can point to wear in the input shaft bearings. You can also check the condition of the universal joints in the propshafts at this point, look for excessive wear and play…Although these 'Hardy Spicers' (yokes, or spiders!) are easy enough to replace, sudden failure can be very disconcerting and unpleasant to say the least!

Check the condition of the wheels and tyres… The 600x16 cross-ply tyres as fitted to the early models are all but unobtainable nowadays, so a vehicle fitted with a set of these is likely to need a full set of five tyres at some point, probably 205x16's. The LWB models have 750x16 tyres fitted as standard, and these are still available, but bear in mind you will be looking at an average cost of between £50 to £80 per new tyre, and if the tyres look like they will need replacing soon after purchasing the Landy it can lead to quite an expense you could manage nicely without!

Land Rover gearboxes are pretty strong…The early models had no synchromesh on first and second gear, and a bit of practice can be needed before you become really proficient at gear changes! Oil leaks are a problem with all the gearboxes…a common joke being, "If it's not leaking, there's no oil in it!" Regular topping up is often required, but that's not to say the oil shouldn't be changed on a regular basis! Start the engine and put the transfer box lever (the red one) in neutral; you can now listen to the gears in the box without interference from road noise, and whilst stationary. First gear can be particularly noisy, and it can even lose teeth! Any 'box which really clatters through the gears can safely be judged as needing attention, though they have a habit of going on indefinitely! When you drive the vehicle on test, check to see if it jumps out of second and third gear by driving fairly hard, and opening and closing the throttle suddenly a few times.

The transfer box is not really a source of too many problems, but you should check the operation of the 4WD lever (the yellow one)…ideally it should go in and out of 4WD easily, the lever should spring back up when 4WD is disengaged. Most problems here are from lack of use, and the accumulation of dirt.

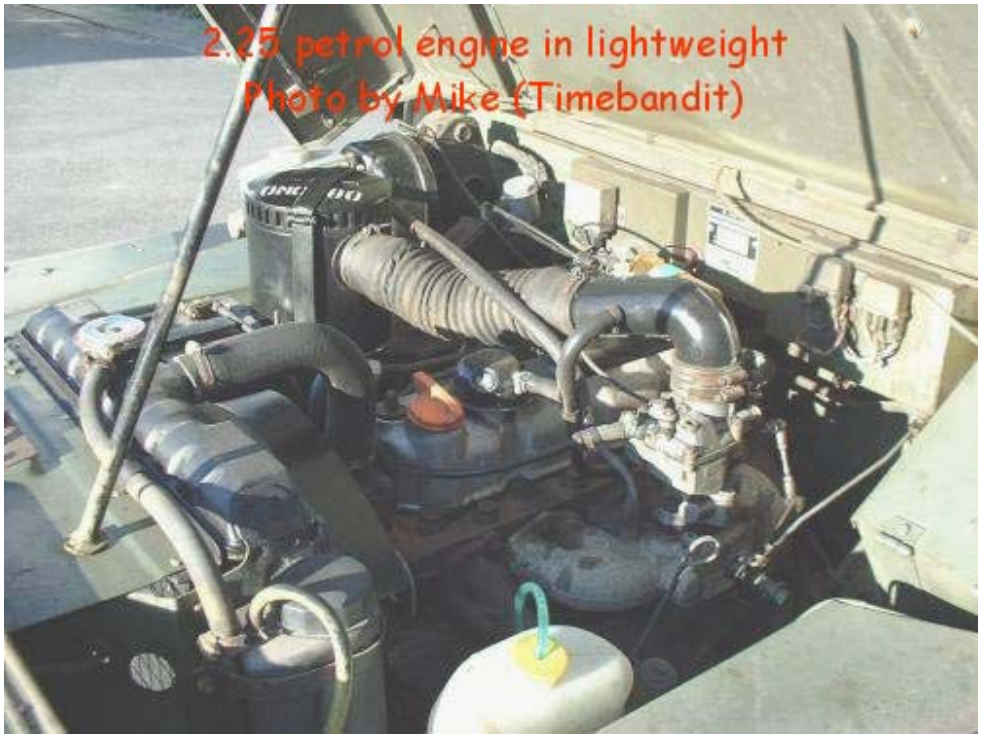
The clutch is a seriously heavy duty piece of kit! Check for leaks in the hydraulic system, particularly in the slave cylinder – it is in different places on II and III models, though still on the n/s of the gearbox, that is to say, on the alternator/dynamo side of the engine bay. Ideally there should be no slip or judder in the clutch operation, which could indicate wear, or oil contamination, and you should feel the clutch work soon after depressing the pedal. The clutch is fairly easy to replace, but it will mean removing the front floor, gearbox tunnel and gearbox (professional fitters will just move the 'box back out of the way a good few inches.)

Buying a series Landy, what to look for.....Part Three, Engines!

Engines can be sorted into 4 main stables….. The IOE (inlet valve over exhaust valve) petrol engines:

The SI 1595cc and 1997cc with four cylinders, and the 2625cc six cylinder (straight six):

The OHV (over head valve) 2286cc petrol engines, which originally had 3 main bearings, but latterly had 5brg:



Then there are the OHV diesel engines of 2052cc (quite rare) and the 2286cc, again with 3 main bearings at first, and with 5brg after 1980:

(Seemingly the 5 Brg. 2.25 diesel engine is called a 2.3! I don't know why, but perhaps it is to differentiate between the two types.)

Lastly, but by no means least, there is the V8 petrol engine of 3528cc:

There are also numerous engine conversions available, for example, the Perkins and the Ford (York) diesels, or the ex Capri V6 petrol engine.

You should look for obvious signs of wear in all cases; smoke on start-up and on over-run, which could indicate valve seal and seat wear which is very common in Land Rover engines. The IOE variants may be rattly and tappetty, and may sup a lot of oil…though adjustment and/or new valve oil seals can remedy this.

The OHV petrol engines would appear to be the only engines designed purely for use in the Land Rover, and based on the design of the 2.25 diesel engine. They are virtually “bomb-proof”, but again can suffer adversely from lack of maintenance, neglect and infrequent oil changes. The 5 bearing engine is smoother running, but they can all be noisy, and can have rattly timing chains.

The diesel engine is noisy even when in tip top condition and well looked after, in many cases more is asked of them, and because of higher compression, they can often die sooner than the petrol models. Look for excessive smoke from the exhaust which can indicate the engine is burning oil, and look for large deposits of oil being thrown from the rockerbox breather assembly. The cure for these faults is often a top end overhaul…head off, and valve replacement…which like a lot of jobs on a diesel engine can be expensive indeed. Cracked cylinder heads caused by overheating are a common failing, and should be checked for carefully… look for oil in the coolant, and coolant in the oil. In fact the overall condition of the cooling system should be a good indication!

The V8 is every bit as tough as its 4 cylinder peers, but can be harder to keep well tuned and in good fettle. It too can suffer adversely from bad maintenance; lack of regular oil changes can cause a build up of crud in the valve gear, which in turn affects the hydraulic tappets and lifters, leading to wear in the tappets and eventually wear in the camshaft. When the engine is cold there may be a light tapping noise from the top of the engine, but this should go away once the unit has warmed up. A persistent top end knock once warm is indicative of camshaft problems, so beware!

The final piece of advice for the potential purchaser…..Try as many vehicles as you can! Maybe you could join your local Landy club (have a look in the listings in Land Rover magazines to find a club near you) or try driving your friends Landies. There really is no substitute for experience (bums on seats luvvies!!). Do not be tempted by the very first Landy you see, and always keep your options open. The right vehicle will be there for you! Remember too, that the majority of problems that are outlined above can be sorted by a competent D.I.Y mechanic or enthusiast……..If you were ever a fan of Meccano as a child, then this really is the big construction set for you!

Happy Hunting!