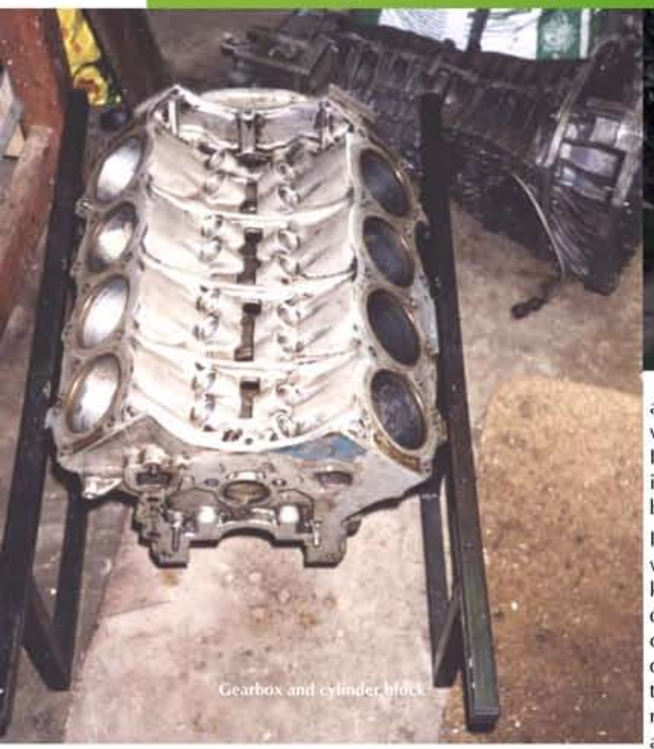

Gearbox and cylinder block

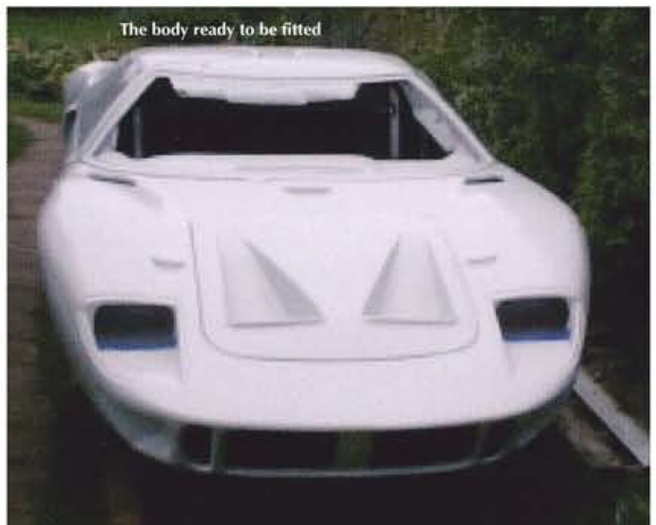

Subframe supprting the front clip

also assembled.

With most of the sheet metalwork completed, it was the turn of the Rover engine to receive some tender loving care. It was given to me some years earlier by a friend, as it was surplus to requirements, he having just built a new motor. It had lived in our garden under cover, and from time to time was useful for the taking of measurements. Apart from much time cleaning the cylinder block and the various parts to be reused, it was a routine rebuild to a standard Rover specification, with the exception of fitting a high volume oil pump and an uprated camshaft timing chain.

Now quite presentable, it was promoted to live in the garage and mate up with the gearbox, which had undergone modifications to the input shaft to carry a Rover clutch plate, and the transfer of the gear selector shaft to the opposite side of the box. The union was completed via a Rover to Renault adaptor plate and a hybrid clutch thrust bearing. At about this time I decided to visit the Tornado factory at Kidderminster and have a chat with proprietor Andy Sheldon, who kindly let me run a tape measure over a completed chassis to confirm future compatibility with my monocoque and a Tornado body kit, and also enable me to design the front and rear sub frames to carry bodywork, radiator, gearbox mount etc and also order the factory-made rollover bulkhead frame which was to be modified and bolted to my chassis. I came away with all the necessary information and in time I had the frames constructed and temporarily bolted in place.

I couldn't proceed with any further construction without the body. Due to the demand for Tornado kits, I had to place my order and wait my turn in the queue. After a number of weeks the kit was ready for collection, and accompanied by the lady wife we drove to Kidderminster in our hired-for-the-day Luton van, a vehicle dramatically lacking in aerodynamic prowess, and which was reluctant to travel any faster than 10 miles under the permitted limit! On seeing all the parts displayed ready for dispatch and having sufficient experience and imagination to know the work involved to turn these components into a GT40, I can now identify with actors and sports people who are physically sick before performances. Fortunately I was spared the latter condition, but the thought did go through my mind again, why am I doing this? Andy Sheldon broke my introspective trance by asking how I was going to secure the parts to the inside of the van to avoid them being damaged on the journey home? Good question. The answer was simple and chauvinistic - send the wife to the nearest hardware store to buy some rope.


The body ready to be fitted

<< Building a Monocoque GT40 by Barry Perry >>

The story has moved to February 2001; with the chassis now placed on trestles in the garden, it temporarily supported the bodyshell and was covered with a sheet, awaiting favourable weather. All the preparatory work required on the body panels such as removing surplus material and smoothing the edges and apertures of all the panels and sections (11 in all), fitting door locks and locking devices to the front and rear clips, bond in support for headlights, back up, rear, fog and plate light. All transparent light covers, plus door and rear cab windows were also processed and any fixing holes drilled, and stored for later assembly.

Any other bonding work was completed at the same time - mostly fixings for components and the wiring harness. Earlier, when the bodyshell arrived home and was placed on the chassis, it was plainly obvious that I had made a huge blunder. The windscreen and front cockpit support panel was too high by 32mm and would need major surgery to rectify it. I was more than annoyed with myself for this unforgivable error, as not only had I visited the factory specifically to finalize measurements as described earlier, but I considered that I'd made a clear and neat job in the first place.

All this now had to be unpicked and looked a formidable challenge, and so it proved. The catch phrase 'don't panic, don't panic' from the Dad's Army sitcom sprang to mind, and after a few deep breaths and something alcoholic, I sat down and planned the rectification strategy. With the aid of some perspective sketches and some cardboard patterns, the demolition started. Fortunately the only vertical steel support I encountered was at the top of the triangular area to the side of the fuel fillers.

It was now a case of tidying up the edges of the remaining metalwork and preparing for another joint (not drug related I hasten to add). The top windscreen support panel carried the surplus material to be removed and would be a far more involved task, requiring all the old rivets to be drilled out, but the most difficult job was breaking the bonded joint. The technique I used was to firmly clamp the panel to a stout block of wood. It was then possible, starting at one end of a seam, to insert a sharp wood chisel into the adhesive layer and, by gently tapping with a mallet, gradually peel back the unwanted material.

The reluctance of the joint to break easily did boost confidence in the strength of the structure as a whole, and was some guarantee that the bonding process was a success. With the top panel now cleaned and prepared for re-jointing it was necessary before assembly to make a recess in the centre of this part to accommodate the ducting for the windscreen ventilation.

The only panels to need reforming were under the filler caps above the wheels. These had to be angled more acutely to meet the lower top. As these parts were still partly attached, any alteration was going to be difficult as the material was tough and hard to bend, requiring annealing. With the aid of some strong angle iron and some G clamps, a reasonable result was achieved, with everything resited within a few days. Hopefully there would not be a repeat of such an error in the future.


Rear bulkhead rollover frame and rear subframe in place, oil and cooling pipes in central tunnel

The next major job was to align and fix the Tornado mid bulkhead rollover support, which proved to be a fairly straight forward operation, being exactly compatible with the chassis for height. Brackets were welded to the bottom of the 2 main vertical members to align with fixings already provided in the tops of the main side members, and together with a pair of diagonal tubular braces from the top of the frame rearwards to the deck of the engine bay, also supported the front anchorages for the top rear radius arms. With the cockpit spider in place it was possible to make the profiles from alloy sheet for