

1969 Corvette

ONE OF ONE IN 1969

VIN # 1 9 4 3 7 9 5 7 0 7 4 8 4

↓
St. Louis **Nov 1968**

Motor #'s

707484

V 11 04 HX

↓ ↓ ↓
Nov. 4th Day 350/350hp Man/hp Spec. Cam, AC

Block Casting: 3932386

Casting Date: M 39

Body Tag

Paint 972=Cam-Am White

Trim 411=Blue

D-12 Build Date

↓ ↓
Nov Day

Description/Comments: Car has an prototype code block M mystery motor from GM. 12 total known 1 in 1969, Very Rare Matching #'s, Power Windows, Power Brakes, A.C., Tilt Telescope steering wheel. Highest Rated Small Block. (350hp)

**FOR THE RESTORATION
AND PRESERVATION OF CORVETTES**



Great Cars & Great Friends

**SHIPPING DATA
REPORT**

Subject to the General Conditions listed on the reverse side, National Corvette Restorers Society, Inc. confirms the following information exists in the GM shipping data records for the 1969 Corvette with vehicle identification number 194379S707484.

The GM official Production Date was 11/14/1968

The original delivery dealer was Dealer code 223 in zone 11.

The name and Address for the Dealer was:

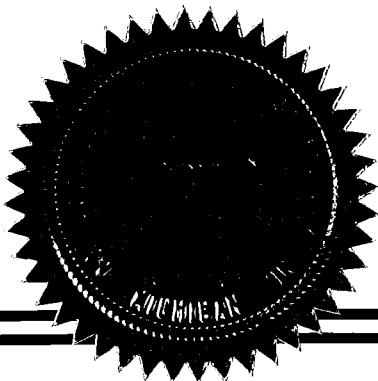
Z. Frank Inc
Chicago, IL

Thank you for using the NCRS Historic Document Services.



Roy Sinor
NCRS National Judging Chairman

January 10, 2011



CHAPTER 3

Block #3932386

Year	Model	Engine	Horsepower	Main	Notes
1969	Corvette	350	300, 350	4-bolt	This block is identical with #3932371 except for a few changes. The cylinder walls and water jacket bulkheads have been redesigned, the stamping pad has been lengthened and an optional identification marker has been added to the rear face of the cylinder case. There were 3 blocks used for 302/350 applications. This block was used from August of 1968 until approximately January of 1969, when the #3956618 block was instituted. Chevrolet documentation shows that the #3932386 block was utilized only as a 4-bolt block, but it is possible that 2-bolt blocks could exist.

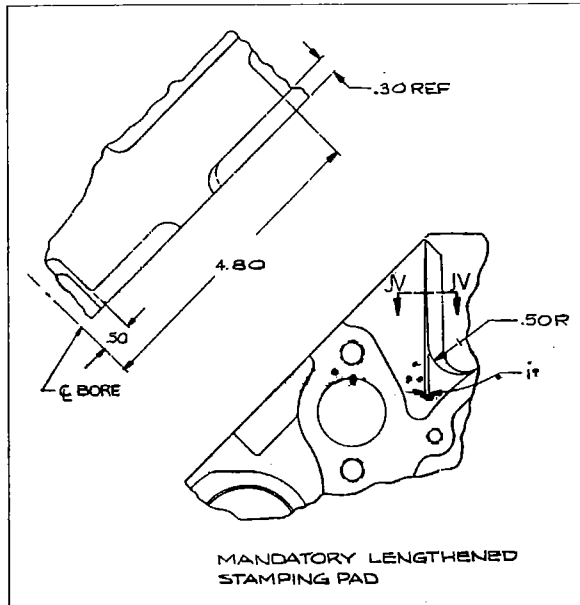


Fig. 3-39. Blueprint of block #3932386 shows mandatory lengthened stamping pad diagram.

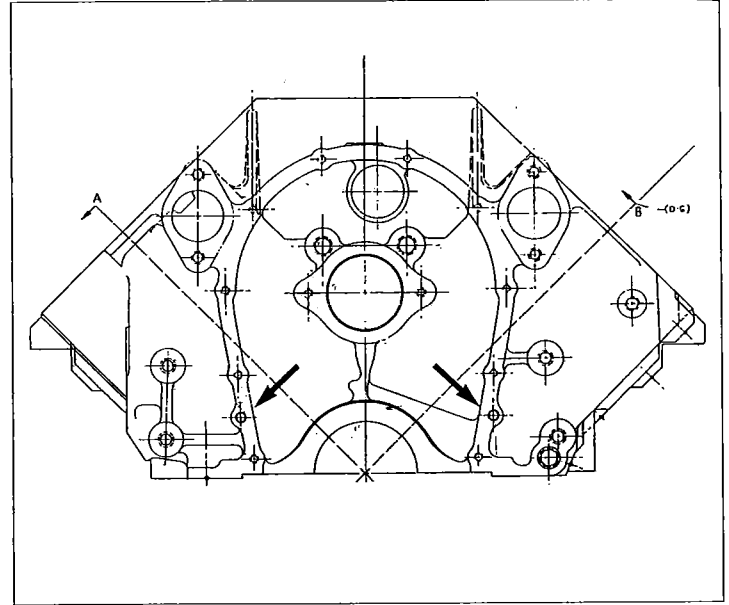


Fig. 3-40. Front view of block #3935439 shows this was the first block to have dowel pin timing cover.

Block #3935439

Year	Model	Engine	Horsepower	Main	Notes
1968 (late)	Corvette	427	390	2-bolt	This block is identical with #3935440. It is similar to #3904351. This block is the first to use dowel pins for the timing chain cover. The cylinder walls and water jacket have also been revised in this block. The block has a casting date located on the right lower side of the block, near the freeze plug and in front of the starter. This block also has a "tall tower" distributor casting boss, which is located inside the lifter galley. Note: Block only used after January 1968.
			400, 430, 435	4-bolt	
1969 (early)	Corvette	427	390	2-bolt	
			400, 430, 435	4-bolt	

1969 Engine Code Suffix Identification

Engine	Horsepower	Transmission, Options	Suffix	
350	300	Man. Trans., Rochester 4BBL	HY	
		Turbohydramatic (M40), Rochester 4BBL	HZ	
	350	*4-speed, Rochester 4BBL, T/I	GD	
		4-speed, Rochester 4BBL, Spec. Cam	HW	
		4-speed, Rochester 4BBL, Spec. Cam, A/C	HX	
427	390	Turbohydramatic (M40), Rochester 4BBL, Hyd. Lifters	LL	
		4-speed, Rochester 4BBL, Hyd. Lifters	LM	
		4-speed, Rochester 4BBL, T/I	MH	
		Turbohydramatic (M40), Rochester 4BBL, T/I	MI	
	400	Turbohydramatic (M40), L36 Engine, Holley 3x2BBL	LN	
		4-speed, L36 Engine, Holley 3x2BBL	LQ	
		Turbohydramatic (M40), L36 Engine, Holley 3x2BBL, T/I	MJ	
		4-speed, L36 Engine, Holley 3x2BBL, T/I	MK	
	430	M22 4-speed, H.D. Engine, Holley 4BBL	LO	
		Turbohydramatic 400, H.D. Engine, Holley 4BBL	LV	
		M22 4-speed, ZL1 Perf. Package (L88 Engine)	ME	
		Turbohydramatic 400, ZL1 Perf. Package (L88 Engine)	MG	
		M22 4-speed, H.D. Engine, Holley 4BBL	MR	
	435	—	4-speed, L71 Engine, Alum. Heads	LP
			4-speed, Mech. Lifters, Holley 3x2BBL	LR
			4-speed, Mech. Lifters, Holley 3x2BBL, HD Clutch	LT
			4-speed, L71 Engine, Alum. Heads, H.D. Clutch	LU
			Turbohydramatic 400, L71 Engine, Alum. Heads	LW
			Turbohydramatic 400, Mech. Lifters, Holley 3x2BBL	LX
			COPO, Details Unknown	MS

* Note: Flint engine plant build sheets verify this engine as having transistorized ignition. This has been verified through original Delco-Remy records which show a mag-pulse distributor designed for this engine. Engines listed with the prefix letter "M" were apparently added during the 1969 model year (10/8/68) and indicate K66 transistorized ignition equipment.

1970

Engine	Horsepower	Transmis
350	300	4-speed, I
		Turbohydr
		4-speed, I
		Turbohydr
	350	4-speed, I
		4-speed, I
		4-speed, I
		4-speed, I
		4-speed, I
		4-speed, I
370	4-speed, I	
	4-speed, I	
	M22 4-spe	
454	390	Turbohydr
		4-speed, F
		Turbohydr
		4-speed, F

* New code introduced during the 1970 model y

1971

Engine	Horsepower	Transmis
350	270	Turbohydr
		Turbohydr
		4-speed, F
	330	M22 4-spe
454	365	4-speed, F
		Turbohydr
	425	4-speed, A
—	—	Turbohydr

January 3rd, 2005

David Hill

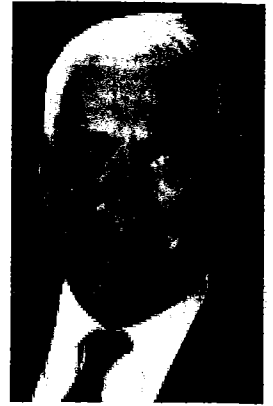
Mr Robert A. Lutz
General Motors Vice-Chairman
General Motors Corporation
300 Renaissance Center
Detroit Michigan 48265

RECEIVED

JAN - 6 2005

R. A. LUTZ

Bill
Midwest
can we help?
Jan
1/14



Dear Mr Lutz,

After waiting nearly 40 years, I recently purchased my first Chevrolet Corvette. My grandfather worked on the 1953 Corvette, when they were first produced in Flint. His Corvette experience was the highlight of his 40 year General Motors career, and I've always wanted to get one, but never had the opportunity so a few years ago, I finally purchased a 1969 L46 coupe with numbers matching and what appears to be 19,600 original miles. Great car !!!!

If I may impose, I would appreciate your assistance in reaching the head of engineering for GM product lines. Specifically, a 350ci small block engine specialist in the GM Engineering Department.

My question regards "M coded" blocks (see attached story "M was for Mystery"). I have the original engine in my car and it does not have a block date stamp, but instead, a plate stamped "M39" (see enclosed engine pictures). I am trying to find out the history and significance of the "M39" code (when it was cast, the specific engineering process involved and other information that may be available regarding M codes). Your help and assistance would be most appreciated.

Personal regards,

Frank Vincent

Frank Vincent
30175 Olinda Trail
Lindstrom Minnesota 55045



February 7, 2005

To: Richard J. Sutton
Plant Mgr. – Saginaw Metal Casting Operations & Saginaw Malleable Iron

Subject: Corvette Owner Inquiry

Dear Mr. Sutton,

I am the Powertrain Vehicle System Engineer for the Corvette Program, and as such occasionally receive unusual requests directed to our management such as the one attached.

Would your Team in Saginaw have any information that could enlighten Mr. Vincent on his engine?

Since this requests pertains to products manufactured many years ago, I don't know if your team has any information that could help this customer, but you are the last resort that may be able to answer his question.

Thank you in advance, for your effort.



Bill Nichols
Powertrain VSE – Corvette
480-210-V16
Warren VEC
30001 Van Dyke Ave.
Warren, MI 48090

2/09/05

'M' Tag

The "M" tag was used for denoting samples being made for anything from:

- Running a new set of cope and drag patterns for customer approval
- Running a new core box for approval parts
- Running parts with different sand chemistry, mold pressures, core coatings, iron temperatures, etc.
- Engineering changes

Depending on the sample requirements there could be anywhere from 10-to-100, or more, castings made on that run. Since the foundry made two castings per mold there would be even numbers scheduled.

In regards to the tag, there were only two tags used per sample run. For instance the 'M39' in question was probably paired with 'M40' that would have been on pattern #17.

Those tags would have stayed on for the length of the run. All samples with the 'M39 & M40' would have been sorted out of the run during shakeout of the molds.

This sample was the 20th in a series(hence 39-40). In later years the foundry turned to an 'X' tag with the 3 digits denoting day of the month and year.

Unfortunately I have no other info. that is available after all this time that would tell me what the particular sample was for. As mentioned previously it was most likely for approval of a new set of pattern or a new corebox since those tools were made of iron and wore significantly and would be replaced after it became costly to repair them. Each new replacement would be run for a sample, and if OK, those castings would be sent out to the customer engine plant as part of the normal production. That is how samples like this got into the production stream.

Roger Wilson
Gen. Supv.- Pattern Shop
Saginaw Metal Castings Operations



SAGINAW METAL CASTING OPERATIONS

CASTING OUR FUTURE

Vol. 16, No. 41, October 6, 2000

A Who Done It & Why?

Ross (third shift UAW Committee person) recently returned from Carlisle, Penn., where he participated in the National Corvette Show/Swap meet.

The meet brings owners and interested parties together to crawl over, under and inside approximately 5,000 Corvettes on display from all over the country.

As Ross was rummaging through the crowd he noticed a guy with a Flint V-8 Engine T-shirt and struck up a conversation. The guy now lives in Rhode Island but he has a mystery that he shared with Ross. It has to do with our foundry so the guy went nuts when he found out Ross works here.

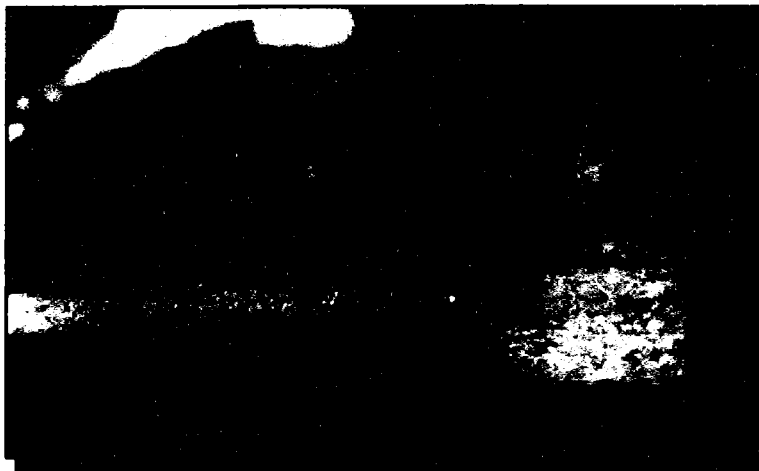
The mystery began when 15,000 Corvette owners were surveyed and it was found that all small block V-8 engines from 1968 to 1980 had the same casting numbers, 3970010, except it seems 11 people reported a unique date/shift stamp that appeared on one block in 1969, five in 1970, one in 1971 and four in 1972.

As many of you are aware, our process for stamping castings involve raised and flat screw marks and

a date system using the alphabet and numbers to identify the date, shift and location the casting was poured on.

Example: A 120 (would be Jan. 12, 1970)
L 080 (would be Dec. 8, 1970)

These 11 mystery blocks carry the following marks as shown in the photo (M 48).



It is believed that the "M" indicated a special casting but there is still much unknown about these engines. They have the same outward appearance, is the internal dimensions different and if so why?

If anyone has any information about these "specials" or is interested in joining the National Corvette

Restoration Society, please contact Ross at 757-0396.

Note: Ross is currently the owner of one of the original 300 hand built 1953 Corvettes (his is #68). And he met one of the previous owners of this vehicle at this meet. He also owns a 1958 Corvette Convertible, a 1963 Split-window and a 1965 Coupe.

Reger Wilson
from the foundry
added the remarks
on these 2 pages



THE FOUNDRY Poured (2) CASTINGS PER FLASK,
IN THIS CASE EQ. SERIES 9 (PATTERN 17-18),
EACH COPE PATT. GOT A "SPECIALS" TAG TO
REPLACE THE NORMAL DATE TAG WHICH IS
ALWAYS A-THRU-L FOR MONTH & 3 DIGITS FOR
DATE & YEAR (REF F029 = JUNE 2, 1969)

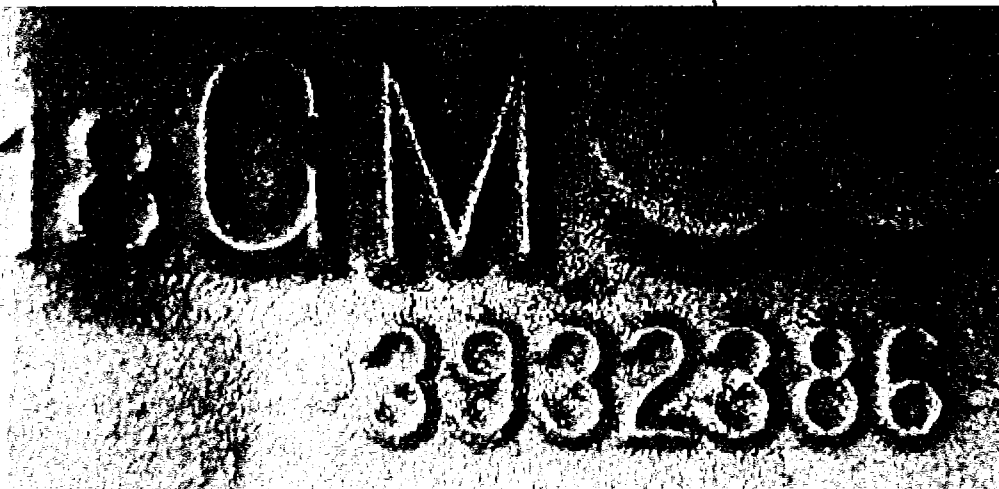
(SEE ATTACHED PAGE - "M" TAG.)

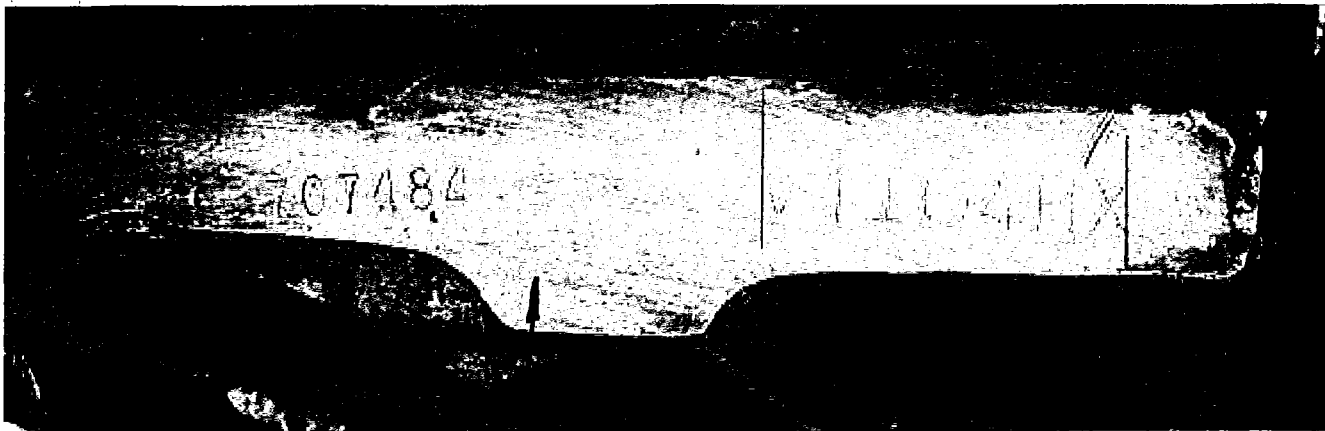


2ND SHIFT (2 FLT. HD. = 1ST)
(2 RD. HD. = 3RD)

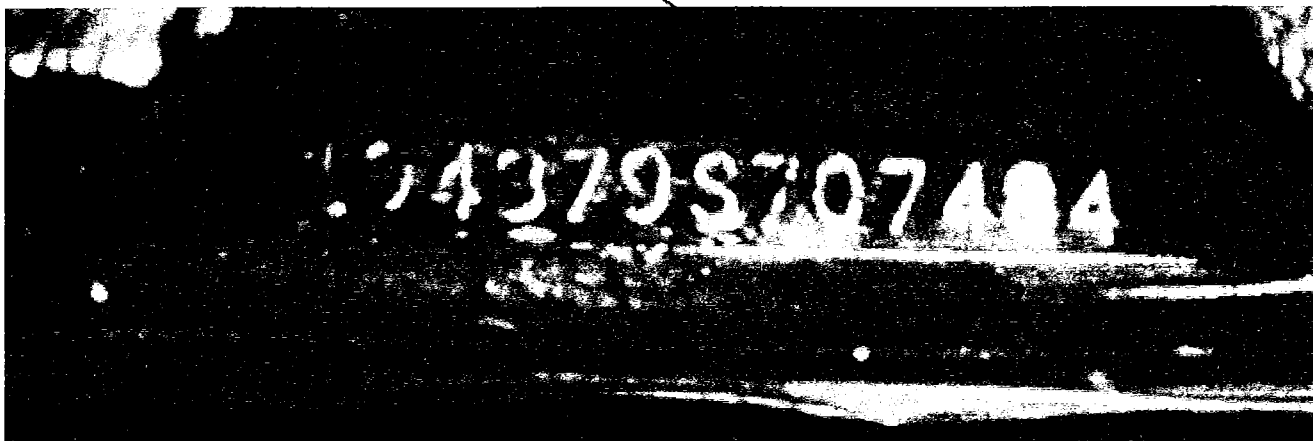
PART # 3932386

PATTERN SERIAL #18-
COPE PATTERN





V.I.N. N° APPEARED ON
CHEVROLET MACHINED BLOCKS IN 1969



POLISHED 7TH HOUR

PRODUCTION CONVEYOR #1




Date: 2/15/05

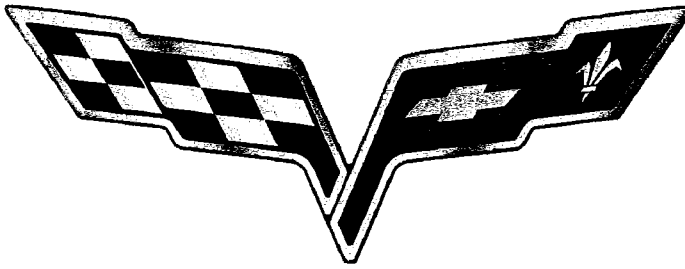


From: **Plant Manager**
Saginaw Metal Casting Operations

To: Bill Nichols

Attached in packet are written notes.

From: Rick Sutton / 
Plant Manager



March 11, 2005

Mr. Frank Vincent
30175 Olinda Trail
Lindstrom, Minnesota 55045

Subject: 1969 V8 Cylinder Block Inquiry

Dear Mr. Vincent,

I am the Powertrain Systems Engineer for the Corvette program and was asked if I could learn anything about your engine.

Relative to the inquiry you made of Mr. Robert Lutz as to the specifics of the cylinder block in your 1969 Corvette, I forwarded your question to Mr. Rick Sutton, the Plant Manager of the Saginaw Metal Castings Operations.

As you will see in the attached, Mr. Sutton was able to identify the markings on your cylinder block. I had a phone conversation with Mr. Sutton and he validated the NCRS Restorer article in that "M" codes were used to identify parts made with process changes for evaluation.

This is all the information available at this time and trust it satisfies your interest. Enjoy your Corvette!

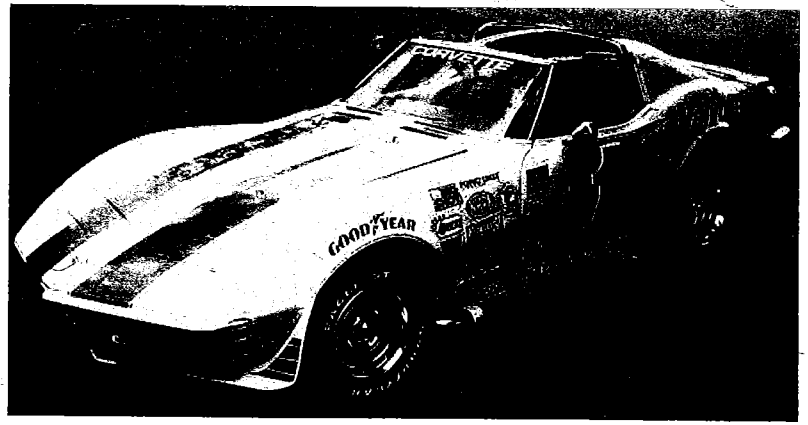
Sincerely,

William R. Nichols
Powertrain VSE -Corvette

Cc: H. Charles
D. C. Hill
R. A. Lutz
R. Sutton

July 2005

Terry McManmon, Editor
Corvette Restorer
3500 Euclid
Berwyn Illinois 60402



Hello Terry McManmon ...

I saw your recent post regarding the "M" coded block and wanted to share some information that I have.

Attached are copies of a bevy of correspondence and pictures as it applies to my car with an "M" code block. The car has the original L46 engine, M20 transmission and 3.55 rear, plus 19,800 original miles (still had original dated shocks before I started the restoration). I have 20 years of history of the car, but was unable to get back any earlier. Previous owner had the tank sticker, but that got lost after he died.

I've also conversed with Gene Gamache, author of the "M Is for Mystery" article and we have shared some photos and other pertinent information.

Included is a picture of an eBay block that has my "18" pattern number and a casting date of J198 - which leads me to believe mine was probably cast the same time or a day or two earlier.

Recently on eBay, I saw a 3932386 block with "M2" casting. It was located in Oregon somewhere. Based on the information I received from GM, the "M2" would indicate the earliest block casting ... perhaps even one of the 1st two "386" blocks cast. I thought of bidding on it, but the seller wouldn't provide a shipping cost. Never did meet his reserve though

Information on my car is as follows: Serial number: 194679 S 707484
Trim tag: D12 - November 12, 1968 Block number: 18 GM 3932386 with Saginaw time clock
Engine pad: 19S707484 V1104HX - November 04, 1968 350/350/mt/AC

I was a NCRS member ... but from pictures of my car, you can see where we soon parted ways. Still enjoy the technical posts though, and always glad to help anyone solve a particular problem that I may have some experience with. I never worked on a car in my life until I got the '69 ... and I've pretty much done a complete restoration, with me doing 90% of the work. Everybody should restore at least 1 car before they die ... great humbling experience!!!

Regards,

Frank Vincent 30175 Olinda Trail Lindstrom Minnesota 55045

FOR THE RESTORATION
AND PRESERVATION OF CORVETTES



Great Cars & Great Friends

The Corvette Restorer

November 26, 2005

Frank Vincent
30175 Olinda Trail
Lindstrom, MN 55045

Dear Frank,

Thank you for sending the information about the cylinder case installed in your Corvette. I am pleased to note that you have provided the same information to Gene Gamache, since he is the primary investigator of this issue. I became involved only because as editor of *The Corvette Restorer*, I printed Gene's article.

Thanks again for the information.

Regards,

A handwritten signature in cursive script, appearing to read 'Terry McManmon', with a long horizontal flourish extending to the right.

Terry McManmon, Editor
The Corvette Restorer
3500 Euclid
Berwyn, IL
60402

M WAS FOR MYSTERY

by Gene Gamache

I believe everyone likes a good mystery; but we also like to see it solved. I've had a mystery I've been trying to solve for a number of years that relates to the engine in my 1970 coupe. The engine in question is a 3970010 block cast in Saginaw, Michigan at the Gray Iron Foundry. Instead of a casting date, which is located on the right side of the block in the rear, I have two tags. As you can see in Fig. 1, the smaller one on the left has a "1." The other, which is slightly larger, has a "M" with a two digit number, 48. No date, no month, no year just M48.

I called Terry McManmon, who at that time was national judging team leader for 1970-1972 cars, and asked him if he had ever heard of or seen an "M" coded block. He told me that he had recorded ten other owners who have reported this phenomenon. The survey had shown that these "M" coded blocks, so far, appeared between the years 1970 through 1972. Recently, a 1969 with a June build date and a 3956618 block was discovered to have the "M"-code. The list to date includes one 1969, four 1970s, one 1971 and six 1972s. I had become the fourth person to report a 1970 with such a block.

I started asking owners of 1970-72 cars at every car show I attended if they had ever heard of or seen an "M" in place of the usual casting date but no one had. To make things easier to explain I had a friend of mine take a close-up of the casting and had it blown up to poster-size. I took this poster to Bloomington in 1995 with the intention of showing this photo to all the people attending the class for the 25th anniversary of the 1970 Corvette. Only one person acknowledged that he had owned a 1972 Corvette with that code but had sold it before investigating its origin.

The common denominator to all the cars is the letter "M". It has been suggested in some books that "M" indicated the block as being cast in December. But the letter "I" was used

at the foundry for castings. So "L" was the letter that was assigned for the month of December. (See chart from the NCRS Pocket Spec Guide).

No one knew for sure, and there was a lot of guessing. I figured I'd try to get some answers. I started at the Flint engine plant. Armed with my trusty poster, I showed everyone from line workers to front office management the picture and no one seemed to know what to make of this strange code. One of the front office people suggested that I would probably have better luck at the foundry in Saginaw where the block was cast. I was given the name of a

gentleman who might be able to help me at the plant. Once I arrived, I was taken upstairs to the pattern department. I was introduced to Pete Paveglio, a foreman at the foundry. I told him about my engine and showed him the poster. As soon as he saw the picture, he immediately knew what it was. The "M" was used because it identified the blocks as "specials" and that the letter "M" was chosen because it was the next letter after "L", which as we already know, was used to denote December. Pete also stated that he worked on these blocks back in 1970 when he was an hourly worker. He did not have any information on what the

number meant after the "M." I thanked him for the information and left.

Fast-forward to Corvettes at Carlisle 2000. I'm cruising through the aisles looking for parts and wander into a small area that had some interesting pieces on the ground. One of the vendors spotted my shirt, which had the Flint V8 Engine Plant logo on it, and asked me if I was from Flint. I told him I had been at the plant and got the shirt at the open house they had back in 1999. I introduced myself and he told me his name was Ross Howay. Ross mentioned that he worked at the Gray Iron Foundry in Saginaw. I immediately showed him the picture of the "M"-coded

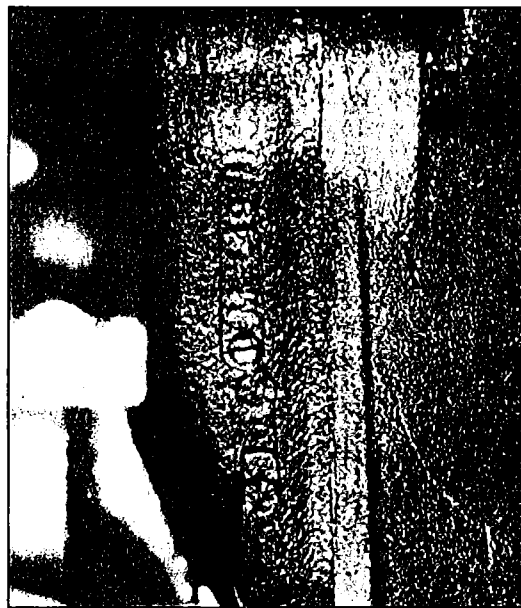


Fig. 1 The code M48.

block hoping that he could give me more information. He shook his head and said he had never seen anything like that but he would try to get some answers from some of the older people who had worked in the pattern department. He told me to call him at the foundry in a couple of weeks and maybe he would have more details. My meeting him was nothing short of fate because, as he told me later, the gentleman whom I had met at the foundry a year earlier, Pete Paveglio, had retired, thus I lost my source of information from the foundry!

A few weeks later I called the foundry and Ross indeed had more information. I had sent him a copy of the picture I had been carrying around. He happened to be showing the picture to some fellow workers in the cafeteria when the plant manager got into the discussion. The manager thought this would be a great article for the plant newspaper and a good way of reaching workers in the plant who may have known about these engines! The article hit paydirt because Ross was contacted by a number of people who knew about the "M" code. Here are some of the details.

When engineering wanted to test a new process in the production of blocks, they would have 25 to 50 built with the letter "M" cast into the block where the casting date normally went. This designated the block as a "special" which was being tested for "process improvement," or also known as "sampling." This helped in identifying the "specials" on the line for tracking purposes. The number to the right of the "M" signified what was done to the block as an improvement. In my case I have a 48 next to the "M". Other Corvettes that have reported "M"-coded blocks have shown different numbers such as: M 4, M 14, M 34, M 49, M 57, M 58, M 79, M 84 and M 98. So far we cannot find records at the foundry that would tell us what each number represented as the particular improvement to that block. An example of what one of these numbers could have stood for would have been if the engineers wanted to change the percent of resin used in the formula for making the forms for the blocks. They would have designated, for instance, 14 next to the "M" thus alerting anyone testing this block that this was a "special" because the resin content was changed. Once a run of twenty-five to fifty blocks was

produced, about a dozen or so of these blocks would be cut in half or even into a greater number of pieces. This procedure was done by people from Chemistry & Quality to verify the quality and consistency of the core dip and the thickness of the core. Once it was determined that the new process was successful, the remaining blocks were sent to Flint Engine to be used on the line. If the new process was deemed a failure, all the blocks that were involved in that particular test were destroyed!

These process improvements were done on a completely random basis. Only when engineering felt a change was necessary was a special cast. This brings us to the number that's cast into the block to the left of the "M". That number will be a "1" or a "3," and reflects what conveyor it was assigned to during their journey through the plant. There

were 21 conveyors in all, carrying different parts to their intended destinations but only conveyors 1 and 3 carried the blocks. So the number 1 or the number 3 will be the only numerals that appear on the tag to the left of the "M" or casting date. The casting numbers are made of brass and are soldered to the tags.

This brings us to the screws that attach the tags to the block. In order to add another dimension to GM's tracking ability, the screws used on the tags could indicate what shift produced the block. If the tag had two flat-head screws, it meant first shift. If it had one flat-head and one round-head, it meant second shift. And if it had two round-head screws

, then that was third shift. In the photo you can see that the tag with M 48 has one round and one flat-head indicating second shift.

There are still unanswered questions about the "M" block but with the assistance of all the wonderful people working at Saginaw Metal Casting Operations, many of my questions have been answered.

As more details become available, I will pass them along to the membership.

Gene Gamache
170 Iron Mine Hill Rd
No. Smithfield, RI 02896

401-769-3636
vet@tp.net
Membership #5884

Month Codes and the Letter "I"

Generally, the letter "I" will be used to represent the month of September only on Chevrolet Central Foundry metal castings. It is generally skipped over and not used to represent September on hand or machine die-stamped components such as generators and alternators, distributors, carburetors, radiators, etc. The stamped letter "I" is, however, used to represent the ninth month of body production on 1963 and later body identification tags (refer to 1963-1972 Body Build Date Codes section).

"I" Used	Month	"I" Not Used
A	January	. . . . A
B	February	. . . . B
C	March	. . . . C
D	April	. . . . D
E	May	. . . . E
F	June	. . . . F
G	July	. . . . G
H	August	. . . . H
I	September	. . . . J
J	October	. . . . K
K	November	. . . . L
L	December	. . . . M