



# Development and Production of the Y-type

*Left below:* Although Abingdon was always more of an assembly plant than a manufacturer, the chassis frames were completed in the press shop and here the body mounting brackets are welded on to a Y-type chassis. After completion it would be painted black and stored until needed.

*Center below:* The chassis frame was brought to the line and clamped to a rig that allowed the worker to fit the front suspension and hydraulically compress the front springs, enabling him to fix the swivel pins to the shock absorber arms that act as a top links.

*Right below:* Rear axles were fitted with wheels before they were rolled over to the production line and attached to the chassis.





By Malcolm Green

Historians sometimes like to play a game where they imagine what would have been the outcome should any particular event not occurred; indeed in Britain there have even been a series of programmes on BBC radio based on this theme. A particularly intriguing topic for those interested in the development of MG road cars to consider is what would have happened had in 1935 the company not ceased development of the R-type racing car with its ground-breaking backbone chassis and independent suspension for all four wheels. We know that plans were well advanced for a large saloon with an equally advanced specification, but what was in store for the sports car driver? Given the speed of development of new models in the early 1930s, had the brakes not been applied in 1935 it is almost certain that before the end of the decade they could have enjoyed an MG with a chassis of thoroughly modern design giving improved ride and roadholding and the whole course of British sports car evolution would have been given a tremendous boost.

1930s Sporting cars were usually constructed on chassis of simple ladder design with a flexibility that helped keep all four wheels on the road. Leaf road springs were pretty unyielding and on racing cars often bound with cord to stiffen them still further; dampers were usually mechanical, rather than hydraulic, and acted equally on both bump and rebound. This formula produced excellent road holding on smooth roads but was less effective on the bumpy surfaces, but this was generally accepted as the price to be paid for a lack of roll and precise steering. However, some designers in those pre-war years had realised that a rigid chassis allied to softer springs and independent suspension gave better results and particularly in Europe cars with a more sophisticated chassis design were starting to appear.

One can only imagine the frustration felt by those at Abingdon when they were forced to return to using bog-standard components from within the Nuffield Organisation and thus ditching any thoughts of modernising their cars. The responsibility for design had moved to Cowley and it was there that the T-series sports two-

*The mock-up of the MG Ten completed in 1938. There were few external changes made to the design when the Y-type was introduced nearly nine years later.*

*Before production of military equipment finally stopped in 1945 a corner of the factory had already been turned over to getting ready for restarting car production. A TB Midget and prototype MG Ten can be seen.*





**Above:** The engine and gearbox were fitted as a unit to the rolling chassis.

**Right:** The completed and painted bodies were delivered to Abingdon on flat-bed, articulated lorries



**Above:** Body shells were lifted to the top floor of the assembly building where they were attached to trolleys so they could be rolled along this production line. Note the many female workers employed at the time.



**Left:** Two people were needed to fix the windscreen frame to the body; this was top hinged so it could be wound open in hot weather. For this reason the windscreen wiper arms were fitted with knobs to stow them on the scuttle, below the windscreen frame. **Right:** Once the windscreen wiper mechanism was fixed in place the wooden dashboard with its attractive veneered finish could be installed.



seater and SVW range were readied for production. These final pre-war models retained the beam axle front suspension, but by 1938 the talented Alec Issigonis and ex-MG man, Jack Daniels had designed an independent front suspension layout for the Morris 10. Because it was too expensive to produce this was not used for that car, but there was thought to be a market for the improved suspension in a small MG saloon that could carry a higher

price tag.

A prototype of what was designated as the MG Ten was constructed on a new chassis incorporating independent the front suspension. The body shell from the new Morris Eight and was used, as was the power unit from the Morris Ten. The chassis comprised welded, closed box section side rails and tubular cross members and at the rear it ran under the leaf spring suspended beam axle. The front

suspension utilised coil springs housed in a cross-member that also provided mountings for the rack and pinion steering and hydraulic shock absorbers. The swivel pins were held at the lower ends by wishbones at the tops by the damper arms.

The Morris Eight body was given a longer bonnet, flowing wings and an MG-style radiator, all of which transformed its appearance. The pressed steel wheels, rather than the wires



**Above:** One of the trimmers installs the seal around the rear window. **Above right:** The door lining panel is installed. The interior of the Y-type was well finished and was one of the most appealing features of the model. **Right:** As anyone who has ever attempted the task will testify, installing a headlining is not the easiest of tasks. **Below right:** One of the final jobs to be completed on the top floor is the installation of the seat squabs.



fitted to previous MGs, were to be a radical departure for enthusiasts but no doubt the average motorist would have blessed the ease with which they could have been cleaned. This model was to have appeared at the 1939 London Motor Show, possibly as a replacement for the 1.5-litre VA saloon, but the declaration of war just before the show was due to open meant that the whole project was shelved. In 1947 it finally appeared as the One-and-a-Quarter-Litre MG or, as it now better known, the Y-type.

In production the new saloon was powered by a single carburettor variant of the XPAG engine that had been developed from the 1,100cc Morris Ten unit fitted to the prototype. This engine first appeared pre-war in twin-carburettor form when used in the short-lived TB Midget and post-war went in the TC. Reversion to a single carburettor reduced the power output from 54.4bhp to just 46bhp. The saloon weighed over a ton so performance was adequate rather than sprightly.

During the war the factory had been working flat out producing aircraft, tanks, guns, etc. and as many of the 1930s workforce had taken up arms those remaining had been joined by unskilled labour recruited from all over the country. Many of the incomers were women and all received training to equip them to carry out the highly skilled tasks required when working on defence contracts. Once the fighting stopped and this type of work ceased much of the additional

labour had to be laid off, especially once those in the services started to return to their old jobs.

After the factory had been cleared of all the fixtures and fitting installed to assemble heavy military equipment, efforts were made to get the TC into full production, although a shortage of raw materials made this a slow process. There was also an urgent need to add a saloon model to the range, but again shortage of components hampered progress and it was Spring 1947

when the first of the new Y-type models were ready to go to the dealers. As this was their first truly new car for some ten years Abingdon staged a dealer presentation with a batch of cars lined up in the factory alongside a display that included a sectioned chassis and Old Number One. Once the dealers had been wined and dined they each were able to drive back to their showrooms in one of the new cars. For the Scottish traders a batch of Y-types



were sent by rail to Perth where a luncheon was held prior to them taking the cars away.

Assembly of the MG saloon followed established Abingdon practice and all the components were produced elsewhere and brought by road to the factory. Body and chassis were first worked on separately and then united for the final part of the process. Chassis frames were fitted with brake pipes, springs, axles, etc., before being



**Left:** The trimmed body shell is lowered from the top deck to be united with its rolling chassis. From then until it moves under its own power the car remains on the one production line.

**Center left:** Wings were fitted, which in the case of the Y-type could be either the same colour as the body or in a darker shade.

**Center right:** Almost ready for final inspection and the bonnet and headlights are fitted, the wiring connected up, petrol added to the tank and the car is then driven away for road test.

**Lower:** An overhead view of the assembly area reveals that the Y-type and TC lines were adjacent, with storage bins for the new components placed between the two rows of cars.



fitted with wheels and lowered onto the assembly line track for the engine, gearbox, steering gear and radiator to be installed.

The bodies were delivered ready painted from Cowley, four at a time, on flatbed lorries and unloaded by crane onto the upper floor of the factory where they were mounted on





*A Y-type stands outside the administration block, just in front of the current site of the MG Car Club offices. A sticker on the windscreen reads that it is destined for export to Malta.*

wheeled trolleys. A largely female workforce completely fitted out the shells installing everything from the dashboards, windows and headlining to door seals, seats and trim panels. The finished bodies were then lowered down from the top deck onto the rolling chassis on the ground floor production lines where wings, bonnet

and other finishing details were added. Once filled with fuel, oil and water the cars were ready to be subjected to a full road test.

The assembly process was identical to that used for the contemporary TC Midget and, indeed, for every other MG and Austin-Healey built there until the factory closed in 1980. Unlike

most other factories, all the cars were moved manually along the line as each process was completed so the fitters did not have the added pressure of working on an ever-moving conveyor belt. Perhaps this was one reason why there was far less rectification work required on completed vehicles than at other plants in the group.

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