ULTIMATE LR

MAINTAIN · LEARN · EXPLORE

The Defender 90/110 Buyer's Guide

What first-time buyers need to know
before the expensive mistakes happen

THE CLASSIC DEFENDER · 1990 – 2016 · FREE GUIDE

Why This Guide Exists

A Defender can be one of the most enjoyable vehicles you'll ever own — and one of the easiest to buy badly.

The biggest problems aren't always the obvious mechanical ones. It's corrosion, poor repairs, neglected maintenance and badly executed modifications hiding under a cheerful exterior and a confident seller's description. Any of these can turn an exciting purchase into an expensive project.

This guide teaches you **what matters, why it matters, and the warning signs to recognise** — so you can tell a good one from somebody's unfinished project.

Some of the advice in here comes from genuine hands-on Land Rover ownership and mechanical experience — you'll find it marked **FROM EXPERIENCE** or **OWNER'S TAKE** throughout. Treat it as practical observation from someone who has owned and worked on these vehicles, not lab data.

Which is the trap, in one line:

> *"I don't want to buy somebody else's experiment."*

A Defender has usually been *someone's* experiment — sometimes a good one, sometimes a wallet-draining one. Your job as a buyer is to work out which, before money changes hands.

90, 110 or 130?

The names are wheelbases:

- **90** — short wheelbase, two side doors. Compact, recreational, the classic look.
- **110** — long wheelbase, four side doors. Family space and real load capacity.
- **130** — extra-long pickup/crew-cab, particularly suited to work and load-carrying.

(The numbers are marketing-rounded — the "90" is actually 92.9 inches, the "110" exactly 110. Handy to know when checking a seller's description.)

Payload matters if you'll carry or tow: roughly 0.6 tonnes for the 90, 1.03 for the 110, 1.4 for the 130. Body styles run from three- and five-door wagons to pickups and hardtops.

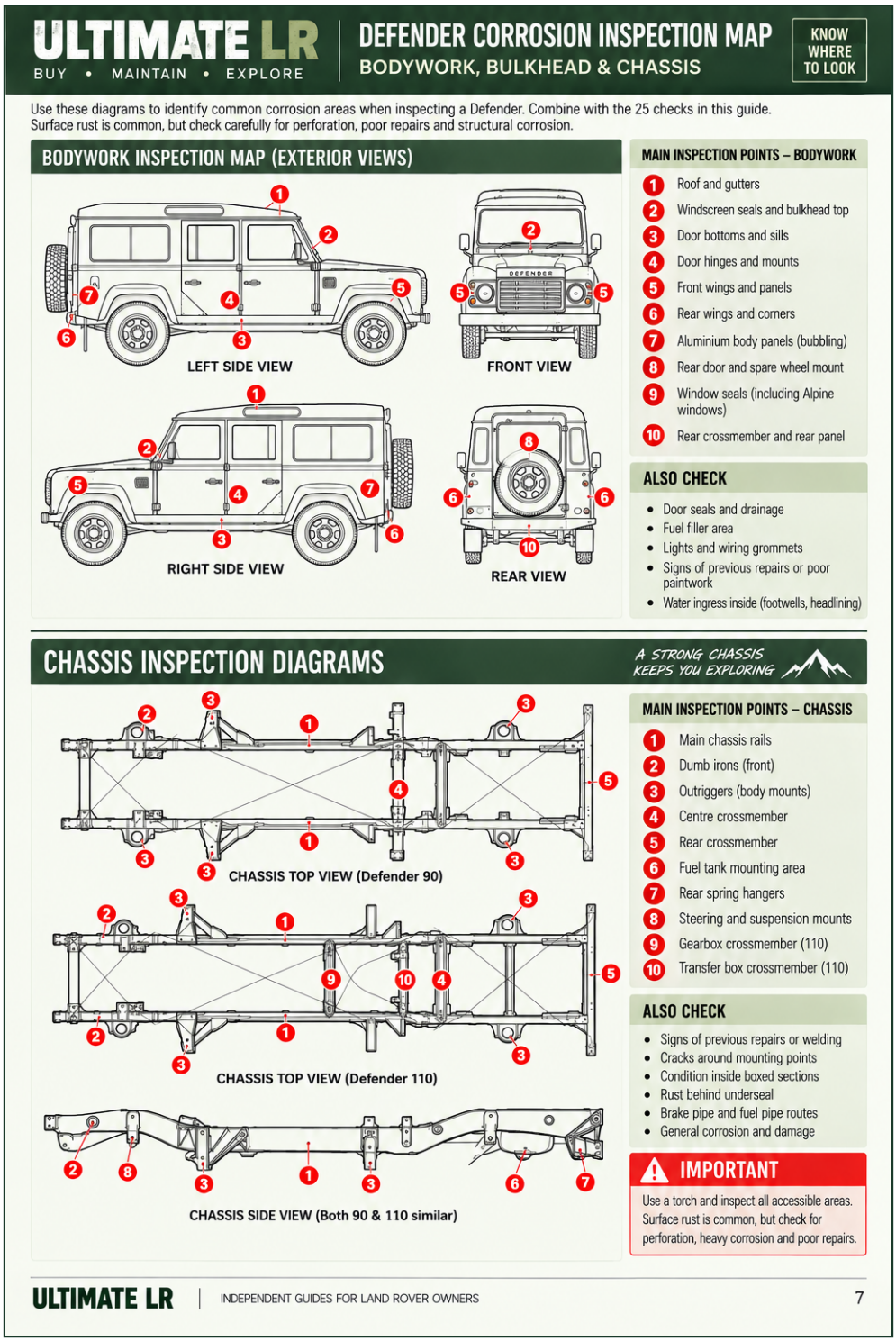
Key dates:

- **2007** — big update: more modern dashboard, better ventilation, corrosion-resistant door improvements, and the end of the inward-facing rear seats (European law), cutting maximum occupancy from nine to seven.
- **2011/2012** — final round of updates, as Land Rover publicly admitted a replacement was coming (the DC100 concept, Frankfurt 2011).
- **29 January 2016** — the last one built. European pedestrian-safety and airbag rules for commercial vehicles ended the original design after more than two million examples since 1948.

Chassis First, Always

Rust is the number-one long-term concern. The body skin is aluminium, but the chassis, bulkhead and crossmembers are steel — and steel rusts. Depending on age, that ranges from minor welding to a whole new chassis. This is where the expensive mistakes live.

The map below shows the bodywork and chassis areas that matter most — use it to know where to look before you go, and take it with you when you do.



The Defender Corrosion Inspection Map — bodywork, bulkhead and chassis. Know where to look before you go.

Where to look, in order:

1. **The chassis.** Get underneath with a torch and a screwdriver (with the seller's permission) and work front to back. Tap with something metal: a sharp ringing sound means good steel; a dull thud can mean rot. The **rear crossmember** is typically the first area to suffer — check it before anything else. The **bulkhead outriggers** are the other classic mud trap.
2. **The bulkhead.** Lift the carpets and inspect the footwells and floor-plate seams — aluminium floor plates on a steel bulkhead trap moisture and cause galvanic corrosion. Look underneath at the bulkhead feet where they bolt to the chassis. Check for bodged filler with a magnet. Check around the windscreen hinges, where water tracks in from the seal.
3. **Repairs.** Any welding should have been done to a high standard. As Paul Myers (MD of specialist Britpart) put it: beware anyone who describes welding as *"not pretty but strong"* — it is rarely strong.
4. **Doors.** Fine outside, but their steel inner frames corrode — rotten frames leave rusty deposits when the door slams.
5. **Electrics.** Look for bodged wiring and badly-fitted accessories.

PRACTICAL TIP — Good signs: clear undersealing and rust-proofing done conscientiously; a replacement galvanised chassis or galvanised/stainless bulkhead already fitted (real futureproofing); honest wear and tear. Scruffy, hard-worked trucks are often better cared for mechanically than shiny ones — and be far more suspicious of a freshly pressure-washed engine bay than of muddy floor mats.

PRACTICAL TIP — View the vehicle in the rain if you can, and check around the windscreen and sunroof for leaks. On a dry day, pour a small bottle of water around those seals and look inside.

FROM EXPERIENCE

"I don't want to buy somebody else's experiment."

At any viewing, the **chassis comes first**. Then wear items — seats, steering wheel — because they tell you the life the vehicle has actually had. Modifications deserve careful scrutiny: a bull bar or winch can be genuinely useful, but my general preference is a Defender that remains as original as possible. Every modification is somebody else's decision you inherit — and possibly somebody else's mistake.

FROM EXPERIENCE

Where the vehicle has lived matters as much as how it was maintained. **Northern European vehicles** have fought road salt and galvanic corrosion their whole lives — inspect their corrosion extra carefully, but they may come with documented service histories. **Vehicles from Africa** often escape the salt, but repair standards vary wildly — I've personally found bolts left loose, or not replaced at all, after repair work. Less rust does not automatically mean better maintenance. Match your suspicion to the vehicle's history, not its cleanliness.

Engines: The Short Version

Every Defender engine has a character, a fan base and a set of known weaknesses. You don't need a mechanic's knowledge — you need to know what each type will ask of you, and what to check.

The diesels

200 Tdi (1990–1994) — the enthusiast's choice for raw simplicity. Maintenance is genuinely home-mechanic territory. Check: the viscous fan coupling (spin the fan by hand — free spinning with no resistance means the coupling has failed and overheating follows), the water pump, and the cambelt history (it must have been done with proper tooling — ask). Overheating kills these engines, so coolant condition and service history matter.

300 Tdi (1994–1998/2006) — virtually a new engine under the same name, and the sweet spot for many buyers: simple to maintain, no electronics to speak of. Same checks as the 200 Tdi, plus top-end oil leaks from hardened seals. Expect roughly 32–34 mpg from either Tdi (owner-reported; real figures vary hugely with use).

TD5 (1998–2006) — the most powerful and most modern of the "classic" diesels, and many owners' favourite. Its known weak points are all checkable: head gasket failure caused by plastic dowels between block and head (**metal replacement dowels are a positive buying sign**), crankshaft pulley wear (rattling at idle, squeaking at shutdown), fuel-pressure regulator failures (**the metal replacement part already fitted is a good sign**), injector harness O-rings, and oil creeping into the ECU (erratic speedometer). Ask whether the oil pump bolts have been checked — worth doing before you drive it home.

Puma (2007–2016, 2.4 then 2.2) — the most refined of the lot, though owners complain about short gearing in slow traffic. On the 2.4, inspect the cylinder head with a bright light for carbon, leaks and small fractures, and listen carefully at idle. On the 2.2, turbo pipe detachment is a known fault, and fuel-rail failures make the engine jumpy — easy to spot on a test drive.

The petrols

3.9 Rover V8 — robust and well understood, but thirsty (~14 mpg) and engines with patchy service histories can suffer camshaft or main bearing failures.

5.0 V8 — don't be fooled. The famous ~400 bhp 5.0 Defender is the 2018 **Works V8 70th Anniversary**: a Land Rover Classic restomod, just 150 built, from around £150,000. It is not a normal production Defender. If an ad hints otherwise, walk away.

BMW M52 2.8 (South Africa only, 1997–2001) — the fastest production Defender ever made (0–100 km/h in 9.3 seconds), desirable and genuinely rare. Watch the usual BMW-era faults: water pump, VANOS, cooling-system leaks.

OWNER'S TAKE

My preference is the **TD5** — the best balance of reliability and power while staying simple and uncluttered by electronics. For maximum mechanical simplicity, I rate the **200Tdi**. One of the big advantages I've found with both is **the amount of parts support and owner knowledge available**: *"When something goes wrong, there's a huge amount of practical information in videos, forums and owners' groups. As an owner, I've found that particularly useful."* Whichever engine you choose, though, remember: **corrosion and prior environment matter more than almost anything else** in judging the work a vehicle will need.

Brakes, Fuel and Electrics — Quick Checks

- **Brake lines** can leak on any age of Defender. Inspect before taking any test drive.
- **Soft or fluctuating brake pedal?** On Puma diesels the vacuum pump is the first suspect; on other engines ask your parts supplier for the equivalent.
- **Weak headlights** are a common owner complaint; an LED upgrade is the usual fix if originality doesn't matter to you.
- **Erratic fuel gauge** usually means the fuel-level sensor — a known, fixable item, not necessarily a dealbreaker.
- **Transfer case** — 2002–2006 models are particularly known for failures from poor lubrication. A vehicle with a replacement or rebuilt transfer case is a *positive*: it's an expensive fix someone else already paid for.

Recalls: One Simple Rule

These vehicles had a series of recalls over the years — covering items like brake hoses, parking brake, seat-belt mountings, axle welds and wheel hubs. You don't need to memorise the list.

The rule: check the specific vehicle's recall status by its VIN through the official service for your country — Land Rover, the DVSA in the UK, or the NHTSA database in the US. It takes minutes and it's free. Confirm before you buy, not after.

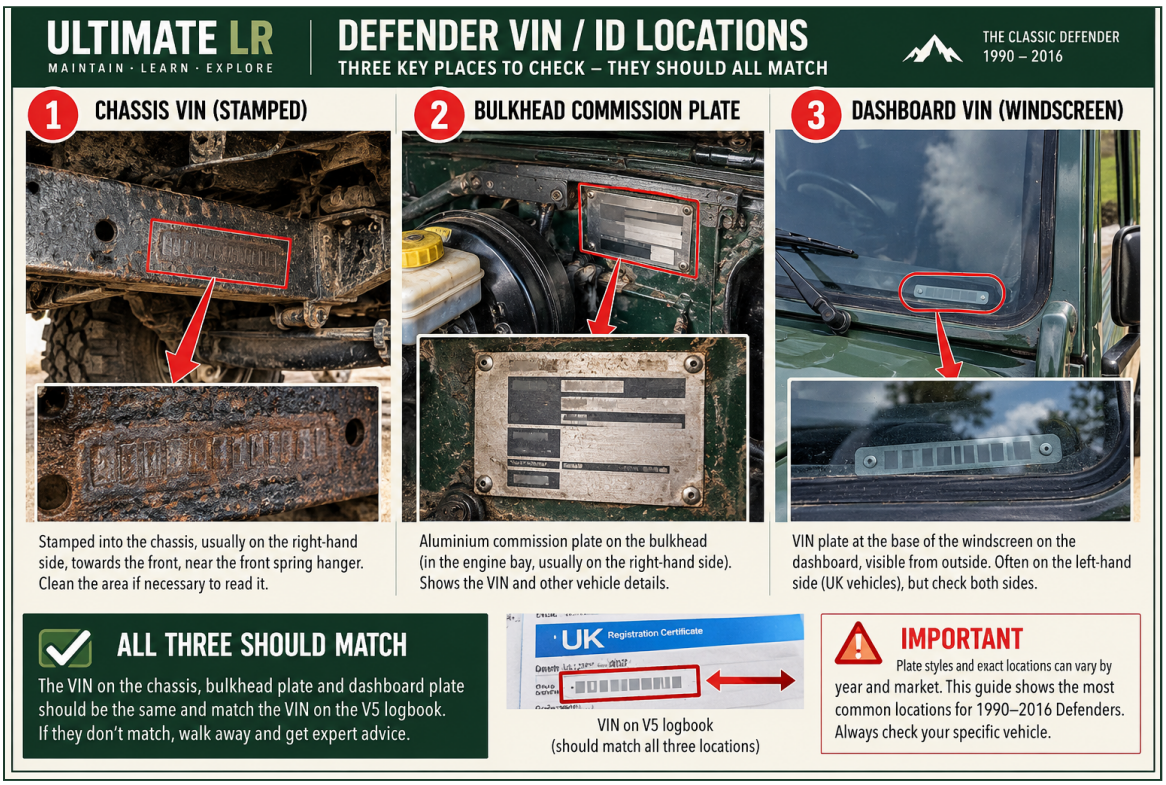
Questions, Paperwork and the Test Drive

Before you view

- **Do your homework online.** UK buyers: look up the MoT history by registration on gov.uk (defects, advisories, how fastidious the previous owners were), check when the V5 was last issued, and run an HPI-type check for write-offs, theft and finance. Elsewhere, use whatever national equivalent exists.
- **Never buy without viewing in person.** Good photos hide a multitude of sins. Take a friend who knows Land Rovers if you can.
- **Be scam-aware.** Cloned ads with temptingly low prices are common. A deposit demanded by bank transfer before you've seen the vehicle is a walk-away signal.
- **Cap your price before you search.** Expect to negotiate — sellers rarely advertise their true bottom line, and genuine faults you find at viewing are legitimate negotiation material.

Paperwork and questions

- **The registration document (V5 in the UK)** should show the seller's own name and address. VIN numbers on the document must match the vehicle — on the chassis and on the bulkhead (under the bonnet on pre-1993 vehicles, on the dashboard on later ones).
- **Service history:** more is better, but an enthusiast-owned older Defender with a folder of receipts can be worth just as much. Peek at the filters if you can — new-looking ones suggest care.
- **Ask directly about welding, chassis and bulkhead work** — what was done, and by whom. Decide which modifications you'd want to undo and how reversible they are: springs and bumpers are easy; chequerplate and light guards leave holes that need filling and painting.
- **Oil leaks:** a weep is normal; a parking space swimming in oil is not.
- **Tyres:** permanent four-wheel drive means both axles must match in size (ideally brand and tread pattern too). Check wear and date stamps.



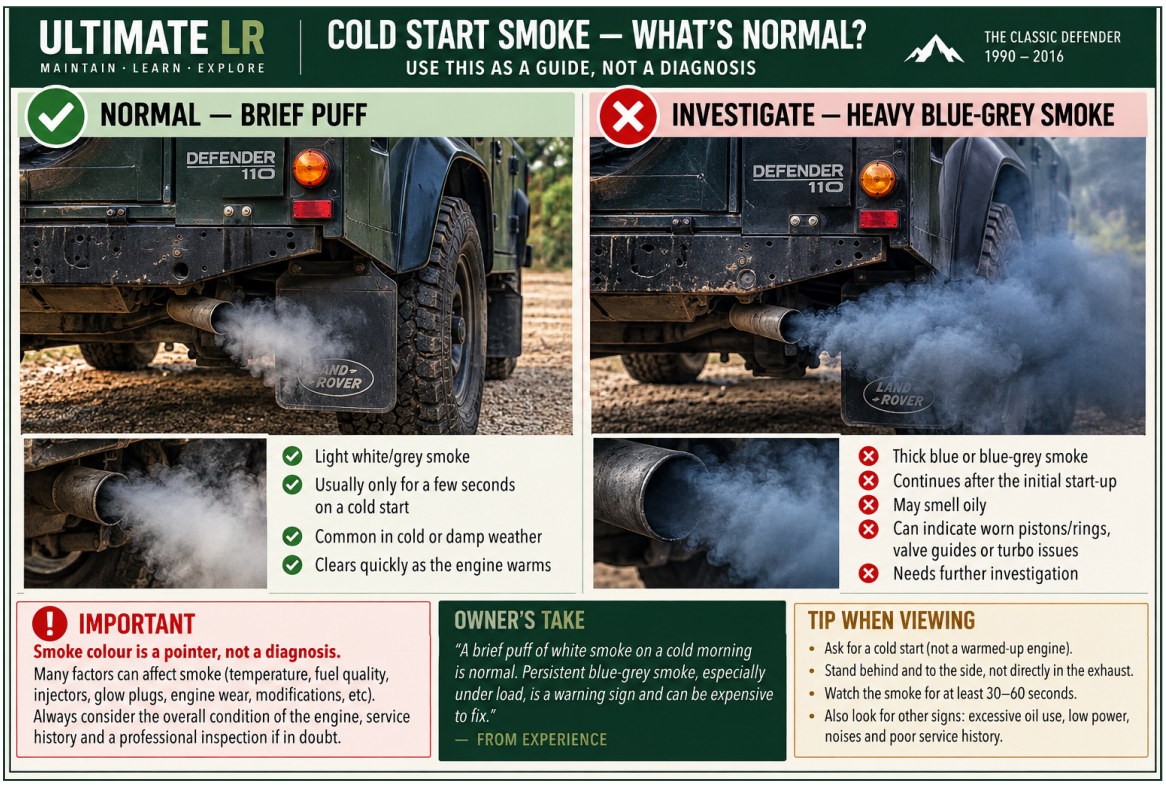
VIN & identity check — the standard UK Defender checking points. Match every number against the registration document.

The test drive

Make sure the engine is **stone cold** before starting — a warm engine can hide cold-start faults. Fifteen focused minutes tells you most of what you need to know:

1. **Cold start:** the oil-pressure light should go out promptly; a brief puff of smoke is normal, heavy blue-grey smoke is not. The idle should be smooth and constant, and the engine should start instantly on the key.
2. **Steering:** hold the wheel at the top and feel for side-to-side free play. A little is normal; more than about an inch before resistance suggests worn bushes, balljoints or steering-box wear.
3. **Clutch:** the biting point should be around two-thirds up the pedal. Very high suggests a worn clutch; very low suggests the master or slave cylinder.
4. **Brakes:** the pedal should go firm within an inch or so of the top, and sink slightly when you hold it while starting (that confirms the servo).
5. **Moving off and on the road:** watch the temperature gauge (normal just under halfway); check the mirror for black smoke under acceleration; listen for driveline whines and thuds over bumps.
6. **Brake firmly on a straight stretch:** it should pull up straight without snatching. Clicking or groaning on full lock suggests worn CV joints.
7. **Everything electrical:** switches, horn, windows, heater, extras — find out now, not after purchase.

One last habit worth taking up: after the drive, have a final look around the vehicle where it was parked. A quick walk-round on the ground it stood on costs nothing — and anything that has appeared underneath since you arrived is worth a second look before you talk price.



Cold-start smoke — smoke is a pointer, not a diagnosis. A brief puff is normal; heavy blue-grey smoke warrants investigation.

Walk-away signals

- Seller refuses a proper inspection, withholds the registration, or won't answer basic questions.
- Deposit demanded before viewing; price too good to be true.
- "Not pretty but strong" welding. Bodged wiring. A pressure-washed engine bay hiding leaks.
- Registration document not in the seller's name; VIN numbers that don't match.
- Signs of hurried cover-ups on the areas that matter most — chassis, outriggers, bulkhead feet.

The Honest Character of Ownership

Go in with your eyes open: assume mechanical issues will exist, expect the odd annual-inspection surprise, and expect to turn a wrench yourself now and then.

In return, you get one of the last vehicles on the road with a genuinely strong ownership community — where strangers wave at each other because they own the same truck, and where a Saturday with a screwdriver and an oily rag is part of the deal, not a punishment.

If that sounds like your kind of ownership rather than an inconvenience, you're already the right kind of buyer. Some people will think you've got a screw loose. Ignore them. Fortunately for you, so has your Defender.

Sources & Important Notes

- Vehicle and engine background drawn from Land Rover's published history and established buyer guidance from Land Rover specialists, including the Land Rover Monthly / Land Rover Hub *Defender Buying Guide* and commentary from Britpart, one of the world's largest independent Land Rover parts specialists.
- Common-fault guidance draws on published specialist-repair sources and long-standing owner-community knowledge.
- **Every used vehicle is different.** The patterns described here are common tendencies, not certainties — an individual vehicle may defy any of them in either direction.
- Owner-experience sections reflect one experienced owner's personal views. They are valuable practical guidance, but they are personal experience and opinion, not universal fact.
- **Recall status must be checked per-vehicle by VIN** through the official service for your country.
- This guide does not replace an inspection by a qualified specialist. When in doubt, get one — it's usually the cheapest money you'll spend on a Defender.

What's Next

This guide teaches you **what to look for and which warning signs matter**. Knowing is most of the battle — but on the day, standing in a muddy field with a seller talking at you, it helps to have a system.

That's what the forthcoming **Defender Pre-Purchase Inspection Pack** is for: a structured, printable set of checklists and scorecards designed to be taken to an actual vehicle and worked through during the inspection — from chassis to paperwork to test drive, with a clear BUY / INVESTIGATE / WALK AWAY decision at the end.

Until then: chassis first, paperwork always, and never buy somebody else's experiment.