THE CURRENT STATE

A DEEP DIVE INTO ONE OF THE BEST

If you ask a group of individuals what they consider to be a good restoration on a vehicle, you will get a different answer from each one. Regardless of the restoration, the spectrum of considerations to ponder spans a broad range. From a shop perspective there are a variety of levels that can be placed on the table. The degree and quality of the restoration is directly tied to the artisanal skills of the employees, and the shops knowledge base of the specific car, to exacuate the work correctly. At the other end, there needs to be a commitment from the car owner as to his overall budget. That is the litmus test because it involves a substationally higher financial commitment due to the additional efforts that it will take the shop to reach OEM levels. While some individuals classify a restoration as bodywork and a simple respray, at the opposite end there are the OEM assembly line restorations. It is at this level that the stars need to align with the shop and the owner to achieve a world class restoration. The shop must be able to execute at the highest level, and the owner has to have a deeper financial commitment to support the additional demands. One shop that has established itself over the years as being one of the best in the Mopar world is Mike Mancini's American Muscle Car Restorations (AMCR). With numerous 1,000-point, OEM-quality, Mopar restorations under their belt. They have established a reputation that brought Ronnie Belletieri and them together. Ronnie is the type of client that was willing to make the commitment to attain the highest level of achievement possible. So, this month, MCG will use Ronnie's Daytona as an example of what a state of the art current day OEM restoration looks like.

For clarification, when asked about what separates an OEM assembly

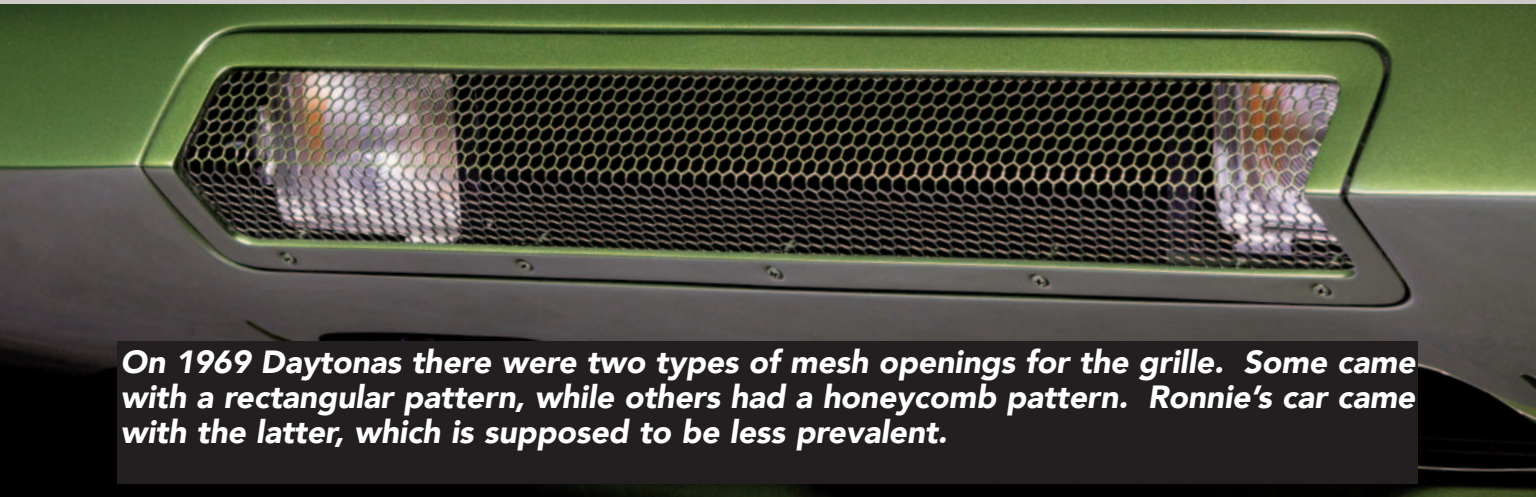
OF EXCELLENCE

1969 DAYTONA RESTORATIONS EVER!

line restoration from what can best be described as a nice driver restoration, Mike points out, "When we perform an OEM level restoration, we systematically deconstruct a vehicle and build it back by replicating all the original factory processes with correct finishes, markings, materials, and also by utilizing new old stock (NOS) parts, and where applicable, assembly line parts. We also restore many of the existing parts that are on a vehicle if they are deemed to be suitable. If not, we track down correct NOS replacements." It's important to point out that when sourcing assembly line parts, these are going to be different than what the dealer used to service these vehicles, in many cases. The reality is that assembly line parts are far more difficult to find and are available in very limited quantities, making them exponentially more expensive. This extra level of commitment involves a process that's time consuming and encompasses a series of additional layers.

Those layers are baked into the overall process, and for AMCR this has become a routine with these types of restorations. Their process, which has been honed over the course of countless OE restorations relies heavily on documentation and a methodical teardown routine. Mike explains, "We have a structured process that we've developed when it comes to the disassembly of a vehicle. Part of that involves a periodic evaluation as we take things apart. We usually pause when we've accumulated about a dozen parts, and at that point, I go through a critiquing process to determine and evaluate each component to allow us to determine if we are going to either use and restore that existing part, or if we are going to have to search for an NOS replacement. If it is a part that will be restored, I determine at that point what steps need to be done to it. The workflow with this process comes down to a set of running lists that I create and rely on heavily. There are three lists that we usually employ. The first one addresses each part in need of replacement that we will need to source, while the second list details every task that needs to be performed on those parts that we will restore. The third list addresses questions that we might have on a specific piece the course of action to take with it, and how much research will need to be done for it."

When it comes to restoring a Daytona to the highest level possible there are always two realities at play.



On 1969 Daytonas there were two types of mesh openings for the grille. Some came with a rectangular pattern, while others had a honeycomb pattern. Ronnie's car came with the latter, which is supposed to be less prevalent.

The contrast from the before and after is quite striking, however, beyond the new seat covers and headliner made from NOS material, the rest of the interior has been restored and reused right down to the carpet. Also, visible in the before photo, is where the blue paint ends over the green.

Mike explains, "We've now restored several Daytonas, so we know how to tackle their restorations, but I must wear a few hats in the process. On the one hand, I'm dealing with a 1969 Charger, and on the other, I'm dealing with what someone at Creative Industries did on a given day. The difficult part is to delineate where one ends and the other one starts. The conversion work was of very poor quality, even by 1969 standards, so we have to replicate that process while also following the correct assembly-line procedures, integrating the two to return the car to the condition in which it was originally delivered to the original owner."

The teardown process on any car going under the knife at AMCR starts on the inside. "We start from the interior, and we move outwards," Mike states. "On the inside we work from the top down by removing all the ancillary hardware that surrounds the headliner and move on from there." On this Daytona, the bonus was that the forty-five-year dormancy in storage preserved it in excellent condition, which made the overall process much easier right out of the gate. Every part was noted on the lists and the outcome was very promising. The only items that required replacement were the headliner and the seat covers. Everything else was restored to factory new condition. Originality at this level is not compromised when dealing with items like the headliner and seat covers. On this Daytona, Mike explains, "The original seat covers were beyond the salvageable point, so what I did was source NOS material that I then sent to Legendary Interiors and had them make a set to my specifications. With the headliner, since we have a vast inventory of original NOS headliner material in stock, it was as simple as having a new one made."

From the interior, the focus shifted to the trunk area. On a Daytona, this is where more than one hat is required. It must be viewed as a Charger rolling off the line and what Creative Industries did with their conversion process. Mike sheds light on that by stating, "Part of the disassembly process is fairly easy, and that started with removing the trunk mat in the reverse way of how it was installed. If it was just a straight up Charger, it would be as simple as removing the mat, if it was still in place. However, with a Daytona, the individuals at Creative Industries cut corners by simply installing the wing supports and sandwiching the mat in place, so that's one additional significant step you'll find on a Daytona versus a Charger. By removing the supports, the wing was also removed in that process. One important element in the mat removal that I focus on is the documentation of any ink stamp marks on the back, like date codes. Other key things that we pay particular attention to are the

On a restoration that focuses on the assembly line process, the obvious details are with items like the NOS trunk mat, and the Daytona specific jack. However, items like the NOS license plate mounting hardware, or the "Vehicle Traveler" paperwork taped in the trunk area are the details that most shops either don't bother with or simply don't know the role they play in a top end restoration.

rear taillights and the plastic cover panels, which are easily cracked and often damaged or missing." On Ronnie's Daytona, these were not an issue. Daytona-specific pieces can be difficult and pricey to find, and on Ronnie's car, the jack, which is unique to a Daytona, was missing. This is where a seasoned shop like AMCR can make the difference. Mike states, "I had one in inventory that I purchased a few years ago. Since these jacks are model-specific, you need to have an idea as to what you're purchasing because they were reproduced for a while, and you can be easily fooled. There are also individuals that are selling similar ones that have been repainted and advertised as originals - they're not." He further adds, "We also had a correct date-coded NOS floor mat in our inventory and also acquired a correct date-coded spare tire."

NOS parts were used where the originals could not be restored, or at some point were substituted because of maintenance. Any service parts, or those that deteriorated with exposure to heat under the hood are some of the most challenging to find and are available in very limited numbers.

One of the perks of doing these high-end restorations is that word of mouth within the car community will often alert individuals that are sitting on large stashes of NOS parts that there are shops willing to buy them. "I have parts being offered to me on a regular basis," Mike states. "I frequently get emails and phone calls with offers, and that has been a huge benefit to the business. We also do a daily eBay search and spend a fair amount of time at shows like Chryslers at Carlisle in our ongoing parts quest. I may not have a specific need for a desirable part at that moment, but I feel the investment will help me keep a strong inventory of NOS and assembly line parts."

Continuing the disassembly process on the Daytona, AMCR shifted back to the remnants of the interior, glass, and trim. Most of the glass on this Daytona was reused except for the front windshield, which showed signs of pitting, and the tinted band was discolored. An NOS replacement was found, while all the trim was treated to a full restoration. The dash assembly was also intact and in excellent original condition. It was completely disassembled, repaired, and repainted with all the plastic and metal parts given a fresh coat of chrome. This task was an in-house process that was executed by sister company Instrument Specialties. Removal of the heater box and steering column also kicked off the teardown process into the engine bay.

The finished dash was fully restored by sister company Instrument Specialties as part of the restoration process. On this car, because of its excellent condition, every item was restored and reused. On average, one of these complete dash assemblies can take up to eight months to restore.

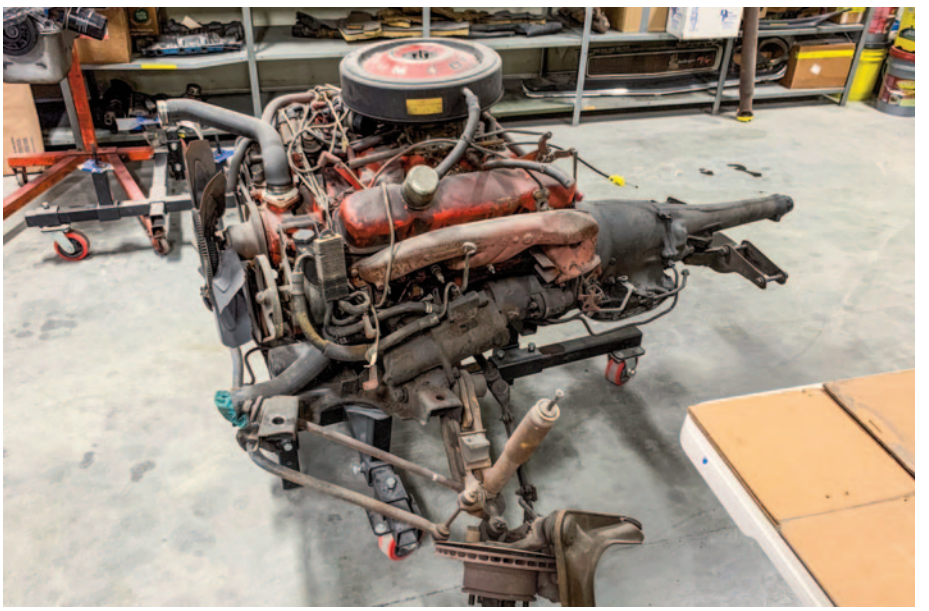
After the drivetrain is removed, one of the first things that takes place is an assessment of the existing parts which get noted on the running lists. All documentation on any factory markings is also done at this step. As an example, visible in the photo is the upper radiator hose, which likely was replaced because of the non-factory hose clamps.

Upon removal of the drivetrain it verified that Ronnie's Daytona still had its numbers-matching engine, transmission, and rear end. Once they crossed that threshold, the doors, hood, and deck lid were removed, and then the car was placed on a lift. This was a critical point in the documentation process, especially on a Daytona restoration. Mike explains, "At this point in the process, I photo document the entire undercarriage. I used both video and still images, and paid particular attention to the areas where the Charger and Daytona processes overlapped." After that was crossed off the list, the AMCR crew started at the back with the removal of the rear suspension, and worked their way forward. After the exhaust system was disconnected, the engine and transmission were removed and placed on a K-frame dolly. At every stage of this process the lists were being updated and numerous evaluations made.

As the car reached the bare shell stage, Mike explains, "On a Daytona we must deal with the unique nose assembly, the special front fenders, and lower valance. We removed the valance assembly from the bottom and then took the nose off as a complete assembly.

"Shown below is documentation of the Creative Industries work at this point, and all the unique parts like the front radiator support flanges, rubber flaps, and radiator foams, were important because, across the various Daytonas that

The goal for any restoration at this level is to excel when it comes to judging. On this Daytona, the finished engine compartment is representative of that quest. Getting to that level required all the parts to be original OEM with the correct date codes.



we've restored, we have encountered different bolt and undercoating patterns from where the Charger fenders were mounted, and where the Daytona ones were mated. I have found that it has all been fairly consistent from car to car, however, I have also found some slight differences on items like wiring harnesses. Cars that were built earlier in the production run have an extra ground wire, while others only have one ground wire. "Overall, I would say that the people at Creative Industries followed the assembly rules and did what they were supposed to do."

Once the car was mounted on a rotisserie and the body was stripped down to bare metal, it moved over to the metal shop and an overall evaluation on the condition of the sheet metal was done. Forty-five years of hibernation was the magic potion on this Daytona, because all the original sheet metal was retained. The amount of metal work performed was minimal.

Mike notes, "Ronnie's Daytona was one of the most rust-free examples that we've ever had in the shop, and it only required minor metal repair." On a wing car, the nose section is deemed as its own project. "When I take a nose assembly apart, I need to be very cautious because of the specific hardware and the actual nuances of the Creative Industries assembly process. Documentation at that stage is fundamental to make sure that everything is right," he further explains.

The drivetrain was also designated as a separate project. Again, documentation was a priority before disassembly. Things like factory markings and date codes were all noted. The ancillary hardware like the starter, carburetor, alternator, and power steering pump were still original to the car and were given a full rebuild. This area of the restoration is arguably one of the most difficult to get right, because of all the parts that would've been changed after the first dealer service. If you go beyond that, generic parts store replacements over the course of time add to the level of difficulty. This is the area where the assembly line parts usually come into play. As part of the AMCR restoration process, the engines undergo a full rebuild before being tested on a dyno to verify performance. Once they meet those requirements, they're mounted on a driveline assembly jig—the same treatment given to the 440 in Ronnie's car. The other component that was addressed was the transmission rebuild, which is done completely in-house. "We disassemble every transmission, or gearbox, and restore each individual piece," Mike claims. "Every unit is reassembled with new internals. The cases are restored using a proprietary process that we've developed to make them look as good as the day they were cast. The restoration on a transmission is an involved process with a great deal of attention paid to all the correct plating on the various parts."

When the Daytona reached the primer stage, much of the hardware to be installed back on the car was already completed. At this point in the process, the work that's done will dictate the visual quality of the paint job.

It's rare that someone is so rigorous in a restoration that they will request an enamel paint job, like the original. As much as Ronnie was striving for the absolute most original car possible, the desire to have a modern two stage paint job was a concession that he freely made. Making that choice even easier is the fact that PPG Delstar enamel was discontinued several years ago.

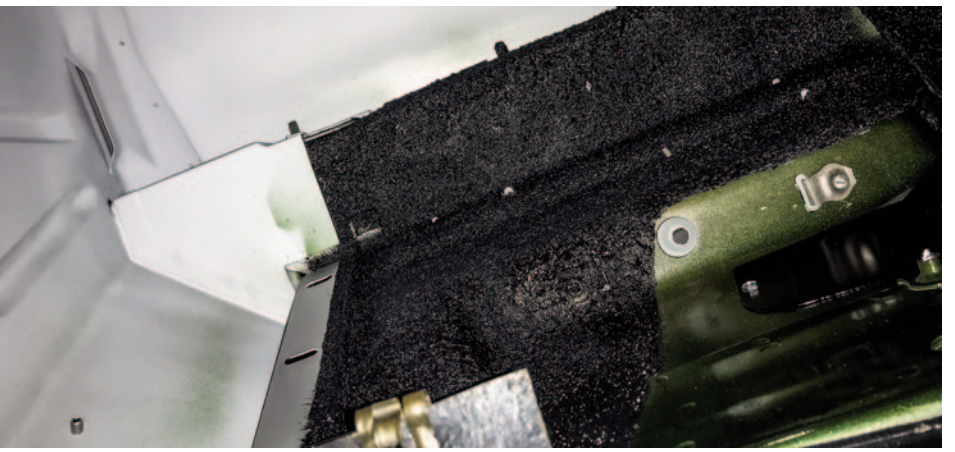
Replicating the details in the paint process underneath the car as it was

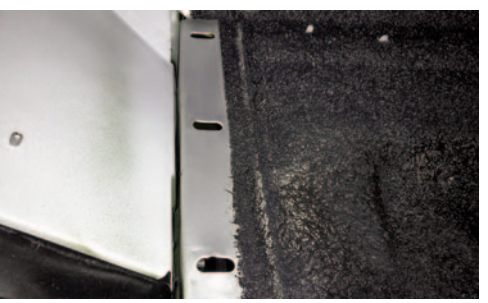
sprayed at the factory has been one of the shining examples that separate AMCR from most of the other shops doing restorations. Because of the time invested to develop these effects, some of the techniques and materials used, and their applications, are closely guarded secrets.

Part of the challenge is to mimic the look of parts that have been removed and the marks they leave behind, like a screw that was painted and then removed. If the car had factory undercoating, that adds another layer of difficulty to reproduce when you're thinking about what was correct on a Charger but was then removed for the Daytona conversion.

On the underside, every part has been faithfully restored. AMCR applies all the correct finishes to these parts that were painted from the various suppliers. Bare metal parts are restored and brought back to their original state by a variety of different processes that the crew at AMCR have developed over the years. Getting the best score possible when being judged means having all these parts as good as the day they were produced.

At that point in the restoration, a few different things were moving forward together at the same time. The body reached the paint stage for its Dark Green paint. At the other end, the drivetrain was also coming together. The foundation for the front section was the K-member and the fully restored suspension components, to which the engine and transmission were added as a single unit on the driveline assembly jig. It's worth pointing out that on the suspension, most of the original hardware, like ball joints, and tie rod ends were restored and reused, while the long-gone service parts were replaced with NOS assembly line components. At the rear, the same process of documentation and restoration of the existing hardware took place. Much of this work is not visible to the naked



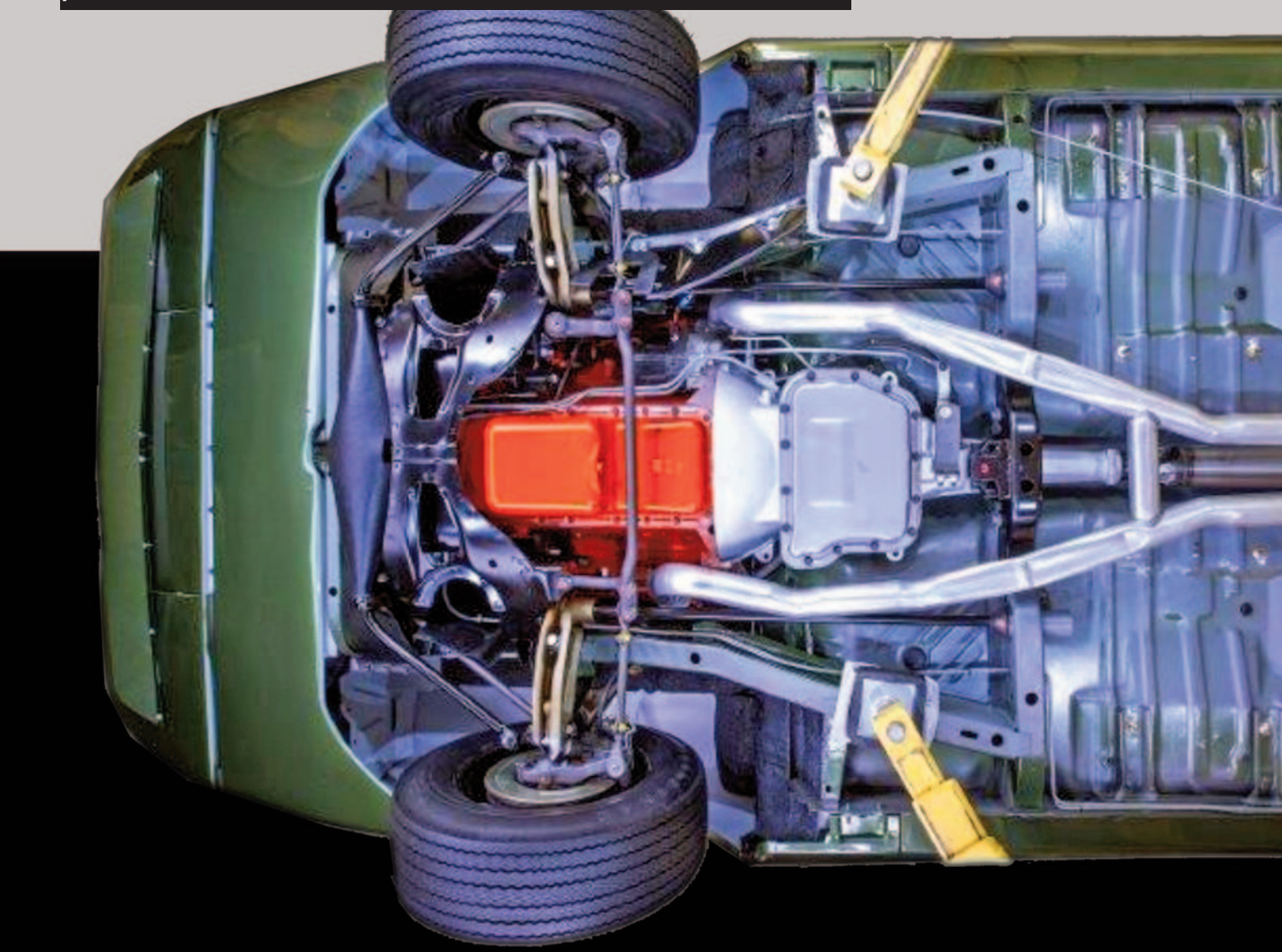


These two photos illustrate where the Charger ended, and where the Daytona started. Clearly visible are the areas where the Charger panels were mounted and then removed, and the Daytona parts were installed.

The before and after of the 8 ¾" rear end housing shows another aspect of the documentation that takes place with all the various assembly line markings.

While some shops like to spray paint the Cosmoline look on the lower control arms, AMCR always does their restorations by duplicating the Cosmoline part with the real stuff. There is no mimicking this process with paint.

eye, however, on a restoration at this level, extra steps came into play, many that would be hidden, but crucial to the overall accuracy of the final product. A significant amount of that focus occurred in the interior behind the side panels with the recreation of the dip lines from the seven-step primer process. Underneath, all the overspray and drips were also recreated. On a Daytona, there is an additional layer to the undercarriage restoration process because of Creative Industries' work. This is where all the documentation, photos, and notes came into play, and on a very original car like Ronnie's, getting it right was a matter of reproducing what was there during the tear-down process. Inside the engine bay,



with the 440 in place, the reassembly process also commenced. As mentioned previously, this aspect of the rebuild is arguably the most difficult from a parts perspective because it required a fair amount of NOS hard-to-find, correctly date-coded items, like fan belts, spark plug wires, battery cables, an assembly line oil filter, washer bottle, voltage regulator, numerous hoses for cooling, and the braking system all had to be replaced. All the wiring was also swapped with NOS replacements which came from the AMCR inventory. In the trunk area, the same sloppy installation was duplicated with the NOS trunk mat sandwiched between the trunk floor and the wing brackets. Underneath, all the exhaust pieces are also NOS replacements. The pipes were the only deviation due to the impossible availability of NOS replacements, so new OE stock pipes were perfectly reproduced using the originals as a guide. In the interior, it came down to reinstalling all the freshly restored pieces, and on the exterior. The test of quality and accuracy on any restoration at this level is determined when it is placed through a rigorous judging process.

The culmination of all this work paid oF when the car had its oFicial unveiling at the 2022 Muscle Car and Corvette National (MCACN). It was subjected to an intense judging process and was awarded a perfect 1000-point score. Since that initial showing it has also been OE judged by Dave Wise and awarded an OE Gold certification. In 2023 and 2024 it continued its winning streak with Best-in-Class awards at all the shows it attended.

Ronnie's wish had come full circle with his all-in commitment, and for the crew at AMCR, it was a further validation to their commitment to produce the finest restorations in the muscle car world and further validating their reputation as one of the finest restoration shops in the country. ✠

Another important element was the addition of a set of NOS tires at all four corners fitted to the original 14" Road Wheels.