

The cars, and crashes, of Fast & Furious 6

(My idea for lede photo faded behind opening is the fake Hollywood sign I sent.)

You know this world famous sign and what it means—but it is a substitute, a counterfeit representative of a magician's misdirection and Hollywood illusion. Behind a desk very near Universal Studio, clad in faded black Hawaiian shirt and dusty jeans sits another master illusionist Dennis McCarthy. His title is Picture Car Coordinator for Fast & Furious 6 and you might call him the crash master. It is his team that builds the hundreds of cars necessary to a massive scale action movie franchise movie like Fast and Furious, and he is a master, this is his fourth Fast & Furious.

McCarthy says “yes, I get hate mail, hate email”, lots of it” and more is sure to come. In this movie the car list is as impressive as the list of actors. Vin Diesel (Dom) alone drives a 2008 BMW M5, 1970 Dodge Daytona, 2012 Dodge Challenger and Dodge Charger SRT8. Paul Walker (Brian) pilots a 2012 Alfa Romeo Giulietta, 2012 Nissan GTR, and the 1978 Mark 1 Ford Escort you've seen leaping freeways in the trailer. Returned from the dead Letty (Michelle Rodriguez) is assigned a signature 1973 Jensen Interceptor and Fenix Gran Torino. Dwayne “The Rock” Johnson (Hobbs) is listed as a lonely Dodge Charger while the villainous Shaw (Luke Evans) is behind the wheels of an 2012 Aston Martin DB9, Land Rover 110, and Mercedes G-Class. Toss in a '69 Anvil Mustang for Roman (Tyrese Gibson) and Harley Davidson for Gal Gadot (Gisele) and the list is reasonably complete. Of these 15 vehicles only 10 survived and they are rough, what a mechanic would call 20/20 or “looks good from 20 meters at 20 kph.)

Dennis says “people cringe when watching and say “they just killed a perfect car” it's not perfect, in fact they are absolute garbage. We start with cars nobody would ever want to restore: parts cars and rust buckets,”. According to McCarthy there would be hell to pay if he revealed the budget, but surely it must cost well over one million dollars to build, bondo, paint, and crash “somewhere between 300 and 400 cars. “Normally I'd have a sheet for every car and tell you precisely”, he told us, “but with filming in England, Scotland, and the Canary Islands with local mechanics and crews the number is a bit slippery.” Acquiring cars is like anything else, a tireless search of eBay, Craigslist, car sales on the Internet, local contacts and wrecking yards. Of them all, Mustangs are most difficult to source. “You search and search ... We had to go to Arizona and New Mexico...” Those were the rust buckets that later became stand-ins for the Anvil Mustang with it's Boss 429 (520 cu.in.) engine, cantilevered custom suspension and custom body built by Pure Vision Design. “Chargers are pretty easy... I wish I had photos; we bring in cars that have no floorboards, no quarter panels, (they're) just rusted out... If we ever do another movie that has a mass of Chargers I think we need to look in to making our own Charger bodies. Fiberglass or stamp them out, fill in the missing pieces 'cause Chargers are getting thin and I think another big movie or two might kill off the supply.” This quality of carnage may explain the 24.9 million Facebook likes and a 1.8 billion dollars in ticket sales. McCarthy says that what makes the franchise grow is “it's always bigger, always more—this time giant aircraft and tanks, up 30% in destruction!”

Not all cars get equal treatment, some are eye candy like the Lister Jaguar look-alike Lucra LC470 with its Corvette suspension, LS7 engine, 6-speed manual, and diminutive 1800 pound weight. You'll only spot it—if it makes the cutting room—on a mountain chase scene. The Jensen “is Lettie's car. When I read the script—my job is to figure out what cars go with what characters—story-wise Lettie is in the UK having lost her memory (she was killed in F&F #1, obviously a premature presumption of death) and is working for a crew of bad guys. So I figured, she was in UK, had English heritage of some sort, and she had restored Don's Charger, drove a Road Runner in previous F&F films. She's a big block Dodge girl, so what better choice than the Jensen Interceptor with a 383

- and we had one with a 440.” Dennis says that car is pure evil, eats tires, and that most of the shots feature cars with his standard all purpose powertrain of a 480 HP LS3 crate motor from GM, with Turbo 400 transmission, 9” Ford rear end, and Detroit Locker rear end.

Having interchangeable engines and powertrains makes it possible to rapidly repair damaged vehicles. The LS3 crate motor is so common that three were purchased in the UK, in stock. The Turbo 400 was more difficult, transmission shops had problems building and rebuilding them. Another commonality is the “happy handle” or manual slide brake activated by secondary rear calipers on most of the picture cars. Brembo is a big supplier.

Of all the cars used in the London location the Ford Escort drew the most attention. “I am by no means an expert, but the analogy is that these are (like) a '69 Camaro over there. When we would go on location in London this car would draw more attention than anything else, and our London mechanics, this was their passion. They... stripped them down to a bare body shell (before painting) and these are all real, including the fender flares. I think we started with seven.”

In the trailer there there is a shot of the Escort jumping a center divider. “So we said “OK, we want a car to jump a center divider and it was a HUGE span so we had to build a giant ramp. With so many locations to shoot in we didn't have testing time. Normally, like in Fast 5 with the ice trucks we spent weeks in the desert with a bulldozer and a water truck jumping and dialing in the shocks perfect. In this one you can tell by the trailer we didn't have the time. The first one came off and back-kicked really hard and compressed, (the suspension was) too stiff, and landed on the roof and really rang the stunt driver's bell.”

Fortunately for the movie another car was quickly revised with a coil-over suspension, lightened back end and the rebound on the dampers was dialed down to its lowest setting. “The second time he went about four miles per hour slower ... you can see in the trailer it just made it. We're all cringing and it literally caught the bottom of the front bumper and the tires came down... That car “is now shaped like a banana - but it did drive away.” Oh, it's “sort of” stock having the full Kent reproduction engine and Cosworth head modification.

We questioned who actually drives the cars, who is behind the wheel when the crash hits the fan. The answer is complex. First unit—the actors—do drive their cars, but do not crash them. According to McCarthy “Actors are always eager to do their own stunts, and there is no way, it would take twice as long to shoot the movie. Second Unit is out there with the stunt guys, the stunt drivers and stunt doubles filming simultaneously with the first unit. It's a full time gig, two movies being shot at the same time.”

Dennis says Director Justin Lin likes to have actors in the car. “He likes the realism and to use as little CG (computer graphics) as possible. So we've done things like have a pod atop the car that drives. It's not that Vin Diesel doesn't want to drive, but there is a camera in his face.” Even on a real road there is a guy on the roof driving it. When actors drive into or out of a shot they'll let Vin or Paul Walker (“... I think he'd rather be a stunt guy than an actor - he's an excellent driver”) drive. So if you see a car flying through the air, it's not an actor behind the wheel.”

And of course you're wondering about the BMWs, the right hand drive ones sourced in the UK? Here's what Dennis said, relatively unedited: “This is a fake BMW M5 - Wait, it might be a real one. (It looked real to all of us!). We had two real M5s. Storywise they go through two sets of cars to take out the bad guys. The first (group) is the BMWs which end up not cuttin' it in the script. These are supplied by Hobbs (Dwayne Johnson) team, (and) our guys say “hey, we need something else” and come up with these things (the other picture cars from Dodge and Ford). Once again an M5 is an awesome car so there's not a lot you have to do to make it perform better... ... due to time

constraints, we couldn't get a differential we wanted 'cause posi's (positraction rear differentials) are not available. So we ended up welding up all the spider gears. In effect, a Lincoln locker - you take it apart, make it solid so there is a spool in the back. These cars we were able to manipulate just by unplugging things and removing fuses (all the safety and stability controls) and we didn't have to do anything else. You know de-activate traction control, ABS, it was relatively simple. This might be the sole survivor. There might be one more, but we went through 16 or 17 of these BMWs. When you see the scene, it's like "let's kill every BMW we possibly can, there's a lot of them in the scene, and it's just a great scene." According to the McCarthy the BMW appearance is not "product placement" "as the cars are not shown in a positive way, and product placement takes so long with approvals and... They (all brands of anything, not just cars) view it as a commercial. It was a nice car to work, just the fact it performed so well, not a lot of work other than the body kit."

The final car, vehicle, device, whatever it is, the flip car that really did overturn vehicles, though without willing stunt drivers behind the wheel at the moment of crash.

From early scripts "they wanted an open wheel kind of a Formula One car so we did some drawings, some sketches, he liked it and so this is what we built. Luckily the size of the cars it was running into decreased," which Dennis considers a bit of luck as there are hints the car was to flip 5-10 ton trucks. For the crash scene "We didn't do it with a driver in it, we cabled it into the car, there was a person in the car it hit. The stunt driver went for a wild ride, we hit and he was going about 40 the flip car about 25 mph, and it launched it about 45 meters. It did function!"

You can see the car in trailers weaving it's four wheel steer badness in and out of traffic, it's definitely cool. A close look reveals a front ramp driven by air that snaps up to protect the driver from impact. The purpose-built vehicle was hand built except for heavy duty Chevrolet front spindles and a K30 pickup rear set. The engine is his signature 480 hp LS3 that, with the wild custom exhaust, makes a little over 500 hp. From the Turbo 400 transmission is a power boat Z drive to redirect power to the rear housing. Dennis says "it sounds great. Like a drag boat, a Pete Jackson gear drive only 10 times as loud. Going down the road it's all you hear, kinda' cool." Sharp eyes will see a Roman VI cut out of the spoiler, just the kind of touch his mechanics enjoy.

Of all the cars this was the most difficult to control. Stunt drivers tested for four days at Willow Springs Race track to see who could mesh with the car. At 50-60-70 the rear steer wants to snap. Included in the build are a tilt indicator from a boat and a self-centering switch for emergencies. Even more critical were tires, Hoosier Racing 31/18.50 rear and 315/35/17 front. "We were close to not having enough of them. We went through stacks, piles 25' x 40' x 10' and that was just in testing!" With all that sliding and an ultra-soft compound, once the rear steering kicks in the 3900 pound car is constantly sliding back and forth.

All of the Dodge vehicles were supplied by Dodge, along with engineering supervision to modify engine shift points and lock down the transmissions to prevent up-shifting. Ralph Gilles, Chrysler VP of product design and CEO of Dodge SRT even offered a Viper, but there was only one. That curious Warn winch rear mounted on the Dodge SRT8 Charger and it's cables? You'll just have to watch the movie.