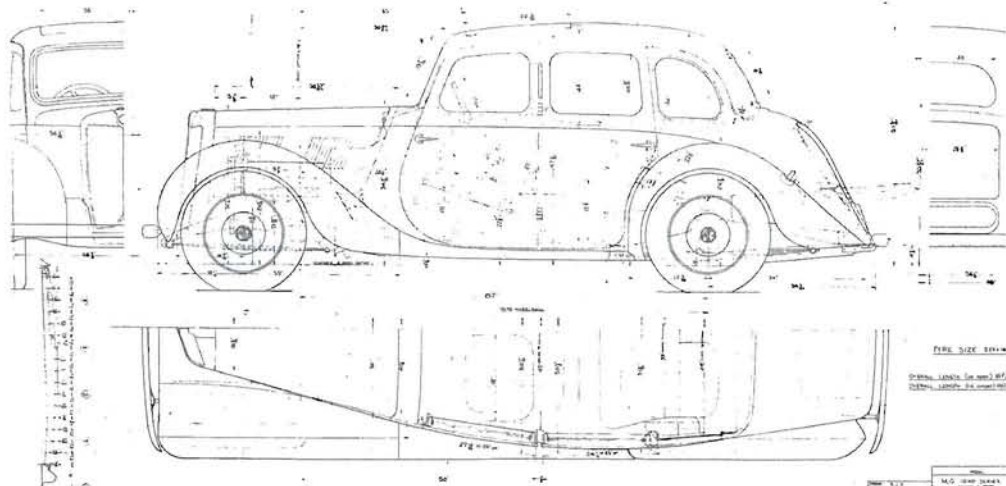


Just What Does MG Owe the Y Type?



It is all too easy for people, after any event to judge it with hindsight. Magazine and books on Classic Cars, Motorcycles and the industries that built them are full of, "What they should have done was..." But the writer was not there at the time and does not really understand the pressures and priorities of what a particular Company's Board had to deal with to get to the decision they made; be it good or a bad one.

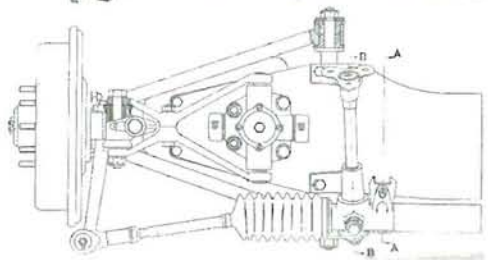
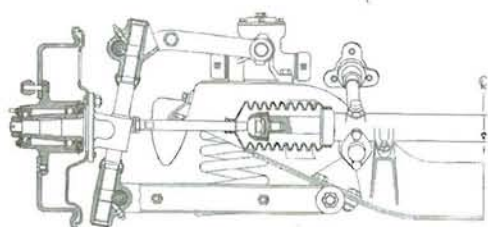
In very similar vein very rarely did anyone ever sit down and design a motor car on a clean sheet of paper. Business economics dictated that many items from a previous model would have to be carried over, just as in very large conglomerates many parts for different cars would come from the communal parts bin. An excellent example of this was BMC and their Farina range of family saloon cars from 1959 to 1971 and the 1100/1300 fwd range. Today you have Audi and VW cars running about with just the badges and rear lamp clusters differing and Toyota-Citroen-Peugeot town car clones. Well, very little has changed from the inter-war period of the 1930s. William Morris ran a huge empire that included Morris, Riley, Wolseley, Morris Commercial and a little offshoot called 'MG'. Anyone who has studied a 1935 Morris 10/4 or a Wolseley Ten/4 cannot fail to notice lots of the mechanics also appear on the MG TA, TB and TC.

Simple logic and economics dictate that using identical parts reduces the built costs dramatically as well as improving any spares availability, leaving the franchised garage no need to keep huge spares stocks. He can charge a pound for the wheel bearing in a box marked Morris, £1.5s for one marked Wolseley and £1.15s for an MG item; even though the bearing is identical on all of them.

In 1938 a bit of a break away from the design policy of MG was taken, in fact the design was now all being done at the Morris Design Office as Len Lord has closed that office at Abingdon. Prior to this MG had dabbled with building good quality fast saloons in competition with firms like SS Jaguar. MG had used what was unashamedly a big Wolseley 18/80 as a basis, re-clothed it in a very swish body and called it the SA. A smaller Wolseley became the VA, again with a very smartly styled body. The engines in all these Wolseley's and MGs were from the basic stock of Morris Engines and already fitted to the bigger Morris saloons of the day except that Wolseley and MG had the overhead-valve versions and Morris the side-valve equivalent. The break away that was developing was the design of a new ladder chassis with fully boxed in sides; a very much stronger and stiffer foundation than the spindly, whippy, open channel chassis that the sports cars used. This new chassis had quite thin walls and

cross members of thin tubes so was very light for its strength. MG had the 16hp SA and 12hp VA already on the market and being sold, they intended to add a small sports version to their 'Sporty Saloon' range. Three models were intended, a 10hp, a 12hp and a 16hp. Oddly enough, even though the Morris Design Office was now controlling all corporate design, whilst the new 1939 Morris Ten 'Series M' was virtually a monocoque chassisless construction, (but not quite as it still had full-length floor-runners like chassis legs welded to the body) the Wolseley Ten/4 model was to have a heavy cruciform chassis and the MG Ten an open ladder chassis.

All were to have the same engine/gearbox,brakes,etc so why different (therefore expensive) construction? And again, where as the new Morris and Wolseley used the same body tub, that for the MG Ten was the smaller Morris Eight 'Series E' body tub (another monocoque construction). The Morris Eight's body tub was modified to such an extent that few bits were inter-changeable; the rear doors had a bigger wheel-arch cut-out on the MG (and why Y Type rear door windows do not wind out of sight but



those on the Morris do). The sill profile is very different and the MG has running boards.

Long before the Morris 'M' was in production a system of independent front suspension had been designed. It was intended for this new Morris where as the MG Ten in the Design Office drawing dated

22.4.39 a leaf-sprung, solid front axle is shown. This appears from its dimensions to be that from the Morris Eight 'Series E' so the worm & peg steering from the same Morris no doubt was to be used in the new MG initially. Costing this new IFS soon removed it from the Morris model, but MG were a bit higher up the market, so a big strong steel cross-member was added to the new chassis and the ifs fitted. To protect their design Morris registered their ifs system in 1937 along with the design for the wheel hub (no solid axle any more) and king-pin, (Patent Specs Numbers 502030, 502029, 502031.) As well as Morris Motors being named on the patent, an Alexander Arnold Issigonis is also named on these three. The new king-pin design used bronze trunions at the top and bottom, very well over-engineered, with coarse ACNE threads as the bearing surfaces giving a huge area to wear on. This king-pin and ifs design was to be used by MG after the end of the MG Y Type on the TD, the MGA and modified a bit on the MGB and RV8 until 1991. So had the Y Type not been made there would not have been the MGA or MGB as we know it, (it would have ended up with bouncy Austin Cambridge ifs...which WAS used on the big Austin Healeys....). As it was the MG Ten as the Y Type was initially known, arrived in 1947 with ifs, the first production MG so fitted. The picture is the 1947 MG YA's front suspension system. This was updated on the YB.

With a decent IFS a much better, more accurate (and cheaper to produce) steering system arrived. The simple rack-and-pinion steering 'rack' sat between the wheels giving a positive location and virtually no free-play at all at the steering wheel. The lost-motion of the worm & peg system became even more vague with ifs; drive any post-war Austin Cambridge/Ford Consul to experience vague steering (though some worm TA-TB-TCs are none to easy to steer in a straight line sometimes...) The Morris system of rack & pinion steering was the very best and it was used on a multitude of Nuffield cars between 1947 and 1955, (when BMC took over a retrograde step was the use of that worm & peg steering, luckily the MGA, MGB, ZA, ZB, Wolseley 15/50, MG Midget [and Austin Healey

Sprite], Morris Minor, Wolseley 1500 and Riley 1.5 kept their Nuffield racks). Very soon in 1939 after the testing of the new ifs and the steering, chatter was felt at the steering wheel. This was traced to the working clearance of the toothed rack itself and rough road surfaces. So Morris added a modification of a steering damper; simply a sprung brass pad bearing on the rack, (Patent Spec Number 532566 dated 1939). Issigonis is mentioned with this damper pad patent. Later, on long journeys vibration from the road wheels, being fed up into the steering column, caused pins and needles in drives fingers. To cure this a rubber insulated joint was added. In the big MG saloons the steering wheel was adjustable. This was carried over into the new MG Ten originating in the big Wolseley's. Again the design was protected, (Patent Spec Number 457660 of 1936). Frank William Bluemel of steering wheel fame is mentioned in this patent.

Two other minor items that found their way into the Y Type was the improved radiator core as built by Morris Radiators. The cooling ability was improved which was required as compression ratios were rising, petrol was improving so power outputs were going up which in turn meant things were getting hotter. This led Morris to fit water pumps to their engines, though these non-positive impeller pumps only 'assisted thermo-syphon' (hot water rising and why so many cars back then had tall radiators). The new core had to be design protected, (Patent Spec Number 495125 dated 1937) with Reginald William Ryder mentioned. Even the front seat adjustment of our MG saloons had a protective spec, (Patent Spec Number 3136 and 3135, dated 1935). George Alfred Priestly is mentioned in this Morris Motors patent.

There were not many additions to the well tried Morris series 'X' engine, the 'Short-Stroke-Morris-Ten-Engine, (called this as it had been reduced to 90mm from the Bull-Nose-Morris stroke of 102mm). Claud Baily (more on him in the XPAG Files on the MGCC Y Register web pages) who adapted the previous Morris 10/4-MG TA engine into our XPAG had added an automatic timing chain tensioner worked by the engine oil pressure.

The very first XPAG units did not have this quietening item fitted, (Patent Spec Number 511064 dated 1938). William Robert Boyle is named in the patent.

So that boxed-in chassis was developing into quite a spectacular new MG. It had this new strong chassis, independent front suspension, rack and pinion steering, adjustable steering wheel, short-stroke 11hp engine (11 because it was bigger at 1250cc than the 1040cc of the 10hp Morris/Wolseley unit) with inclined overhead valves, a water pump to assist cooling (and help the heater work if fitted), initially there was a Panhard Rod to locate the rear axle which was later swapped for a front anti-roll-bar, hydraulic brakes (when many still used rods and cables). Had it been displayed at the intended 1940 London Motor Show, it would have been right up to the minute in its specification and styling. As it was that show was canceled and the first Y Type was not seen until 1947. By then the car market was very quickly moving over to American influenced 'full-width, slab-sided' styling. The poor little MG Ten was stuck with its 1937-38 body though still ahead of many under the skin. By the time MG updated the YA into the YB in 1951, no one wanted a 1930s car. But had it not been for the YA chassis the TD would never had been built either. The open YT being fitted with a left-hand-drive steering system meant the TD could be sold in the USA to suit their roads. Yes, someone cut a few inches out of a YA chassis, turned the rear half upside down (the Y Type has an under-slung rear axle, the leaf springs are underneath it to give the car its very low built) and dropped a slightly widened TC body onto it and hey-presto, a TD. In gratitude the TD gave the YB its smaller wheels, stronger hypoid rear axle and twin-leading-shoe front brakes.

If it was not for the humble little Y Type we would not have had the excellent range of MG sports and saloons we did get. Though the 'BMC Austinized' Z Series carried little over from the Y, it did have that steering rack.

Neil Cairns