

## My Hawk Build Part 6 by Stuart Clarke

### The build commences.

The day had finally arrived when I'd start to bolt my kit together and I was going to concentrate on the front end first. Front suspension, steering rack and anti roll bar. I'd had the chassis for a couple of weeks and I constantly had to stop myself from getting on with it. I had other things that I needed to do and the worst thing that you can do with project like this is flit between different things. That's how things get overlooked or, worse, how things get done incorrectly.

I got the manual out the night before and read it a couple of times to get it in my mind what the plan was for the next couple of days. I worked out that the best sequence was as follows.

#### Front suspension –

1. Fit Wishbone pivot
2. Fit bump stops
3. Fit Shock absorbers.
4. Fit wishbone arms (hang them on pivot)
5. Fit spring pan (Loosely) to wishbone arms.
6. Fit Anti roll drop bar loosely.
7. Fit king pin upper trunion to shock absorber loosely.
8. Install spring
9. Fit king pin lower trunion to wishbones.

#### Fit Steering rack -

1. Mount steering rack
2. Fit track rod ends.

#### Fit Anti roll bar -

1. Mount anti roll bar and bearings.
2. Fit to drop bars.

I was ready to go.



From my experience it's always good to do a dry run with nuts and bolts so you find out if they fit and also work out the correct order for washers (spring and flat). The other thing I decided to do, after stripping an MGB with all of its rusted nuts and bolts and after reading the Hawk build manual, was to use anti seize compound on all of the bolts. This can be a bit messy but I know it'll pay dividends in years to come.

The kit comes with all of the bolts needed for the front suspension and 6 off threaded back plates and 2 unthreaded spacers.

The wishbone pivots use 2 off of the threaded back plates each side (4 in total) and bolt on using the allen cap head bolts in the "wishbone pivot" bolt bag.



Without allen cap head hex sockets for my torque wrench, I just ensured they were tight.

The bump stops next using the contents of the "bump stop" bolt bag. Unlike the MGB you don't need the aluminium spacer when fitting these to the Hawk.



I torqued these to 22 ft/lb.

Shock absorbers next using, you guessed it, the “Shock absorbers” bolt bag bolts.



These were torqued to 43 ft/lb.

Wish bone arms next. I just hung these on the pivot and bolted the spring pan to the arms loosely.



As you can see, I ensured that the bushes are well lubricated where they come into contact with metal (in this case the large counter washers that aren't included in the kit).

The next step was to fit the anti roll bar drop arm. Do a dry run as these are handed. If in doubt do a dry run with the roll bar too so you know you've got them the right way round.

I used plenty of anti seize compound as I had to grind the originals off that were on the MGB as they were seized solid!



Next up, the Kingpins. Top trunion to the shock absorber first (with bushes well lubricated).



All that was fairly easy, I had the springs to contend with next.

I decided to go about this with health and safety in mind. I'd bought some spring compressors when I stripped the MGB and they were of no use then. I was determined to at least use them once. I could bore you all with the different ways I tried to use these but I wont bother. I never used them.

The easiest way is (or easiest way I could find is) to get four or five willing helpers and get them to sit on the chassis to weigh it down (don't let them get up whilst you are jacking up the spring pan!!!!!!).

Get a trolley jack and place it under the front edge of the spring pan. Smear the top and bottom of the spring in copper slip (anti seize compound), jack up the spring pan slowly (with the spring properly located at the top and hooked over the lip at the back of the seat on the spring pan) and compress the spring, guide the bottom trunion (complete with grease retaining rubbers and shims / spacers) between the wish bone arms and stick the prelubed bolt through!

But you should never do it that way!!! If you find another way, the proper safe way ..... let me know!

All of the suspension was now together but all of the bolts needed tightening. I tightened all of the bolts up to the correct torque setting. In the kit they supply nylocs for the wish bone pivots etc. I had castle nuts and split pins and I used these instead.

Area of Use	Torque (ft/lbs)
<b>Front Suspension Fasteners</b>	
Front shock absorber bolts	43 to 45
Brake disc to hub	40 to 45
Brake caliper mounting	40 to 45
Bearing retaining nut	40 to 70
Cross member to body	54 to 56
Shock absorber pinch bolt	28
Wishbone cross bolt	28
Anti roll bar link	60
Spring pan nuts and screws	22
Stiff nut to crossmember mounting bolt	44 to 46
King pin to wishbone - lower fulcrum	45
King pin to damper - upper fulcrum	40
King pin trunnion (nut on top of king pin)	65

Suspension done!

Next was the steering rack.

The steering rack is the standard MGB rack that I obtained off the donor car but it needs a modification. There is a requirement for a collapsible steering column and this is achieved by fitting a second UJ and an intermediate steering shaft. This arrangement means that the pinion shaft on the MGB rack needs to be shortened. Gerry Hawkrige sorts this out and the cost is included in the price of the kit. You just need to get the shaft to him to modify (I shipped the whole rack).

Mounting of the rack to the Hawk chassis is a simple job. It's pretty straight forward where it fits and the only small difference is that you need to use the 2 spacers provided in the kit and the last 2 threaded plates.



Use the bolts provided in the "Steering rack" bolt pack and some anti seize compound. The bolts pass through the steering rack, through the spacer, through the chassis and into the threaded plates.

The two ball joints need to be connected to the threaded ends of the rack and connected to the swivel arms. I set those up so that the faces of the swivel arms are roughly parallel. I do the final adjustments of the tracking later.

The final job of this section was the anti roll bar. I decided to use the one off the donor MG. Upgrades are available and you can get bigger section roll bars from Hawk cars or most other MG component suppliers. If in doubt, go to Gerry as he will recommend, and supply, the best anti roll bar for the job.

If you fit the rack first it's quite easy to see which way round the roll bar goes as it bends up over the rack and connects to the drop arms that have already been (correctly??) fitted.

There is a bolt kit which contains nuts and washers too for this. When I fitted mine I saw that one of the bolts was too long and was fouling on the chassis main member. I got round this by fitting a shorter bolt that was supplied with the bump stop pack and left over because I used the Hawk bolt kit for this. The longer bolts may be to fit larger section roll bars that require bigger bearing holders. It didn't matter as I had the right length bolt spare.



You can see the bolt on the left is shorter. On second thoughts the bolts could always be fitted the other way round. It's done now anyway.

I just needed to connect the roll bar ends to the drop links using the bolts supplied by hawk cars. These bolts need to be torqued up to 60 ft/lb. Job done!

One little project finished!

