

Introduction

This is a guide to help prospective purchasers of the Mitsubishi Lancer Evolution 1 – 3 ensure that the car is as advertised and assist them in determining the overall condition and fitness of the vehicle being sold.

This guide is an amateur guide, produced from the collective experiences of current owners within the MLR. Because the vehicles were never officially imported into the UK all information has been derived from documentation printed in the Japanese language only, so there may be some inaccuracies and missing information. The rule of thumb should be that if you are in any doubt as to the general roadworthiness or mechanical health of a vehicle then have it inspected by a qualified body – such as the AA car check service.

Model types and brief history

The Mitsubishi Lancer Evo 1 – 3 was produced from 1992 to the end of 1995 when it was superseded by the next generation Lancer. They all feature a 2.0 turbo engine and fulltime All Wheel Drive. The Evo 1 –3 shared the same body as the then current Lancer models sold in Japan. This means that there is a 1.8 turbo All Wheel Drive Lancer in the same bodyshell that is sometimes passed off by sellers as a genuine Evo. This bodyshell has subsequently been sold to the Proton group and is the base for the Proton Persona (or Wira) model. Because of this some people have built Evo replicas from a Proton and passed them off as genuine Evo's.

As you can see the first pitfall when buying an Evo is to make sure that is the car actually being sold.

Evo 1 was built to meet the homologation requirements of at least 2,500 cars. This was easily exceeded as approximately 5000 Evo 1's were built between September 1992 and December 1993

Evo 2 again exceeded homologation requirements as once more approximately 5000 were built from December 1993 to January 1995.

Evo 3 was built in larger numbers, some 7000 were built between January 1995 and August 1996, but paradoxically these are the hardest to find. It is likely that the majority of these 7000 cars were RS versions built for club rallying and are still in competition or have been destroyed in accidents. An Evo 3 GSR is a rare find.

Each Evo was available in two types: GSR and RS. GSR is the fully equipped road going car and features luxuries such as electric windows, climate control, Recaro seats, alloy wheels and carpets! The RS version is the clubmans rally version. Because of this it came with no electrical goodies, less trim, steel wheels and cheap seats. The concept was that all these would be thrown away and replaced with proper rally gear when the car was prepped for competition. The RS version was considerably lighter than the ~1240kg GSR version at ~1170kg. Unlike the Evo 4-6 the Evo 1 –3 GSR and RS versions both shared the same close ratio gearbox.

Evo's were available in the following colour options:

| <u>Evo 1 GSR</u> | <u>Evo 1 RS</u> | <u>Evo 2 GSR</u> | <u>Evo 2 RS</u> | <u>Evo 3 GSR</u> | <u>Evo 3 RS</u> |
|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|
| Red | White | Red | White | Red | White |
| Metallic Black | Silver | Metallic black | | Metallic black | |
| Dark blue | | Dark blue | | Bright yellow | |
| White | | White | | White | |
| Silver | | Silver | | Silver | |

Performance figures:

| Model | Evo 1 GSR | Evo 2 GSR | Evo 3 GSR |
|---------------|-------------------|-------------------|-------------------|
| Power | 250PS@6000rpm | 260PS@6000rpm | 270PS@6250 rpm |
| Torque | 228 lb/ft@3000rpm | 228 lb/ft@3000rpm | 228 lb/ft@3000rpm |
| 0-60 | 5.1 seconds | 5.0 seconds | 4.9 seconds |

These are Mitsubishi's factory figures. No official RS figures can be found, but at ~70kg less expect each RS variant to be a couple of tenths quicker than the GSR.

Identifying the vehicle

You can not go off the basic visual appearance of the car to determine its model type. Because they all share the same bodyshell any car can have the eye-catching bodykit of another bolted on. They should look thus:

Evo 1:

Vented bulged bonnet.

Narrow front bumper with no bottom splitter.

No sideskit extensions

‘Hoop’ rear spoiler with a single centre steady bar mounted directly to the boot lid

“GSR Evolution” graphics down the rear doors

Rear reflectors on either side of the number plate surround



Evo 2:

Vented bulged bonnet.

Same front bumper as the E1 but with black rubber lip fitted to the bottom.

‘Hoop’ rear spoiler with a single centre steady bar mounted onto an angled lip on the boot lid. The word “Evolution” is moulded into the rear lip.

“GSR Evolution II” graphics down the rear doors.

Fog lights became available to replace the reflectors mounted either side of the number plate.



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Thanks to Jonathon Williams, Sarah-Jane, Chunky, the unknown webmasters of countless Japanese language sites and ‘Gist’

Evo 3:

Vented bulged bonnet.

Wider front bumper with aggressive side scoops and a bottom splitter

Rear bumper has side extension to match side skirts.

Sideskirt extensions with the words "Evolution III" moulded in.

'Wing' rear spoiler with centre steady bar mounted on a raised plinth to the boot lid.

Fog lights were available to replace the reflectors mounted either side of the number plate.

The front indicators changed from clear lenses with amber bulbs on the 1 & 2 to ordinary amber lenses.



If the car does not look like this then it is not an Evo, or at least it is no longer original and should be classed as 'suspicious'

Unfortunately all this can be bolted onto any other lancer. So an Evo 1 can be made to look like an Evo 3, and a Lancer GSR or Proton can masquerade as an Evo. There are other clues.

It is easy to spot the difference between a 1.8 turbo engine in the Lancer GSR and the 2.0 turbo in the Evo GSR and RS. The Evo's all look the same however.

This is the 1.8 GSR:



This is the 2.0 Evo:



There may be some differences from the picture as owners may have fitted after market parts. This is a shot of an original Evo engine bay.

Straight away the major differences are obvious. The head/cam cover of the 1.8 is smaller than the 2.0, the water hose joins the head in a different place (green circle) and the oil filler cap is in a different place (red circle)

(Both these cars have been fitted with after-market front strut braces)

So what other clues are there?

The Evo 1 has Mitsubishi 6 spoke wheels in a light grey colour, the Evo 2 and 3 both use OZ wheels. All are 15" diameter. The interiors are very similar, but the Evo 2 and 3 have seats mounted lower down and feature slots in the headrest for racing harnesses as well as more effective side and shoulder bolsters. The Evo 1 features more ordinary Recaro's that feel to be mounted slightly too high. There were a few detail changes between the 2 and 3, such as the addition of sunglasses pockets and the 3 gained a different Momo steering wheel. (Speed 3). The 3 also gained a very useful fin on the front drivers side wiper to prevent it lifting at speed-reach exactly 80mph and the wiper lifts on my Evo 1.

Besides determining if the car is an Evo or not, you must also determine if it is an RS or GSR. As stated the RS has a very poor trim level. But it is possible owners have fitted new items to try and sell it as a GSR. But some clues are hard to cover up.

Anti-lock brakes. No RS has anti-lock brakes. So if the car is sold as a GSR but has no anti-lock then it is not a GSR

Rear wiper. No RS came fitted with a rear wash wiper. The GSR did. It is possible that a genuine GSR may have it missing because the rear window has been replaced with a cheaper one with no wiper mechanism (it is built into the glass). To check: see if there is still a rear wash/wipe switch on the dash. Climate control. No RS came with climate control; it is a digital display in the centre of the dashboard console and is very time consuming to retrofit. If this is missing it is not a genuine GSR.

There were minor external differences between the GSR and RS. The RS did not have body coloured wing mirrors or door handles, and the side skirts of the E3 GSR were not fitted to the E3 RS. Neither do the RS's have the rear fog lamps/reflectors of the E1-3, instead they have a plain black panel. The GSR also features an electrical radio aerial mounted on the rear wing, the RS has a basic aerial mounted on the drivers side A-pillar.

Chassis numbers and registration.

These are the final pieces in the puzzle, I have left them until last as it is easy to replace one chassis plate with another, so you should use the table below AND the earlier information to be sure of the originality and validity of the vehicle being sold. Check the chassis number on the plate is also stamped into the firewall under the bonnet alongside the chassis plate.

| | | | |
|-------------|--------------|---------------|----------------------------|
| Type: | <u>Evo 1</u> | <u>Evo 2</u> | <u>Evo 3</u> |
| Chassis: | CD9A | CE9A | CE9A |
| | All numbers | Up to 0008500 | From 01000001 onwards |
| Model: | <u>GSR</u> | <u>RS</u> | |
| Identifier: | SNGF | SNDF | (For all Evo type numbers) |

Engine prefix is **4G63** in all cases. Transmission type is **W5M33 (KM225)**.

Bodywork examination

How does the car look?

In general the paint quality on the Evo's seems excellent. Only the plastic vents on the bonnet seem to fade badly. Check for any chips, scratches, small dents etc. especially on the bonnet. Genuine bonnets are aluminium and dent easily. Look for any mismatched/amateur paint repairs.

Does everything appear to fit? Bumper, lights, doors, bootlid etc should all be matched nicely to the rest of the car. Check for no broken lamps and any sign of rust around the insides of the wheel arch lips, door bottoms and panel edges.

Doors should sound solid when pushed shut and should not 'drop' when opened.

Ensure all the glass is in good order.

The boot area should be dry and on the GSR versions feature full carpet. There should be a spare wheel and jack under a board forming the luggage area floor. Normally this will be a space saver wheel.

Check the boot floor for shape, this should indicate if the car has ever been shunted up the rear.

Make sure the bonnet fits correctly, and check where the wings bolt to the body for any rust. Also check the seams around the extra welding around the front suspension turrets for any rust.

Look to the side of the engine at the chassis legs and make sure there are no kinks or rust damage that may suggest a front or side impact.

Look through the vents on the front bumper and you can see the front chassis legs and bumper mounts, check these are straight. Excessive rust may indicate that one has been bent and then straightened after a front impact.

Check the roof for rust, especially at the point that runs sideways from the about the centre point of the rear passenger doors. All Lancers have a weak point where the roof is 'glued' onto the support frame.

The glue traps moisture and rusts the roof. First indications are small spots forming along this support frame, if they are starting it is best they are dealt with quickly or it will soon rust through the thin roof and that will require an expensive replacement.

Whilst looking at the outside, ask the seller to operate all the lights so you can see they work.

Interior examination

Is the interior clean and tidy?

Trim on the E1 is basically grey with lighter grey as a contrast. Check the condition of the seats as they are Alcantara which is very difficult to remove stains from and expensive to replace.

The E2 and E3 have cloth facings but the same checks for condition apply. For all seats check the side bolsters as these often wear as people rub against them getting in and out.

The seats should not rock around and they should move freely on their runners. Check driver and passengers!

Carpets are quite thin, so check these for wear as well.

The rear seat on the GSR features a fold down armrest.

Door trims are plastic, but check for overall condition and scuffing.

Check the headlining condition, it is pale grey and will be affected badly if a previous owner was a smoker.

The original wheel was a Momo wheel, fitted with an ugly piece of padding over its centre on the Evo 1 and 2 – this can be removed easily. The 3 has a different Momo wheel. In all cases make sure it is not bent (yes I've seen one!)

The dash is big slab of plastic, check it is not damaged, split etc. It should all be reasonably rattle free.

Whilst sat inside, check all the electrical items work: All four windows (sometimes they are slow if they are used infrequently), wipers, washers, dash lights, etc

Check the electric mirrors, not only do they adjust electrically but they should also fold flat against the car body when the button is pressed. (GSR versions only)

There should be a switch next to the gearstick, this is the intercooler spray, when operated it should squirt water onto the front intercooler. It takes its water from the window washer bottle. The jets are



hidden behind the number plate mounting.

Check the 3 pedals. All should be nicely weighted. The clutch should have plenty of travel and not be too heavy. If the clutch is very heavy and/or has a very small amount of travel before it reaches the floor then it is probable that the clutch pedal bracket has broken. This means the bracket flexes and not the clutch mechanism. It is an easy welding repair. To check for sure have someone depress the clutch

whilst looking at the clutch master cylinder under the bonnet. If the firewall is flexing badly then it is safe to presume the bracket needs repair.

Engine examination

Is the engine bay and engine clean?

Oil thrown all around the engine bay is not normal even on an old Evo, so beware.

There may be some oil seepage around the cam cover gasket, especially around the corner. This should not be a problem and can be fixed fairly easily with a new gasket or even by spreading some 'Hylomar' around the corner that is seeping. NB: don't confuse seepage with a leak. To check: wipe the oil away and run the car for a while. If a lot of oil has returned it is leaking and needs more work and care.

Is the car original or does it have aftermarket mods?

These may be a good thing but they should be suitable for the car. E.g.: The car is fitted as standard with a re-circulating dump valve. Some people replace these with the noisy atmosphere dump valves - there is currently much debate as to whether this is a good thing or not. Currently running evens!

Check condition of the battery and battery terminals, especially corrosion under the battery from acid leakage.

Check the engine mounts at each side and the front.

Check the condition of the radiator and pop the top off to make sure it is filled with a water/antifreeze mix, and that it contains no traces of rust or oil. Check the water pipes for condition and make sure there is no signs of coolant loss around the hose ends - a blue/green tinge to the rubber.

Check condition of the intercooler at the front and the pipe work running around the engine bay - These can be very expensive to replace if damaged.

Is the air filter standard or an aftermarket one? If it is a cone or pod type it is easy to check its condition, just make sure it is attached correctly. The original air filter sits inside a black air box behind the battery. It can be unclipped and after some waggling removed quite easily. Try to do this and make sure it does contain a panel air filter. I have known cars to be run without one and the airbox just fitted empty. This is a very bad idea.

Check the power steering reservoir at the front corner of the car. Make sure the fluid is clean and is at the full mark on the mini-dip stick.

Check the brake and clutch master cylinder and pipes for condition and fluid levels.

Check around the plenum chamber and fuel rail for anything that looks damaged or boded. You should not be able to smell petrol. With the very high temperatures under the Evo bonnet you do not want a fuel leak.

Open the oil filler cap and look at the cap bottom. Signs of a 'mayonnaise' substance usually means the head gasket has gone - although small amounts do appear in cars that have stood/not run for some time. After a run this should have disappeared if this is the case. Whilst the cap is off have a quick shuffly at the cam lobes. You can't see them all but if any that you can see look worn or pitted it will spell trouble as it indicates the oil has been contaminated with dirt or debris at some point.

Remove the dip stick at the front of the engine and check the oil condition, it should be have been changed regularly (about every 3000 miles - check with the seller). Squeeze some of the oil between you thumb and finger - it should feel smooth. Any roughness indicates some form of metal debris in the engine, which is never good.

Have the engine started - hopefully the seller has not 'warmed it up' for you before hand - this is always a little suspicious as most problems can be heard at cold start up.

Listen for rattles and raps at start-up and look for blue or white smoke from the exhaust.

Blue is oil being burnt, white is water in the engine, although there may be some steaming from the exhaust when the engine is cold. This should fade as the engine warms.

If the seller immediately revs the engine more than a few thousand RPM to demonstrate the loud exhaust or dump valve then walk away - they obviously don't know how to look after a cold engine.

There are many rattles, raps and other noises an engine can make so I won't describe them all, if you hear something you don't like then have it checked by a qualified body. However there is a particular noise that all Evo's suffer from and it is quite normal. Tappets. If the car appears to be tapping away to itself like a lonely diesel - welcome to Evo ownership. It is a common problem from Evo1 to Evo 6. And it can not be got rid of. As a rule of thumb there may be a large amount of 'light' tapping when started from cold, this should very quickly disappear. Some cars then have a single audible 'light' tapping that comes and goes on a whim!

There are various methods to try and cure this but most people just live with it. Excessive tapping can mean a worn tappet that needs replacing. Again - if in doubt consult a specialist.

The idle should hold somewhere between 1000rpm and 2500rpm depending on temperature. If the idle hunts up and down the rev range then it is likely that the idle stepper motor need repairing or replacing. The engine water temperature should warm up very quickly and the idle will fall to around 1000rpm constant.

Once the engine has warmed up have the throttle 'blipped' and check for smoke from the exhaust. At the same time listen for any sudden tapping that may indicate piston slap or other unsavoury problems. The idle will sound a little lumpy and not perfectly smooth even when warm, but check there are no misfires and that all 4 cylinders exist!

When the engine is switched off it should die quickly and not run-on. Run-on is a sign of pre-ignition and the cause needs investigating.

Gearbox –check before test drive.

The gearbox should have 5 speeds, with reverse down from 5th.

With the engine running, depress the clutch. If the car suddenly becomes quieter then the noise you didn't realise was there is a worn clutch release bearing.

With the clutch depressed try and move the gearstick into all the gears. After attempting to move the lever into each gear position with the clutch depressed return it to neutral and release the clutch. Repeat this for each one just to ensure the mechanism works and the clutch is operating fully. If it is difficult to get it into a gear position, or it crunches even though the clutch is depressed then it is likely the clutch is not being fully disengaged. This may be due to a broken clutch pedal bracket as described before, a very worn clutch or a lack of fluid in the clutch master cylinder.

Suspension/underbody

How does the car sit on the road?

Is it standard suspension or modified? The standard car has a tall ride height, don't be put off just because it has not been 'slammed to the max'. If it is lowered ensure it is not excessive and that the wheels do not rub the bodywork. There will be signs on the tyres and wheel arches if they touch under compression. Lower is not always better anyway.

In all cases check that all four corners are equal in ride height – there may be some difference in front to back (hopefully you only ever see the front lower than the back – the other way around is unsafe and very alarming to drive). There should not be any difference left to right, unless it has just finished running in the Indy500 or your fat mate has sneaked in the car for a quick look.

Discrepancies in ride height can be worn dampers, tired springs, broken springs, mis-aligned suspension arms or the result of accident damage. Tired springs are the most common reason. Any replacements must be made in pairs. Why buy a car like this and ruin its handling abilities?

To check dampers do the 'bounce test' on each corner. Push the car down and see how it responds. It should do about 1 bounce. Anymore and the dampers are shot. However the Evo is not lightly sprung so that fat mate may be useful – also the front wings are very thin so be careful! If you can't compress the suspension at all then it is either seized solid or the dampers are adjustable and have been set to 'third world bus' Either way the car will be a pain on bumpy English roads and it will need sorting out. Whilst compressing the suspension listen for any creaks or groans that indicate worn springs and bushes.

The Evo has two anti-roll bars, one on the front and one on the back. These are vital in making the car handle correctly. If the bushes on these are worn the car will either have excessive understeer or excessive oversteer. They are not expensive to replace, but to appreciate the car they need to be in good condition.

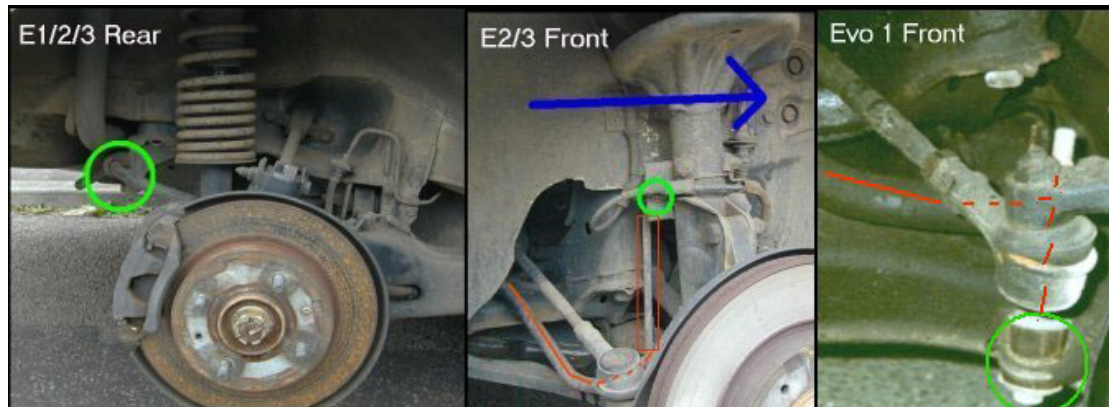
The rear is easy to check. It can be grabbed and shook. If it moves then the bushes need replacing. It has two outer links and if these are worn it rattles. There are also two inner bushes and these wear and make it flop around.

The front is less easy to diagnose. It is also mounted differently on the Evo 1 compared to the Evo 2 and 3 (part of a number of suspension changes that made the 2 and 3 more 'grippy' than the 1.)

On the 1 the anti-roll bar has a small end link that comes down from the bar, through 4 rubber bushes and mounts to the side of the rear, front wishbone arm. If these rubbers look distressed and worn they need replacing.

The 2 and 3 are more solidly mounted and have a long link coming from the top of the anti-roll bar arm that mounts to the damper housing. Check the rubbers again. There are two inner bushes on the bar but you need a ramp to reach them and they seem to last well.

Check the bushes that mount the wishbones for condition and check the overall condition of the wishbones, hubs etc. they should be reasonably rust free and must be straight.



The green circle on the rear suspension picture highlights the rubber bush that wears on the rear bar. The red line indicates the path of the anti-roll bar on the E2 and E3, the green circle where it mounts. The third picture is of the E1's unique front suspension. It uses the same colour key as on the E2/E3. The blue arrow indicates the direction of the front of the car for all three pictures.

The rear leading arms mount into the body in an area I always feel is a rust trap, check the condition of there especially.

Whilst looking underneath check the overall condition of the bottom of the car. Signs of rust or dents should be investigated.

Documentation

Besides the usual UK items (MOT, log book, etc), there should be an SVA document. This looks like a MOT form but is a different colour. This tells you if the car was SVA'd – it has to be to run on UK roads. Check the chassis number/registrations all match up.

You may also get a document that tells you when the car had the speedo and odometer re-calibrated, and what those readings were.

There may also be Japanese service history books – for what they are worth. If the car is already UK owned check for service receipts etc to make sure it has been looked after.

Test drive

Stay cool!

It is very easy, especially if you are doing the test driving to be so bowled over by the performance that you forget everything else.

When you switch the ignition on, pause before using the starter. Check the dash lights. They should all go off except the oil lamp and battery.

Start the car.

The oil lamp and battery should go off straight away. If they don't it could be trouble. The battery lamp indicates a charging problem – may just be a loose fan belt. The oil lamp indicates excessively low oil pressure. If it stayed on for a short while after starting the engine and then went off it means the oil feed is slow and that needs serious investigation. It may be that the oil level is very low – but that doesn't say much about the seller's treatment of the car you are thinking of buying.

If an orange lamp with a car skidding stays lit that indicate a problem with the ABS – however it is not unknown for this lamp to flicker on for no reason. Turning off and back on usually gets rid of it.

Currently no-one is quite sure why (Microsoft car perhaps?)

If 'Check engine' lights up then the car needs serious investigation. Even if the seller indicates that it always lights up and thinks it must be a short circuit I would step away from the car until it was checked professionally.

There is a green turbo light (looks like a fan). This should only illuminate when the turbo is spooling up. NB: This only appears on the 1.8T cars and the Evo 1.

When driving, allow the car to warm through first of all and before doing any power tests go up and down all the gears. Check for clutch slip and shunt in the drivetrain. With the car in gears 2 and upward accelerate briskly and lift off suddenly. If the gear pops out then the synchomesh is worn.

Check each gear engages smoothly as this will also indicate gearbox faults. If both 5th and reverse are difficult it may indicate the nut at the end of the gearbox shaft is working loose. It is an easy job to pop the gearbox cover plate off and check the nut. Beware, if this is a problem and the nut comes loose it will pop a hole in the gearbox end cover plate and wreck 5th gear, and maybe more depending on the speed you are going. It happened to me at 10mph and I had to replace 5th gear, baulk rings, and 5th and reverse gear synchomesh.. If I was going faster it could have wrecked the whole box.

Listen for transmission noise, there should be virtually none. Be very wary of any distinct gnashing, whining, rumbles, or bangs. The car has the gearbox, a transfer box and three diffs so locating noises and causes is best left to a professional. If you accelerate hard and then lift off and the transmission whines like a touring car on TV then the box is heading for the junkyard. Be warned: gearboxes and transmission parts are very expensive (Approx. £1700 inc. VAT for a gearbox) and second-hand units are very difficult to get hold of.

The ride should be firm, but not crashy – unless the dampers are set to ‘third world bus’ as described earlier. On standard suspension there may be more body roll than expected. However, it should not wallow or feel heavy. The steering should be light and very direct with a large amount of feel and information coming through to your fingertips. If you arrived in a normal saloon the Evo should feel almost ‘alive’ and very light on its feet. A trailing throttle and on very tight corners there will be an understeer bias, however the Evo is sensitive to its suspension geometry and it may be that the car is not set-up right if this is excessive. If the rest of the suspension checked out ok but it feels a little ‘off’ on the road then this is the likely cause and can be fixed for about £70. The settings are on the MLR website.

Brakes should be effective and fuss free. There should be no juddering, rumbling or shaking that will indicate worn discs, worn pads or warped discs. The pedal should be firm and not spongy – which would indicate brake fluid and hydraulic problems. Any problems with the brakes should be checked out – an Evo gathers speed very quickly and you need to be able to get rid of that speed faster. The two-pot callipers fitted are not powerful enough to make your eyebrows fly off under hard braking but they should have plenty of authority.

After pootling about, checking all these things you can finally check the performance. With full throttle the turbo should be chuffing by the time you reach 3000rpm in 3rd gear. There should be a noticeable kick when the turbo comes on line and the green light on the dash should illuminate (E1). Held to the red line, there should be no hesitation, power fluctuation or cut-outs. Problems like this indicate boost pressure problems, fuel flow or spark. It may just need new plugs, or it may be the owner has increased the boost and the car cannot cope with it. Be very wary of boost increases unless done properly. If the car runs cleanly it should go like hell. Unless you came to view the Evo in a similar car it should seem unreal. If you think it feels only slightly faster than the Saxo VTR you turned up in does then there is something wrong.

When nailed in second gear it should leap forward like a kicked cat.

The revs in the lower two gears will reach 7000rpm almost faster than you can change gear.

When the test drive is over, allow the car to idle for a few minutes, this will cool the turbo but also allow you to check the engine temperature. The needle should be virtually dead centre and hardly move. You should also be able to hear the electric fans cut in every 40 seconds or so. Be very wary of excessive water temperatures.

Whilst it is idling, get out and listen to the engine whilst it is warm. You should only hear general gnashing, and the familiar Evo tappet.

Check the air con blows hot and cold. Cold should be freezing!

When you shut it off, check again for run-on and then pop the bonnet. Check for any coolant loses as the system remains pressurised.

If some water escapes from below the centre of the car it will be water discharged from the air-con system. It is easily identified because it is cold and clear. Coolant will be warm and contain anti-freeze.

Stand back and have a good think.

Running costs

An unpleasant fact of life is the purchase price of old performance cars and their running costs do not always suit the same pocket. When you are contemplating the purchase of any Evo you have to make sure you can afford to run it or you will have a thoroughly unpleasant experience.

Insurance costs.

The Evo range is considered group 19 out of 20 at the moment. This makes them expensive to insure.

Fuel.

An Evo is a thirsty bugger. Expect a best general MPG of about 22-23mpg. Even driving like a granny will not improve the situation. The best I have seen in almost 30,000 miles of driving is around 26-27mpg. This is exaggerated by the cars pitiful fuel tank size. Think of a range of about 230 miles between full tanks. An Evo will also need to be run on high octane super unleaded. Or, normal unleaded with octane booster added.

Servicing.

You must change the oil every 3000 miles because of the high turbo temperatures, and the oil must be a good quality synthetic or semi-synthetic. It is also a good idea to give them a proper service every 6000 miles. A copy of the official service schedule has not been translated into English yet (keep watching www.lancerregister.com), but plan cam-belt changes at around 40000 miles as an example. A thorough check quite often will ensure any expensive problems are avoided or reduced to a minimum.

A good local specialist is also very handy when getting the car checked over.

Parts.

Some parts can prove expensive, however if you look around you may find identical parts for other cars fit and are cheaper. A large number of parts will also have to be imported from Japan – however there are a number of companies in the UK that do that and have very reasonable prices for small items.

Large items (gearboxes, steering racks, etc) have to be shipped separately and can bump up the price hugely:

EG:

E1 gearbox, £1700+VAT +shipping +fitting

E1 power steering rack: £800+VAT+shipping+fitting

Other parts are not listed as being for an Evolution but do fit.

EG:

E3/4 brake pads are about £50, E1 front pads are about £130. However, they are the same! So buy the E3/4 pads. Likewise, I know of one person who paid £120 for rear pads to be shipped from Japan, then discovered that the same pads are used on another car and cost £27 each.

Currently I am working on lists of parts compatibility, and common part numbers to make it easier for all owners to get parts without being ripped off. Watch <http://www.lancerregister.com> for more news.

The real thing to bare in mind is that if you believe keeping the car in good fettle may be above your means, then don't buy the car. Without being looked after correctly they will quickly become dangerous to drive (due to their high speed), very expensive to repair and ultimately a financial liability if you try to sell it in a poor state.

Tony Crossley
E1-3 register secretary
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Technical specifications

| | | |
|-------------------|---|---------------------|
| Version | Evolution 1 | |
| Drive system | FULLTIME 4WD | |
| Chassis prefix | CD9A | |
| Model designation | SNGF | SNDF |
| Model of car | GSR Evolution | RS Evolution |
| Engine type | 2000 DOHC 16 VALVE ECI-MULTI INTERCOOLER TURBO | |

Measurements

| | | |
|-------------------------------|-------------|-------------|
| Full length (mm) | 4310 | |
| Overall width (mm) | 1695 | |
| Overall height (mm) | 1395 | |
| Wheel base (mm) | 2500 | |
| Front track (mm) | 1450 | |
| Rear track (mm) | 1460 | |
| Interior head room (mm) | 1805 | |
| Interior width (mm) | 1415 | 1400 |
| Minimum ground clearance (mm) | 150 | |
| Vehicle weight (kg) | 1240 | 1170 |
| Passenger capacity | 5 | |
| Vehicle gross weight (kg) | 1515 | 1445 |

Engine

| | | |
|--------------------------------|---|--|
| Model | 4G63 Turbo DOHC (16V) | |
| Number of cylinders | 4 cylinder | |
| Bore/stroke (mm) | 85.0x88.0 | |
| Total displacement volume (cc) | 1997 | |
| Compression ratio | 8.5 | |
| Net output (PS/rpm) | 250/6000 | |
| Maximum torque (kg/f-m/rpm) | 31.5/3000 | |
| Fuel supply device | ECI II multi-electronic control fuel jet | |
| Fuel tank capacity (L) | 50 L | |

Transmission

| | | |
|--------------|--------------------------|--|
| Gearbox type | Five speed manual | |
| Gear ratio | | |
| First | 2.571 | |
| Second | 1.600 | |
| Third | 1.160 | |
| Fourth | 0.862 | |
| Fifth | 0.617 | |
| Reverse | 3.166 | |
| Final drive | 5.433 | |

Other

| | | |
|-------------------------|---|--|
| Steering type | Rack & pinion (power steering) | |
| Minimum turn radius (m) | 5.3 M | |
| Front suspension | Macpherson strut | |
| Rear suspension | Strut with multi-link | |
| Front brakes | Ventilated disk (15 inches, 2 pot) | |
| Rear brakes | Disk (14 inches) | |
| Standard tyre size | 195/55R15 84V 4 hole | |

*Changes from Evolution 1 are highlighted with **

| | | |
|-------------------|--|------------------------|
| Version | Evolution 2 | |
| Drive system | FULLTIME 4WD | |
| Chassis prefix * | CE9A | |
| Model designation | SNGF | SNDF |
| Model of car * | GSR Evolution II | RS Evolution II |
| Engine type | 2000 DOHC 16VALVE ECI-MULTI INTERCOOLER TURBO | |

Measurements

| | | |
|---------------------------------|-------------|-------------|
| Full length (mm) | 4310 | |
| Overall width (mm) | 1695 | |
| Overall height (mm) * | 1420 | |
| Wheel base (mm) * | 2510 | |
| Front track (mm) * | 1465 | |
| Rear track (mm) * | 1470 | |
| Interior head room (mm) | 1805 | |
| Indoor width (mm) | 1415 | 1400 |
| Minimum ground clearance (mm) * | 170 | |
| Vehicle weight (kg) * | 1250 | 1180 |
| Passenger capacity | 5 | |
| Vehicle gross weight (kg) * | 1525 | 1455 |

Engine

| | | |
|--------------------------------|---|--|
| Model | 4G63 Turbo DOHC (16V) | |
| Number of cylinders | 4 cylinder | |
| Bore/stroke (mm) | 85.0*88.0 | |
| Total displacement volume (cc) | 1997 | |
| Compression ratio | 8.5 | |
| Net output (PS/rpm) * | 260/6000 | |
| Maximum torque (kg/f-m/rpm) | 31.5/3000 | |
| Fuel supply device | ECI II multi-electronic control fuel jet | |
| Fuel tank capacity (L) | 50 L | |

Transmission

| | |
|--------------|--------------------------|
| Gearbox type | Five speed manual |
| Gear ratio | |
| First * | 2.750 |
| Second * | 1.684 |
| Third | 1.160 |
| Fourth | 0.862 |
| Fifth | 0.617 |
| Reverse | 3.166 |
| Final drive | 5.433 |

Other

| | |
|---------------------------|---|
| Steering type | Rack & pinion (power steering) |
| Minimum turn radius (m) * | 5.5 |
| Front suspension | Macpherson strut |
| Rear suspension | Strut with multi-link |
| Front brakes | Ventilated disk (15 inches, 2 pot) |
| Rear brakes | Disk (14 inches) |
| Standard tyre size * | 205/60R15 91H 4 hole |

*Changes from Evolution II are highlighted with **

| | | |
|-------------------|--|-------------------------|
| Version | Evolution 3 | |
| Drive system | FULLTIME 4WD | |
| Chassis prefix | CE9A | |
| Model designation | SNGF | SNDF |
| Model of car * | GSR Evolution III | RS Evolution III |
| Engine type | 2000 DOHC 16VALVE ECI-MULTI INTERCOOLER TURBO | |

Measurements

| | | |
|---------------------------------|-------------|-------------|
| Full length (mm) | 4310 | |
| Overall width (mm) | 1695 | |
| Overall height (mm) | 1420 | |
| Wheel base (mm) | 2510 | |
| Front track (mm) | 1465 | |
| Rear track (mm) | 1470 | |
| Interior head room (mm) | 1805 | |
| Indoor width (mm) | 1415 | 1400 |
| Minimum ground clearance (mm) * | 175 | |
| Vehicle weight (kg) * | 1260 | 1190 |
| Passenger capacity | 5 | |
| Vehicle gross weight (kg) * | 1535 | 1465 |

Engine

| | | |
|--------------------------------|---|--|
| Model | 4G63 Turbo DOHC (16V) | |
| Number of cylinders | 4 cylinder | |
| Bore/stroke (mm) | 85.0*88.0 | |
| Total displacement volume (cc) | 1997 | |
| Compression ratio * | 9.0 | |
| Net output (PS/rpm) * | 270/6250 | |
| Maximum torque (kg/f-m/rpm) | 31.5/3000 | |
| Fuel supply device | ECI II multi-electronic control fuel jet | |
| Fuel tank capacity (L) | 50 L | |

Transmission

| | |
|--------------|--------------------------|
| Gearbox type | Five speed manual |
| Gear ratio | |
| First | 2.750 |
| Second | 1.684 |
| Third | 1.160 |
| Fourth | 0.862 |
| Fifth | 0.617 |
| Reverse | 3.166 |
| Final drive | 5.433 |

Other

| | |
|-------------------------|---|
| Steering type | Rack & pinion (power steering) |
| Minimum turn radius (m) | 5.5 |
| Front suspension | Macpherson strut |
| Rear suspension | Strut with multi-link |
| Front brakes | Ventilated disk (15 inches, 2 pot) |
| Rear brakes | Disk (14 inches) |
| Standard tyre size | 205/60R15 91H 4 hole |