

MGA Archaeology - Chassis Identification

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The vast majority of MGAs were fully assembled in England and departed from the MG factory for their final destinations as complete, running automobiles. These cars appear to have been referred to within MG as being Completely Built Up (CBU).

As each MGA was rolled down the Abingdon assembly line, it was identified in 2 places with a unique identification number. The first was the Car Number, stamped into the aluminum Car Number plate secured to the top, left hand side of the engine compartment firewall, ahead of the heater location. The second was the serial number portion only of the Car Number stamped directly into the frame.



*Chassis construction at Abingdon
Photo: Courtesy Colin Grant*

The photo below illustrates the serial number portion 60803 of the Car Number HMK/43/60803 stamped into the top face, along the rear edge of the right side, frame cross member tube. This square cross section tube is positioned near the rear of the transmission and lies directly under the knees when seated in the right hand seat. The 2 floorboard securing screws further define the location. This stamp is in the same location on all UK assembled, CBU, MGAs, regardless of whether they were built with left or right hand steering. The individual stamped numbers are each ¼ inch (6mm) high.



*Serial number 60803 on right hand cross member
Photo: Robin Barker*

Unfortunately the ravages of water soaked floorboards and interior carpeting have often left this car serial number deeply rust pitted and difficult if not impossible to find. The percentage of MGAs where this number has survived and can still be seen is probably very low. Cars used in a dry climate or having lived cozy lives undercover are the best candidates.

The lads at MG did not wield a heavy hammer when they stamped in the individual numbers. The frame cross member tube has a relatively thin wall thickness and repeated blows to metal stamps positioned side by side distorted the top face leaving a rectangular shaped depression. The individual numbers were no doubt purposely stamped along the edge as the vertical wall of the tube offered additional stiffness. In spite of this however, in most cases the individual numbers were not stamped deeply and often were not fully formed.

The rectangular depression created by the car serial number stamps has proved to be both a curse and a blessing. Undoubtedly the rusting process was accelerated as nearby water tended to pool in this low area. However as an aid to targeting the best spot to search, the depression can usually be felt with the finger tips.

To uncover the car serial number, first remove any paint from the area with paint remover. Then use a stiff wire brush to vigorously clean the area of all dirt and oxidation. Under no circumstances should abrasive materials such as sandpaper, a grinding disc or heavy sandblasting be used in this area. As the stamp markings are often faint, any removal of un-oxidized steel will destroy whatever markings remain. Even when a fairly clear number is present it is not always immediately obvious and close examination with a magnifying glass may be required to recognize the numbers.

The location of this car serial number stamp has been known by MGA enthusiasts for many years.

Over that time there has been some commentary on the possible use of police forensic methods to determine faint or badly rusted numbers, but no actual success stories have been reported.

Owners of pushrod engine MGAs need to be on the outlook for either a 5 or 6 digit number corresponding to the car serial numbers from the first MGA 10101 to the last 109070. Owners of MGA Twin Cams should search for either a 3 or 4 digit number corresponding to Twin Cams from 501 to 2611.

No letters, only numbers have been reported as found.

The car serial number does not distinguish in any way between MGA roadsters or coupes.

To add some confusion to the story, many MGA owners in countries like Australia and South Africa report that they are unable to find any indication that the car serial number was ever stamped into the right hand frame tube of their car.

It is well documented that several thousand MGAs left England not as CBU cars but as kits of component parts commonly referred to as Completely Knocked Down (CKD). The components for these kits were gathered together and shipped not from Abingdon but from nearby Oxford. All of the components required to assemble 4 cars (4 frames, 4 engines, 4 rear axles, etc) were placed in large wooden crates and dispatched to alternate assembly plants in Australia, Ireland, Mexico, Netherlands, Philippines and South Africa.

The frames from these CKD kits never rolled down the Abingdon assembly line and therefore were never stamped with the serial number portion of the Car Number by MG workers. These MGA frames did however move along an assembly line in another country where it appears that the local procedures did not include stamping the car serial number into the right hand frame tube.



Chassis Jig for CKD frame construction

Photo: Courtesy Piers Hubbard

As if this does not cause enough confusion, there are several further reports of another number stamped into the left side frame cross member tube. The first documentation of this number appears in "Call It MGA", the excellent 2005 publication of the MGA Register of the MG Car Club. Appearing on Page 12 is the following.

"When the welding was complete two inspectors would check the work.....Once the chassis had been passed the inspectors would ask the crew to stamp a number onto it.....This number was stamped onto the left hand cross member by the gearbox and seems to be sequential for the chassis build and marked the fact that it had passed inspection. There was also a single number beneath which may well be the "signature" of a particular inspector".

When the first MGA frame was welded together at Abingdon it is likely that it was stamped with a frame serial number of 1. After that all subsequent frames including both pushrod and Twin Cam frames were stamped with the next sequential number. This continued until the last MGA frame was stamped with a number higher than 100,000 indicating the total number of all MGA frames welded by MG for use in production MGAs as well as service repair.

That MG chose to stamp a serial number into the frames that they welded is consistent with similar sequential serial numbers used on all other major components such as engines, transmissions, rear axles and bodies.

It is reasonable to assume that shortly after the MGA frames were welded and painted they were then used in the building of the next MGA. Therefore the mathematical difference between the car serial number and the frame serial number should remain roughly the same throughout the entire MGA production run. This difference can be estimated to always remain somewhere near to 10101 minus 1 or 10100. Using this rough constant, it seems possible to predict the approximate frame serial number used in the assembly of a particular MGA.

In the case of Car Number HMK/43/60803 which was built in late December 1958, about 500 MGA Twin Cams had already preceded it down the assembly line. These earlier cars force only a minor modification in the prediction of the serial number of the frame used in this car.

Car serial number 60803 minus the constant 10100 plus 500 earlier Twin Cams equals an estimated frame serial number of 51203

The photo below illustrates the actual frame serial number to be J51735. This frame is known to be original to HMK/43/60803. The predicted number 51203 is remarkably close to the actual 51735.



Frame number J51735 on left hand cross member

Photo: Robin Barker

The frame serial number is stamped into the top face, along the front edge of the left side frame cross member tube. This tube lies directly under your knees when seated in the left hand seat. The two floorboard securing screws in the photo further define the location. The same rectangular depression exists to pinpoint the most likely location. The individual stamped numbers are each ¼ inch (6mm) high.

The ravages of water soaked interior components caused the left side frame serial number to be just as pitted by rust and difficult to find as the right side car serial number.

As revealed in "Call It MGA", "There was also a single number beneath which may well be the "signature" of a particular inspector". Reference to the photo above shows that this particular frame may have been checked in the weld shop by a MG inspector with the J approval stamp. Several other frame serial numbers are known to have either the prefix or suffix letters A, B, C, F and 0, while many others have no letter or any additional number.

During the assembly of MGAs, frames were not consumed nor were cars built in strict sequential order. Therefore using one serial number to try to predict the other will only produce very approximate results.

In summary the following equation applies approximately for all pushrod MGAs.

Car serial number - 10100 + X = Frame serial number.

- For pushrod MGAs 10101 to 50000, X equals 0. These cars were produced before Twin Cam assembly started.
- For pushrod MGAs 50001 to 90000, X is between 0 and 2111. These cars were produced at the same time as Twin Cam assembly was underway. To determine the value of X for a

particular pushrod MGA, the date that the car was built must be known. Then use the following table.

For pushrod MGAs 90001 to 109070, X equals 2111. These cars were produced after Twin Cam assembly ceased.

| Date Pushrod MGA Built | X |
|------------------------|------|
| May 1958 | 0 |
| October 1958 | 200 |
| January 1959 | 500 |
| March 1959 | 1000 |
| May 1959 | 1500 |
| October 1959 | 2000 |
| May 1960 | 2111 |

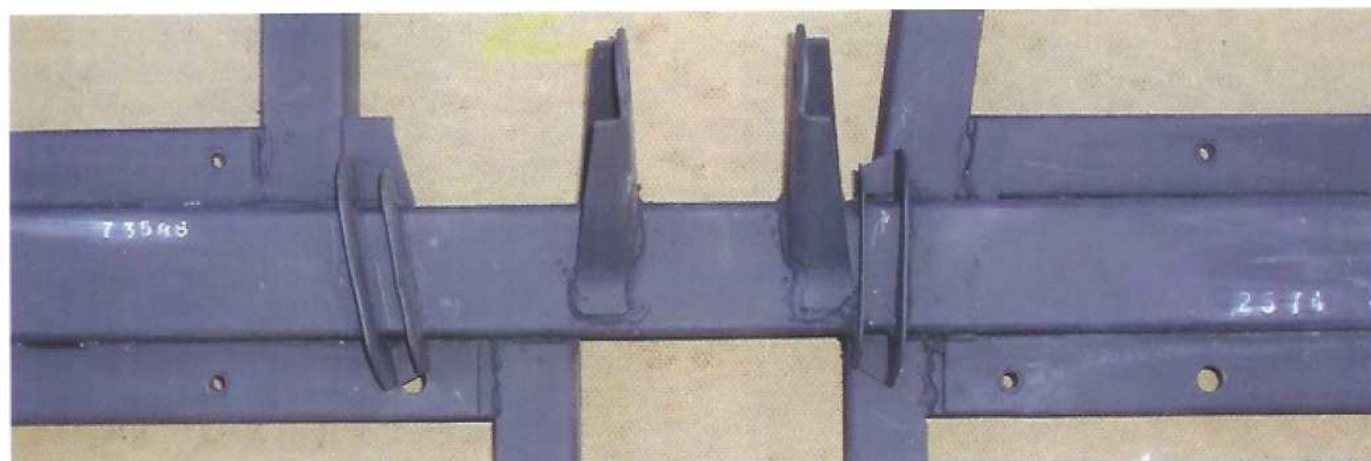
For MGA Twin Cams 501 to 2611, the car serial number for a pushrod MGA built around the same date must be known. Then use that pushrod car number in the above equation to estimate the corresponding Twin Cam frame serial number.

Frames used in UK assembled, CBU, MGAs appear to have had both the right side car serial number and the left side frame serial number.

Frames dispatched as part of CKD kits appear to have had only the left side, frame serial number.

There are however several reports from owners of early Mk II MGAs that no left side serial number was ever stamped into their car's frame. At some undetermined date towards the end of MGA production and for reasons unknown, MG appear to have ceased stamping the left side number.

The photo below shows the serial numbers on both sides of the frame of a late, UK assembled, CBU, MGA Twin Cam.



The chart below displays all data reported as of March 2006.

| MGA Built | RH Car Serial Number | Predicted LH Frame Serial Number | Actual LH Frame Serial Number | Difference | CKD or CBU | Location |
|----------------------------|----------------------|----------------------------------|-------------------------------|------------|--------------|--------------|
| Before Twin Cam Production | 23559 | 13459 | F13487 | -28 | CBU | Australia |
| | 42122 | 32022 | 32260 | -238 | CBU | South Africa |
| | 45508 | 35408 | 35524 | -116 | CBU | South Africa |
| During Twin Cam Production | 52411 | 42314 | 41790 | 524 | CBU | South Africa |
| | 544 | 43443 | C42989 | 454 | CBU | South Africa |
| | 60803 | 51203 | J51735 | -532 | CBU | Canada |
| | 1716 | 57115 | 56847C | 268 | CBU | Australia |
| | 71696 | 63478 | J64126 | -648 | CBU | USA |
| | 2405 | 65004 | A 64299 | 705 | CBU | USA |
| | 80424 | 72366 | 72307 0 | 59 | CBU | USA |
| | 2574 | 75973 | 73586 | 2387 | CBU | Canada |
| 89203 | 81214 | 82082 | -868 | CKD | South Africa | |
| After Twin Cam Production | 93219 | 85230 | 85059 | 171 | CKD | South Africa |
| | 96350 | 88361 | B 88541 | -180 | CBU | Australia |
| | 100172 | 92183 | 92311 | -128 | CKD | South Africa |

Please address any comments, questions or new data from your car to mganumbers@yahoo.com