KIT LOTUS

Guest Special September 1st 2015

Kit Lotus special guest—Lola T70 Aston Martin by Bestbalsakits

In this special Lola Aston Martin issue.....

- Editorial
- An obsession
- The inspiration
- The Engine
- The Transkit
- The Build
- Footnote

One word—Stunning!!

Kit Lotus editorial - "the worlds only magazine dedicated solely to scale model Lotus" (and on this occasion, a special guest).

Welcome to this very special edition of Kit Lotus magazine, special in that there is not a Lotus in sight and special in that it is dedicated to a single car—The Lola T70 MKIII Aston Martin.

Our friends at Tamiya make a 1:12 scale Lola T70 MKIII, in Team Surtees livery and with a Chevrolet engine. It is a great model although one which never ran in this configuration as a Team Surtees car and when it did run as a Team Surtees car, ran in British Racing Green, had an Aston Martin Engine and a different 'whale tail' rear body.

This edition is also special as it celebrates one man's quest for modelling accuracy and although it relates to a non-Lotus subject, the man in question has been a Kit Lotus supporter almost since it's inception eight years ago. He is Wim Van Vlasselaer, proprietor of Bestbalsakits in Belgium.

I have always liked Belgium, driving across the Ardennes and crossing into Belgium from Germany, the first thing that strikes me is the change from neatly trimmed verges , white painted marker posts and , where the old border used to be, chocolate box border posts similar to sentry boxes, into a world less tidy and less organised but more relaxed . But you are entering a country that produces fantastic beer (Stella and I have known each other since 1971) and just as fantastic chocolate. To also have someone in Belgium who runs an amazing on line emporium of all things modelling seals the deal for me.

For most of Kit Lotus existence, Wim has offered a regular Christmas discount to readers, just how many have taken this up , I can't say, but he has offered constant support, contributed to articles and even accused me of being a journalist!!

Wim is just as enthusiastic about his beloved Lola T70 as I am about Lotus and his journey to realising his ambition of having a completed Lola Aston Martin transkit available for sale in his store has almost been as long as our Kit Lotus journey so far and I'm delighted to be able to produce this special edition dedicated to his Lola.

The original Kit Lotus carried these aims:

- **Share my hobby and therefore expand my hobby further.**
- **Share my knowledge and look for further inspiration from the inevitable people who are even deeper into this subject than I.**
- **Share the experiences that this hobby has given me and bring enthusiasts together.**

The journey so far has surpassed my expectations. Sharing those experiences and bringing enthusiasts together has included all those brave enough and confident enough to produce models for the benefit of others in a climate unconducive to big profit margins. Wim fits that bill with lots to spare. Only a true dedicated enthusiast would commit to a three year training course in computer aided design just so he could convert his favourite model to an accurate replica of what that favourite model really ought to look like. Only a true enthusiast would then invest large sums of Euros into the technology to produce his version of that favourite model. In all it is a story of total dedication yet still having the time to run a business and offer help and advice to other model enthusiasts.

Part of Wim's plan, apart from getting lots of sales from a full transkit set for Mr Tamiya's Lola T70, was always to have an amazing replica built which he entrusted to Thomas Halvarsson from Sweden to build it for him. The photographs he sent me are stunning evidence to that man's talent and make it difficult to spot the model from the real.

I made a promise to Wim that when his model was ready, I would be honoured to produce this special one off edition of Kit Lotus and to make it freely available not just to Kit Lotus readers but to model enthusiasts everywhere who should now take their own T70s and throw them in the bin, such is the awesome result of Wim's quest rendering all previous incarnations of the T70 flawed beyond obselecence!!!!!

I will let Wim take up the story, few on words but with some great pictures.

An obsession

The 1/12 Lola T-70 MKIII kit first was released in 1968, marked: Tam#1206. At that time, the kit was setting landmarks: with close to 275 parts & accordingly extensive building manual of 16 pages, it included an unseen level of detail like working coil-over shocks & moveable steering wheel, articulating U-joints on the half-shafts, real rubber hollow tires with timeframe correct threads, opening doors & bonnets, rubber covers that were made to fit the weber carburettors' air intake funnels etc. It came fully motorized (a real electrical engine could be fitted in), and even offered working electrical light bulbs to be inserted into the front head lights...

The model engine included in the kit - an impressive Chevy V8 small block - was beautifully rendered, but although this engine often powered the Lola's at a later stadium, originally the car was fitted with Aston-Martin V8 power. The kits box art depicts the car at the 1967 Nürnburgring 1000km race, where the car was fitted with the Aston-Martin engine: 'Project 218', which was developed by Aston-Martins head engineer Tadek Marek, so speaking, Tamiya made an error to include the Chevrolet block...

They also got the (box art) car color wrong: the car never raced in dark blue, at Nürnburgring as Tamiya suggests, but in British racing green. Yes sir!!

The kit has had several reworked re-releases over the years: firstly the electrical engine & light bulbs would disappear making it a 'static display model' Tam#12015, and with the latest re-issue Tam#12043 that came to us a few years back, Tamiya included a photo etched detail sheet, aluminium machined air intake trumpets and added 1968 Japan GP decals. The errors however, were never corrected, and Tamiya still brings the car with faulty Chevy engine & still indicates a faulty body colour...

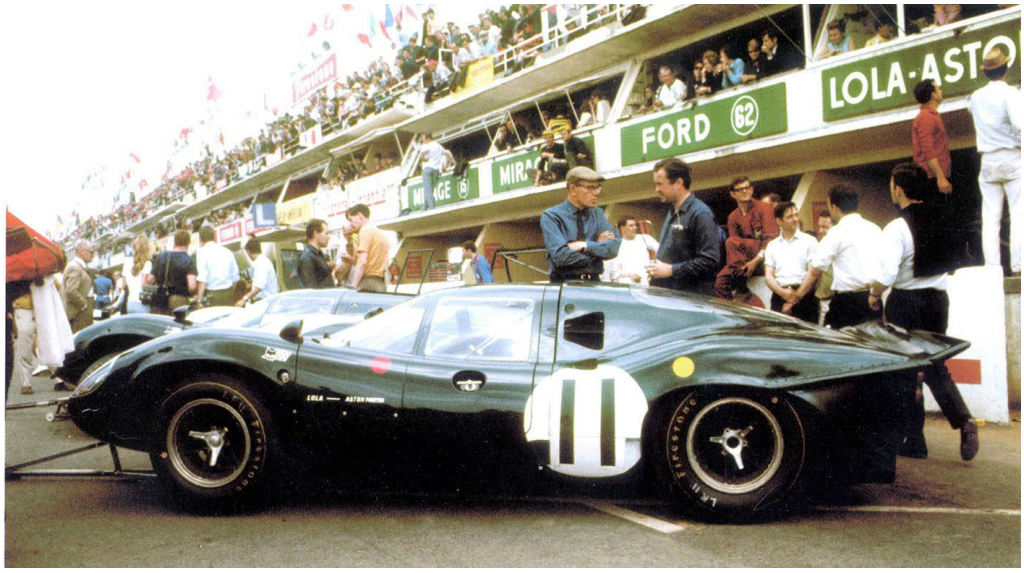
Tam#1206, Tam#12015, Tam#12043

Editor's note:

The Lola T70 started life in the mid sixties as an open racer prepared for the inaugural Can-Am series which it duly won driven by John Surtees and powered by a small block Chevrolet, the must have power unit for the series—Dan Gurney drove the only Ford engine car ever to win a Can-Am event. But then in 1967, no one could compete with the McLaren M6. By 1968 the FIA changed sports car rules allowing engines of 3000cc capacity although to the relief of Lola, cars where over 50 had been produced could retain their 5.0 litre capacity. This allowed the GT40s and the T70s to continue racing but the only significant race win for the Lola came in the 1969 Daytona 24 hours. Further restrictions on minimum numbers allowed the Porsches and Ferraris to enter the series and outrun the Lolas and the Fords.

The T70s are still popular in classic and historic racing and of the hundred or so produced, many survive.

The Inspiration



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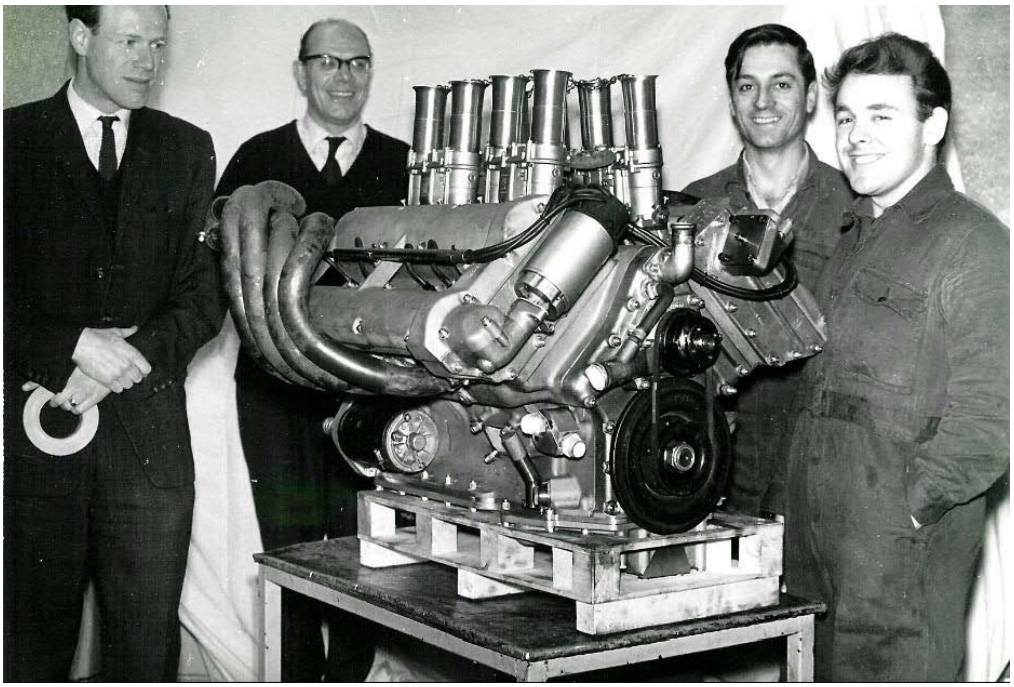


Aston Martin Project 218 engine with its designer Tadek Marek (man with glasses) and some of the AM mechanics. Note the standard fuel system installed: 4 downdraught weber carburettors

Lola Aston Martin at Le Mans 1967

Nothing much to tell here... Aston Martin arrived with great expectations at Le Mans 1967, especially after having the fastest car during Le Mans test days & a good overall 'test' at Nürnburgring 1000km a few weeks earlier.

Both Nr. 11 Surtees/Hobbs (chassis SL73/101) and Nr. 12 De Klerk/Irwin (chassis SL73/121) entries were equipped with Aston Martin 5.0 V8 (Project 218) engine with Lucas Fuel injection system. The Nr.12 car had the standard Lola rear engine cover, the Nr. 11 'Team Surtees' entry had a special developed whale tale cover made in aluminum.

Both cars needed to retire very early in the race due to mechanical problems: Nr. 11 'Team Surtees' retired on lap 3 with a holed piston, the Nr. 12 car suffered a cracked crankshaft damper after 45 minutes.

Aston-Martin decided to stop active racing on the spot. It is said that the special 'whale tale' engine cover was shredded the day after. What a pity...

Editor.....

One of the key points in this crusade to build the Lola Aston Martin is the engine itself. Wim could well have settled on a curbside model of the Lola with the correct body shaping, correct decaling and correct colour. Everyone would be just as impressed I'm sure, but that wouldn't satisfy Wim and his quest for accuracy and perfection. He picks up the story again about the engine.....

The engine

…….Aston Martin Project 218 5.0 Litre V8 by Tadek Marek.

Before the 1967 race at Le Mans, these are some pre-race quotes :

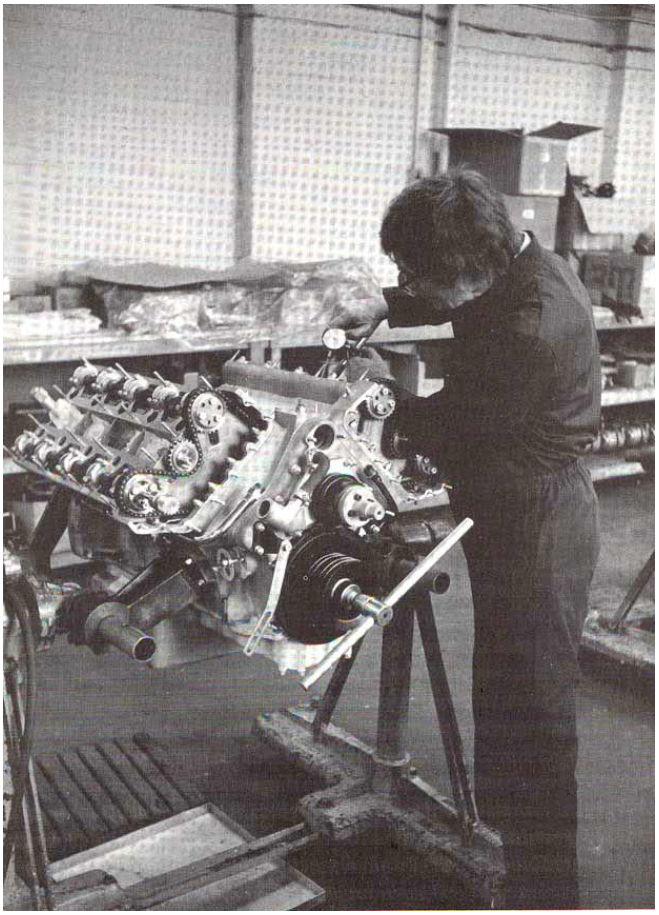
“The extensive use of light alloy in the construction has resulted in the V8 weighing about the same as the standard 6 cylinder Aston Martin production engine. It is however much greater in capacity & has a considerably higher power output. It is producing more horse power then competitive units of larger capacity. “

“This lightness is coupled with an overall length of only 28 inches (71.2 cm) which allows greater flexibility in car design.”

“The crankshaft is fully balanced with 5 bearings, so it will be less stressed than that of many other large V8 engines. Normally the engine will be equipped with 4 downdraught weber carburettors, but Lucas fuel injection will be installed for long distance races.”

The engine had the following specification

Stroke & bore: 83mm * 98mm, 5.064 litres
Cylinder block: Light alloy with wet liners, top seated.
Crankshaft: alloy steel, nitride. Five mean bearings, fully balanced.
Connecting rods: Light alloy forging with Dykes’ ring & oil control ring.
Cylinder head: Light alloy with austenitic iron valve inserts & phosphor bronze valve guides. Two over-head camshafts per head direct acting on the valves via bucket tappets. Timing drive by endless chain.
Fuel system: High pressure Lucas fuel injection system, using high pressure fuel pump & fuel me-tering unit (rotation clockwise).
Ignition order (magneto rotation anti-clockwise): 1-5-4-2-6-3-7-8



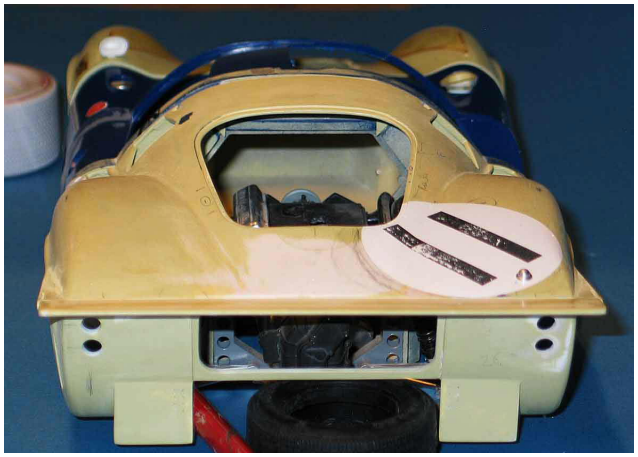
Marek’s Engine being prepared

The Transkit -

ASTON MARTIN #11 SURTEES LE MANS 1967 FULL TRANS
BBK.TK12-12009, scale 1/12
stock: **available**
price: **Euro 399.00**
material : multi-media

full transkit to transform TAMIYA 1/12 Lola MKIII into Aston Martins project 218 Nr 11 (Surtees) entry for Le Mans 1967 24Hr race.

To say this kit is detailed is an understatement, to appreciate just what has gone into it, the specification has to be fully described.....Ed.



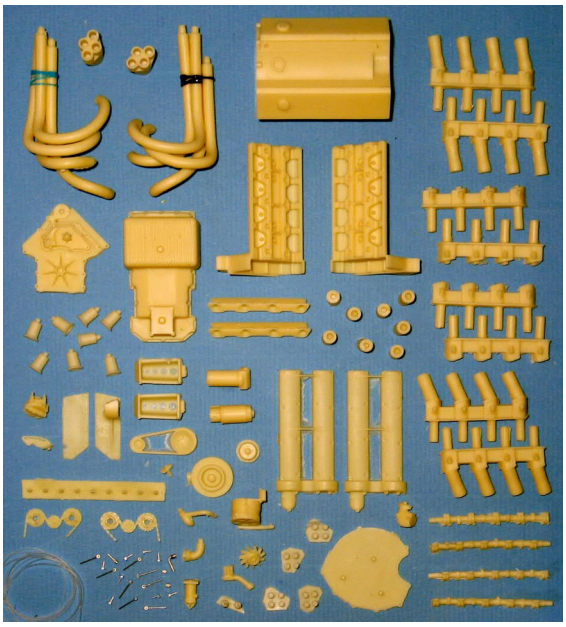
First the body: The revised whale tail engine cover was scratch built and hand crafted to include naca ducts and the adjustable wing, whilst the front body section and side panels received naca ducts only. A vacuum formed plastic piece is used to represent the rear deck window. Light bulbs and fuel cap masters were machined from aluminium using a lathe and milling machine, the photoetch detail was designed using a PC.

The body section of the kit on its own consists of:

The front and rear hoods and re-worked side panels left and right, 2 fuel filler caps, 2 mirrors, 1 adaptor part for the rear wing, 5 clear resin light bulbs, vac formed rear windows, a photoetch detail set, 85 rivets to fix the wing, 6 aluminium nut and bolt sets, 4 aluminium rod ends, a full colour screen printed sponsor decal set of 2 sheets and 9 colours including tyre rings and markings.

If that isn't enough we then go on to the engine where the specification gets really serious. Wim quotes.....

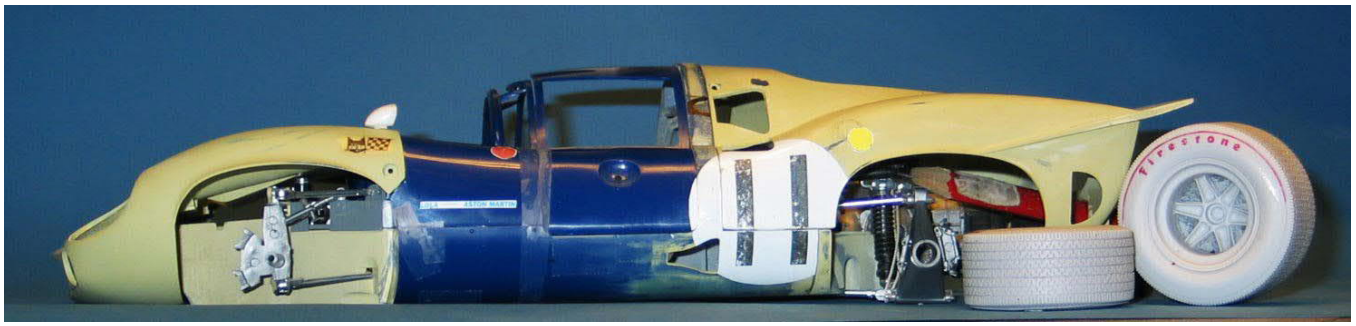
"Engine kit features: 85+ resin parts U.K. casted, 20+ aluminum machined parts which represent the fittings to connect the fuel meter unit to fuel pressure pump & injectors, 140 * 0.8mm alu simulated hex nuts&stud and 100 * 0.6mm aluminium simulated hex nut&stud to 'bolt' the engine together & close (no bolts have been modelled & moulded, but you'll find little holes that will take these simulated nuts & studs to represent ultimate realism).



The model provides the 1967 Le Mans and Nurburgring correct engine and even addresses the different intake set ups used during these races. The engine was drawn using 3D and then these drawings were checked for correctness by former Aston Martin mechanic Mr David Morgan who accompanied the car during its 1967 race adventures. This all highlights the efforts to ensure the modellers gets and historically correct model , executed to the highest standards

" BBK quality, quoi?"

Transkit Continued



The 3D drawings were 3D printed in 0.03mm steps to ensure the finest detail (check some of the Japanese kits, you can see the print steps in the castings ....Ed) then before the prints were sent to be cast, the steps were sanded smooth so that little or no clean up is required!!

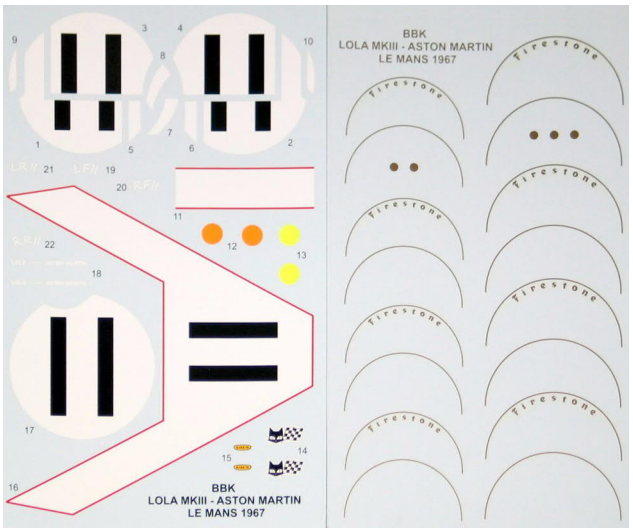
The engine kit shows inner detail, both cylinder banks show detail in side and each cylinder head shows valves, double camshaft and drive chain. It can be built open or closed with a choice of either Le Mans or Nurburgring air intake manifolds. It also comes with a 3D drawn instruction manual with sequence pictures to help with the build.

Here are some more images to help you capture the detail;

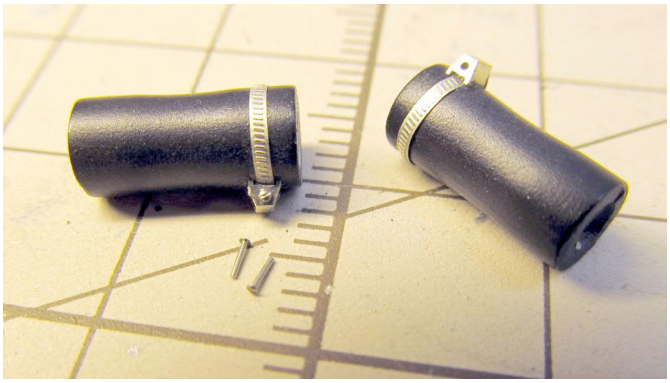
The Lola T70 was a successful sports car. Witness the full Goodwood grids even now and the Can-Am championship back then. The Lola Aston Martin however doesn't quite fit that category but represents one of those projects that just might have been something different but evokes passion in enthusiasts nevertheless. Wim has really captured that in his Transkit.

The build — by Thomas Halvarsson of Sweden

Wim chose not to build the Lola Aston Martin project himself, entrusting it to Thomas Halvarsson from Sweden who built the car over the period November 2014 to May 2015 and judging by the result, quite a tidy sum of hours went into the project.



Thomas takes up the story — (He describes his 'adventure' s it happened as a log and so to retain this effect I have not altered the text—due to space limitations, all of the images are not used. They amounted to around 200mb and so would take quite a lot of upload space and as described previously, the kit has a comprehensive manual ..... Ed).



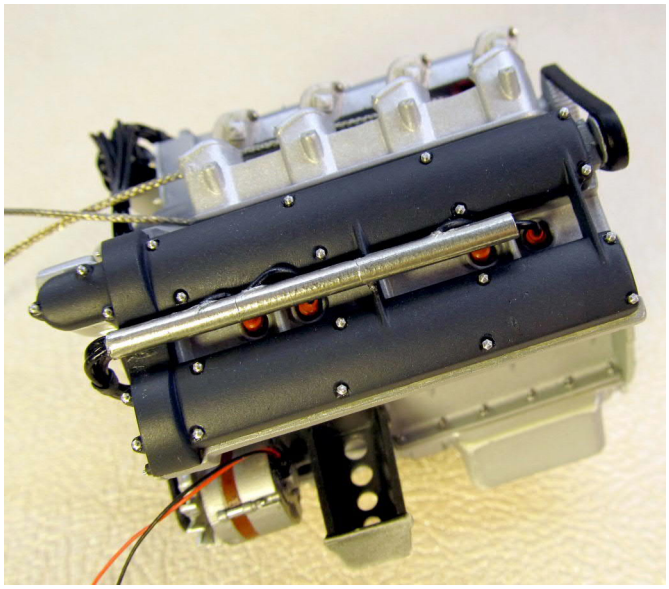
The engine

The engine is my first resin (sub)kit ever. The resin itself is very nice to work with. If a specific part is to be constructed out of several pieces , the construction becomes a little "flexible" though: the resin is a little soft. The fit is very good & only very little cleaning is needed.
Overall: the look of the engine is great!!!! And most important: it looks very convincing to me...

The hose clamps (BBK make, not included in Transkit) look very good, I put a little rivet on them to simulate the tightening screw (which is hard to see though...)

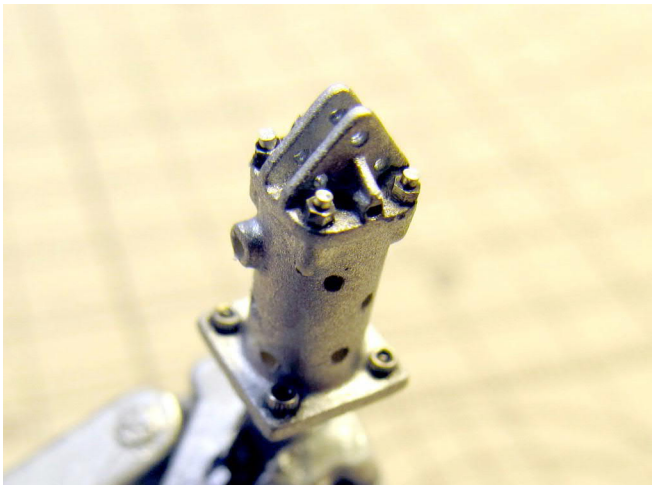
Fixed the ignition cables: on the closed camshaft side I used a little pipe where the 4 ignition cables run through. Making it look like the result, proved to be

The engine in resin needs to be rinsed very well before handling further. Once that is done, I mostly used Tamiya's primer as base layer. Regarding the colours on the engine, I used several different shades: for example the end plates covering the camshaft gears is in Humbrols24002 metalcote polished aluminum, the block is Humbrols matt aluminum 56, the oil pan is in metalcote 24001 matt aluminum. The valve cover is painted with Modelmasters acrylics in a dark grey shade mixed by me.
For the camshafts and the gears I used Modelmasters metalizers in different shades



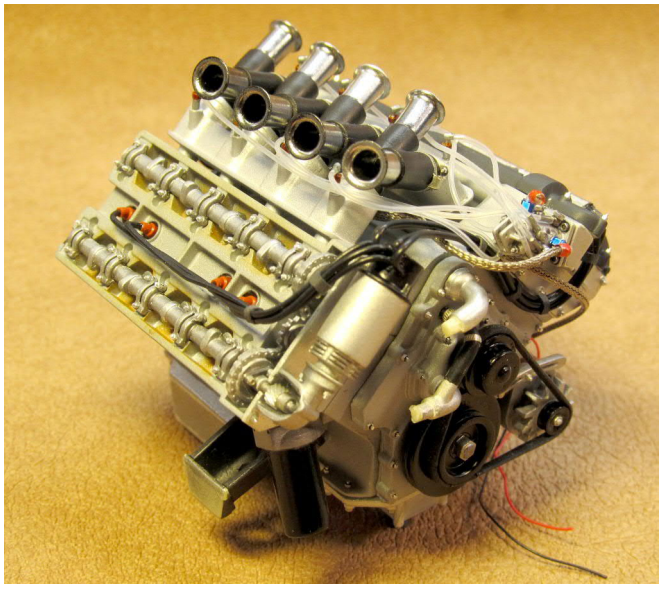
Build log continued

I started with the fuel metering unit today, used 2 types of bolts and added a little weathering with Tamiya wash .

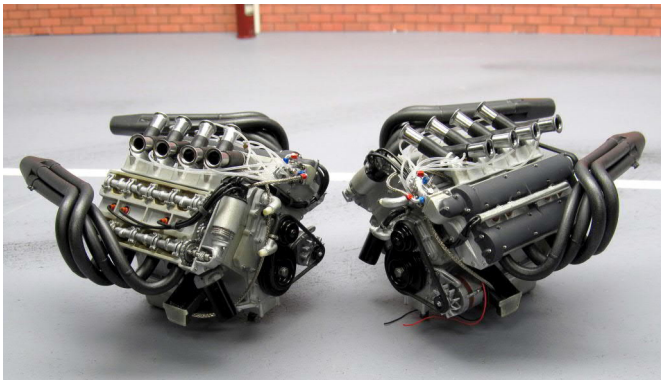


I placed the “rubbers” with the clamp screw housing facing a little downwards because upwards it didn’t look good. Now you can see the rivets in the clamps too, sooooo tiny rivets (They were 0,6 mm, maybe 0,7 mm could have been better)!

The fuel hoses of the Lucas fuel metering unit are in the place now. It all appeared a little tricky: I needed to use some oil to make the fuel line fit over the inlet banjo. I think that the line of injectors is angled a little too low on one side of the engine, but I couldn’t correct properly since the nozzles nearly touch the chromed intake funnels

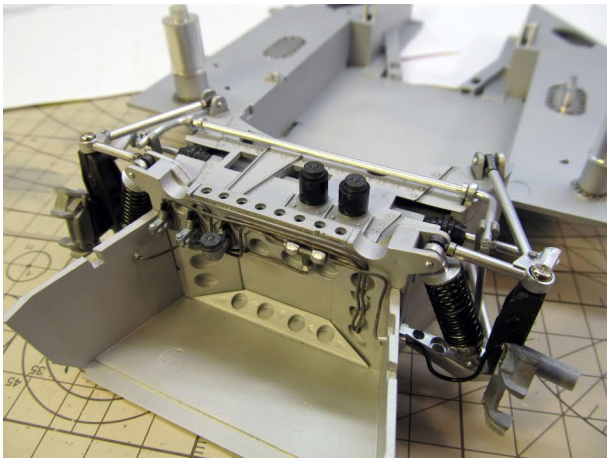


The exhaust system received simulated welding lines in white glue after they were painted with primer. I added a few ‘bolting together’ pieces from scratch. Then they got a layer of “exhaust” paint from Model-masters metalizer range

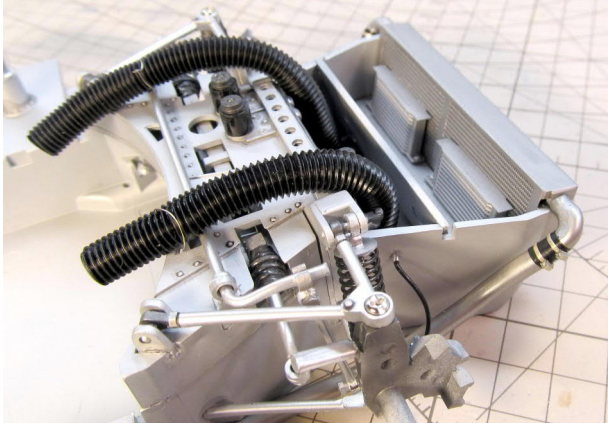


The chassis

I choose to paint the chassis in a dull aluminium color: Modelmasters metalizer Aluminum plate, then sprayed some matt varnish over it for a more durable look. The uprights were painted with various metal shades before they received some detailing with hex bolts. Brake lines in .5mm solder wire were added too.



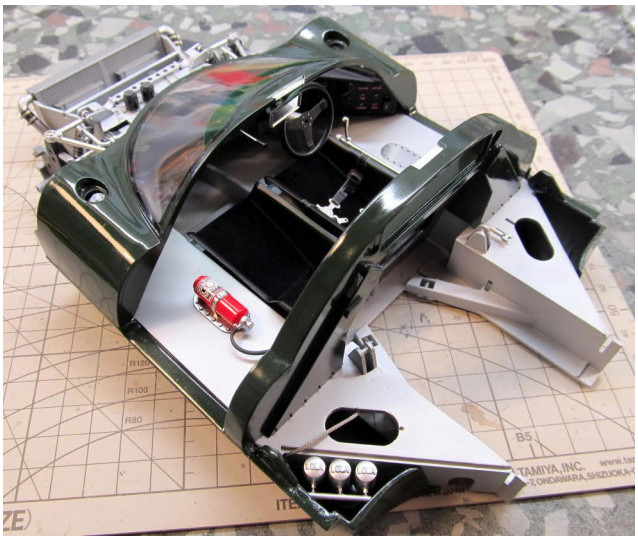
The Le Mans Aston Lola had the water pipes con-nected to the upper part of the front cooler, not to the lower as depicted in the Tamiya kit, so I modified this. I also added some hose clamps and tightening bolts for extra realism.



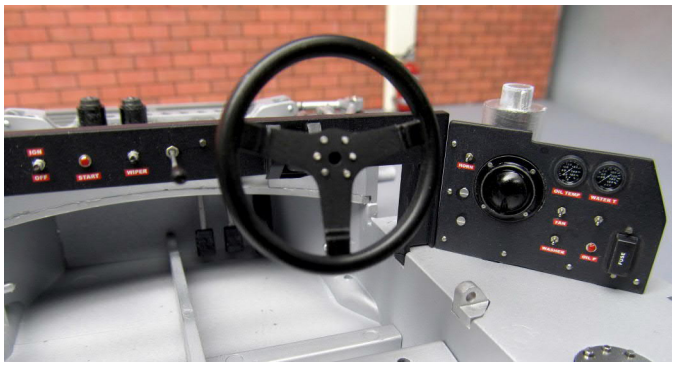
Build log continued

Mid section/cockpit

I´m working on the midsection now... I got some fit issues between the rear cockpit wall and the sill: they don't match properly. To get the front body part fit the middle section, I needed to remove a lot of material of the framework in front of the nose, so I hope no-one will study that area too much. So please don´t expose the underside of the front body too much: it looks like my cat 'Nisse' has helped me with his teeth!



Switches and buttons on the original dash got sanded off, and replaced by Ka-Fmd/Hiro/Top Studio ones. The "Dymotape" is from a decal sheet made by BBK. The seats were upgraded with the self-adhesive cloth and seat belt material included in the Tamiya kit.



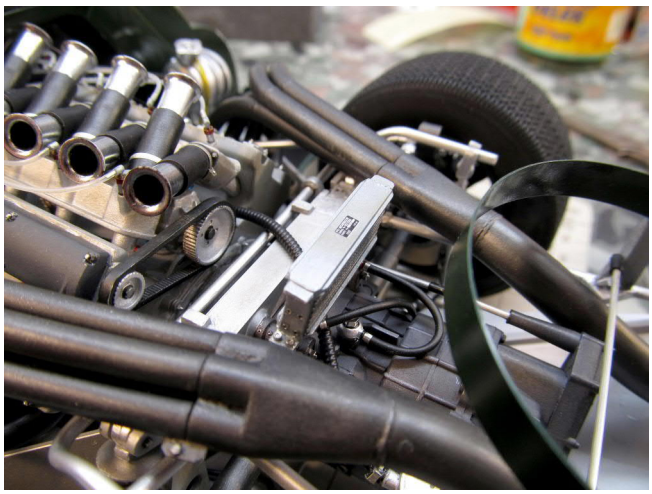
The Le Mans Aston Lola had two similar fuel caps on its front hood: one on the left hand side and the other placed right hand side. To construct these fuel caps, the transkit provides 2 resin parts, some photo etch & few bolts (which needed replacement because the provided ones were not long enough to suit the setup).

Prior to painting the constructed parts Alclad chrome, they received a black base layer .

The gear shifter and rod in the kit do not look very convincing, so I replaced them with some spare parts I got laying around: a machined aluminium gear knob is placed on a hollow metal rod. Finished the whole with the use of some plastic card and hex bolts. I did also add the front windscreen, and both doors were hinged. To have them line up correctly is sheer impossible, so the drivers' door will be posed in open position, the passengers' door shall be forced into position by using a small rod fastened to the under-side of the door which will fit flush in a hole in the floor.
The solar film on the screens is paint: Humbrol trans-parent green .

'Bolting' all together

The gearbox has been built, and I scratched an oil cooler & support on top of it



Build log continured

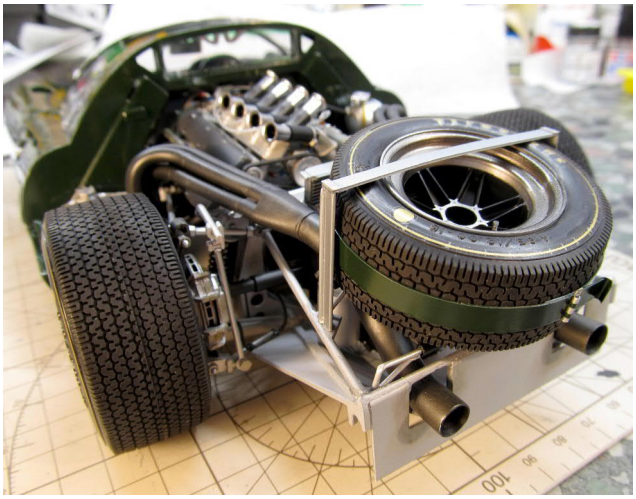
Wheels & tires are also finished: next to the air valves that are included in the transkit, I did add balancing weights and used BMF to simulate "duct tape" on the rims. I spent three hours outside our house, having 10 tires to sand off all the "Bridgestone" logos. Firestone decals needed to be applied, but it was a lot of work to get that done the right way. To get the decals stick onto the rubber, I first put a layer of floor polish on the side walls, then I added some Microset followed by the decals and topped all off with a fair amount of Microsol. After this process, the tires still needed some touch up with black paint because some silvering appeared in between the Firestone letters. Finally I sealed all with matt clear to achieve a more dull look. I believe that the golden dots on the tire side walls are too big, so maybe these can be adjusted when re-issuing.

The hinges to support the rear wing are installed on the engine cover: I drilled out all the holes with a 0,3 mm drill, and glued the rivets in place. Boy, they are tiiiiiiiny!!! All this took a lot of time: I needed tweezers and super strong glasses to pull this off ;-) I do hope they still will be visible when all the paint is added to the surface

I glued engine & gearbox together, and went for a test... No way I could get the engine in place! Grrrr... So I took them apart again, and now first installed the engine onto the car, before I attached the gear-box again. This works better.

One thing that occupied my mind is the routing of the exhaust pipes and how to make them to exit the rear body. How to make some sort of support for the spare wheel is another concern: it's a pity that there are so little pictures of this area. I'll have to go on the Nürnburgring 1967 Aston Lola setup, from which I was lucky to find a picture.
The lower chassis part has been shortened a little and a new endplate has been fitted... The whole looks a little rough, just like it did in reality ;-) I used the original pipes and heated them so I could bend them following the new/different routing, then added a lot of putty before sanding them into shape

The spare tire got a support made by aluminum rods, and there is a band around the tire to secure it. This band is made from 0.2mm plastic card with a little etched part to represent the locking/unlocking handle and shall be painted in the body color. To be able to open/close the band and take the spare tire out of its support, I used small magnets to seal when needed. The engine cover now can be put in place with or without the spare tire sitting on its support



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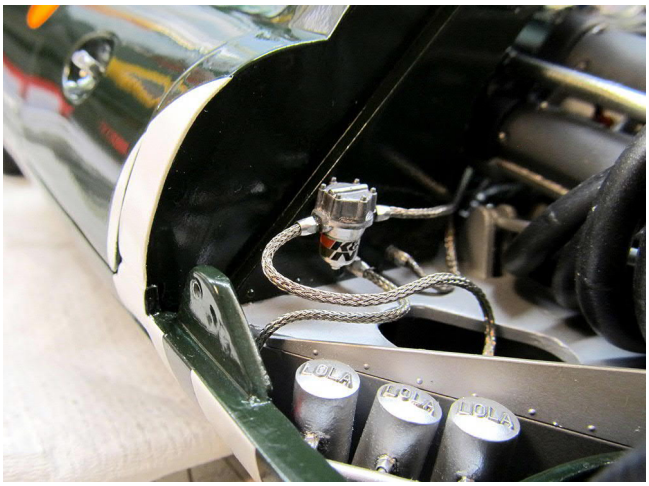
Build log continued

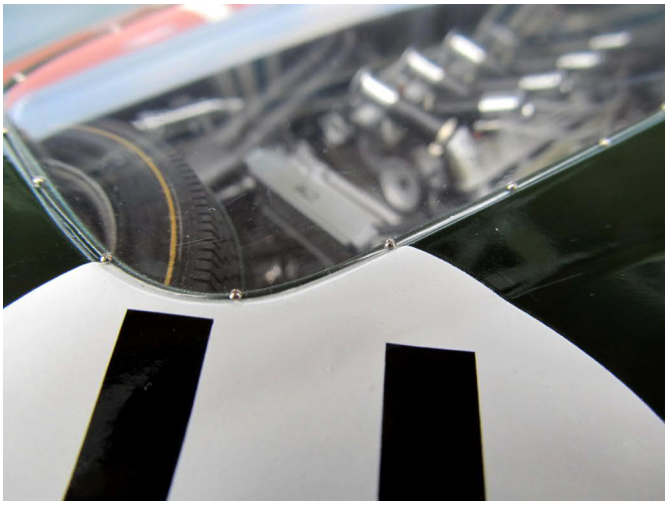
Also I made a fuel filter from my scrap box, and did add K&N Filter logo to finish it off. Verrrry sixties design ;-)



Final steps

I got the rear window in place. It appeared a little tricky to get the right shape cut out of the vacuum formed part. I used different ways to get the windows in place: on my car I glued it with white glue and then drilled out the holes for the rivets, but on BBK's car I drilled out the holes with just holding the window in place with my fingers! I fixed that window by putting a drop of superglue on each rivet from the inside of the hood. This way I tried to avoid glue being visible on the edges of the window. I must say: all this was a little nerve racking... And, if you are a "rivet counter", no doubt you'll notice the rivets are on the edge of the window in some places because it could do with a little extra width.

All I need to do now, is take some pics. All in all, it was a very enjoy-able build. I learned a lot of working with new materials, and I am really proud of the result I achieved. The car is very good looking,



and oozes power and energy, almost like a predator waiting to jump its prey. It surely can stand next to the Ferrari 330 series cars (P3, P4, P3/4) and is, in my opinion, one of the best looking (60's) endurance cars ever.

Footnote

Finally, it may not come as a surprise to know two of these beastie boys exist. Thomas is hardly going to pass up the opportunity of adding one to his own collection whilst building for Wim. The fact he has built these models over a seven month programme must count for many man hours. His attention to detail has rewarded the build ensuring the outcome justifies the years, the cost, the effort and most of all the determination that Wim has shown to be able to proudly have this transkit of his own manufacture in his own on-line store. Moreover, it rivals the best of anything coming out of Japan and at a reasonable cost that puts it into serious consideration.

Builder Thomas has also provided the photography of the build and the finished model, the picture quality alone has helped suspend reality such is the detail of the car against a believable backdrop. But, to bring things back to reality, I couldn't resist including this last shot, typical of how we modellers work. To sum up: Fantastic. For more information go to :

www.bestbalsakits.com

It isn't the intention of Kit Lotus to have regular guests but this particular model had to be the exception and I hope readers will judge it as a success.

(Speaking as a Lotus model kit enthusiast, if there are any kits other than Lotus I would like to build, one would certainly be the Lola, another is the 1:12 Airfix Bentley …..... ED)