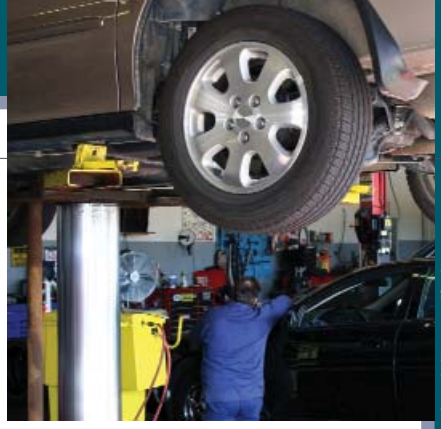
How Improper Repairs Affect Your Business



By Larry Montanez III, CDA and Jeff Lange, PE

Nobody looks at a collision-damaged vehicle and says, "I am going to fix this vehicle improperly." But in some cases, that is exactly how the vehicle turns out. This article will deal with the issues and reasons behind why bad repairs happen and the consequences that could result. Hopefully, this article will help prevent this from happening to you.

The number one reason bad repairs occur is *ignorance*. A technician is brought out of ignorance by training and specialized education. This means attending training classes, obtaining certifications, participating in workshops and seminars and, of course, lots of reading. With the accessibility and scope of the Internet, everyone has the ability to find the answers they seek. When pride of workmanship is combined with education and training, the quality of the repairs (and your performance) will soar.

When repairing a vehicle, the first step will always be documentation such as OEM and/or Alldata repair information. Now, let's look at a general list of repair flow processes:

- Pre-wash the vehicle before any analysis begins.
- Take photographs of the vehicle.
- Obtain information on how many variances the vehicle color has.
- Complete disassembly (teardown).
- Pre-measure the vehicle (follow the P&L EME 54© Theory).
- Complete parts list and price check.
- Take more photographs of the disassembled vehicle.
- Ensure that the vehicle repair folder contains the following:
  - a. Estimate
  - b. Parts list
  - c. OEM/Alldata repair information
  - d. Pre-measuring printout and department checklist/sign off sheet, etc.
- Create a blueprint of vehicle with car marker.*

**Note windshield/glass information such as R.O. number, insurance company, adjuster, date in/out and wheel alignment, A/C service, coolant and any other reminders.*

- Complete a peer review of the estimate and a role-play of the negotiation.
- Completely review the repair order with the foreman/production manager (F/PM) and the technician.

Now, the vehicle is ready to go into the storage yard until all of the parts arrive. No repairs should begin until all parts are received and checked by the parts manager, double-checked and signed off by the technician assigned to the vehicle. Once the parts have cleared the check-in, the foreman/production manager (F/PM) will then go over the repair order again with the technician. It is important to remember that periodic checks on the work in progress are paramount. In each department, the F/PM should make periodic checks of the quality of the repairs as they are being performed. By doing this, the F/PM will ensure that proper repairs are being performed correctly and will not stop the production flow of the vehicle. This will also guarantee that as repairs near completion, there will be no surprises or items that were not properly repaired and/or forgotten. Additionally, we will know the vehicle will not have to be re-repaired (this is better known as a "comeback"). As we all know, comebacks cost a shop three times as much as the original repair; this is because the shop has already been compensated for the repairs, the technician performing the re-repairs is doing it for free, and that technician will not be performing the repairs the shop is receiving compensation for *now*. It's a lose/lose situation; add to that the lowering of your consumer's opinion of the shop, and an already bad situation is made much worse.

By utilizing the P&L Department Checklist, the shop can rest easy that all forgotten or overlooked repair procedures are eventually completed. The checklist ensures commonly overlooked, required procedures and repairs are completed at the time that is most advantageous to the shop. Here is a partial listing of some of the items, by department, on the P&L Checklist:

Teardown department:

- Vehicle Has Been Pre-Measured.
- All Damaged Parts Are Accounted For.
- All Undamaged Parts Have Been Secured.
- Is the Work Order Attached with Parts Listing?
- Estimate Has Been Reviewed for Accuracy.
- Vehicle Repair Folder Has Been Placed in Vehicle with All Info.

Structural department:

- Are All Parts In & Correct?
- Is Initial Measurement Saved?
- Are There Any OEM/Alldata Procedures Available?
- Have Test Welds Been Performed, Verified and Documented?

- Are the STRSW Tips Good?
- Is Structural Adhesive/Foam Needed?

Metal department:

- Are All Parts In & Correct?
- Has the Type of Substrate Been Identified?
- Are the Interior and Adjacent Panels Covered/Protected?
- Is there Filler on Pinch Weld Flanges/Uni-Rails/Frame Rail?
- Is Structural Adhesive/Foam Needed?
- Is Seam Sealer Installed Over Cured Scuffed Primer?

Prep department:

- All Repair Areas Have Been Properly Feather Edged.
- All Repair Areas Have Been Primed.
- All Plastic Parts Have Been Sanded Properly.
- Vehicle Has Received an Exterior Wash.
- Undercarriage and Wheel Wells Have Been Washed/Degreased.
- All Panels Have Been Properly Masked.

Refinish department:

- Correct Color Code is Used.
- Spray Out/Lay Down Card Has Been Checked.
- Color Formula Label Has Been Printed and Put in Repair File.
- All Parts Have Been Degreased Properly.
- Vehicle Has Been Checked for Any Damage.
- All Angles Have Been Checked for Color Coverage.

Detail department:

- All Masking Has Been Removed, Blown Off and Tacked.
- All Jambs Have Been Sanded, Buffed and Cleaned.
- Vehicle Has Been Cleaned and Vacuumed/Windows Have Been Cleaned.
- Undercarriage Has Been Cleaned.
- Clock, Radio, Express Features and Memories Have Been Reset.

P&L Final Checklist Complete; List Has Been Signed Off.

**Note: Photographs must be taken in each department and attached to the file.*

This is just a small example of what the P&L Department Checklist includes to make the repair process seamless and efficient. Remember, a vehicle can only go through the shop one way, and that is forward. Any time the shop has to do repairs over, it loses money. Proper teardown/triage, followed by using the proper repair procedures, ensures a correctly repaired vehicle. But let us look at what happens when checks and balances are not in place and/or followed.

During our investigations over the past three years, we have seen a huge increase in improperly repaired vehicles. We have been finding some common denominators that will surprise you. Usually, a vehicle gets investigated due to paint mismatch, overspray, dirt in the finish, misaligned closure panels

or driving operation issues that cause the consumer to take their vehicle to a different repair facility than the one that originally repaired the vehicle. Once the vehicle is at the inspecting shop, the vehicle is usually put on a lift and carefully examined, and the estimate is checked for what was done to the vehicle.

When the shop finds enough issues with the repairs, they will inform the consumer of their options. Generally, the first person contacted is a lawyer to represent the consumer. The lawyer will then contact one or more of the following: The insurance company that paid for the corrective repairs, the state DMV or the Attorney General to prompt an investigation into the claim of improper repairs. This is generally when an engineering/collision damage analyst firm is called in by the lawyer, insurance company or the DMV/AG to investigate the allegation, examine the vehicle and possibly reveal evidence of the improper repairs that will substantiate the allegation of improper or incomplete repairs.

Commonly, when we arrive at the examination location, all the documentation will be reviewed. The shop owner and repair technician may be interviewed and all parties - including the insurer, DMV and the AG - may be advised of the findings. After taking photographs, the inspection of the vehicle may begin by looking at the finish quality, undercarriage, panel edges and recesses and taking film thickness measurements. Typically, we find dirt in the paint, overspray, improperly masked edges, dull finish and color mismatch. These imperfections are not usually an issue, but are a good indication that when we look deeper we will find others.

In almost every inspection that we have been involved with, the vehicle being inspected had structural repairs that were necessary. In almost every case, when we review the documentation from the repairing shop, there are never any three-dimensional measuring printouts. Part of the investigation process will be measuring the vehicle with electronic three-dimensional equipment and inspecting the underbody. Here is a list of the commonly found improper repairs:

- On average, structural alignment off by 5mm to 8mm.
- Inner-mating flanges with bare metal exposed.
- Drill holes left opened on replaced panels.
- No weld fusion on plug welds or resistance spot welds (RSW).
- Improper seam weld.
- Oblong, Overheated or not enough Pressure RSW.
- Body filler on frame rails, uni-rails, or flanges.
- Mating flange separation.
- Misaligned rear suspension or engine cradle.
- Aftermarket parts that should have not been used.
- Improper antifreeze.
- Missing and/or improper hardware.
- Improper torque of bolts and nuts.
- Reused bolts and nuts when replacement was required.
- Over use of seam sealer.
- Non-cured undercoating.
- Improperly aimed headlamps and fog lamps.
- Excessive coating thickness due to excessive body filler.
- Repaired collision energy management structural parts.
- Overheated repaired collision energy management structural parts.

If the general repair flow process list was followed with checks and balances in place, most of these items would have not been an issue and the vehicle would have been repaired properly. In many cases, the repaired vehicle is deemed a total loss by the insurance company, who then may take action against the repair facility to recoup all the monies paid out.

The vehicle manufacturers have significantly increased use of specialized and exotic metals to reduce vehicle weight while maintaining structural integrity. The collision repair industry needs to educate itself about these changes to know what can and cannot be repaired, as well as repair procedures to perform the proper techniques. Collision repair specialists need to understand that repairing vehicles based on numbers (i.e. severity, rental days, efficiency percentage and days to repair comparisons) *ONLY* is bad business, and disastrous. Proper repairs take time to complete properly. Peoples' lives depend on those repairs being performed properly and correctly. It is the repairer's responsibility to ensure that the vehicle performs as intended by the manufacturer during normal use and subsequent collisions.

When a vehicle leaves a shop, all eyes are on it and one mistake can spark an investigation. Think of it this way: Your name and reputation is defined by the repairs you perform on every vehicle. Moreover, your name and rep *are challenged by* anyone who looks at - or works on - that vehicle.

Feel free to contact us at anytime if you have any questions.

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