Gaining an IVA Certificate and Registering your Car for the Road

Over the course of the next few issues of the 289R *News*, we intend to publish in depth articles on how to navigate your way safely through the Individual Vehicle Approval (IVA) test and also the subsequent registration of your vehicle for use on the road which is of course the sole objective.

To the novice builder IVA can appear a daunting hurdle to overcome but by following the guidance given by Driver & Vehicle Standards Agency (DVSA) and your kit manufacturer's advice, then a good outcome is much more likely to be assured.

The whole process is divided into three separate categories namely, your application for a test (DVSA), the test itself (DVSA), and then regis-

tration to obtain a V5C registration certificate (log book) from DVLA. These are three separate departments and should be treated as such, each having its own agenda and each requiring a different approach.

DVSA want to know details of the car and proof that it truly is an Amateur Build. The Tester will inspect the car to ensure it meets theDVSA standards of build. The DVLA will register your car once you obtain an IVA certificate. To be given an age-related number, DVLA will also require some evidence of donor parts used in the build. Generally, provision of receipts and photos of build are sufficient. we will cover all three processes individually.

From reading about other members experiences of their test, it seems rare that anyone suffers a catastrophic failure. Often only a few minor points are picked up and simple rectification leads to the necessary pass soon after. We will produce a list of the most common failures to help future entrants. Even if you have already put pen to paper on this in the forum or magazine, please let us know of your experiences (bbevan@vbevan.co.uk or editor@the289register.co.uk).

Byron Bevan

Don Frost's article below describes his recent satisfying experience of gaining an IVA Certificate and registering his car. Also look on the Forum.

DON FROST: MY IVA EXPERIENCE



The big day is looming. I have managed to get a test booked in Gillingham for four weeks' time, 4 November, at 8am.

I had picked up my Hawk body and chassis from Gerry on 30 December 2019. I decided to go for an AC Ace as I was after a touring car rather than a muscle car. Intending to find a 6 cylinder lump at that time, as fate had it, I was offered a Rover v8 - no contest!! So the build began - another story perhaps.

9 months later, after our very troublesome summer, I was ready for the test.

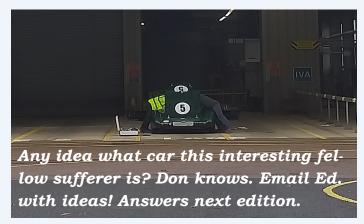
THE BIG DAY

I've got to get my car to the Test Centre and, apart from to and from my local garage for a mock MOT and to have steering, geometry, lighting and brakes checked, it has had no Shake Down Run. So, I have booked transport to get there and I will be driving it back!

The big day has arrived and I've not had much sleep worrying about it. We loaded up last night for an early get away. Too late to think about what I might have forgotten to do.

7.30am. We arrive in plenty of time to unload. I pay my transport man and see him off. That's it. I am all alone!!





The notice on the Reception door tells me to wait in my car until someone comes to me. At 10 to 8, a man in high visibility apparel and mask appears out of a door in the large warehouse building. He looks across at me and beckons me over.

"Stick it in just there" he says cheerily. "I'm Paul, your examiner for today. You must be Mr Frost??"

"Don" I say. "Sorry I can't shake hands."

"OK. I will go and find my tea and your paper work. Loo's in reception if you want it." With that he disappears again!

Another face appears round another door and shouts "Has Paul found you yet??"

"Yes" I say, "He's just gone to find his tea."

"OK." This person also disappears.

A couple of minutes later Paul arrives clutching tea and a clip board of papers.

"OK" he says, "Is it full of petrol and have you any medications you must take as you will be with me all morning?"

I assure him it is full of petrol and that I have nothing to take (although a tranquiliser would probably have gone down well!).

"Right." he says "We will go through some bits here. Then we will go inside to check lights and emissions inside. Can you open the boot and bonnet for me?"

He walks all round and ends up peering under the bonnet. What seems an age and several "ers" and "ums" later he asks if I built it. "Yes" I say.

"Very nice" he comments. With that I start to calm down as he is making notes on his clipboard. "I do a lot of this making notes, don't worry about it!"

He starts to scrutinise important items starting in the cockpit, telling me what he is looking for and how he is seeing it: dashboard, steering wheel, pedal box and he comments on the label I had attached to the bulkhead behind the bias bar "Do not adjust etc" with roll pins in the lock nuts.

"Excellent" he says. I am already feeling better about this and the way he is explaining items



makes it a very interesting experience.

Under the bonnet again and he is commenting on the items he is looking at ie general build, cables tidy, no exposed cable ends, dot 4 label adjacent to brake reservoirs, windscreen washer bottle to hold at least 1 litre. He does a pressure test on the windscreen washers, by covering the ends and switching on the washers to check that the pipes don't blow off. He spends some time on the steering column, the collapsible boss to the column with two universal joints so that it folds up in the event of an im-



pact. "All good." he says, "Let's go inside".

Lighting and emissions are next and they are all OK, all except the indicators which have been fine until this moment, but they have packed up!!!

Then on to the ramp. I have to stay in the car for this part while I think he must be checking every nut and bolt under there. At last, he is letting me down and we have a quick chat on what he has been looking at. Two tortion bar lock nuts have somehow got missed on the build - I have no pit so they had been hiding behind the brake drums - my excuse!! It is still a fail point.

Nylocks and split pins are mentioned. All OK. Brake lines, fuel pipes, suspension build and again he is very complimentary on the kit and comments that it all looks very tidy under there.

Next up, brake test and speedometer test. I did not have the speedo calibrated, but it is reading more than the actual speed so that's ok. Brakes: his comment is that, in his experience, the readings look OK, but "We need to see what the computer says."

Mirrors next and a test drive round the building. With that done, he parks up and says "You can relax now - all done. Off to do some paperwork. Be about half an hour."

He returns, waving bits of paper, "Unfortunately you have failed but only on some very minor items" which he proceeds to explain and what to do to make them pass. He again comments on the car

and my build and says, "I normally have a couple of pages on my notes. For you I have just 8 items, a quarter of a page."

Sadly, I begin to drive myself home on a cold and sunny day - my first proper drive in it. My spirits lift - driving it is fantastic. I arrive home with a beaming smile ready for the next phase.

FAIL ITEMS ... AND REMEDIES.

1. Exhaust pipe is protruding more than 150 mm rear of car.





Remedy: Fit over-riders. The pipe needs to be less than 2" past the over-riders.

2. Boot has no seal and you could get fuel entering if tank over filled.

Remedy: Fit seal!

3. The nearside wing mirror is partially obscured by the windscreen.



Remedy...Make a bracket to adjust.

4. The labels on the dash. He does not like my Dymo tape even though I stuck them on with silicon sealant and, in fact, later have a job to get them off.

Remedy: Fit permanent labels. I have some engraved from Timpsons in Sainsburys.

5. Two lock nuts on tortion bar loose (were not tightened).

Remedy: Tighten!

6. The reversing lamp worked intermittently.

Remedy: Adjust the switch on the gearbox remote.

7. Indicators failed.

Remedy: On inspection on my return home I can find nothing apparently wrong. As I take off the steering wheel, they return to working and have continued to work since then. I check for loose connections and can't find anything wrong so will have to see how they perform in the future.

THE RETEST

I phone for an appointment for a retest. A very helpful lady gives me several dates for the following week. I want a date within 5 working days to get the free retest. I'm given one for 10am the following Tuesday but she tells me I have to pay £90 for the retest as I have more than 6 items.

OK. So I am now sweating about (a) finishing all the bits on time, and (b) the weather as I will be driving to the test and back (110miles) with no hood. These test centres seem to be scattered far and wide round the country.

I have an OK run to the test centre. The weather is good and I arrive promptly at 9.30am. Almost immediately, the test examiner Paul comes out, exclaining, "You got that back quickly." He has a quick visual look round. "That's great", he comments, "I will get your paperwork sorted, probably take about half an hour."

Time for me to have a coffee and a sandwich that I have brought with me - there are no tea or coffee machines at Gillingham so take all refreshments with you.

Overall, what I was dreading turned out to be two interesting days. Even though it failed, it was only on minor items which were easily sorted out.

So, a big thank you to Paul, my examiner, and to all the people who helped me with advice throughout the build.

Great excitement - got it registered with an age related plate on 26 November!

Don Frost

We aim in this series of articles to consider all stages of getting your replica Cobra or Ace registered and on the road. Following an introduction in the Winter edition of the 289 *News,* in Part 2, **Byron Bevan** provides an overview of preparing for the IVA test. In 2018, Byron took our Hawk Ace and Hawk Cobra to the Norwich Test Centre where both cars passed first time. From these experiences, he believes that it is close attention to detail in the application process which is most likely to get you and your car through the test – together with an understanding tester and a bit of luck on the day.

Eventually we will put the articles together into one large 'document' which will be available on the website together with the information you send us about issues that went well and not so well in your own IVA test experiences. We have embarked on this exercise following an email to me from Don Frost who said there was a lot of information available on the 289 website and in the *News* but it wasn't easy to find. We felt it would therefore be helpful if there was one place where members could go to find advice and to pose questions and issues on the IVA. Hence this series of articles and a new IVA section on the Forum for members only.

As Byron pointed out in that first short article, and is worth repeating here, the whole process is divided into three separate categories namely, your application for a test (DVSA), the test itself Driver & Vehicle Standards Agency (DVSA), and then registration to obtain a V5C registration certificate (log book) from Driver and Vehicle Licensing Agency (DVLA.) These are three separate departments and should be treated as such, each having its own agenda and each requiring a different approach. DVSA want to know details of the car and proof that it truly is an Amateur Build. The Tester will inspect the car to ensure it meets the DVSA standards of build. The DVLA will register your car once you obtain that all-important IVA certificate.

On the next page Stuart Baker describes his experiences of going through his first IVA Test and some issues arising from it.

Ed 🕋

Application for IVA test at DVSA Centre - Overview

For most of us who set out to build our own Ace or Cobra replica, particularly if it is your first time, the main issue at the back of our minds throughout the process is, how am I going to get through the Individual Vehicle Approval (IVA) test successfully. The earlier in the build that this inspection is considered then the less likely you and your car are to fail. One factor in your favour is that by the very nature of their shape, these cars lend themselves well to a pass without having to deviate too much from the original.

In this second article I do not go into detail but give an idea of the things to consider at the outset, an overview on the application process, and what the DVSA requires from you.

Plan ahead

Before ordering your Cobra / Ace kit you need to decide what engine and gearbox to use as the build of the chassis will need to be adapted to accommodate them. Most kits require the use of a donor vehicle (eg MGB) to provide many essential parts and ideally this should be sourced at the start of the build.

Requirements for age-related registration number

Using a donor vehicle will allow you to obtain an age related registration number. To achieve this you will need to submit to the DVLA your donor vehicle's V5c registration document as well as to indicate to them where on your car the donor parts were used. This information is submitted to DVLA after the IVA test pass as part of the registration process - it is not relevant in applying for the test but does require some thought at the start of the build in order to be successful later. Assuming you have purchased a proprietary kit chassis/body (ie new) then just two major items from the donor vehicle are needed to acquire an age related plate – the five major items are classified as Axles (both), Transmission, Steering Assembly, Engine and Suspension (front and back).

Checking date of manufacture

Once you have settled on your choice of engine, knowing its date of manufacture can be crucial in being able to pass the IVA emissions requirements for your car. This dating information is usually coded and found in one or more of a few places - it could be cast on the engine block, contained within the engine number or better still in the log book of the car it was removed from. If your engine has been reconditioned by a specialist builder then a dating declaration from them should suffice. This proof of date of manufacture is required to be seen by the IVA examiner on the day of the test and the engine manufacturing date will determine what standards regarding emissions are applied during the test.

Applying for the IVA test

To apply for the IVA test the following two forms obtainable from the <u>GOV.uk</u> website [Image 1] require to be completed, signed and submitted:

1) Form IVA 1C Application for Individual Vehicle Approval (Cars) [Image 2]

This provides DVSA with your personal information and technical information for the car including the Chassis or Vin number. It is not complicated and many sections of it do not apply. The car is classified as 'Amateur Built' for the purposes of the test. Helpful Guidance notes on completing this form can also be downloaded from GOV.uk. [Image 3]

2) Form IVA 4 Declaration Form: Amateur Built Vehicles. [Image 4]

This is simply a tick box form to declare you were the vehicle builder. I suspect like me you will tick all the boxes. The form relates to the actual assembly of the car itself and not to reconditioning work carried out on parts by professionals offsite ie engine/transmission rebuilds etc.

These are the only two forms to be submitted when applying for the test but DVSA also require copies





(not originals) of receipts for the major items on the car as well as photographs illustrating your build progression. Six or seven receipts for the more major items used will suffice including for the chassis and body. Similarly eight or ten photographs should be ample, even better if you are included in some of them. You are not required to provide receipts for every item used on the

DVSA Inspection Manual (Image 5)

The DVSA has an Inspection Manual (Individual Vehicle Approval Inspection Manual: Passenger Vehicles M1) available to download from their website. This describes in some detail what tests and inspections the examiner will apply to your car throughout the examination. It is comprehensive and I would advise you to scrutinise it before starting and throughout the build process.



You may submit your application online but if you post it, keep copies of everything you send them and send your application by recorded delivery (or similar). Having submitted your application forms to DVSA together with photos, receipts and grand remittance, you wait until they contact you and offer a test appointment - hopefully at your first choice of centre.

Summary

In summary apart from actually completing the build of the car itself, ensure that you keep receipts (copies for IVA but originals need to be submitted for DVLA registration application later), take plenty of photographs, establish engine date of manufacture, decide what your major donor parts will be and familiarise yourself with the IVA manual.

Part 3 will cover completion of the Application Form for the IVA

Note: DVSA has not been immune to the effects of the current coronavirus pandemic and response times may be slower. Guidelines are in place on how your car should be presented for the IVA test and these are outlined within the IVA 1C application form.

Byron Bevan



Stuart Baker: My First IVA Experience with my Hawk 2

to arrange a test for November 2nd so just a month to wait post Covid Lockdown V1.0.

Back to January 2020 and I'd just got the car back from the spray shop, applied for the test then duly waited for a date. I had a problem sending the Build Evidence via email, (about 5Gb). All went well but timing was poor and we all crashed into the half way there an hour's rain fell in 5 Covid lockdown.

I applied for a test date after start-up in July but the form was sent blank for some reason. Problem is I just waited for a reply, thinking things would be slow due to working from home etc. so I was very patient. Too patient, it seems. Eventually I rang and they said the form I'd sent was blank but they had emailed to let me know (they had but I hadn't spotted it). It had even saved blank in my files so I don't know what happened but sent off again for a new date. The Test date came back for 2nd November – hooray.

So I nervously prepared for the next month, changing bits that didn't need changing, checking everything against the IVA manual. I got another MoT. Double check the insurance. Everything OK.

The big worry was breaking down. I'd only done 11 miles so far to the MoT station and back twice. I wasn't sure what to expect when I got there so I loaded complete Covid sanitisation kit, tools, oil, water, spare wheel and jacks, spare lamps and a waterproof cover in case of rain.

My biggest worry was emissions as the engine is still unrestored from 1978. However it had twice passed the MoT so I

It's October 2020 and I've finally managed wasn't too worried and anyway didn't want to spend too much if I didn't have to.

> We got up at five, (well some of us we had to wait for Ashley who had a lie in) to drive to Beverley in two cars, about 45 miles, and needed to stop and fill up at the nearest fuel station. What was forecast in the week as a potential nice day deteriorated into possible rain. It *RAINÉD*. About minutes. It's quite obvious the wipers don't work on the inside of the screen, and in the darkness it was impossible to drive so we had to slow down and pull up until the rain stopped. Unfortunately at 'high' speed, one of the adjustable wiper blades came loose and jammed against the screen frame and took out the fuse. Luckily fuses were part of the spares kit.

> Apart from that one rain shower the drive there was very enjoyable. The car behaved faultlessly and I was amazed how pleasant it was to drive even on a cold damp windy morning. It was a delight round the bends and the steering was remarkably light once moving. I need to get some lower seats, the MX5 set fitted are very comfy but are not going to stay. They've done their job and now they can move on. I was just about OK but my boys who are both bigger than me were looking through the top of the screen. On a long run that may prove tiring. I think I need some brighter instrument lights but I'll leave them for now until the next dark drive and see how it is then, when no IVA to worry about.

Once at the Test Station there was a brief wait for the examiner then we opened







Stuart Baker: My *First* IVA Experience with my Hawk 289

the engine age and asked for the documentation. We did the emissions test which failed on too high CO and then I left it to him for the brake, speedo and projection tests. Afterwards the examiner



was very helpful in suggesting fixes and giving me time to sort them.

He said I could try to fix the problems but on retest the emissions was still a fail and I knew I couldn't sort out the braking so we took the fail sheet and headed home somewhat pleased with what were a few fixable problems. Ash drove the Hawk home with Craig and I following. He really enjoyed the drive, so much so he was straight on the web looking for his next project. It was good to watch it from behind. It looked really settled, if not a little small. There are no overriders as the pilot holes for these were used to mount the reflectors so it looked a bit bare. Not sure whether or not to fit overriders but we'll have to see. Another concern was the inside of the wheel wells. The bare fibre matting picks up the road muck and looks like it will be difficult to clean. When SMS painted my car they finished off the bare matting under the bonnet very nicely so that will be repeated inside the wheel wells when I get chance.

The Failures **Emissions**

I think the problem started when I altered the coil position as I felt the HT lead route was bad. I mounted it on front of the cylinder head and it looked lovely, until it started misfiring so I guessed it had got too hot and moved it back. Later on I found no. 8 plug oiled up and I think I have a leaky valve stem.

It all went well and had easily passed the MoT but I prepared for IVA with new plugs and leads at the ready. When it had failed emissions at IVA, I assumed it was the plugs fouling again and causing misfire so swapped them for the new ones but to no avail. Of the eight I'd taken out seven were nice and brown but one a bit oily. So things can't be too bad. The new set I fitted are slightly hotter, BPR4S. Previous to the long run to

up the car, he went over a few bits such as Beverley, the car had only really run on choke or at idle and the plugs were always wet or sooty. The BPR4S were in excellent condition after the run home.

> I'd estimated the car would use about 7 litres of fuel each way and when we filled up it took 8 so running mixture is quite good, as evidenced by the plug colours.

So it was just about the idle mixture. I hadn't done any other work due to it passing the previous MoT's and had left all alone as I didn't want to spend any more than I had to on this engine before overhauling (or replacing) it. And possibly, more honestly, I just didn't have the tools.

Next step was to set up the carbs so I invested in a plethora of Gunson kit: Carbalancer, Colortune, a spark tester and even a used CO analyser. I already had a strobe so I knew the ignition timing was good (although I haven't yet done a static tdc check). It should be possible to verify the mixture is good using the piston lift pins only but when I did that it indicated a weak mixture so I did it again in conjunction with the colortune and analyser re-

My son Ash must have felt sorry for me so he even went and bought a set of inline spark provers. Red. Nice. And very effective. We no longer had a misfire.

So I paint by numbers through the SU set up manual and hopefully a pass. I say hopefully because I am not changing or replacing any parts - yet. And I'm still not sure why it failed although I do suspect bits are rattling loose, pulling in air or simply too hot under the bonnet.

We set the idle speed, balanced the carbs, checked the mixture and repeated. I shall try making the mixture extra lean if required just in case.

Carb overflow pipes

One had been replaced in copper but routed as original in the Rover SD1. The examiner pointed out quite rightly that if they did overflow the fuel would flow onto the exhaust so these were extended out to exit under the wings. I'd never seen fuel come from them but when the car had a rough idle it must shake the floats and some fuel does drip.

Handbrake Balance

The handbrake set up was a disappointment, mainly because the access is dire just add to that a fat old body, poor eyesight and a cold floor.

What I did find was the ratchet mechanism was not working properly on the offside calliper. I managed to get a couple of clicks on by hand but found evidence the lever was also fouling on the chassis - ie not much clearance. I think the main problem here is the stiffness of

the outer cable forcing the calliper lever over and preventing enough movement to ratchet. I slackened off the cable and the balance is better and the brake is working now. I thought early on in the build when setting up the handbrake that the lever ratios could be better to reduce handbrake movement and allow the pads to slack right off. That's another job when the rear axle comes out next. Or I could move the exhaust, which is very close to the handbrake.

Pedals

No antislip on the pedals. I glued some 40 grit belt sanding material onto the pedals. They won't slip.

Indicator stalk

I'd been frightened by all the talk of proper identification of controls so fitted my stalk on the right to ensure the symbols were the correct orientation. Unfortunately it was very low to avoid the scuttle and the horn could be caught by the knee on entry. Didn't half make me jump! Any-



way, I swapped it over to the left, much

Wheel arches

I had attempted to measure this beforehand with a straight edge and electronic level so I knew it would be marginal. I had taken some stick-on wheel arch extensions but as the car had failed on other bits we didn't bother with this. I later found some new carbon effect 250mm long eyebrows which are tapered and look quite nice.

Summary

Overall, a good experience. I learnt a lot and we'll pass next time.

I think after that, the engine rebuild has to be the next big job. I'm not happy with the lack of power, the smells and the leaks, although the garage does smell good. The engine is a lot worse than I'd hoped and will need changing much sooner than I'd planned.

I'll tell you about that next time.

Stu Baker

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Ed 🕋

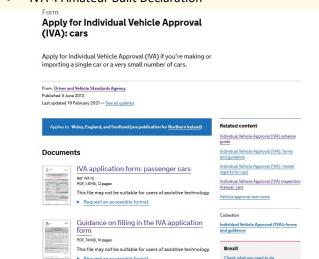
APPLICATION FOR INDIVIDUAL VEHICLE APPROVAL IVA

Having painstakingly assembled a multitude of parts into something resembling a motor car, most of us will be champing at the bit to actually drive it on the road. To do this you will need a V5c for that car which is issued to you by the DVLA. In order to obtain this registration document the car will need to be approved fit for road use by DVSA following a thorough examination by them at one of their designated test centres. If the car meets specific standards set by them and is deemed roadworthy an IVA certificate is issued which then allows you to get hold of that precious V5c.

Making that application for an IVA test is the subject of this article and hopefully covers all the points you need to consider. It is not complicated and if you have built the car yourself, being offered a test should be just a formality.

There are just two forms to fill in for your application:

- IVA 1C IVA application form: passenger cars
- IVA 4 Amateur Built Declaration



These forms can be downloaded from the relevant area on www.gov.uk/vehicleapproval website. It is quite long winded to find them so, on that website click on 'Individual Vehicle Approval application forms'; then 'apply for IVA: cars' & on same page 'amateur built declaration'.

On page 'Apply for Individual Vehicle Approval (IVA): cars', open the document 'IVA application form: passenger cars' (There are also 'Guidance Notes on filling in the IVA application form' reference IVA 1C which are helpful and can also be downloaded).

FORM IVA 1C APPLICATION FOR VEHICLE APPROVAL

This form is 12 pages long and has 11 sections to be completed. Not all sections are relevant to the application and may not require an answer. The following is a precis of what is required:

Section 1 Application Type

1a: Application is for a 'Statutory' test.

1b: Applicant's personal details need to be entered.

Section 2 Test Location

Choose your preferred test centre locations – find approved test centres by using the Search facility on GOV.uk.

Section 3 VIN / Registration Mark & Vehicle Test Class Details

3a(i): ignore (for voluntary tests only).

3a(ii): enter your 17 digit VIN or Chassis Number (same thing).

3b: state where on the chassis the VIN number is stamped.

3c: (Test Classification) tick box A 'Amateur Built'.

3d: not required to be answered.

Section 4 Vehicle Details

This is a large section asking for details of your vehicle. I will cover only the relevant parts to answer and state what to ignore.

4a Vehicle make and model eg HAWK 289.

4b Date of Manufacture. ie This is roughly the date you anticipate completing your car and will probably be around the time you apply for IVA.

4c, 4d, and 4e answer NO.

4f(i) Type of body ie Roadster or Coupe etc and also give colour of body.

4f(ii) and 4f(iii) ignore as not applicable.

4g: What is the Engine Number and 4h: where on engine it is stamped.

4j: Type of gearbox ie manual or auto.

4k: How many seats including drivers.

4m: State immobiliser if fitted – nb: immobiliser required for IVA.

4n to 4r Self explanatory.

4s asks for engine capacity ie 4700 cc etc.

4t is engine configuration ie V8 or straight 6 etc.

4u asks for engine maximum power and engine speed at max power. Obtain this figure from engine manufacturer or even Wikipedia. Don't be over optimistic here. Typical stock ford V8 might be, say, 200 bhp at 4400 rpm.

4v asks for maximum design road speed for the vehicle. This speed is best obtained from the kit manufacturer.

4w(i) Original design laden weights for the vehicle. These figures can be obtained from your kit manufacturer. Just state for Front (1), Rear (2) and Gross (combined). Typically weights for my Hawk were 600kg, 700kg and 1300kg.

4w(ii) can be ignored, with 4x state NO.

Section 5 Ignore as not applicable but answer NO to the first question.

Section 6 Ignore as not applicable but answer NO to the first question.

Section 7 Evidence of Eligibility

Together with this completed form (IVA 1C) you will need to submit form IV4 and evidence of your build in the form of receipts and photographs (see section below). Fill in the box at the end of section 7 stating what you have included. This will be your completed form IV4 (Amateur Built Declaration), photographs of build, copy receipts for major components and also state that you have included a cheque for £450.00 (current price) payable to DVSA if that is how you are going to pay.

Section 8 Evidence of Compliance

Answer NO to all questions.

Section 9 Examination Requirements

9a: Answer No to regarding a batch of identical vehicles. Remainder of section is largely explaining Covid requirements and procedure to be followed.

Section 10 Data Protection, Declaration and Signature

Read, Sign, Print Full Name and Date this section (IMPORTANT).

Section 11 Payment Details

Unfortunately a payment is required together with the application and section 11 explains how this can be done.

FORM IVA 4 Amateur Built Declaration

This form is required as a declaration that you built the car yourself and hence the car is eligible for an IVA test as an amateur build. It also needs to be accompanied by copies of receipts for major items purchased and preferably some stage photos of the build process.

Enter the VIN number, make and model as requested and tick the box stating it was built by you and for you (or otherwise if that is the case). Also in Section 2 tick boxes relating to items you have fitted to the car. I suspect it will be all of them. Finally Sign, Print and Date as requested.

Regarding receipts, be selective for major parts only, DVSA are not looking for every nut and bolt to be accounted for. Certainly include the chassis and body and then other majors like engine, transmission, suspension, steering and wheels etc. Aim for around a total of ten if possible and do send copies endorsed 'certified copies' with your signature. Do not send originals as these are required later for registration. Also accompany the receipts with some photographs of the build process, again around 8 or 10 would be plenty. It is advisable to keep copies.

In summary, then, the following are required for a successful application to be made:

Completed form IVA 1C, completed form IVA 4, copy receipts for major parts used, together with some photographic evidence of the build. The photographs are not a strict requirement but will be helpful if submitted. DVSA are just looking to satisfy themselves that the car is amateur built and therefore qualifies for IVA and not assembled by professionals. Finally a payment is also to be made to cover test fees.

An Application for IVA can be done on-line or with hard copy by post.

Hopefully the above is a helpful guide for the amateur builder when applying for IVA.

Next Time

In the next edition of 289 *News* we will be covering the test itself explaining what is required from you, the basic elements you most need to get right, and outlining the more common reasons for failure. We will include an example or two of members' experiences - do send us more!

This article *IVA Test explained* is the fourth in the series *Rolling Road to Registering you Replica* starting in the Winter edition 2020-2021 of the *News*. In the series, we consider all stages of getting your replica Cobra or Ace registered and on the road. In the series we have so far considered:

- Introduction Winter 2020-21
- Application for IVA test at DVSA Centre Overview Spring 2021
- Application for Individual Vehicle Approval IVA Form Filling Summer 2021

Eventually we will put the articles together into one large document which will be available on the 289 website together with the information you send us about issues that went well and not so well in your own IVA test experiences. We have embarked on this exercise in response to an email to me from Don Frost who said there was a lot of information available on the 289 website and in the *News* but it wasn't easy to find. We felt it would therefore be helpful if there was one place where members could go to find advice and to pose

questions and issues on the IVA. Hence this series of articles and a new IVA section on the Forum for members only.

As Byron has pointed out in previous articles and is worth repeating here, the whole process is divided into three separate categories namely, your application for a test (DVSA), the test itself Driver & Vehicle Standards Agency (DVSA), and thirdly, registration to obtain a V5C registration certificate (log book) from Driver and Vehicle Licensing Agency (DVLA.) These are three separate departments and should be treated as such, each having its own agenda and each requiring a different approach. DVSA wants to know details of the car and proof that it truly is an Amateur Build. The Tester will inspect the car to ensure it meets the DVSA standards of build. The DVLA will register your car once you obtain that all-important IVA certificate.

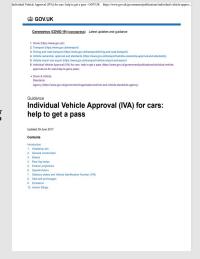


IVA Test Explained

My article today assumes you are building a replica AC Cobra 289 or variant of, a car which fortunately lends itself well to meeting IVA regulations with a minimum of adaptions to be made from the original. Having had your car's application for IVA accepted, and a test date and venue confirmed, the final hurdle to getting your car on the road (apart from building it) is the test itself.

The DVSA Individual Vehicle Approval (IVA) inspection manual for passenger vehicles (M1) basic is freely available on the gov.uk website and is essential.

tial reading for every Amateur Builder constructing their own car. It contains all the information you need to know regarding the inspection criteria the examiner will apply during the test and so enable you to achieve a successful outcome. It is also useful to study the gov.uk document Individual Vehicle Approval (IVA) for cars: help to get a pass.



The examiner will be looking to ensure you have built a road worthy car that complies with the regulations and is fit for purpose. In general, the man-

tra is, keep it tidy, make it secure, and check everything works as it should.

It is well worth beforehand having your car's lights and brakes set up at your local MOT station where they will have the equipment to do it. This is also an opportunity for a general check over by the garage. Above all on the day of the test do not be late getting there. You may drive or trailer the car to the test centre. To drive, you will need your car insured for the road, make sure you have a full tank of petrol and the spare wheel on board. It is also advisable to take all documents with you including proof of date of manufacture of the engine, and all receipts and certification that you have on the car. These records are helpful as the examiner may ask for proof for instance that hoses used on items such as brake and petrol lines are certified and of the correct type. Information is power and these records enable you to back up any statements you make in answer to questions asked.

The test could last up to four hours in duration. No eating facilities are available so take a flask and sandwiches with you. A tool kit will also help together with some consumables (ties, self-tappers, drill etc) as you may be able to carry out small repairs yourself if minor faults are found.

I cannot cover the criteria to be met in great detail, the manual does this, but I can perhaps provide a helpful guide to the test and indicate where you need to concentrate your efforts.

1) **Noise: Section 1.** The engine will be run at $\frac{3}{4}$ of engine speed and exhaust noise should not exceed 99dBA.

- 2) Engine: Section 2. To pass the emissions test you will need to show the examiner written proof of date of your engine's manufacture. This is essential if using pre cat engines to allow relevant MOT inspection criteria to be applied. Interestingly my Hawk Ace, fitted with a Circa 1993 BMW engine, fuel injected with a catalytic converter, of unknown origin and no engine number visible, passed the emissions test with flying colours. Subsequently it has also passed its first MOT.
- 3) **Fuel Tank: Section 3.** Ensure the fuel tank is secure, has a separate earth and is vented. The filler cap must be lockable or tethered.
- 4) **Steering: Section 5, 14.** The steering column must be collapsible plus a collapsible mount for the steering wheel; the whole steering wheel must be padded.
- 5) Horn: Section 7. Make sure the horn works.
- 6) **Mirrors: Section 8.** You must have one central rear-view mirror and one offside mirror at the very least. Study Section 8 for minimum dimensions and field of view.
- 7) **Brakes: Section 9.** Brakes must be dual circuit and balanced so rear wheels do not lock before fronts. Required: tamper proofed adjustment (ie lock wires) with notice nearby (as Note 6 Section 09b); low brake fluid warning light on dash (in conjunction with handbrake warning light); an inspection hole is required if using drum brakes to observe lining wear without removing the drum.
- 8) Interior: Section 12. There must be no sharp edges or protrusions into the interior. Areas exempt from this are part of the dashboard within a distance of 127mm beyond the outside of the steering wheel (but not the very bottom) and behind the seats see Section 12 Annexe 1 for diagram. Within this exempt area you can place non-compliant switchgear etc. Outside it you will need modern rocker switches and IVA compliant bezels for instruments unless they are recessed.
- 9) **Immobiliser: Section 13.** An anti- theft device or immobiliser must be fitted a battery cut off switch is not acceptable. Most cars are fitted with an immobiliser that requires a proximity device on the ignition key ring, which if missing, will not allow the car to start. Such an immobiliser will require a certificate of installation from an approved installer.
- 10) **Seats: Section 15.** Seats must be secured to the floor use large plate washers. Height to top of headrest from seat cushion is important

- see Section 15 Annexe 1 for details. The minimum height required is 700mm measured as shown. Your seats must have headrests.
- 11) Exterior Projections: Section 16. Again no sharp edges. To achieve no sharp edges, use IVA compliant lighting often advertised as such by distributors. Headlights are not a problem as they do not have sharp edges. Replace projecting bonnet latches with small escutcheons and use a coach key to lock and do similarly for the boot handle. Use IVA compliant windscreen and screen washer nozzles, the wipers themselves don't seem to present an issue. Acceptable wing mirrors can be affixed to the screen pillars as sold by Hawk cars. The petrol filler cap as supplied by Hawk proved acceptable to my tester. A Cobra radiator grill will not pass owing to sharp edges - I left the grill off and fitted 4 no inch diameter aluminium tubes across the void as a substitute (see photo). Overriders are also best left off. Exhaust tailpipes must not project out more than 10mm, or 150mm if they have rolled ends - see Section 16 Note 29. The hood is best fitted post IVA thus avoiding any sharp edge issues.
- 12) **Speedometer: Section 17.** Calibrate the speedometer so that it is reasonably accurate and above all does not under-read the actual speed of the car. The car will be tested on rollers up to 70 mph, a frightening spectacle when it is your own car being used.
- 13) **Statutory Plates: Section 18.** Chassis or VIN number should be stamped on chassis on the right hand side. Also a manufacturer's plate should be fitted in the engine bay. This plate needs to show the manufacturer's name and the Vin Number. Maximum laden weight is not mandatory but if given show in order stated. You do not require the engine number.
- 14) **Lights: Sections 20-30.** Lights need some thought about where they can be sited on the car. Permissible areas are covered in the manual. Lights on the dashboard are required to show when indicators, main headlight beam, and fog lights are on. Fog lights when switched on should only come on with use of the headlights and not should come on again if the headlights are extinguished and the fog switch is left on. A special relay is available from CBS to perform this task. The fog light itself should be E marked as it is required to be of a certain intensity. Reversing lights should only come on when reverse gear is selected. Emergency hazard lights are also required.

15)

Seat Belts: Sections 19, 31. Fixings must be secure - check bolts have sufficient thread protruding into threaded chassis locations. For Hawk cars use special upper seat belt anchors. Minimum height for top fixing point above seat is outlined in Section 31 Figure 2 and dimension is 450mm. Photographs of the seat belt installation prior to fitting the seats can be useful for showing the examiner as some areas can get hidden from view.

- switchgear and warning lights used on the dash-board must be clearly identifiable. See Section 33 Table A for diagrams of acceptable symbols to be used for lights and describing of switches. Transfers are available from motor factors that can be affixed to the dash. Some failures have occurred in the past because the examiner considered the labelling, although clear and precise, was not durable in the long term so make it look as permanent as you can.
- 17) **Defrost, De-mist: Sections 34, 36.** With a wind-screen fitted you require a working heater to clear the screen. A wash wipe system is also needed. The washer bottle used must have a minimum capacity of1litre.
- 18) Wheel Guards: Section 37. Wheels must not protrude beyond the wheel arches more than the amounts proscribed in Section 37. With my 289 and standard wire wheels, I had no problem but some testers have been picky on this with other members.
- 19) **Tyres: Section 46.** Ensure your tyres have a sufficient speed rating for your car (I assume they will be relatively new). On reflection the tyres on my Ace, although pristine with no wear were some 9 years old by the time of the test. Yes, that is how long my build took.

Revised IVA Manual

A revised IVA manual will come into force from 1 April 2022 with revisions to Sections 22, 23 and 69. They appear to be made to bring the manual up to date with modern developments: Section 23 will only affect you if install LED or Xenon headlights; Section 22 will not affect your build and Section 69 is only relevant for electric vehicles.

I hope that all or some of the above will prove useful to you, but the DVSA manual for IVA is the document that needs to be read right from the start, and then referred to all the way through your build. By studying the manual, you will minimise the risk of getting towards the end of your build and discovering some major flaw in your construction that

then proves difficult or time consuming to rectify. By paying close attention to detail throughout your build you will hopefully get it right first time - good luck!

Byron Bevan

Richard Newman's IVA experiences with his Hawk 289 are on the next two pages.





Above: IVA Compliant Hawk Ace February 2018



IVA Compliant Hawk Cobra (sans headrests) March 2018

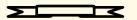
Registration: Obtaining your V5c is the fifth and final article in the series Rolling Road to Registering you Replica starting in the Winter edition 2020-2021 of the News. In the series, we consider all stages of getting your replica Cobra or Ace registered and on the road. In the series we have so far considered:

- Introduction Winter 2020-21
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- IVA Test explained (Spring 2022)
- Registration: Obtaining your V5c (this edition)

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NB: Whilst every effort has been made to ensure accuracy, individuals building and registering cars are responsible for their own submissions to DVSA and DVLA - these articles are a guide to assist in the process.



Registration: Obtaining your V5c

Having passed the IVA test and becoming the proud owner of an IVA certificate for your car, you will by now be champing at the bit to get it registered and on the road. All the hard work is now over and applying for the V5c should be the least stressful part.

This article provides advice on the essential documents required to be sent to DVLA and how to complete the two main forms:

- A. Essential documents to be sent to DVLA (see A below)
- B. 627/1 Built Up Vehicle Report (see **B** below)
- C. V55/5 Application for first vehicle tax and registration of a used motor vehicle (see **C** on 3rd page of article)

A. Essential documents to be sent to DVLA

The essential documents that need to be included with the completed application form V55/5 are as follows:

- Completed form 627/1 Built Up Vehicle Report (see B below). This document is important as it allows you to receive an age-related number plate for your car in lieu of a Q plate. It will not be the same reg however as your donor vehicle but of the equivalent year.
- Original receipts for major items used in the build ie chassis/body, suspension, engine/gearbox, donor car (if you have one). Be sensible with this and don't overload the DVLA with a multitude of receipts for minor items.

Chassis/body receipt must state New and Manufactured in the UK.

- The V5c / Registration Document for your donor vehicle.
- The IVA certificate obtained following your successful test.
- A valid Insurance Certificate or Cover Note for your car.
 Use Vin Number (chassis number) for vehicle identification
- Proof of identity. This can be a copy of your driving licence.
- Payment for Registration Fee and first year's Road Tax
- It may also help to include some photographs taken during your build process and of your donor vehicle (if you have one) Again not too many, five or six will do.

B. Form 627/1 Built Up Vehicle Report

Page 1 (half page shown overleaf as I completed it for your information - normally using black ink) see *Image 1*).

Information required at the top of the page is self-explanatory:

- Make
- Model
- Tax Class PLG (Private Light Goods)
- Year of Manufacture Year when IVA was obtained
- Currently Taxed No

NB: When completing this form, you will need to show that your build included at least two major components from your donor vehicle to receive an age-related number. For a typical Hawk build these will be from an MGB and most likely be the Axles (both) and Steering Assembly.

The major components are listed on the form: Chassis/body shell; Axles (both); Transmission; Steering assembly; Engine; Suspension (front and back) - and there are four columns of information to be completed for each:

Driver & Vehicle V627/ Built up vehicle report Licensing Agency For completion by Applicant **Current Registration Number** Name and Address: STATE HAWK 289 Model: Colour: Daytime Phone No: STATE Mileage (miles): Private Light Goods Year of Manufacture: Yes -Currently Taxed: Yes/No Cars and Vans Origin Make of Vehicle Component Serial/ID See below unde (Registration receipts header (delete as appropriate Number or New HAWK Chassis/Bodyshell NEW Axles (both) KVD753E MG-B REG DOC Transmission NEW TREMEC YES VD753E Steering Assembly KR55027 RECONDITION NEW HAWK Suspension (front and back)

Serial/ID number: relates to
 Chassis (Vin) and Engine only. Not required for others.

Image 1 - V627/1 p1

- **Origin:** the Origin will be either New, from the Donor Vehicle or perhaps Reconditioned ie the engine. If parts from a Donor Vehicle are used, write its Reg No in the space provided (as recorded on its V5).
- Make of Vehicle Component: self-explanatory ie MGB, Ford, etc.
- Yes/No: The Yes/No column determines how you obtained those major components. For all new items answer Yes and ensure you provide receipts for their purchase. For Donor Components then write Reg Doc (the original donor V5c / Registration Document is listed above as an essential document to send as evidence).

Ignore any columns relating to motorcycles and trikes.

Page 2 (see Image 2)

Question A asks you how you disposed of the donor vehicle parts not used in your build. I believe I just stated scrapped and recycled on my form. You may be able to go into more detail.

Question B is an opportunity to provide more information or highlight any additional documents you have provided. Perhaps the photographs if included. Your call on this one.

The year in which your car was completed will be year of IVA.

State whether you built the car yourself or were assisted by others (as you wrote in your original IVA application).

If your car is not kept at your home address, then give details as requested

There is also space for you to provide more information that you may think relevant to your application.

Do not forget to sign and date this form!

| | Image 2 - V627/1 p |
|--|---|
| A. Original parts not used (state below how they will be disposed) | |
| | |
| | litional documents produced number may be considered but only if the details prior to alteration are held at DVLA.) |
| | |
| | |
| Year in which rebuild was com | pleted? |
| Was the vehicle rebuilt by you? | |
| f not who carried out the rebui | No. 10 Personal Property Control of the Control of |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Signature | Date ed to be correct to the best of my knowledge. |

The

C. Form V55/5 Application for first vehicle tax and registration of a used motor vehicle

application form that you need to complete is the V55/5 Application for first vehicle tax and registration of a used motor vehicle and can be found at https://www.gov.uk/government/publications/register-a-used-vehicle-for-the-first-time-v555. This is your main application form and I strongly suggest you also obtain a copy of form V355/5 'Guide to filling in the "Application for first vehicle tax and registration of a used motor" (V55/5)' and can be found at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1012514/V355-5-guide-to-filling-application-for-first-vehicle-tax-and-registration-of-used-motor-vehicle.pdf (see Image 3). The guide is comprehensive and covers each box individually.

In total there are 69 boxes to complete. Many questions do not require an answer.

Page 1 (see Image 4) I have reproduced Page 1 of the form V55/5 filled in as an aid (normally using black ink), as relevant to the Hawk 289 that I put through IVA in 2018.

The information for Boxes 12, 19 and 21 may be on your IVA certificate but were not stated on mine so were left blank.

Page 2 is I think self-explanatory so is not shown here. The boxes to be filled in either have an obvious answer or have the required information stated on your IVA certificate. The guide states when you do not need to fill in a box if you have an IVA certificate so leave these blank.

Box 62 asks for the cars notional price which is not definitive so I suggest you equate it to approximately what you have spent and don't inflate it as it has no bearing on the car's completed price after registration.

Box 65 asks if the vehicle is exempt from type approval (it is) and for this state Category M1 and Amateur Build.

Finally, do not forget to sign and date both forms where asked.

Having obtained an IVA you are assured of your registration, and if you have the donor vehicle that your donor parts were taken from, then receiving an age-related number plate should not be a problem. My experience of the DVLA is that they have been very helpful so make sure you complete your registration application to the best of your ability. If you have missed anything they will probably just phone you and ask for the information. I underpaid them by £10 on my application and they phoned and asked me to send the balance and in the same call asked what date I wanted my road tax to start from.

I recommend that when you send in your application you send a covering letter stating what is enclosed (as a bulleted list). This is a useful record and a checklist for both you and the DVLA. Also make photocopies of all original receipts and certificates that you send, just in case....

Send your completed application forms (V55/5 & 627/1) and accompanying documents to DVLA Swansea, SA99 1BE.

Guide to filling in the 'Application for first vehicle tax and registration of a used motor vehicle' (V55/5)

You should use the V55/5 to register a used vehicle (for example, imported vehicles that have been registered before, rebuids and so on.)

As many types of vehicle can be registered using this form, it would be difficult to provide a guide that covers every circumstance. This guide deals with the common types of vehicle a guide that covers every circumstance. This guide deals with the common types of vehicle.

Imported vehicles – have you notified HM Revenue & Customs (HMRC)?

Before you can register your vehicle you are, by law, required to notify details of any vehicle that will be imported permanently into the UK. O'HMC. You must to this with 11 days of the vehicle being brought in to the UK. The quickest way to notify thiRC via clusted any VMT due and paper form is available for agrove who camnot notify online. MRC via clusted any VMT due and provide and tax your vehicle.

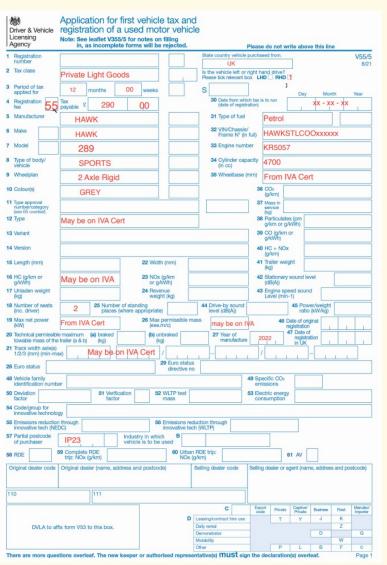
For more advice on importing a vehicle go to www.gov.uk/importing-vehicles-into-the-uk

The details you provide on the V55/5 will be pit on DVL3x records, so make sure the information you give is accurate. Please whice clearly in back, it ke using CAPTAL ILETTERS. It your form is difficult to read, it will take us longer tran roomal to issue the Volle Registration form property.

For M1, M1G and M15P type approved vehicles registered on or after 1 April 2017, you must provide the vehicle list price or not onlight of string or your application will be rejected.

For DVLA registration purposes, applications to first register a vehicle following the UK's exit from the EUJ will require top a provide starting with e., por v. In the UK will move to a UK approval scheme where ultimately only e11 or u will be the first section of the type approval numbers for Certificates Colo, National type approval schemes will remain.

Image 3 - V355/5 Guide



INVESTORS IN PEOPLE

Image 4 - V55/5 page 1