

SU Carburetter Date Coding on MG T Series (1936 - 1955)

Including sorting out the bits for correct assembly

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This paper started out as a broader topic of SU Carburetter date coding for MGs from 1929 to 1974 as presented at the Kimber Festival 2022. This is a more detailed paper about only the MG T Series cars.

Many thanks to Roger Payne from the Jag-lovers Forum where I first learned of his information on year and date code for Jaguars in the 1950s and I have derived this MG T Series information from research and deduction. I also want to thank Don Tremblay for getting me started down this path as I did not have a clue where to start and he pointed me to the Jag-lovers Forum. My interest started when I decided to go through the various pairs of SU H4 carbs I have collected over the years, and then figuring out when production changes occurred to ensure all the parts matched for that particular car.

The SU HV, H, and HS style of carburetters have a stamping on the casting of the carb body where the throttle plate flange meets the intake manifold at the top of the casting (See Figure 1). There is an alphabetic character followed by a number. The alphabetic characters start at "A" and go to "Z" but some letters are not used. The numbers are from 1 to 12 representing the month in which the carburetor was built. It takes a little deciphering when there are additional numbers after the date of one or two numbers. The additional numbers are serial numbers. I have seen at least two exceptions where the number was 13 for a 1956 and for a 1961, so, this needs further study. The date stamp is put on the carb by SU. In the late 1930s and after WWII the date was very close to the production date of the vehicle. This changed in later production after 1955 and the date no longer corresponded with the production date of the vehicle due to increased production demands.

Table 1 shows the letter corresponding to the year. Notice that I, J, and O are not used. I don't know why except that perhaps because of the stampings they may not fully impress and could be confused with other letters. Also V, W, Y, and Z are not used, nobody knows why. Roger Payne says that only the X is specifically mentioned in any SU documentation and is definitely used for 1962. I have included Roger's extension of lettering for the SU H series as far as he went with it. The letter Q is often seen on H4 and I believe these were factory replacements/spares as I have seen Q on several different models of carbs.



Figure 1

Table 1

H	1936	HV3 X 2		Bronze
K	1937	HV3 X 2		Bronze
L	1938	HV3 X 2		Bronze
M	1939	(TB) H2 X 2		Zinc Alloy
A	1945	(TC) H2 X 2		Zinc Alloy
B	1946	“		“
C	1947	“		“
D	1948	“		“
E	1949	“		“
F	1950	(TD) H2 X 2		Light Alloy
G	1951	“		“
H	1952	“		“
I	not used	“		“
J	not used	“		“
K	1953	“		“
L	1954	(TF 1500) H4 X 2		“
M	1955	(TF 1500) H4 X 2		“

Table 1 is just a very brief overview of the expected date codes and carburetter types for those years. More details to follow. Note that pre-WWII I found the date codes starting in 1929 and continuing until 1939. They resumed the date codes starting over in 1945 when MG restarted production. All the date codes from 1929 until 1949 had more numbers following the date code. James Wulf in Pennsylvania shared with me a build tag for a Lea- Francis Corsica which included the carburetter date codes which indicated that the other numbers represent serial numbers. in early production the numbers appear to be three digit serial numbers but as production increased they became 4 or more digits (sometimes with a preceding 0). As production increased after 1950 the serial numbers were abandoned as I think they become too long to stamp. There are serial numbers with the date codes up to 1949. I have not seen any serial numbers from 1950 to 1955. There are also some other numbers sometimes seen stamped on the carb body on the intake manifold flange that indicate the Specification. I saw an example from James Wulf of SP 395 which is the spec for 1938 Triumph carbs.

The MG TA has two SU carbs of the HV3 type made of bronze. With the introduction of the TB they switched to a Zinc Alloy body of the H2 type. The H2 continued as the standard type through TC production and changed to a light alloy version of the H2 for the TD. The TD MKII had an H4 type as did the MG TF.

There were two companies making the castings (I think both located in Birmingham, England). There is P.D.C. (Precision Die Casting) which appears to have made all of the carburetor body castings for the MGA (and other castings). This company is still in business and is Avon PDC part of the Rical Group. There is also MCL. I don't have a current reference for them, so, I don't know if they are still in business or have been taken over by another company (and I cannot define the initials). I will try to reference any differences I found between the castings of the two companies.

There is another company that cast Zinc Alloy carb bodies in the pre-war years that had a star shape like a Star of David as a maker's mark, but I have not been able to track down that manufacturer. I don't know which company cast the bronze carb bodies as well.

Table 2 shows some of the common types of carburetors used on MGs and other automobiles over the years and compares the sizes and relationships and configurations of intake manifold flange.

Table 2

Type	Type	Type	Size	HP	Flange	Flange
HV0			7/8"			
HV1	H0	OM1	1"	27 hp	2 bolt	Horizontal
HV2	H1		1 1/8"	35 hp	2 bolt	Horizontal
HV3	H2	HS2	1 1/4"	45 hp	2 bolt	Vertical
HV4	H3		1 3/8"	55 hp	2 bolt	Vertical
	H4	HS4	1 1/2"	65 hp	2 bolt	Vertical/ Diagonal
HV5			1 5/8"		4 bolt	
	H6	HD6	1 3/4"		4 bolt	

HV8			1 7/8"			
	H8	HD8	2"		4 bolt	

Carb Bodies

Table 3 shows the type of carburettor used by year and model of MG T Series as well as the SU specification number and the casting number which corresponds to the SU part number of the non-machined part. In later production there is an etched part number to identify the machined casting specific to the use of that casting (front or rear carb, etc). Remember that many MGs were introduced part way through a given year and the date codes may be a bit earlier than the production date of a car. I have not tried to cover all the "competition" and/or any other variations such as supercharged applications. I have also not covered the variations in model introduction in that sometimes a model is introduced in the previous year as a product for the next year but often these are considered early models and have a production date and registration date earlier than the model date (such as a 1954 MG TF that was manufactured in 1953). So, it is important for originality to be able to identify the production date of components with the model of the car and its production date regardless of model year.

As an example, the letter and number on my 1955 MG TF carbs is L7. They both match. L represents a production date of 1954 and the 7th month (July). The first TF 1500 was built in July of 1954. My TF is an early production 1500 number TF/6545, (first is TF/6501). So, in this case the SU carb dates match the production date of my TF.

Table 3

Year	Model	Type	Date Code	Casting	Spec	Notes
1936	TA	HV3	H	1945	AUC 327	Bronze
1937	TA	HV3	K	1945	AUC 374	Bronze
1938	TA	HV3	L	1945	AUC 374	Bronze
1939	TA & TB	HV3 H2	M	1945 3478B	AUC 429	Bronze Zinc Alloy

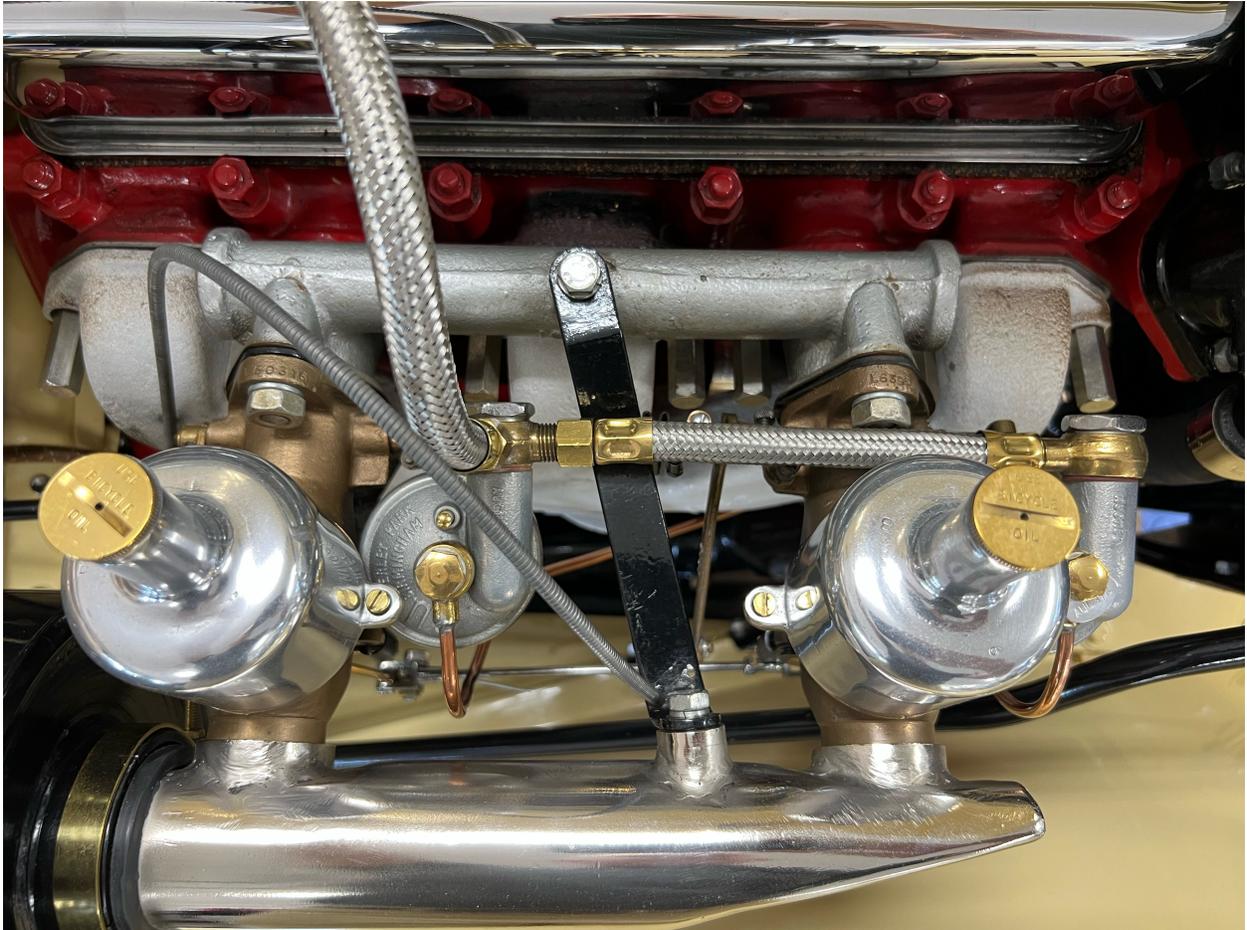
1945	TC	H2	A	3478B	AUC 429	Zinc Alloy
1946	TC	H2	B	3478B	AUC 429	Zinc Alloy
1947	TC	H2	C	3478B	AUC 429	Zinc Alloy
1948	TC	H2	D	3478B	AUC 429	Zinc Alloy
1949	TC	H2	E	3478B	AUC 429	Zinc Alloy
1950	TD	H2	F	3478L	AUC 549	Light Alloy
1951	TD	H2	G	3478L	AUC 549	Light Alloy
1952	TD	H2	H	3478L	AUC 549	Light Alloy
1953	TD & MKII	H2 H4	K	3478L 4031	AUC 549 AUC 578	Light Alloy
1954	TF	H4	L	AUC6020	AUC 728	Light Alloy
1955	TF	H4	M	AUC6020	ACU 728	Light Alloy

Carburettor Details

This section will discuss some of the details briefly as this subject can be greatly expanded. First off, the TA carburettors were originally cast in bronze with a casting part number of 1945. The float bowls were of light alloy of the T2 size but were of a different design on the HV3 from that of the later H2 carbs. The float bowls are both mounted on the forward side of the carb bodies. Bill Davis in Tennessee tells me that he has seen some float bowls cast in bronze as well but I don't know how common these are. The float bowls have a common style lid with overflow/breather pipes and a "tickler" to help in flooding the carb with fuel for cold starts. (See Figure 2) These lids differ from later lids in that the casting for the fuel inlet is rounded at the rear of the opening rather than squared as in later versions. The choke operating levers and linkage is common to the T Series engines (but part numbers and specifics differ from later versions). There is a descending metal bracket to hold the end of the cable that is unique to the TA (See Figure 3) (the TB/TC has a similar but different bracket off the rear carb and the TD/TF uses a rear carb jet link). Also the throttle linkage is common among the T Series with slight variations (the TA throttle is to the rear of the rear carb on the throttle shaft). The TA has a "slow running" lever operated by a cable to the front carburettor. The suction chambers are all pretty much the same for the HV3 and H2, but the pistons vary. I have only seen light alloy pistons on the HV3 and these will have a steel weight inserted and no spring. They will be hollow for the damper piston and the oil cap will be vented and will be round in shape with a knurled edge. There are light alloy HV3 carb bodies but I believe these to be replacements. Bill Davis says he has seen date codes of M12, P3, and P9. These will all be representative of carburettors made in the 1950s. He indicates that the casting part number is on the other side from the bronze bodies. The bronze

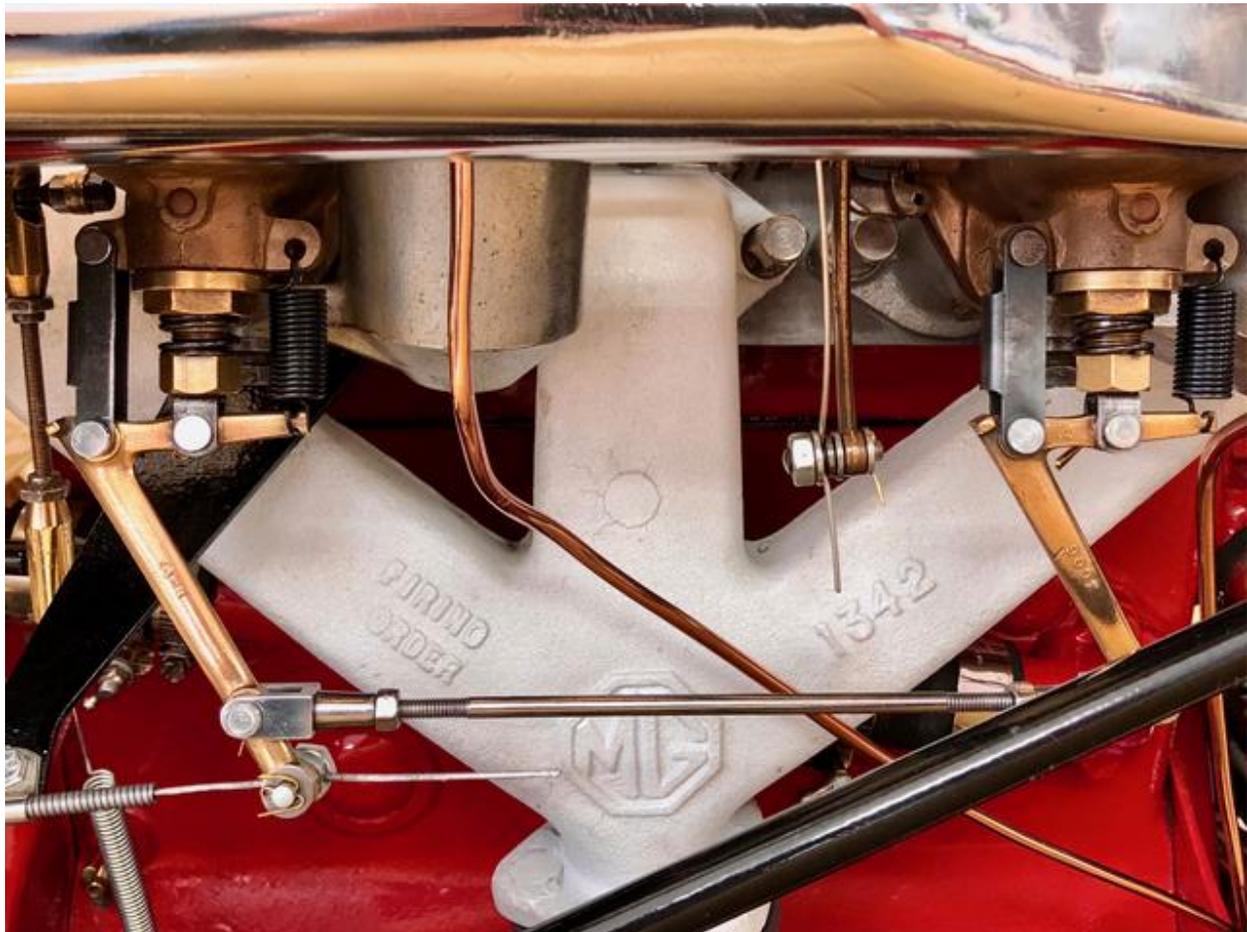
casting part number of 1945 is on the rearward side of the carb body. The alloy casting number is 1945A and is on the forward facing side of the body and is upside down!

Figure 2



Note that the above damper oil caps are slotted (to take a coin for quick access). All the versions of post-war caps I have seen don't have the slot, so, I don't know if these may be replacement caps. Also note the design of the float bowl covers as described above.

Figure 3



The TB/TC carburetters are the H2 style with casting in Zinc Alloy with part number 3478. (See Figure 4) The B in the casting number is probably a version letter for the particular die cast mold. These can be differentiated from the later H2 light alloy carbs by color and weight. One of the main differences between the HV3 and H2 is that the H2 has a flange at the mouth for mounting the air filter manifold. The float bowls are mounted to the left and right sides of the two carb bodies on the TB/TC/TD/TF. The float bowls have castings in light alloy. The float bowl part numbers are 3495 and 3496 (with a 20 degree slant to the base). The float bowl covers will have 1160 and 1161 as part

numbers and will have the “tickler” pin. The tickler pin will be brass as will the cap nut for the float bowl lid and the two screws that hold the suction chamber onto the body. The suction chamber piston is brass with no steel insert and no spring. The damper oil cap is still round with knurled edge and is vented. There are replacement TB/TC carb bodies in light alloy with a different body with part number AUC6080 which is a newer style body. This particular set of carburetors has a date code of T11 which is November 1960, so, obviously not original to an MG TC but are set up for a replacement on a TC.

Figure 4

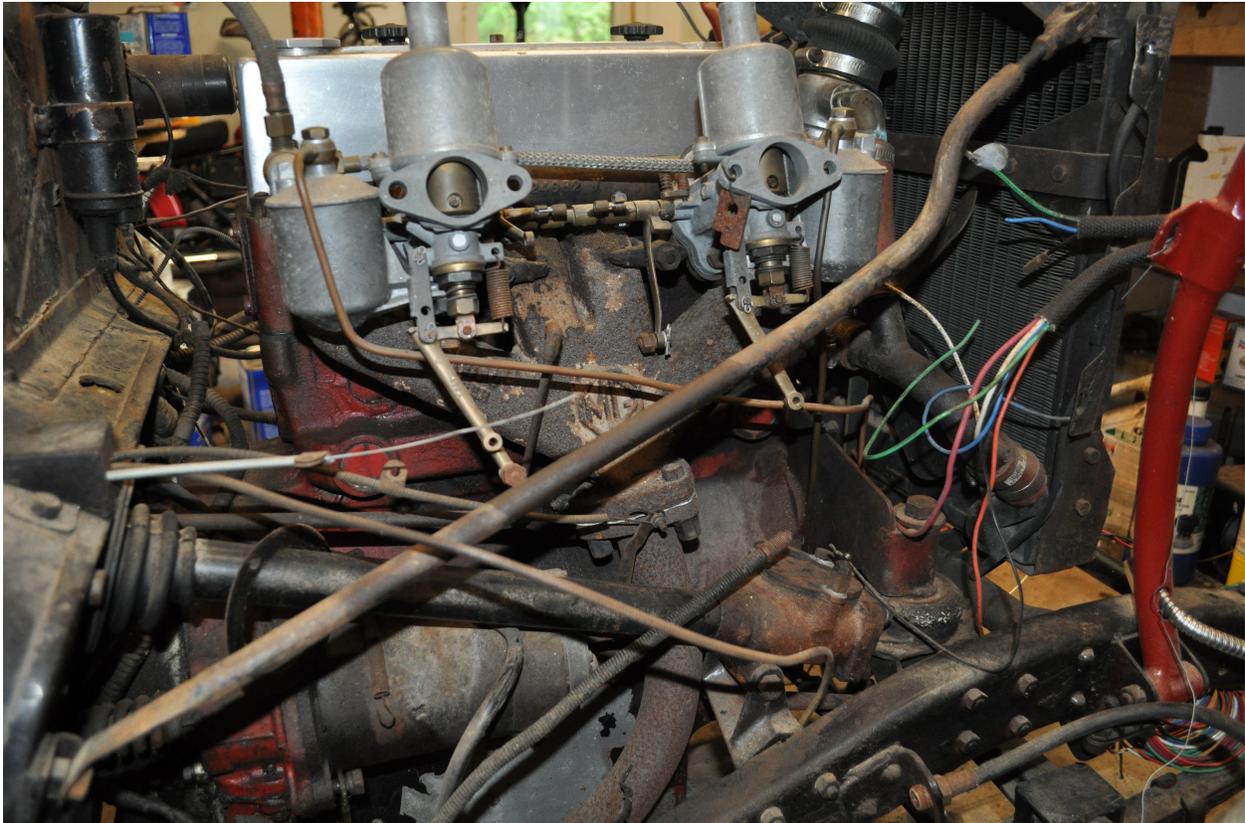


Figure 4A shows the date code on the above front carburetter. This is my 1948 MG TC that was built on March 24, 1948. The SU carb date code is D1 with a serial number of 2800. Now, I don't know if this is an original carburetter to this car, but it does fall in line with what might be expected. The car does have the original engine and timbers.

Figure 4A



Figure 4B



Figure 4B shows the late style of date code. Even though this is a Zinc Alloy casting I believe that it is worn and that it is actually E7 which will place it in 1949 with no serial number.

About 1950 the light alloy version of the H2 was introduced on the TD and YT. The letter L or K in the casting is again a version number for the mold in which it is cast. (See Figure 5 - rear choke link is incorrect). According to Don Tremblay, a die cast engineer and a good friend of mine, the switch from Zinc Alloy to light alloy was made as the die cast industry improved casting processes and molds as well as better metallurgy, The dies for the small parts were simple and therefore they were cast in light alloy for quite some time, but the bodies are quite complex and require much more sophisticated casting processes and dies. The H2s for the TD/YT only had minor changes in functionality. A cold start fast idle “rocking lever” was added on the front carb with a corresponding rod to the choke lever thus both choke levers were modified with an extra

pivot point between the needle seat pivot and the jet link (no more “slow running cable”). The rear jet link was introduced that included the clamp for the choke cable. The suction chamber remained the same, but the piston was made of light alloy with no steel weight and a spring was added to assist in the return of the piston. Most of the piston damper cap was still vented and round but sometimes I see a 6 sided brass variety.

Figure 5



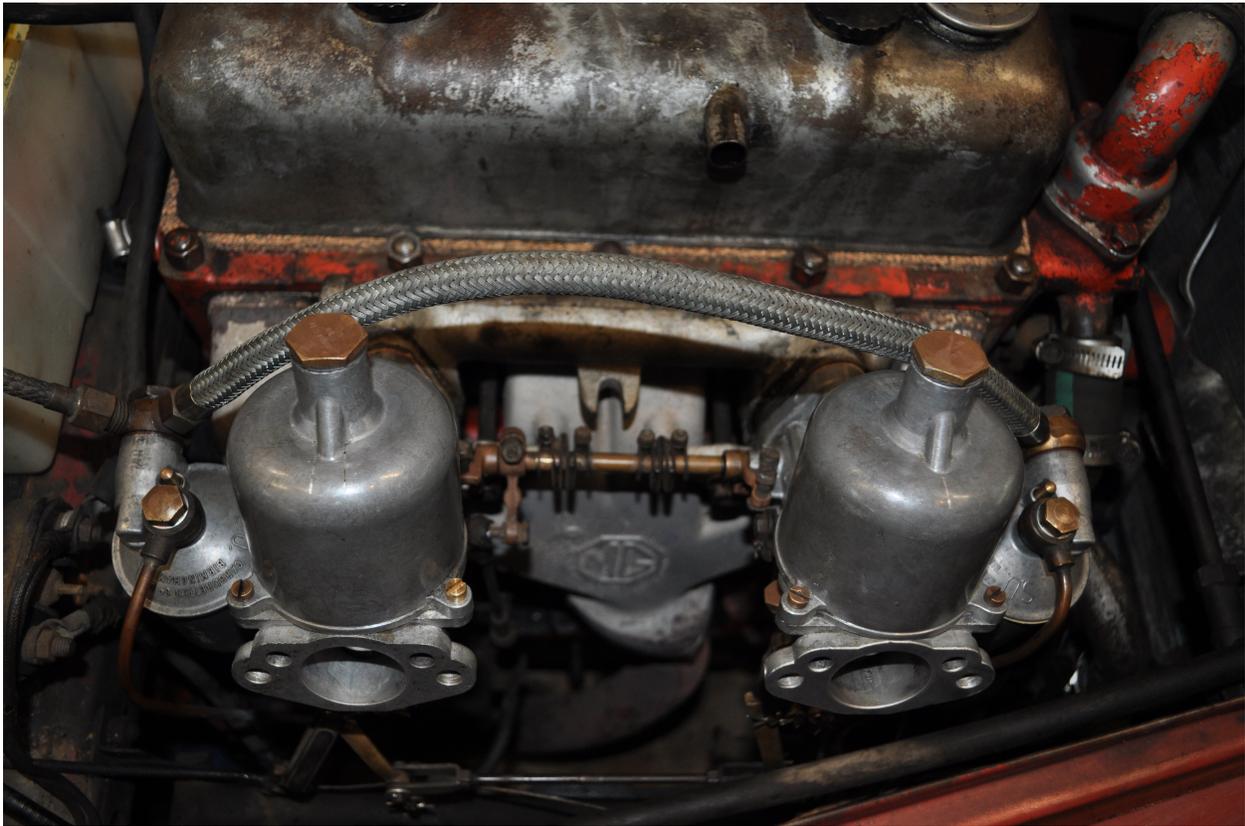
The MG TD MKII has H4 (1 1/2") carbs of body number 4031. Each body also included an etched number to indicate its finished (machined) version. The rear carb (8) has different machining than the front carb (12). These are the only carbs I have seen cast by a company called R.F.L. The same style of fast running rocker is used as well as all the other components are essentially the same except now the suction chambers and pistons are larger and the damper oil cap is no longer drilled with a hole and is now 6 sided.

Figure 6



The MG TF used a totally different casting with part number AUC6020. (See Figure 7) These also have an etched number indicating the final machined part number (6030 for front and 6021 for rear). Also note that the flange for the air cleaners has additional holes for air to the suction chamber that were not present on the H2 or TD MKII H4 carbs. The suction chambers and pistons are different than the TD MKII in that the gusset in the neck of the suction chamber is drilled and there is no hole in the damper oil cap. The rest of the components are essentially the same as the TD MKII carbs.

Figure 7



Conclusion

That covers the changes which I have identified between the beginning and end of production of the MG T Series. Peter Thornley (son of John Thornley, the General Manager of MG from 1952 to 1969), states that the SU factory in Birmingham, England sent the finished carbs to the engine plant in Cowley and then the engines were sent completed to Abingdon for installation into the MGs (and other marques). This was a “just in time” inventory method and may explain why there is often a difference of several months between the date on the carburetors and the production date of the MG.

If the SU date stamp is after the production date of the MG, then they are not the correct carbs for the car (or are a replacement set). I will revise this document as verified differences can be determined from "unmolested" MGs with original carburetors. Again, many thanks to Roger Payne and his analysis of the Jaguar carburetors which got me started down this path. I will expand this analysis to include earlier MGs and later MGs as information becomes available.