

COLLISION REPAIR

Toby Chess has some questions on aftermarket parts

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Toby Chess

Sometimes it's necessary to provide clarification on your position on certain industry issues. In my case, this is particularly true when it comes to the use of aftermarket parts.

I am not against the use of quality aftermarket parts in the collision repair process. I am against shops being told to use substandard parts and then having to assume all of the liability and risks for their use. To me, it's pretty obvious that this just isn't right.

Unfortunately, most shops have to deal with this issue every day. My response has been to conduct research and follow-up presentations that demonstrate to everyone in the industry – shops, technicians, owners, instructors, insurance companies and customers – how common these substandard parts are and just how they put all of us at risk.



Note the significant amount of high-strength steel (marked in yellow) utilized in the 2011 Ford Fiesta, an economy vehicle. HSS and UHSS are used in aftermarket parts, but Chess has found strength and thickness differences between the steels used in OEM and aftermarket parts.

(IMAGE / FORD)

I bring up this point following some feedback I received after a presentation in Salt Lake City to the Collision Industry Conference (CIC). I received a letter from the Certified Automotive Parts Association stating that my demonstration had "caused members of the collision repair industry to believe, mistakenly, that the part used in your demonstration was CAPA-certified."

To clear up this point and raise some others, especially some new questions about parts certified by other industry entities, I'm going to detail what happened. When you're finished with this article, I'd like you to ask some of the same questions I do and, if possible, supply some answers.

Background: Technician takes a stand

A shop in the Midwest received an estimate from a major insurance company calling for a "certified" front bumper reinforcement for a 2008 Hyundai Sonata. The shop placed an order for a certified aftermarket part, but ended up receiving a non-certified front bumper reinforcement.



Toby Chess points out notable differences between OEM and aftermarket parts to spark further discussion on the subject of "like kind and quality" at a recent Collision Industry Conference meeting. (IMAGE / BRUCE ADAMS)

The shop's tech did the right thing. He compared the damaged OEM part to the aftermarket part and showed it to the shop owner. What caught his attention, in particular, was the considerable difference in weight between the two parts.

The tech then ordered an OEM part and sent the aftermarket part to me. I purchased a new OEM part and compared the two. I found that the aftermarket part was not of like kind and quality.

About the same time, I received an aftermarket bumper reinforcement made for a 2003 – 2008 Toyota Corolla that was certified by NSF. I compared it to the

OEM version. It was extremely difficult to distinguish any differences between the two.



Industry observers say that in some cases OEM parts, such as the one pictured above, cost the same as aftermarket parts. Why then, according to some collision repairers, is at least one national insurer mandating the use of aftermarket parts even when the OEM version is the same price? (IMAGE / FORD)

I thought that the CIC audience should see all these parts, so I set about shipping them to Salt Lake City. While boxing them up, I spotted an aftermarket bumper reinforcement I had left sitting outside for the last year.

Before throwing it away, I decided to cut it in half. What I saw turned my stomach. The entire inside of the reinforcement was filled with rust (Note that I live in Los Angeles and that we don't get much rain). I knew the CIC audience had to see this in my demonstration so I shipped it as well.

CIC background

In my presentation, I never mentioned CAPA or NSF. The subject of certification did come up, but only because a member of the CIC audience recognized the manufacturer of the aftermarket part for the Toyota and pointed out that it was certified.

That's the basis of the certification "controversy," but certification still is a significant issue here, as you'll see.

The focus of my presentation was the differences in the types of steels used in these parts, and not simply the difference between high-strength steel (HSS) and mild steels. Using a metal analyzer, I found differences in the HSS used in OEM and aftermarket parts.

I began by analyzing the steel in the certified and OEM front bumper reinforcements. The aftermarket part had a reading of 36.1, which translates to

an Ultra High Strength Steel (UHSS). The reading of the OE part was 48.1, which also translates to UHSS. While the fact that both are made from UHSS may make them appear to be equal, I found some differences that raised some important questions.

First, I wondered why the OEM used a stronger HSS. It also featured a series of ribs stamped into the back side that the aftermarket version did not. Why the differences between the OEM and the aftermarket version?

There were some suggestions from the CIC audience (about half of whom could not distinguish one part from the other on sight) that raised even more questions.

A shop owner, who sits on the CAPA technical committee, said that the OEM part should not be considered an original equipment part but instead as a replacement part since the only true OEM parts are those that come with the car. A representative from an OEM manufacturer stated that the use of higher-strength steel in the OEM part probably was due to the need for it to pass the federal safety crash standards.

Also notable here, the letter I received from CAPA stated, "CAPA has yet to see any reinforcement bars or bumper parts that meet CAPA certification standards."

The aftermarket Hyundai Sonata reinforcement part raised similar concerns. I asked a CIC participant to check the weight difference between the aftermarket and OEM versions, which was considerable. She easily identified the OEM part, since it was heavier. I compared the thickness of both parts and found that there was a considerable difference.

The thickness of the aftermarket part was .93 mm, while the OEM was 1.42 mm. I analyzed the metal and found significant differences there as well. The reading

on the aftermarket was 27.7, indicating HSS. The OEM reading was 40.7, indicating UHSS.

The rusted aftermarket part raised a whole new set of questions. It featured high strength-low alloy steel, which is slightly higher in strength than mild steel, but certainly not as strong as UHSS.

More significant was the rust. A CIC participant asked, "What does rust do to the part?"

"Weaken it," he responded. Of course, you don't have to be an engineer to understand that if the strength of the steel has deteriorated, it will perform in a different way during a collision. This raises all sorts of questions about the effects of rust on other aftermarket parts – a significant issue that we seem to be overlooking.

Final questions

I left CIC with a number of questions – all of which deserve real answers from OEMs, the aftermarket and insurers. These are the main questions I would like to have answered:

- If the OEMs can make a part that will meet safety standards with a lesser strength material, why wouldn't they? There are significant cost considerations here since the price of a part, and therefore the price of the vehicle, increase as the strength of the steel used in them does.
- That being the case, shouldn't a true "like kind and quality" part share steel strength with the OEM version?
- Since some aftermarket parts are being manufactured with inferior steels, aren't shops being made the beta testers for these parts?
- That being the case, will repairers be compensated for testing these parts?
- Since some of these parts obviously are substandard and must be returned and reordered, costing repairers valuable cycle time, are insurers penalizing

them for lost cycle times in these instances?

- Finally, according to a number of shops, a certain national insurer will not allow shops to use an OEM part in place of an aftermarket version, even though the OEM can match the aftermarket price. Why? What can repairers do in these cases? Further, doesn't the fact that insurers still prefer aftermarket parts even when cost is no longer a consideration, indicate that they really aren't looking out for the best interest of their customers, shops and even themselves?
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