

Report and Health Check

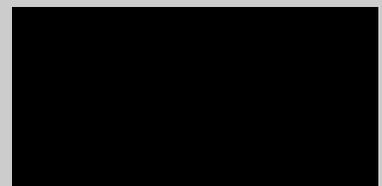
BMW E34 520i



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Report Date:
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Prepared For:



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1. Introduction

Thank you for choosing Declan Lee Motorsport (DLM) to carry out a detailed inspection and paid report on your vehicle.

It has been a genuine pleasure to have your car in our workshop, and we would like to thank you not only for trusting us with the vehicle itself, but also for investing in a comprehensive report such as this.

Reports of this level are designed to give you complete transparency and a far deeper understanding of your vehicle than a standard inspection or MOT-style check would ever provide.

From the moment the vehicle arrived with us, it was clear that this is an example worth taking the time to assess properly. We see a wide range of E34's come through the workshop, and having the opportunity to work closely on yours has allowed us to build a clear and accurate picture of its overall condition, both mechanically and structurally.

This report has been carefully put together to document everything in detail. It outlines the initial condition the vehicle arrived in, the diagnostic processes undertaken, the work we have already carried out, and our professional recommendations moving forward. Our intention is not simply to highlight faults, but to give you a complete and honest overview from essential repairs through to preventative maintenance and longer-term improvements.

At DLM, we aim to work to a standard that goes well beyond the minimum required for roadworthiness. While an MOT ensures a car meets legal requirements, our approach is closer to that of a specialist inspection, where attention is given to the finer details that contribute to reliability, longevity, and overall vehicle quality. This is the level of detail we would expect ourselves, whether preparing a car for the road, the track, or even a concours-level presentation.

Throughout the time your vehicle has been with us, it has been handled with the same care and attention we apply to all cars within our workshop. Every stage of inspection and repair has been carried out methodically, ensuring that any findings are accurate and any work completed is done to a high standard.

This report will guide you through each area of the vehicle in a clear and structured way, allowing you to fully understand its current condition. It will also help you make informed decisions on what work you may wish to carry out next, whether that be immediate repairs, preventative servicing, or future restoration.

Our aim is simple, to ensure you have complete confidence in your vehicle and a clear path forward in maintaining and improving it.

2. Current Status

Upon arrival, the vehicle was in a non-running condition. The car now runs and drives!

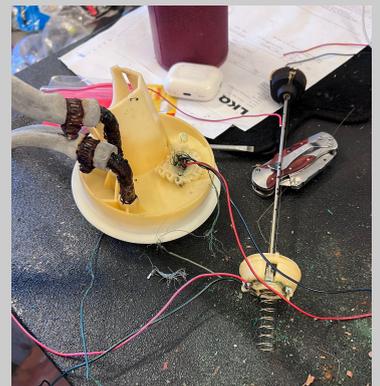
Initial diagnostic procedures identified a fault within the fuel system, specifically a lack of fuel delivery to the fuel rail. Further investigation confirmed that the fuel pump was not functioning.

Upon removal of the fuel sender unit, we found the internal condition to be significantly deteriorated; The pump itself was heavily corroded, internal rubber hoses had perished and was breaking apart, and the wiring supplying the pump was brittle, corroded, and partially split.

Due to the rarity of replacement sender units, particularly those incorporating the fuel level sensor, we carried out a careful refurbishment of the original component. This involved dismantling the unit, cleaning all electrical contacts, removing the damaged wiring, and replacing it with new sections which were then professionally soldered back into place. We do this to increase the fuel gauge accuracy.

In addition the fuel system had been clogged by old fuel which had degraded into a thick, varnish like substance. To resolve this, We replaced the fuel filter and all fuel lines were flushed through with compressed air to remove any contamination.

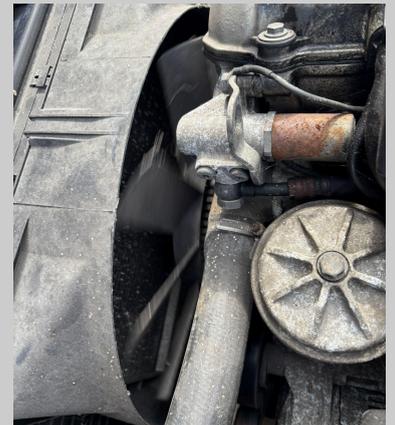
Following completion of these works, the vehicle started successfully and is now running. It has been moved under its own power around our yard and operates correctly in lower gears. At this stage, further driving is limited until additional servicing is carried out.



3. Engine Health

We carried out a compression test, resulting in strong and even readings across all cylinders, indicating a healthy engine internally.

We ran our OBD1 scanner to the D100 20 pin connector to run a digital diagnostic, meaning we cleared old fault codes and then scanned for fault codes that were persistent. There was a repeating error for a faulty cam position sensor, which means it still works as the car wouldn't run right without it, however it is reading an occasional error which may lead to a non-start situation in the future. This may also be caused by the starter motor which occasionally when starting the car does not engage correctly, if this happens the issue will sound obvious, stop cranking and try again. This is a sign of a new starter motor needing replacement in the future.



Otherwise the engine runs smoothly with no signs of abnormal mechanical noise, and there are currently no major oil leaks with a slight weep coming from the front of the rocker cover, not excessive and not bad enough to leak down the side of the engine block or to be of current concern.

Given the length of time the vehicle has been stationary, an oil and filter change is strongly recommended as a priority.

The cooling system is functional, and the coolant hoses are currently holding pressure. However, they are beginning to show signs of age-related wear, including surface cracking and dryness. While not immediately failing, these should be considered for replacement as preventative maintenance.



We have found that M50 Engines like the one found in your E34, the viscous fan clutch can become weak, meaning in the case of your E34 you could stop the fan with your hands, whereas it should normally try and take a finger if you did that to a functioning viscous fan. This is an early sign of failure and may lead to cooling inefficiency, particularly in traffic or during extended idling.

When driving a car that has sat for a long period of time it is extremely important to keep an eye on the gauges. Since the cooling system has not seen a heat cycle in so many years, components within the engine such as the thermostat which relies on temperature to operate can become stuck, this can happen at any time. If you find yourself with the temperature in the red, switch the engine off immediately, and coast to a stop. This situation can be avoided with a new thermostat, waterpump and viscous fan clutch, Replacement is recommended, but not required.

Overall the engine in this E34 is healthy and is ready to take on the roads after a fresh fluid change, which is great news

4. Drivetrain

Starting with the clutch, since we first got the car running we were able to drive the car straight away, which is a great win! We then looked into how the car could have fixed itself from when you last operated the car. We discovered the fluid to be very discoloured meaning that it may not perform well if it gets hot. Perhaps this was the reason it has magically fixed itself. The clutch is quite worn with about 30% health remaining, that being said with careful driving that could last many more miles, so you will be happy to know this car does not need a clutch replacement.

The drivetrain is generally in good condition for a vehicle of this age. The rear differential and propshaft both show surface corrosion, which is typical, but there are no immediate concerns regarding their structural integrity or operation.



As the vehicle has been stationary for an extended period, we recommend replacing both the gearbox and differential oils. This is a preventative measure to ensure proper lubrication and to protect internal components as the vehicle returns to regular use.

5. Suspension

The suspension system remains functional, there is no oil or weeping from the shocks currently. This could change after driving again but currently all 4 shocks and springs are in good order. Though several components are showing signs of wear consistent with age. While there is no excessive movement present at this time, a number of bushes and associated components are beginning to deteriorate and will require attention in due course to maintain ride quality and handling.

6. Body Condition

The vehicle presents in fair condition overall, with cosmetic wear in line with age and use. The paintwork is faded across multiple areas, with some sections worn down to the primer. There are also a number of minor dents and general imperfections visible around the body. There is missing trim on the passenger-side door, along with various age-related marks throughout. Structurally, however, the car remains sound. With a full respray and minor cosmetic refurbishment, the vehicle would present extremely well.

7. Underbody Condition

The underbody condition is generally fair but does highlight some areas requiring attention.

The sills are structurally intact, although the seam lines have been distorted in places, most likely due to incorrect jacking in the past. The rear jacking points show surface corrosion and would benefit from cleaning and protective treatment.



More notably, the front jacking points are heavily corroded and will require welding. The full extent of this corrosion cannot be confirmed until the affected areas are cut back.

This means that it will be very unlikely it will pass a MOT in its current condition.

The exhaust system also shows signs of corrosion, and while currently intact, it may require repair or replacement in the future. Currently no leaks and sounds just as good when it was a running and driving car all those years ago.

The fuel lines are in usable condition but would benefit from a protective coating to prevent further degradation.

Overall, the main issue here is the rust to the jacking points, as there is a possibility it will not pass an MOT, there are two options to repair, now the rust is something that can only be quoted on our hourly welding rate which is £80 Per Hour. The full extent of the hours required can only be diagnosed once we start cutting away the rust, so the hours we quote are subject to change.

A simple metal patch can be done here, however it won't be possible to weld to the inner structure, which means the car can't be jacked up on this area. This solution would pass an MOT and take 3 hours of welding.

What we would recommend is the rust be totally cut out, a thick metal plate fitted and repair the inner sill which as you can see from the above photo is bent flat and rusting. This would allow for the OEM rubber jacking point to fit into the hole you can see in the middle of the jacking point. This solution would allow the car to be jacked up on this area as intended and take 4-5 hours of welding.



8. Electrical

The electrical system is largely operational, after we fit a new battery, which is a standard procedure for a car that has not been used for such a long period of time.

Though a small number of issues have been identified. There was a battery drain present, which is believed to be linked to an aftermarket alarm system. The system has been installed in a non-standard manner, and an audible relay clicking suggests it is the source of the issue. Rather than removing the alarm system we rewired it correctly allowing it to not click the relay, so there is no longer a battery drain present.

Additionally, the horn is not functioning, and the driver-side front fog light is damaged, with water ingress having affected its condition. All other lighting systems are currently working as expected.

9. MOT Considerations

There are several areas that are likely to result in advisories or potential failures. These include the condition of the tyres, All four tyres are heavily dry-rotted, with one also showing a slow puncture, and will require replacement before any road use. I have ordered a set of tyres for replacement.

The front jacking points are rotten to the point where it won't realistically pass and needs a plate welding. The brake wear may pass but all 4 discs are pitted therefore brake pads and discs are recommended. Small other fixes are the inoperative horn and damaged fog light.

Addressing these items prior to testing will significantly improve the likelihood of a successful MOT pass. This is something to discuss on your visit to us.

10. Servicing

We recommend that the vehicle now undergoes a full service, now the car is currently running and driving. On the next page there is a breakdown of the different items. These come with a recommendation level with focus of safety, drivability and the costs involved.

This would involve replacing key service components and age-affected items that have deteriorated during the period the vehicle has been stationary. Taking this approach ensures the car is not only running, but doing so reliably and as intended with keeping the budget in mind.



11. Recommended Next Steps

The list below shows what we would recommend for replacement:

Engine Service Items:

- Air Filter - Highly Recommended
- Cabin Filter - Not Required - Recommended
- Fuel Filter - Highly Recommended - Fitted - Invoiced
- Spark Plugs - Recommended - Ordered
- 10W- 40 Castrol Engine Oil - Highly Recommended - In Stock
- Oil Filter - Highly Recommended - In Stock

Engine Components:

- Water pump - Not Required - Recommended
- OEM BMW Camshaft position sensor - Not Required - Recommended
- OEM BMW Crankshaft position sensor - Not Required - Recommended
- Rocker cover gasket - Not Required - Recommended
- Viscous fan clutch - Recommended

Electrical:

- Battery - Highly Recommended - Fitted - Invoiced
- Starter motor - Not Currently Required - Recommended

Brakes:

- Brake discs & pads - Recommended - In Stock
- Brake fluid - Highly Recommended - In Stock

Transmission & Driveline:

- Clutch fluid - Highly Recommended - In Stock
- Gearbox oil - Recommended - In Stock
- Differential oil - Recommended - In Stock

Suspension:

- Suspension bushes Not Currently Required - Recommended
- Drop links Not Currently Required - Recommended

Cooling System

- Coolant - Highly Recommended - In Stock

Wheels & Tyres

- 225/60 R15 tyres (x4) - Highly Recommended - In Stock - Invoiced

General Fluids

- Power steering fluid - Not Currently Required - Recommended
- Washer fluid - Highly Recommended - In Stock

Exterior / Misc

- Bonnet gas struts - Highly Recommended - In Stock
- Front fog light (damaged) - Not Currently Required - Recommended
- Wiper blades - Highly Recommended - In Stock

12. Finishing Note



Thank you again for placing your trust in DLM and for choosing us to carry out this detailed inspection and report on your vehicle. It has been a genuine pleasure to have the car in our workshop and to spend the time properly assessing it.

I am happy to say we have achieved exactly what we set out to do, which was make this sentimental car run and drive again without breaking the bank.

Our overall impression is a positive one, with the vehicle showing strong underlying foundations, a healthy engine, a now functioning fuel system, and a generally solid structure; however, there is corrosion present around the jacking point which will require welding to restore structural integrity in that area, and aside from this, the remaining items requiring attention are largely typical wear and tear issues.

Once these points are addressed, the car will not only improve in reliability and drivability but will also present far better overall, both mechanically and cosmetically. With the right approach, it has every opportunity to become a very well-sorted and enjoyable example that you can use with confidence.

We would be more than happy to assist you with the next stages, whether that involves essential mechanical work, preventative maintenance, or taking things further with cosmetic improvements. As always, we can offer secure storage within our gated facility while any work is being carried out.

It has been a real pleasure working on your vehicle. Cars like this are exactly why we are passionate about what we do, and we look forward to supporting you in getting it to where it deserves to be.

Warm regards,

Declan Lee - Director

Preserving the classics, one drive at a time.

Any Questions please do reach out via phone call, text or in person.

Thank you again for choosing DLM.

Declan Lee