



Superior Foil Print Reproducing a Work of Art

By Kym Conis

The journey started with a pressed metal wall plaque of a Boss 302 Mustang hanging in a print finishing shop in Australia. Cool and sleek, the Mustang, an American icon in the automotive world, would become the subject of a project that would span two years in the making. Manager/operator John Rushgrove with Superior Foil Print (previously Silvan Haze Graphics) thought, “I can reproduce that...probably even better...with embossing.” The idea – no, the passion – would develop into a challenge that would defy the boundaries of embossing depths as the industry knows them today.

Succeeding in extraordinary execution and unbelievable detail and depth, the Boss 302 Mustang showcases seven passes of foil in exact registration with intricate, multi-level embossing – the result of hours of R&D and an unrelenting desire to reach new depths. Pairing the Mustang with an equally difficult-to-produce FX Holden (Australia’s first locally manufactured car, circa 1950), Superior Foil Print masterfully produced the “Awesome Car Set” – a collectible set of artwork celebrating not only decades of automotive success but also, decades of perfecting a time-honored craft.

Beyond the limits

From the onset, John Rushgrove looked to produce a project of award-winning merit, one that would allow him to test the boundaries of industry standards in embossing. But the project took much longer than expected. According to Rushgrove, much time was spent in R&D due to the difficulty of the job. Finding a sturdy, pliable stock that would accommodate the deep embossing; finessing the right makeready process that would bring out all the detail of the embossing die without cracking or tearing the stock; and assembling the exact tooling and machinery to produce the piece would become key elements to the project’s successful execution.

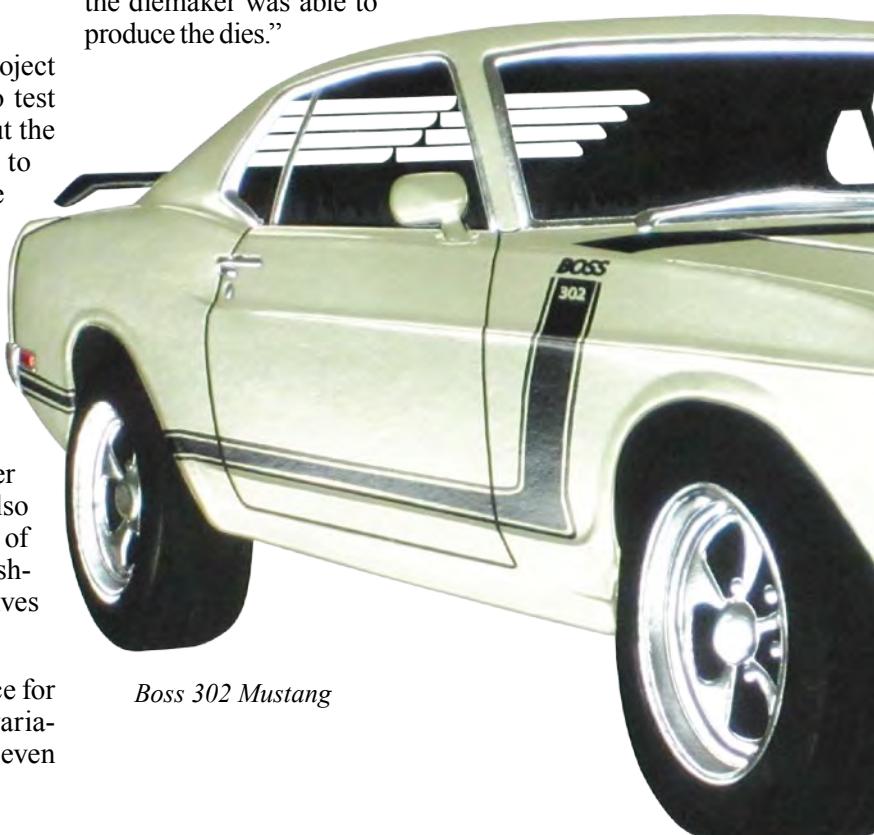
Yet Rushgrove had another goal in mind, one of a broader reach. “Having been in the trade all my working life, I also was motivated by my desire to have others, in and out of the trade, realize that foiling and embossing – embellishing – aren’t just a finish to a product but can in themselves be an art form... even a saleable product.”

The Mustang Boss was chosen as the subject of the piece for several reasons. First, the Mustang has a lot of depth variation in its design, which, as it turned out, would pose an even

greater challenge. Second, and perhaps more importantly, “It is one of my favorite cars,” admitted Rushgrove.

The Holden was chosen for different reasons. As an iconic Australian vehicle, the Holden is entirely different from the Mustang, having neat rounded fenders, grills and bonnets. “The Holden required the same skill set as the Mustang required but as it was so rounded, it was a very different vehicle to produce,” explained Rushgrove. “A new challenge in itself, even though it was easier in some ways than the Mustang, the results were excellent – all that I had hoped to achieve!”

Initially, industry peers and diemakers were skeptical about the depths Rushgrove desired to achieve in his embossing. “I did a lot of testing and completed many trials using embossing dies that I etched myself to the depths I wanted,” said Rushgrove. This also involved testing different stocks for compatibility with the process, the foil stamping, the embossing and the combination of both. He continued, “We worked closely with the graphic artist to get the finished result we needed. Using the art, the photos and samples of the depths I required, the diemaker was able to produce the dies.”



According to Rushgrove, Matthew Moran's talents were invaluable in helping to design and produce the first car. Entering the industry with John and wife Lee's first company when he was just 16 years old, Moran took to embellishing quite naturally and his talents in computer design were a tremendous help in the design process. "He is a top operator who understands the processes required," said Rushgrove. "He also assisted in the production of the cars and in building the AwesomeAutoArt.com website for us."

To create the artwork, Rushgrove and Moran looked at many photos, articles and websites. According to Rushgrove, the end result was not from any one of these mediums but instead, from a combination of all three. "The goal was to make the die with the car facing in the best angle to show off the embossing," said Rushgrove.

As the depth of the emboss was the main goal of the project, many dies were made and tested to ascertain the maximum depth that could be reached. "One of the challenges was to find an engraver that believed the depth I wanted was workable," Rushgrove explained. That engraver was Metal Magic, Phoenix, AZ.

According to Ed Hughes of Metal Magic, "When we sculpted the Mustang we went around .215" deep. When we hit the back of the $\frac{1}{4}$ " brass die with our finger at the deepest part it sounded like a bell. It was so thin." For the Holden, a thicker piece of brass needed to be used in order to accomplish what Rushgrove was specifying. "We ended up going much deeper at about .350" deep," continued Hughes.

"The depth John was wanting was very unusual. Normally, when you go to that depth you would have cracking or fracturing of the paper. You also would draw the paper in when embossed, which in turn, would

not register with the foil stamping planned for the job," said Hughes. But this was not the case with Superior Foil Print. Rushgrove did all the testing and each time, expedited the proofs back to Hughes. "I was always amazed at John's ability to get every bit of detail from the die with little to no problem." (Or so it seemed.)

To create the fine detail in the dies, both Rushgrove and Hughes looked for photos of the cars from which to work. Then the Metal Magic art department made a tracing so its hand-modeler could sculpt all the detail of each car. "We did not make counters," Hughes concluded. "John wanted to make his own so he could work his 'makeready magic'." Metal Magic also produced the copper dies needed for the foil stamping work.

Choice of stock also was extremely important. Both design and stock needed to be considered together. "We tested dozens of boards and when we finally found one that gave us the results we were seeking, we ordered more only to find that it had been removed from the market," said Rushgrove. "So, it was back to the drawing board." The final stock used for the car set was a white art board, 420gsm, from Dalton Fine Paper, Australia.

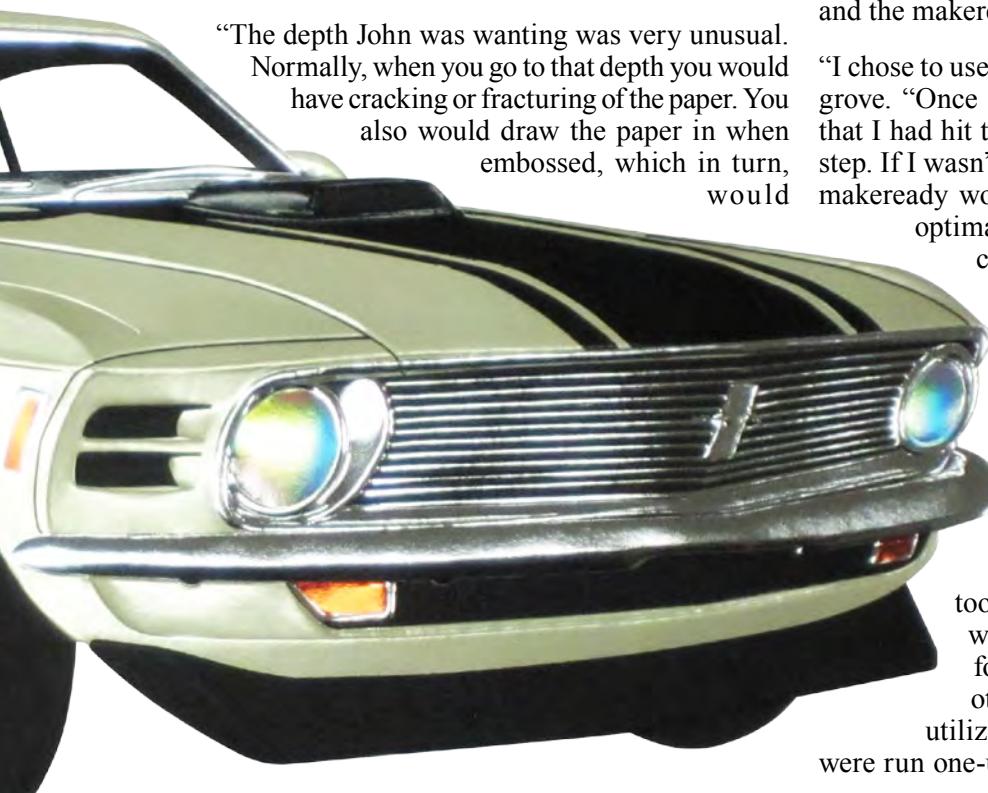
In production

Many obstacles in every facet of the process arose along the project's production path. One obvious challenge was to stop the cracking of the foil and the stock when going so deep on the emboss. Four major factors needed to come together to prevent this from happening: the die, the counter, the stock and the makeready.

"I chose to use a pour counter to make my own," said Rushgrove. "Once the counter was made, checking to be sure that I had hit the bottom of the die was the next important step. If I wasn't hitting to the bottom of the die, any further makeready would have been a waste of time." Obtaining optimal detail on the sheet was the next step. The counter was rubbed down and built up where necessary, as sharp edges and corners would create a problem, creasing the paper away from the corner or edge. "I then had to balance my makeready between softening the edge yet maintaining the sharpness of the end result," said Rushgrove.

Another challenge was to hold register between the foils and then with the emboss.

And according to Rushgrove, "This simply took time...time to be sure that each machine was registering perfectly and then that each foil color and the emboss were locked into each other." Foil stamped on Heidelberg windmills utilizing foil from API Foils Australia, the cars were run one-up with all six foil passes set up at the same





time to guarantee exact registration. The foil colors utilized on the Mustang included gloss and matte black pigment; metallic blue (on the winning piece, but in silver pictured on page 4), gloss and holographic silver (headlights) and holographic red. The foil colors utilized on the Holden included satin gold, metallic blue (body), gloss silver, gloss black, red, holographic silver and clear gloss.

The seventh pass on the Mustang Boss (clear gloss foil on the windshield and windows) had to be run after all the other foil passes. Even though the final eighth pass entailed the embossing, it was actually set up first on the Crosland so that each foil pass could be keyed in to ensure that all were in register.

The issue of whether the foils would adhere over each other and/or provide coverage without breaking was another challenge. "On some foils, I had to run the stock through twice to obtain maximum coverage on some of the solid passes. This presented issues of its own, as foils don't always adhere over other foils," said Rushgrove. "As I had all the dies locked up on the Heidelbergs at the same time, I could check the result of each foil together and separately as I went."



FX Holden

He further explained that it would have been a disaster to have run all the foil passes bar the final one (the windshield), only to find out it wouldn't adhere. "I have run these cars three times now and each time, I get a better result," Rushgrove concluded. "There is no magic formula; you need to build a 'feel' for what each individual machine is capable of...know its nuances."

Tonnage of the press is, of course, relevant to the result of a deep embossing job but in this case, it was not the only factor. Embossed on a 26x16" hand-fed Crosland, tonnage and balance combined to create the depth desired for the cars. "Balance so that one area is not bearing the weight of another" ►

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is very important," said Rushgrove. "Making my own counter dies and the makeready method used were truly the most important factors."

A winning set

In the end, effort, patience and experimentation, along with an intimate knowledge of the capability of the equipment involved, were the most effective ways of tackling the challenges as they arose throughout the process. "This knowledge has been gained not just from experience but also, from the opportunity and *will* to experiment," admitted Rushgrove, "something that is not normally available to those who work in the industry."

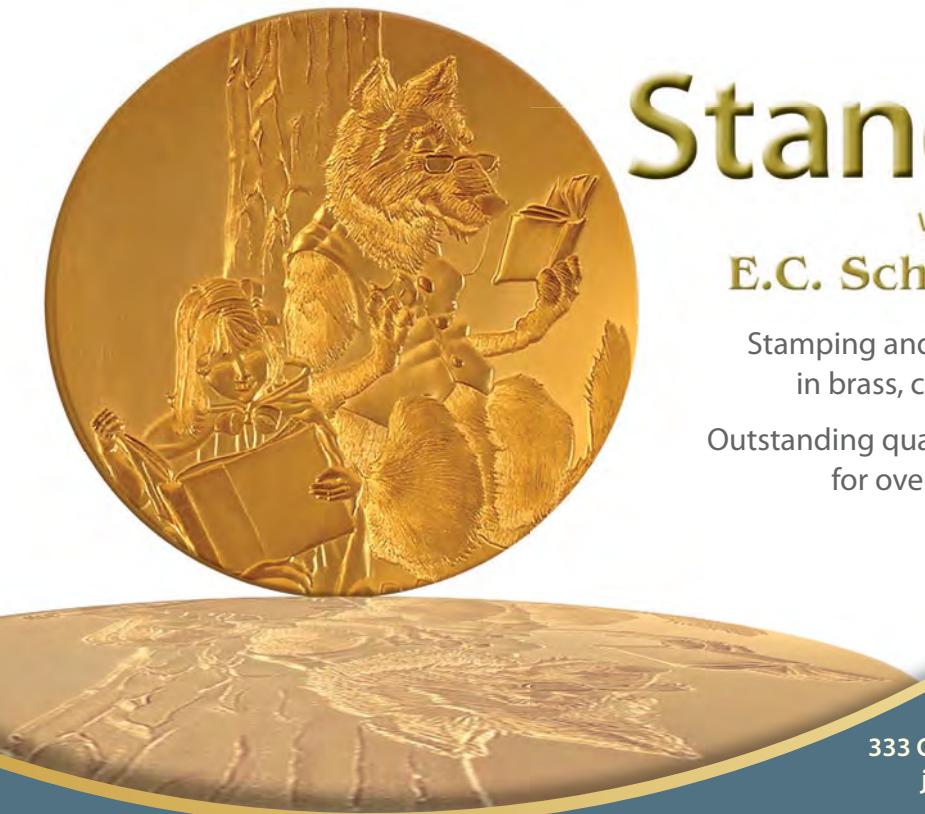
Rushgrove's passionate journey culminated with a trip to Nashville, TN. He and Lee attended the IADD-FSEA Odyssey and Gala Awards Banquet, where the "Awesome Car Set" was honored with the coveted 'Best of Show' award in the Foil & Specialty Effects Association's Gold Leaf Awards Competition. The incredible detail of the cars, the amazing depth of the embossing and the multiple passes of foil in exact registration earned the car set, and Superior Foil Print, the prestigious award.

To this day, the company has produced 1,000 of each of the award-winning cars – the FX Holden and the Mustang Boss. It also has just completed 1,000 GT500 Mustangs and plans

to start producing at least 10 other car designs to add to the artwork collection. "We are seeking marketing outlets in Australia and the US," said Rushgrove of his future plans. "In the meantime, we have been setting up a website called AwesomeAutoArt.com to promote and sell the cars over the net."

Superior Foil Print Pty. Ltd. is a new company for John and Lee Rushgrove, only commencing in January of 2011. Prior to that, the company operated from a small factory under the name Silvan Haze Graphics. Needing larger machines and more space, the company moved to a factory in Hallam, Melbourne, Victoria (Australia) and took on business partner Andrew Tunstall. "Andrew had been with us back in the days of our first venture (Foilmasters) and was one of our top operators," said Rushgrove. "With his knowledge and experience, he has proved invaluable in assisting with the production of the cars."

Rushgrove concluded, "I have always taken great pride in my work and have always desired to be the best in regards to foil stamping and embossing. I am most proud of the fact that the industry, through the FSEA, has recognized the car set as the best work in the competition. The response that we have received from most people is that the cars truly are a work of art – exactly my goal from the beginning!" ■



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