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Hunt for literature that relates to your car. A good workshop manual is essential, and if you're really lucky, an obliging expert will have written a model-specific restoration manual. Search old

issues of **Practical Classics** for relevant tech features and scour the internet for stories of people



# PLANNING YOUR RESTO PROJECT



#### How to turn a festering nightmare into the classic of your dreams

ars are not complicated. Moving people in a specific direction while keeping them safe, dry and comfortable simply requires a large number of little bits of metal, rubber and plastic. Restoring a car involves repairing or replacing any bits of metal, rubber or plastic that aren't doing their jobs

properly. Take care of your thrust washers, and your axle assemblies will take care of themselves. The key to planning a restoration is to break down a big, daunting problem into a series of small, manageable ones. Work out how to solve these, put them in a logical order, calculate how much time and

the advice on these pages, and your

money will be needed for each, and you'll have a watertight restoration plan. Follow restoration will be off to a good start.



Tools A well-stocked tool cabinet leads to self-sufficiency and reduces the risk of damaging components or skinning your knuckles. Basic metalworking kit and a MIG welder will quickly save the money you forked out for them. Specialist tools can be hired from local renters or borrowed from people in pubs [really? - Ed]. Clubs often have car-specific tools to loan to their members.

Stock up on reading matter

Maximise

capabilities

your

The easiest way of expanding

the range of work you can carry out at home is to build on your

from books, magazines and the

internet – put in a few hours'

practice and you'll be able to

perform a plethora of hitherto

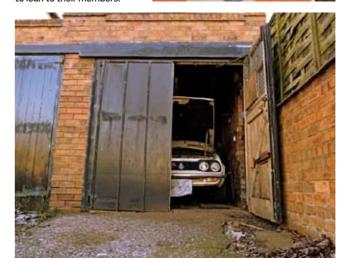
dark arts. Restoration courses

provide a concentrated hit of

hands-on experience, too.

who've restored similar cars – if nothing else, you can learn from their mistakes.





**Facilities** A heated, well-lit workspace with electricity, compressed air, good tool storage and a two-post car lift is restoration nirvana. Sadly, most of us have to make do with lesser set-ups. But great things can be achieved in a domestic garage if it's thoughtfully equipped. A driveway can be an ideal working environment in sunnier months, but expect your motivation to wilt when it drizzles. Shared workshops, 'drive-through' garages, and rented lock-ups can provide top-notch facilities when needed, and some storage specialists have areas where light work can be carried out.



**Know your limits** Regardless of your facilities, skills and ingenuity, there will always be some facets of a project that are best delegated to experts. Processes like chrome plating and fuel tank repair require equipment that's beyond the realms of the home restorer. Other delegated processes justify minor expenditure by saving drudgery - having panels shot-blasted rather than stripping them by hand springs to mind.



Seek support Speak to enthusiasts and experts in your chosen margue for inside information on parts availability, prices and potential pitfalls. Clubs are an excellent source of specific information, hard-to-find parts and shoulders to cry on.

# Strike a time/ money balance

Work out how much of each you can dedicate to the project, as they'll both have a major bearing on how it unfolds. A huge budget that allows lots of delegation and new parts will see the project completed in a short timeframe. Restoring old parts and doing almost all the work yourself will take longer but cost less.



#### **MANAGING DELEGATION**

Choose who you delegate work to with great care. Ensure they are the right specialist for your car, and that their standards are aligned with yours. Ask club members, restorers and - again people in pubs for recommendations. Carry out cursory research into the work you're asking them to do, so you know exactly what to ask for.



#### **BEFORE YOU BEGIN**

Set a clear aim

START

The crucial first step is to work out what you want the end result to be. Is your aim to re-engineer the car to MoT standards, or transform it into a better-than-new concours winner? Both exercises can be considered to be restorations, but one will take ten times longer than the other.

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#### How to... KEEP PARTS COSTS DOWN

#### Go auto jumbling

The best places to pick up bargain-priced spares for popular models are the big jumbles at Beaulieu and regional restoration shows. Jumbling may not be good if you're restoring a Zundapp, though.



#### Club, surf, mag ads

Club membership is ideal for all classics and essential for lessersupported cars. Flick through club magazine classified ads, keep an eye on internet forums and ask around at shows.



#### Bide your time

Work out what you need and give yourself time to track it down. Bargains are unlikely to come your way on demand. Patience is an essential virtue.

#### Buy a spares car

Parts are far cheaper when they're all bolted together. But buy with care – salvaged bits might be worse than those on the car you're restoring.



#### eBay savvy

Use eBay's 'save search' facility to receive e-mail alerts whenever specific parts become available on the auction site.

# INTERROGATE YOUR VEHICLE WITH THE PC RESTOPLANNER

he **Practical Classics** Restoration Planner is a 'to do' list, shopping list and reality checker rolled in one. The idea is to break down the project into a series of manageable stages and give a reasonably accurate prediction of the work, time and money involved at each. Assessing all aspects of a project will

doubtless require some disassembly. Make sure you've taken all the measurements, panel profiles and photos necessary to complete the restoration before you remove critical parts. Photograph each system as you disassemble it, and use bags or boxes to keep all associated parts together. Throw nothing away!

#### Print out

Produce a separate sheet for every section of the restoration.

Flip the page for our advice on how to split your project up, and what to look for at each stage of the restoration.



Work systematically though the section of the car you're assessing, and note down any parts that are less than perfect. You may find it useful to add a few memory-jogging notes as you go along. Include parts that are missing.



Find the most logical option for each item. Anything can be restored or refabricated, but is it worth the time and money involved in doing so? In the case of the first item on the example list, it isn't. There is no point in restoring a set of brake shoes when a brand new set can be bought for less than the cost of doing so. If the best option isn't obvious, investigate both – as we've done in the case of the brake drums.







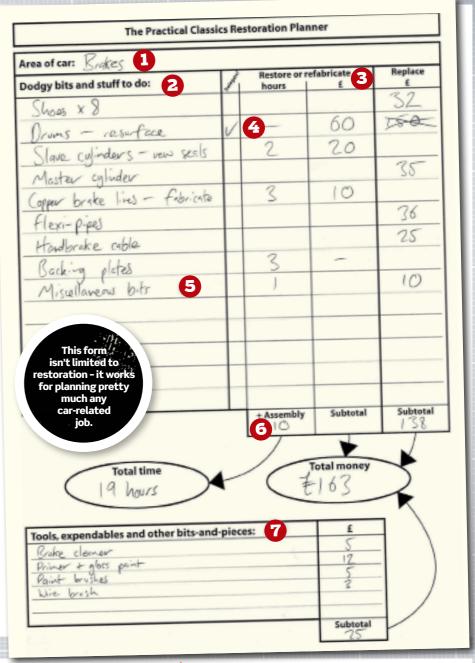
Whose time is it?
You won't need to list the time it takes to complete delegated tasks – this time is someone else's. But the more you delegate to save time, the more your project will cost you.

Expect mishaps
Add a realistic buffer of time and cash to account for bits you've forgotten about, breakages, acts of god and idiocy. This picture shows a little-end bolt that was stretched due to reading the wrong side of the torque wrench.

Be realistic
Make a vaguely pessimistic
estimate of how long it'll take to
put all the bits back together and return
them to their rightful places on the vehicle.

Make a proper list
There's little more annoying than
wasting restoration hours driving
to Halfords to fetch forgotten trifles.





### TIME PLANNING **V**

Approach tasks in a logical order. It makes sense to start with the chassis/ monocoque, as this is what all the other parts will be attached to as and when

> JAG BEING DIPPED

they're finished. There's a moral advantage in being able to restore parts and fit them straight away.

Tackle big delegated tasks early in the project. Avoid hold-ups by getting these out of the way while you still have plenty of other stuff to do. That was the plan when we arranged to get the Jaguar Mk2 project dipped, anyway.

Set targets. Choose a final completion date, then set target dates for each facet of the restoration. You're bound to miss a few of them, but at least you'll always have something to work towards.

Ticking off tasks as you complete them is a satisfying experience.

## CHOOSING A PROJECT **V**

Projects have a habit of finding restorers, rather than the other way round. But if you have the luxury of shopping around for a resto, bear in mind the following points.



#### Type of vehicle

Spares availability, club and trade support, vehicle complexity and the access to related literature all affect a project's difficulty.

Restoration of a Triumph Spitfire will be a doddle compared with that of a Stutz Bearcat.

#### Condition

Buying the best project car you can afford will save a massive amount of time and money during the restoration. The price difference between a scruffy but solid vehicle and a total basket case is often slight. Always over-estimate costs – many projects fail because the cash has run out unexpectedly...

#### Originality

Past bodgework is far more difficult to restore than original rusty metal. Original trim will also give you something to work from even if it's heavily foxed.

#### **Equipment**

Have you got the workshop accommodation and equipment you need to enable you to work on the project?

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#### **RESTO PROJECT PLANNING**

# PROJECT SEGMENTS - WHAT TO LOOK FOR

Treat each of the following to a fresh planning sheet, and you'll end up with a small stack of bite-size plans. In combination, these should see your project through to glorious completion. When you've finished, add up all the time and money totals for a sobering dose of reality.

#### **Body & chassis**

A good place to start, as the chances are this will be the biggest section of the project. Most issues are likely to fall into the restore/refabricate category, but do look into replacement panels – they're a real bonus if available.



#### Trim and brightwork

Rechroming is a highly specialised and pricey process, and there's no DIY option for large items. Buying replacements is often cheaper than restoring originals, but some bits might be hard to find. Don't forget to check seals and rubbers.

#### Interior re-fit

Many restorers choose to delegate interior fit to specialists. But if you have the time, tools and skills, it's an area in which huge financial savings can be made. Consult specialists such a Woolies to price fabrics, trim and rubber bits.

#### **Brakes and clutch**

If the car's been standing for a long time, it's a safe bet that all moving hydraulic parts will need to be rebuilt or replaced. Hopefully spares are available. If not, totally re-engineering dead cylinders is possible, but it's a specialist job.





#### **Transmission & hubs**

Work through the drivetrain from gearbox to hubs in search of play, wobbles and graunchiness. If you're lucky, you may just have to replace the odd seal, bearing and universal joint. Replace the clutch while you have access to it.

#### Wheels and tyres

Refurbishing steel wheels can definitely be tackled at home, but alloys can be more advanced. Tyres will probably appear on all shopping lists, and decent ones can be expensive.

#### Suspension, steering

Saggy springs can be retempered, but picking up a good set at an autojumble could be a cheaper option. Shock absorbers are best bought new or reconditioned. Check everything that moves for sloppiness, and look out for degraded rubber bits.



#### **Engine**

If the engine is an unknown quantity, whip it out and have a look at the inside of the bores, the camshaft and a couple of bottomend bearings. This should give a good idea of its basic condition and allow you to tailor your rebuild plan.





#### **Electrics**

Look out for items that are missing or broken - switches, light lenses, relays, etc. Grope beneath the dash and inside the engine bay to assess the state of wiring degradation – can you get away with localised repairs, or will you need a new loom? A new battery will probably be a must. Starters, alternators, dynamos, voltage regulators and ancillary electric motors can all be rebuilt.

#### Any other business

Use a spare sheet to note down anything else unusual you stumble across – recharge air-conditioning unit, repair tonneau cover, recondition radio, replace door locks, buy wiper blades, etc.

#### **FINAL WORD**



If this planning system sounds like a lot of hard work, fair enough. Many people favour a more abstract 'big picture' approach to project management.

Classic restoration is supposed to be enjoyable, so pick-and-choose the sections of these pages that you find useful and create a system that suits the way you think and work. But next time you encounter a seemingly unsolvable problem, or your car grinds to a halt at the roadside, remember the blame lies simply with a little bit of metal, rubber or plastic.