

Y-TYPE NEWSLETTER

NEIL CAIRNS 01525 217394, safetyfast@mgotypes.org, www.mgotypes.org

IT WAS AFTER MIDNIGHT, a beautiful July night in 1991 with a full moon illuminating a few scattered clouds. The old Y-Type was returning from a week's motoring in Northumberland. We had been travelling south all day mainly on 'A' roads, but on the motorway since Gloucester as we felt there would be little traffic late at night.

Since joining the M4 there had been no traffic going east but now, at least a mile behind us, headlights appeared. The overtaking vehicle was now very close, its headlights flooding the interior of the car with light. Then all of a sudden all hell broke loose. There was what sounded like an explosion and glass fragments flew about. My seat back collapsed, the front of the car reared up and swung to the left. I was driving up a steep hill, trees and bushes flashed by, then the headlamps were shining into space. Right hand down, more trees and bushes, then back on the road, pull in and stop. Fifty yards ahead a large lorry is parked...

All this happened in about 20 seconds. The 35 tonne articulated truck had run over the right hand corner of the car. My wife and I were very lucky: we did not have a scratch, but were of course very shaken. The strength of the Y-Type's steel bodywork had taken the full force of the

impact causing the car to be hit, like a billiard ball, up the motorway embankment. We were also very lucky in that the incident occurred in a cutting so that we were able to return to the road. Had we been hit down an embankment, or even worse, into a bridge abutment, heavens knows what would have happened. The police were called and we returned home, both the Y and us by recovery vehicle.

The story had started some time previously. For years I had run modern cars but caught the 'old car bug' again when my daughter, who had just passed her driving test, saw an advert for a Y-Type MG. Considering the state the car was in, we did not buy a bargain; in fact we ended up buying her a Morris 1000, leaving me to rebuild the Y which looked good but was really extensively corroded where the chassis passed below the rear axle.

More expenditure was out of the question, so some DIY was called for. The only snag: I was not a welder. A friend whom I had met in the course of my work was very supportive. He ran a sheet metal company and gave me some off-cuts to practice on. I had bought a cheap welding set which was, I am afraid, a complete waste of money. Basic equipment from BOC was a great

improvement and after reading several books, plus plenty of practice and advice, I could weld.

In addition to repairing the chassis members, I carved out some new rear-spring hangers from some 10swg steel channel and welded them in place. (The right hand one later withstood the weight of the lorry in the accident without damage.) The saloon rebuild became a family project. My son helped with the metalwork and mechanics while my wife and daughter tackled the seats and the headlining (a major job). I would not like to estimate how many hours we all spent.

Following the accident an insurance assessor came to view the car and stated that it was a complete write-off. The bodywork was distorted beyond economical repair, but because the major damage had occurred at waist level and above, the chassis was undamaged. The insurance company paid the agreed price and I brought the car back for a nominal sum. Several weeks were spent with the family debating as to what to do: scrap or rebuild the car as a tourer. My first idea – to construct an estate car – was turned down flat, so, wind in the hair motoring it was to be.

There is, of course, a factory built Y-Type tourer; (the YT), and with some difficulty I could have

Off with its head!

The Henderson family turn potential disaster into absolute triumph. By Sandy Henderson



GERALD WROTHAN

Below: Door tops now finished two inches lower than they had on the saloon.



attempted a similar body. But after looking at some photographs and taking note of the number of compound curves, I knew that such a body would be impossible for me to produce. In any case I did not like the combination of cut-away doors and short bonnet which, to me, results in a fussy design with no strong horizontal line. 'Keep it simple' I said to myself. The idea was to retain the wings and front section of the car as, with the exception of the right-hand rear wing, were undamaged. I would design a body with single curvature panels which had to be as neat as possible and which would compliment the attractive MG front end. The aim was to produce a complete car that would appear to be a professional job. The design had to be simple as you can 'draw' anything, but making what you draw can be something else.

An outline sketch was produced and a five panel body decided on. This would be two door panels, two side panels to the rear of the doors which turned around each rear quarter, and a flat fixed rear-centre panel. This layout meant that there were only two panel joints besides the door shut lines. There would be no attempt to hide these joints, in fact they were to be accentuated by two stainless-steel cover strips, one each side of the spare wheel, giving the car a similar appearance to a 1930s Morris Eight Tourer.

'THE AIM WAS TO PRODUCE A CAR THAT WOULD APPEAR TO BE A PROFESSIONAL JOB, THE DESIGN HAD TO BE SIMPLE...'

The design would require the construction of new doors, door pillars, and of course a complete new frame to support the panels to the rear of the doors. I decided to retain the front section of the saloon doors below the waist-line, and realised that due to the position of the lock at the top front corner, there would be nothing to hold the lower front edges of the doors against the body when shut. The solution was to make and fit quarter-light frames, which would form supports for the front edges of the side- screens and in effect, move the locks mid-way down the doors. The existing saloon windscreen surround would be kept, the top rail reinforced by a new section taking the hood header rail and also forming a rain water gutter. Retaining the surround would also eliminate scuttle-shake. (Editors note:- the TD suffered from this badly at first, and had to have a steel hoop fitted to support the scuttle.) To ensure that the rear of the car would be well braced, no

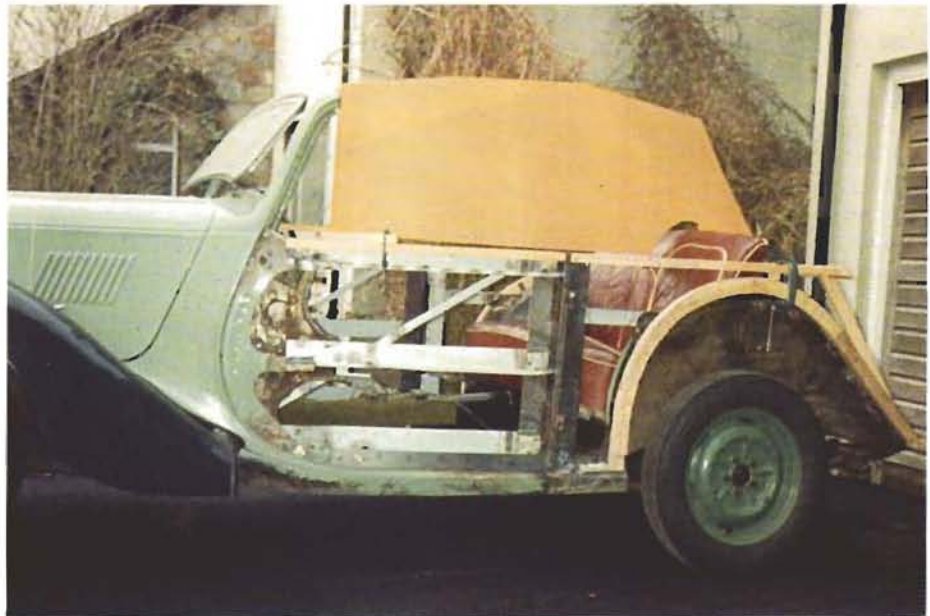
boot opening would be provided, the spare wheel being mounted on the outside of the rear panel with a simple bracket. In addition a steel brace would be made to connect the rear-inner wheel arches and form a support for the rear seat back. Weather equipment would consist of a fabric hood supported by three folding hoops and four side-screens. The tops of doors and body panels would be capped with varnished hardwood.

The equipment at my disposal was fairly basic. I had the usual spanners and hand tools, a range of woodworking tools, electric drill, jigsaw, angle grinder and gas welding set. I had a bench fitted with a large vice and a couple of one inch square metal bars which could be used as folding bars to form sheet metal. These were very useful to make up brackets to reinforce the timber frame. My single garage was dry but drafty. It was small but just about large enough for the job.

The remains of the saloon bodywork were carefully examined to decide exactly what to keep and what to scrap, where to make the cuts, etc. First the doors, boot lid, opening roof panel, the wings, running boards, seats, steering wheel, and roof lining were removed. The offside inner wheelarch was a problem as it had been crumpled up like a piece of waste paper. A number of vertical cuts were made about six inches apart, then the

Y-TYPE NEWSLETTER

NEIL CAIRNS 01525 217394. safetyfast@mgotypes.org, www.mgotypes.org



deformed sections were unfolded and beaten into their original shape, before being welded together. The right-hand windscreen pillar had been bent forward an inch or so. A block and tackle was rigged between the top corner of the windscreen surround and the chassis to pull the pillar back into its correct position, refitting the windscreen to ensure a correct fit. A second-hand rear wing replaced the one destroyed in the crash.

At about this time I read in the Octagon Club Bulletin that there was to be a tour of England by members of the New England (USA) MG 'T' Register with their cars, and that they would be visiting Bath, only about fifteen miles from my home. I went along to meet them and had a conversation with George Werbizky of New York. In addition to his T-Type, he owned a Y-Type Tourer and we had an interesting chat. 'Be sure to send me some photos when you complete your rebuild,' he said. I promised I would.

The first items to be constructed were the door pillars made from two right-angled sections of steel plate, welded up to form a tapered box section. They were positioned approximately eight inches further back than the original B-posts, and were welded to the sills. No part of the new construction was welded to the chassis so that, when complete, the new body could be removed if required. The pillars were braced by brackets welded to the front corners of the rear seat-pan. In addition a steel channel section was welded between each pillar and the rear wheel arches. The saloon door hinge mountings were fixed to the new pillars at about 15in centres. The door frames were next, incorporating the front sections of the original doors including the locks.

'I WOULD DISCARD SKETCH AFTER SKETCH, THEN WORK UP AND DETAIL THE BEST IDEA. THERE WERE NO WORKING DRAWINGS AS SUCH'

The above descriptions may make the new construction sound a straightforward process, but before any work was carried out many sketches were made, detailing how the various parts were to be put together. I would discard sketch after sketch, then work up and detail the best idea. There were no working drawings as such since most of the design process was in my head. I kept making small errors and would clamp parts together or maybe fix things with pop-rivets or self-tapping screws before doing any welding. Invariably I would have to make adjustments or sometimes go back to square one.

Anyway, let us go back to building a door. The frame of the door was made up of vertical Z-section on the rear or hinge end. One arm of the Z formed a short overlap on the outside facing to the rear so that rain water would not enter the car when going forward. Then there were three horizontal steel right-angle sections connecting the rear Z sections to the front section (part of the original saloon door) and a diagonal brace.

The next stage was to construct the framework to the rear of the doors. A template was made of the wheelarch shape and a pair of timber frames made, fixed to the outside edges of the wheelarch by screws through a series of metal lugs welded to the arches. A top body rail was made of timber in

three sections to run at waist height from the tops of the pillars around the rear of the car. The rail and tops of the doors aligned with the bonnet hinge-line and were about two inches below the saloon window line. The top rail was fixed to the tops of the door pillars and was connected to a timber rail fixed across the extreme end of the boot floor by two angled timbers, positioned to support the joints between the rear centre panel and the side panels. Steel brackets were used to reinforce the various timber joints.

Prior to fitting the panelling, the frame was faired up using a straight edge. As all the panels were of a single curvature, this was not difficult. The lower timber sections were treated with a preservative before the complete frame was painted. Aluminium sheet was used for the panelling and was fixed to the timber with brass pins. The pins were positioned so that their heads would be covered by stainless trim fitted later. In

The doors were steel framed, the aluminium skin being beaten around the frame edges and t. The aluminium/steel interfaces insulated with double-sided carpet tape. Paper patterns were made of the rear quarter panels and the aluminium cut oversize. Fitting these panels required some care as they went from the door pillars around each rear quarter and included an angled 90 degree turn. A sheet steel quarter rounded former was made and used to hand-form the aluminium before being discarded.

The next stage was to hang the doors using the original hinges and fittings from the saloon. After numerous re-settings, a satisfactory fit was obtained. The final panel at the rear of the car, which was to carry the spare wheel, was reinforced



'PAM SUGGESTED THAT IF SHE SAT ON THE REAR SEAT, WE SHOULD GET A GOOD IDEA OF HOW HIGH TO MAKE IT'

Above and left: Bringing the crumpled Y back to life was very much a family affair for the Henderson household.

with half-inch plywood fitted flush with the frame, before being covered with aluminium. A mounting bracket for the spare wheel was made up from sheet-steel. The top edges of the body were fitted with aluminium capping topped with mahogany trim. Where the side-screens rested on the capping a 'water-stop' was incorporated.

The hood presented the next problem; what sort of shape should it be? My wife, Pam, suggested that if she sat on the rear seat we should get a good idea of how high to make it. So Pam sat in the back whilst I drew a profile on a piece of hardboard, which gave a good idea of the appearance of the car with the hood up. It also helped me to decide the positions of the supporting frame members. Hinge points for the frame were fitted below the top rail to the rear of the doors. A slot cut in the top rail to accommodate the frame, which was within the edges of the bodywork when folded. The hood itself was to be removed and stored in the boot.

The side-screen frames were made from welded flat steel bar; each frame fitted with two

mounting brackets. Clear vinyl glazing was fitted to the frames, fixed from the outside by aluminium strips held by counter-sunk stainless steel screws. Pam took charge of making the hood and now that the frame and side-screens were complete, she was able to measure the exact size. It took several days to sort out the overlaps and seams etc, but with the help of our old Singer sewing machine the job was completed. The hood was fitted with a front header rail fixed to the windscreen surround by two handwheel/bolts and at the rear by 'lift-the-dot' fasteners. Pam also made a two-part tonneau cover.

The interior of the doors and side panels were lined with hardboard covered with padded vinyl which was a near colour match to the red leather seats and incorporating the original front door pockets. The backrest of the left-hand front seat was made to fold, which together with the wide door made access to the rear seats easy.

Before remounting the wings, the car had to be painted. Old English White was to be the colour as we felt it would be easily seen. I bought a reasonably

priced air-compressor, together with spraying accessories. After some trials on scrap material I could manage a serviceable finish and gave the car a total of six coats of cellulose over etch-primer.

The car was soon completed and road tested. As promised, I sent a few photographs of the complete car to George Werbizky, my American friend. About six weeks later I received from George a copy of 'The Sacred Octagon' magazine, (the New England MG 'T' Type Register journal). He had sent my photos together with a covering note to the magazine and my rebuild had a whole page to itself, giving me quite a boost.

The construction of the new bodywork took a total of three years. A lot of time was spent in working out how to overcome the various problems and stages. One problem which had not been foreseen was that when rebuilding the car the first time (as a saloon), the rear springs had been reset. The new tourer body was much lighter and hardly settled the rear springs at all, so that the car was always going 'down hill'. Following advice from the firm who had reset the springs, two of the shorter leaves were removed, (now five instead of seven). Not only did this overcome the tail-high attitude, it also improved the handling. The reduced weight also improved the performance, though only slightly. The brakes too feel more powerful, no doubt due to the reduced weight.

The car has given excellent service, it has been a tourer for fourteen years, and is always a pleasure to drive. The car like most old MGs, gives pleasure to complete strangers, the more knowledgeable asking: 'What kind of MG is that?'

Was it all worth it? Of course it was. Another old MG saved from the scrap-heap.