Carryover Compendium

– Steve Sloan

As you are walking down a row of pristine, restored 1966 GT350s at a Shelby meet, something catches your eye and makes you pause. There's something subtly out of place here, but you can't quite put your finger on it. The car in front of you is obviously a 1966 GT350. It has the side scoops, quarter windows, tape rocker panel stripes…and yet something is different about it. Is it the 1965-style Cragar wheels? No, you've seen those on 1966 cars before. You start a more thorough examination under the raised hood. Ah ha! The engine block is black! And look at that 3939S fuel pump and gold air cleaner base. What's going on here? Some dolt has put a 1965 engine in his 1966 car! Sacrilege! How did this imposter manage to make it into this lineup?

You decide not to waste much more time on this likely clone but before you move along you take a quick glance at the interior. You're almost sorry you did. What a mix and match calamity! There's 1965 upholstery with a 1966 steering wheel. The dash pad is 1965 but the tach is 1966. And what's with that instrument bezel? It's not the 1965 part, but it's not exactly a '66 part either. Someone put a 1965 GT bezel in this car! The owner would have to be certifiably insane to have put this thing together or grossly misinformed. Your blood starts to boil as you think of how these other owners put a lot of time, money and effort into making their cars "correct" only to be displayed next to this abomination.

You grab the first event official that comes by and make your complaint. "*It's an early '66… a carryover,*" he responds, as if no further explanation is needed. You tilt your head and try to disguise the blank look on your face as you process this information. A what? Carryover? Carry where? You just don't get it but it must be obvious because he offers you a few final words as he rushes off: "*1966 Carryover GT350. Look it up.*"

As soon as you get to a computer with an Internet connection you follow his advice and the first link that pops up in Google is **www.CarryoverGT350.com/** And there's your answer. There you learn all you would ever want to know about that odd, part-1965/part-1966 GT350. The "Unique Features" page on that site is particularly helpful. As you read through the wealth of information you gain a newfound respect for this "odd" GT350. You see it in a whole new light as you learn about the history of how these cars came to be.

In May of 1965 Shelby American was planning for the 1966 version of the GT350. They knew that Ford would be shutting down the San Jose assembly line for a few weeks in July to retool for the new 1966 models. In order to continue operations during that shutdown, Shelby American ordered 250 Mustangs toward the end of the 1965 production run. This ensured that they would have cars available to "carry over" Shelby production until they received their initial shipment of 1966 Mustangs. It also gave them a head start on getting 1966 GT350s ready to ship when the new model year began. They did not want their dealers to be stuck trying to sell "old" 1965 GT350s alongside the new 1966 Mustangs. So those 250 cars, plus two prototypes, were converted into 1966 GT350s. That makes a total of 252 cars that started life as 1965 Mustangs but were built into 1966 GT350s. Because of that history, those cars have a unique blend of both 1965 and 1966 features.

Over the years, owners have referred to these cars as "crossover cars," "changeover cars," "early '66 cars," "leftover '65s," "65½ cars," "near-specification cars" and who knows what else. Of late, the term "carryover" has gained popularity because it is short and conveys something about the history of these cars which were ordered to "carry over" the Shelby American production line during Ford's retooling shutdown. And combining the two words into one represents the combining of 1965 and 1966 features into one car.

No, these cars were never called "carryovers" at the factory. This is an example of owners and enthusiasts coining a distinctive name for the cars they love. For example, although Ford never built a "deuce coupe," this has become a common name for 1932 Ford coupes. Likewise, Shelby did-

n't call their racing GT350s "R-models" at the factory. They were simply called "competition models." The term R-Model was coined years after production ceased by enthusiasts to acknowledge the "R" in their serial numbers. "R-Model" rolled off the tongue a lot easier than "competition model." In choosing a short, descriptive term to describe these cars, enthusiasts are simply following a time-honored American automotive tradition by providing a special name for a car they are passionate about. If you prefer some other term, or nothing at all, then go for it. After all, "a rose by any other name…."

Whatever you choose to call them, there is one undeniable fact: these 252 cars were different from the rest of the 1966 production GT350s. They were built from 1965 Mustang chassis and therefore had 1965 Ford VINs. Unique to these cars was the 1965 GT instrument cluster with the associated GT wiring harness and oil and water sensors. They had 1965 upholstery, dash pad and glove box door. The radio block-off plate was the 1965 style. Unlike the rest of the 1966 cars, there was no 4-way flasher, no backup lights on the rear valance and no seat belts in the back on cars with rear seats. While the rest of the 1966 cars got blue engine blocks, the carryovers had black-painted blocks. These cars also had 1965-style rear end housings; yet they had 1966-style rear exiting exhaust. The lists that follow reveal more of these interesting details.

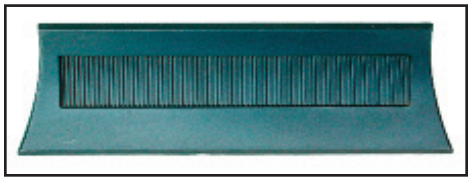
When they arrived at the Shelby facility they received some modifications that are considered fairly exclusive to the 1965 GT350s, and some other changes that were specific to the 1966 GT350s. Therefore these 252 cars are a fairly unique combination of most of the "go" features of 1965 (lowered front A-arms and over-ride traction bars) with all of the "show" features of 1966 (rear quarter-windows and side scoops). It has been said that they possess both the "cooks" of the '65s and the "looks" of the '66s.

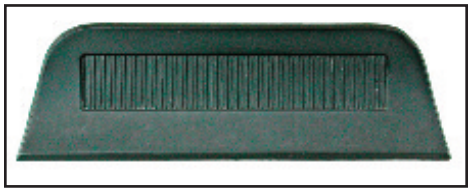
Many parts in this article are referred to as 1965 or 1966-style based on their part number or primary year of usage. Some parts changes, like the grille, were very specific. All 1965 GT350s got the '65 Mustang grille while all 1966 GT350s got the '66 Mustang grille. Other parts changes, however, were not as well-defined. Take the rear end housings, for example. Housings with domed-style centers were used primarily in 1965 and are often referred to as 1965-type. Housings with half-dome or scalloped-looking centers are usually called 1966-type because the overwhelming majority of 1966 chassis cars had that style. But a few early 1966 chassis cars are known to have come with the domed, 1965-style housings. Keep in mind that there was not always a specific cutoff point between one style of part and another. While a few of these "soft" transition points are known and noted in the lists below, without actually having been there when the cars were made, it is impossible to note each one specifically.

The following lists are starting points in identifying which of several possible parts and features were used on the carryover cars.

1965 Items: *(features and parts common primarily to 1965 GT350s and carryovers)*

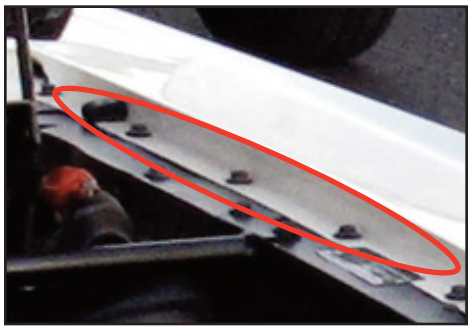
•1965 Seat Upholstery – all smooth; no "weave pattern" texture in the center as in 1966 cars.
•1965 Door Panels and Hardware – vertical upholstery pattern, not horizontal as in 1966 cars.
•1965 Dash Pad – no "eyebrows" in the center as in 1966 cars.
•1965 Radio Block-off Plate – concave on the sides with four sharp corners, not convex on the sides with the two top corners rounded off as in 1966.

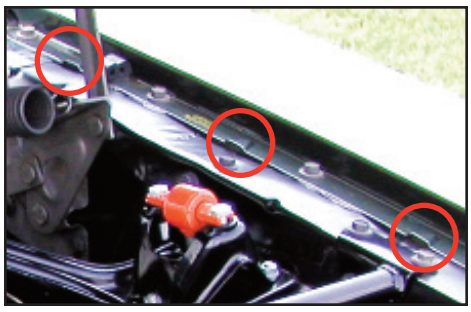




•1965 Glove Box Door – curved, not flat as in 1966.
•1965 Glove Box – no 4-way flasher switch in the glove box like 1966 GT350s had.
•1965 Door Hinge Bolts – 3/8˝ diameter with 9/16˝ head and star washers. Not 5/16˝ diameter with 1/2˝ heads and round washers as was common in 1966.
•1965 Dates on date-coded parts.
•Engines painted black. Engines on 1966 chassis cars were painted blue.
•1965-style Hi-Po Motor Mounts. 1965 and early 1966 GT350s got special motor mounts unique to the Hi-Po engine. Somewhere around SFM6S0800 (give or take a hundred cars or so) they started receiving the standard 1966 289-V8 motor mounts.
•1965 Ford VIN on car chassis and engine (starts with 5R09K…..).

•1965-style Shelby American VIN Plate without the pre-stamped "6S" like most of the rest of the 1966 cars received. The change to pre-stamped tags did not occur immediately with 6S253, but did happen within the next hundred or so vehicles.





•1965-style Front Fenders without the raised crash tabs on the driver's fender lip that most 1966 cars had.
•Tower Hose Clamps. After a short transition period, most 1966 cars received wire hose clamps.
•Air Cleaner Base. The '65 cars had gold air cleaner base plates; 1966 chassis cars had blue base plates.
•1965-style 3939S Fuel Pump with integral canister filter, as opposed to the 4201 fuel pump that came on the later 1966 cars which had a fuel filter at the carburetor.

•"Small letter" Cobra Intake Manifold, not the "large letter" as most 1966 cars received.

•Screw-On Windshield Washer Bag Cap – not the hinged cap as was most common in 1966.

•Disc Brake Round Master Cylinder; had a brass fitting in front that the brake line screwed into. On most 1966 cars the brake line went directly from the master cylinder to the proportioning valve with no brass fitting.

•1965-style Clutch Release Rod, Z-bar (equalizer bar) and rod from the clutch pedal to the Z-bar. The '65-style Z-bar and hardware was adjustable from under the hood; the '66 version required adjustment from under the car.

•Lowered A-arms with Shelby Idler and Pitman arms. (*It is known that 6S253 does not have lowered A-arms, which would suggest that this feature ended with the carryovers. But several other early 1966 chassis cars do have lowered A-arms, although it is uncertain if those were done at the factory or by enterprising owners*).

•9/16˝ diameter Shackle Studs and Bushings – two sizes of shackle studs were used on 1965/66 Mustangs. Early on, the studs were 9/16˝ in diameter; later they went to 1/2˝ diameter studs. They each have bushings to match the stud diameter. Carryovers have the larger 9/16˝ version.

•1965-style Rear End Housing – the center of the '65 housing is round or domed from when viewed from behind. The '66 version has a big semi-lump or half-dome appearance from behind.

•15˝ Wheels; either painted 15˝x 6˝ steel or the optional Cragar/Shelby 5-spokes– not 14˝ Magnum 500s or optional 10-spokes as on the later 1966 cars. The 14˝ wheels became standard after car #530. Cars were not built in strict numerical order so 14˝ wheels may have been on earlier cars.

•15˝ 7.75x15 Goodyear "Blue Dot" Tires. Later 1966 cars with 14˝ wheels received 6.95x14 Goodyear "Blue Streak" tires.

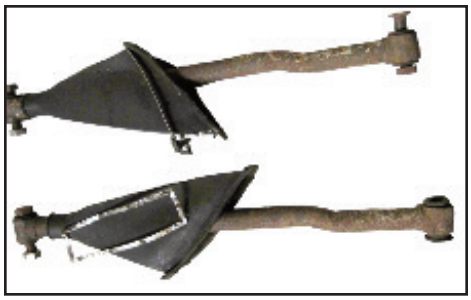
•1965 Rear Valance – no backup lights as in 1966.

•Exterior Paint. All carryover cars were white when they left Ford's San Jose assembly plant. Note that 6S051 was painted green before its sale and the prototype Hertz 4-speed car, 6S048, was painted black and gold. Both were painted at Shelby American after leaving San Jose.

•Over-Ride Traction Bars. The transition to under-rides appears to have occurred around serial number 920.

•Straight Traction Bars. 1965 GT350s and all the carryover cars had straight traction bars. Most of the later 1966 GT350s that got over-rides had a kink (offset bend) to the side about halfway along the bar to improve clearance at full jounce. Use of the kinked bars appears to have started somewhere between 6S253 and 6S349.

•1965-style Traction Bar Seals and Covers. 1965 GT350s and all the carryover cars had a piece of rubber inner tube (with a slit in it for the bar to fit through) pop-riveted over the hole in the floorpan that the traction bar passed through. Then a rough fiberglass box was placed over the traction bar and mounting bracket on most cars. Later 1966 GT350s with over-ride traction bars had a molded rubber boot that sealed much better than the inner tube and did not require fiberglass boxes.



•Deleted Lower Support Brackets for rear interior side panels. Standard Mustangs had two brackets on the rear floor pan (one on each side) that provided extra support for the lower portion of the rear interior side panels. For 1965 GT350s these were deleted at the San Jose factory because they would be in the way of the over-ride traction bars. This practice continued through the carryovers and the other early 1966 chassis cars that received over-rides. (Note: A few cars with under-rides have also been observed to be missing these brackets. The reason for that is not known at this time.)

•1965-style Rubber Axle Bump Stop "Snubbers" – mounted on the inside of the rear frame rails because of the over-ride traction bars. The 1966 chassis cars with under-rides used stock Mustang snubber brackets with no modifications.

•1965 Pinion Shield and Snubber.

1965/1966 Items: *(features and parts common to 1965 GT350s, the carryovers and many of the 1966 chassis cars)*

•Hoods were fiberglass on top of a steel frame.

•Black alternator fan and pulley. The use of black continued at least through the production of SFM6S1757. Gold became the standard color for these parts late in 1966.

•"Hollow Letter" Sand-Cast Buddy Bar Valve Covers – not "solid letter" die-cast valve covers like the later 1966 cars received. The transition appears to have taken place roughly between 6S1400 and 6S1500.

•Aluminum 4-Speed Transmission Case. Both main case and tailshaft housing were aluminum. The '65 GT350s and the carryovers (except 6S023, the prototype automatic transmission car) had all-aluminum 4-speed transmission cases. Later '66 cars sometimes had a cast iron main case and/or tailshaft housing. And, of course, a lot of '66 cars had automatic transmissions.

•Koni Shock Absorbers – Konis were standard on all '65 Shelbys and were installed by Shelby American on 1966 GT350s up to

6S952. Cars after that received Ford Autolite adjustable shocks at San Jose.

•Axle (or Jounce) Limiting "Rebound" Cables; see above: same details as on Koni equipped cars.

•Plain Rear Passenger Inner Wheel Housing – with no indentation in the trunk area for spare tire clearance like later 1966 cars had. The indentation showed up roughly between 6S1802 and 6S1902.

1966 Items: *(features and parts common to 1966 GT350s, including the carryovers)*

•1966 Grille. Horizontal bar grille, not 1965 honeycomb-style.

•Functional Side Scoops.

•Quarter Windows.

•1966 GT350 Gas Cap.

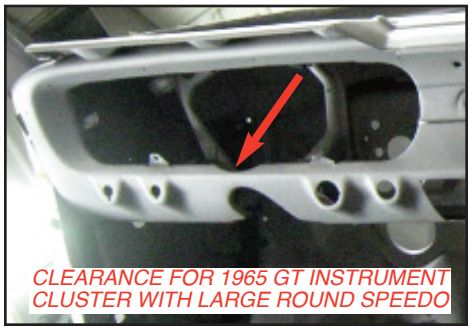
•1966 GT350 Tape Side Stripes – not painted rocker panel stripes as in 1965.

•Ford Rotunda Racing Style Mirror – whether factory or dealer-installed, carryovers with outside rear view mirrors usually received a Ford Rotunda racing style mirror like the other 1966 GT350s, not the Talbot mirror that was sometimes installed on the 1965 GT350s.

•1966 CS Door Sill Emblems – not the black Ford oval as in 1965. There were two versions of the CS emblem in 1966. The early version has a single line of text that says "Shelby American, Inc." with the CS logo to the right. The later version has two lines of text with "Shelby American, Inc." on top and "Los Angeles, California" underneath; with the CS logo to the left of the text. Carryovers and lower numbered 1966 cars have the single-line version; later cars tended to have the two-line version, but could have come with either type.

•1966 Steering Wheel – simulated wood grain, deep-dish Mustang GT steering wheel – not the 1965 real wood wheel with dash-mounted horn switch.

•1966-style Crescent-Shaped Cutout in the lower center of the instrument bezel stamping in the dash. The regular '65 Mustang stamping in the dash did not leave quite enough clearance on the bottom for the large round speedometer in the '65 GT instrument bezel. So in 1965, the cars destined to have the GT panel had an extra indentation stamped in the lower side to allow for clearance. This indention had a rolled lip and a radius to match the bottom of the round speedometer. This was the exception in 1965, but became standard in 1966 because of the standard '66 five-dial instrument panel.


CLEARANCE FOR 1965 GT INSTRUMENT CLUSTER WITH LARGE ROUND SPEEDO

•1966 Cobra "Cup" Tachometer on top of dash – not in a nacelle with an oil pressure gauge as in 1965. Note: Some 1966 tachs had the Cobra emblem on top and some had it on the bottom of the face. Carryovers had the Cobra on top.

•1966-style Rear Shelf with ribs and no provision for the spare tire (on cars without the "optional" rear seat).

•1966-type Oil Pressure Sending Unit.

•Battery Under The Hood like the other 1966 cars.

•Rear Exhaust, not side exhaust as in 1965.

•Later-Style Hi-Po Rear Axle Bumper Plate with three holes instead of just one. Use of this plate actually started around the half-way point in 1965 production. It is listed here in the 1966 section because it was only used on some of the 1965 cars, but on all of the 1966 cars.

•No Drive Shaft Loop. The 1965 cars have this, but the only '66 cars with drive shaft loops were the 4 factory drag race cars (011, 018, 021, and 182).

•No Detroit Locker – the Detroit Locker ratcheting rear end was standard in 1965, but optional on 1966 GT350s. Of the carryover cars, only a half-dozen or so received Lockers at the factory. Any others were dealer-installed.

•1966-style Wiper Setup – late 1965 and all 1966 cars had a raised area half-way around the wiper holes in the cowl (on the side toward the windshield). They did not have a bezel for the wiper mounts that protruded through those cowl holes. They had wiper arms with a flare at the base.

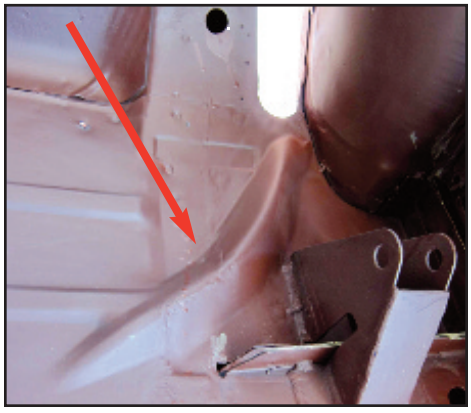
•1966 Owner's Manuals (usually)

•Water Pumps and Timing Covers. While not technically a 1966 feature, it should be noted that all the carryovers had cast iron water pumps and ribbed timing chain covers. Before May of 1965, 289 Hi-Po engines had aluminum water pumps and smooth timing chain covers. In early May of 1965 there was a change (L8) to cast iron pumps and ribbed timing covers. A few of the later 1965 GT350s and all of the 1966 GT350s, including the carryovers, were produced after that change.

Transition Parts: *(Running changes that occurred during the production of the carryover cars at San Jose)*

•Trunk Lids – there were two different trunk lids used in 1965/66, distinguished by their underside framework. Type-A (commonly referred to as 1965 or rectangular) has two large rectangular cutouts in the framework. Type-B (commonly referred to as 1966 or four-hole) has four holes cut out in the framework; two in each of the rectangular areas. The change from type-A to type-B appears to have been a running change that occurred at the end of the 1965 model year. From the factory, some carryover cars had type-A lids and some had type-B lids.

•Rear Floor Pans – there were two types of rear floor pans used in early Mustangs. In 1965 there were two humps in the rear floor pan – one on either side that allowed the parking brake cables under the car to route over the rear frame rails. In 1966 the rear floor pans were flat in that area and the parking brake cables routed under the rear frame rails. The change from one style to the other was a running change that occurred near the end of the 1965 model year. Carryover cars with lower VINs tend to have the 1965-style humps. Carryovers with higher VINs tend to have 1966-style flat floor pans.



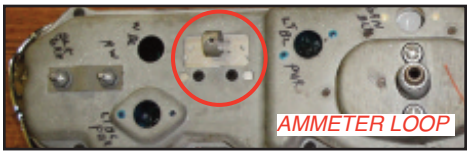
•Pedal Pads – sometime in 1965 Ford transitioned from pedal pads (gas, brake and clutch) that had no groove around the outside edge, to pads that did have a groove around the outside edge. The carryover cars were built after that production change and most have the later "grooved" pedal pads, but a few carryovers are known to have the early, plain brake and clutch pedal pads.

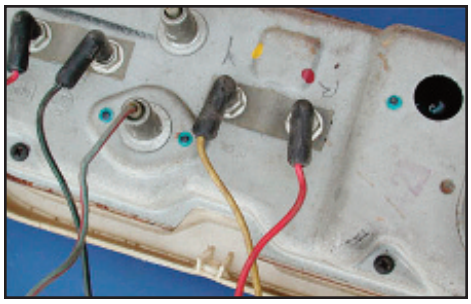
Truly Unique: *(Among GT350s, these features & parts are found only on carryovers)*

•No Tach Bracket Spacers – most 1966 GT350s got spacers under the tach mounting bracket to keep the dash pad from being compressed too much when the tach mounting screws are tightened. Carryovers have the 1966-style dash pad mounted tach, but do not have these spacers.

•Instrument Panel – 1965 GT Instrument panel with black camera case finish. The 252 carryover cars were the only GT350s to have this specific instrument panel. '65 GT350s had the standard '65 panel. '66 GT350s had the standard '66 panel. The 1965 GT instrument panel is similar to the 1966 panel but not exactly the same. The outer trim on the '65 GT bezel only goes around the top half of the bezel (creating an eyebrow effect) – not all the way around as in 1966. Also, the amp gauge and wiring are different.

•Wiring Harness – 1965 GT wiring harness were used with the '65 GT instrument panel. This harness also included pigtails for the fog lights that '65 GTs came with. 1965 Shelbys came with a standard 1965 Mustang wiring harness. The "regular" 1966 Shelbys had a standard 1966 Mustang wiring harness. So these 252 carryover cars were the only GT350s to have that specific wiring harness.





•Differential Tags – the carryover cars were the only GT350s to receive C5ZX-B differential tags denoting their 1965, Shelby application, open-drive differentials. (The exceptions would be the four carryover factory drag race cars with Detroit Lockers that received C5ZX-A tags.) 1965 GT350s had either C5ZA-A, C5ZA-B or C5ZX-A tags. 1966 chassis cars received C6ZX-B tags.

•Rear Seats Without Seat Belts – 1965 Mustangs did not have rear seat belts. Since the 1965 GT350s had package trays in the back, that was not an issue. But in 1966 rear belts became standard equipment in Mustangs. So all the 1966 Mustangs got rear belts, as did all the GT350s that were built from 1966 chassis. Once again, the carryovers are different. Because they were built from 1965 chassis there were no mounting points for the seat belt anchors to attach to, and there were no slots in the rear seat cushion for the belts to thread through. So unlike the other 1966 cars, the carryovers that had rear seats did not have rear seat belts.

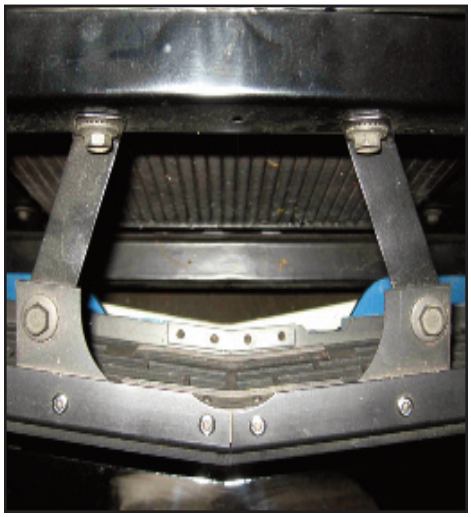
Interesting Notes:

•GT350 Rear Emblem/Plaque – all the '65 and '66 GT350s were "supposed" to have a GT350 emblem on the tail light panel, but some of each year were delivered without them. At this time there is no pattern or explanation for this mystery. The carryover cars appear to share that trait – some had the emblem and some did not.

•Owners Manuals (1965 or 1966?) – there were 1965 and 1966 versions of the manuals supplied to new owners; usually by placement in the glove box. Most experts believe that 1966 versions of these manuals would be correct for carryover cars, but there is at least one known exception. According to Rick Kopec, 6S118 came with a 1965 GT350 Owner's Manual. Where there's one exception there may be more. The prevailing theory is that Ford and Shelby American intended that 1966 versions of these manuals come in every 1966 GT350 (including the carryovers), but for various reasons that didn't always happen. It is possible that the updated, 1966 manuals did not arrive in time to coincide with the beginning of 1966 (carryover) production.

•European Vintage Racing – vintage racing is very popular in Europe where the governing body is the FIA. One of the more popular classes is the "Historic 1965 or Older" class. 1965 GT350s are highly treasured for their ability to compete in that class. The carryovers are allowed in that class by way of the 1965 Ford VIN stamped into their chassis. Factory production records show that cars up to 6S800 were built during the 1965 calendar year, so they are also eligible.

•Grille Brackets – on the carryovers, two flat strap brackets were used to connect the top center of the grille with the core support. It has long been believed that those brackets were unique to these cars. Later 1966 GT350s used standard Ford hardware. But just when did that change take place? The DSO sheets and the build sheets contradict each other on this issue. So the first few hundred 1966 chassis cars "may" also have had those flat strap brackets. With the abundance of reproduction brackets available and lack of early cars with pristine histories to examine, this issue may never be decisively resolved.



As more information about the first 252 '66 GT350s becomes known, they are gaining in both recognition and respect. They aren't 1965 GT350s; although they share a large number of parts and features with those cars, but they are considered 1965 vehicles by the FIA for European vintage racing purposes. Yet they aren't quite like the rest of the 1966 GT350s, either. They are something different; something in-between. Their owners consider them the best of both worlds; part '65, part '66 and all fun.

So the next time you see that lineup of 1966 GT350s, look carefully. If you see a car that doesn't seem quite right, take a look at the VIN plate. If it's one of the first 252 cars, then you'll know you're looking at a very rare part of Shelby history. And if there's someone standing there scratching his head with a puzzled look on his face, you can be the one to tell him, "*It's a 1966 Carryover GT350. Look it up.*"

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6S118

6S174

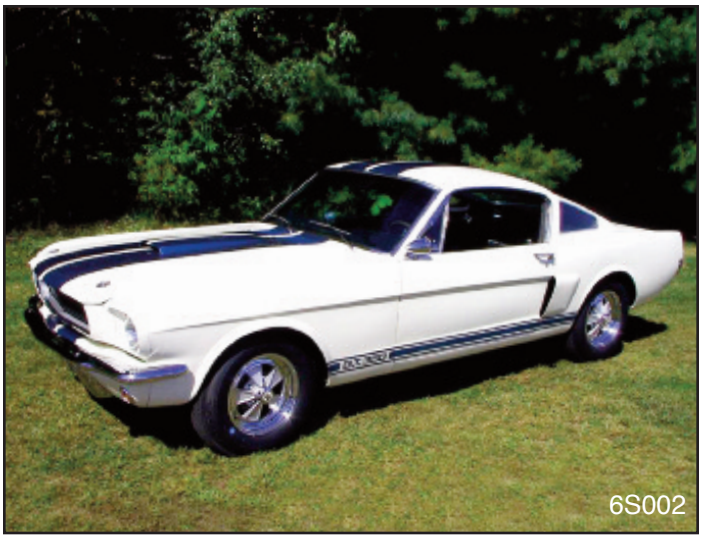
6S076

6S166

6S221

6S195

6S251


6S002

6S011

6S126

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6S087