THINGS YOU MUST DO BEFORE REPAIRS BEGIN

Imagine for a moment that you're experiencing abdominal pains, so you go to the doctor and explain your issue. When you meet with your physician, verbal explanations or visual inspections will reveal all the necessary information. The doctor will perform a variety of tests; one of the first will be a physical exam. This would generally include a careful examination of your abdomen, heart and lungs in order to pinpoint the source of the pain.

After the physical exam, some laboratory tests may or may not help to determine the cause of the abdominal pain. Along with the information gained from the questions you're asked and the physical examination performed by the doctor, certain additional tests may be ordered and could assist in determining the diagnosis.

At the same time of the laboratory test, radiology tests might also be performed. Additionally, ultrasound – a painless procedure useful in finding some causes of abdominal pain – might also be employed. The doctor could also utilize a computerized tomography (CT) scan, which is a special type of X-ray that provides useful information about the liver, pancreas, kidneys, ureters, spleen and small and large intestines.

The doctor may perform some, if not all, of these tests to find the root cause. In some cases, the diagnosis can be done without testing due to the information you provide. The cause of the pain may be clear without any tests and may be known not to be serious. If you do undergo tests, the professional should explain the results to you.

Now, you may want to go back and reread these last few paragraphs (and maybe even take some notes), because what I am about to talk about is very similar to the above scenario. In the collision repair industry, I've heard more than a few shop owners use excuses for not performing proper procedures in the same manner as the doctor might above. The excuses include any of the following:

- "We don't have the time."
- "They won't pay us for that."
- "We don't have the equipment."
- "We don't get paid enough to purchase the equipment and afford the training."
- "They told us it was unnecessary."

These statements are heard every day. The insurer has no say on Labor Rates or how the vehicle is repaired (or what parts are utilized or what diagnostic operations need to be performed) once they elect to pay for the repairs. Because you are the professional and are liable, you are required to repair the vehicle properly (abiding by the OEM protocols and procedures), and only the vehicle owner can approve or allow the required repairs to their vehicle. So…if the vehicle is the patient and you are the doctor, what operations must you perform prior to beginning repairs?

The example I will use is a 2017 Sport Edition four-door sedan. (Choose any make – Toyota, Nissan, Honda, Chevrolet, Ford or Chrysler/ Dodge – as the make, model and construction substrates are irrelevant. Every single collision damaged vehicle pre-repair process would be the same.) Note that this will be for "COLLISION DAMAGE," not cosmetic vandalism damage and/or theft claims/stolen components. The vehicle has been captured by the damage assessors, all paperwork has been signed and the vehicle was assigned an RO number.

BY LARRY MONTANEZ III, CDA

After the vehicle is signed up, it will wait its turn for pre-diagnosis, which should be within two hours of capture. This vehicle sustained damage to the left front corner and side, and the following components require replacement:

- Front Bumper Fascia
- Left Front Headlamp Assembly
- Left Front Fender Panel
- Left Front Aluminum Alloy Rim
- Left Front Side View Mirror Assembly

The following components sustained damage but are repairable:

- Hood Panel (scratches and scrapes on left edge)
- Left Front Outer Door Panel (scrapes and scratches)
- Left Rear Outer Door Panel (scrapes and scratches)
- Left Rear Quarter Panel (scrapes and scratches)

Once it is the vehicle's turn for the pre-repair inspection (triage, blueprinting, x-ray, full teardown, full disassembly or whatever catchy name you want to use), the following is a list of operations that are required to ensure accurate repairs and eliminate work stoppages and missed items: (Additionally, these operations, which should become your SOPs, will assist in preventing unknown issues at the completion of repairs.)

- Wash and degrease the vehicle.
- Take documentation photos. The views should be as follows: Public VIN; VIN Label; Mileage; License Plate; DMV Stickers; Front, Rear, Right Front and Rear 3/4; Left Front and Rear 3/4; Right Side; Left Side; Overhead of Left Front Corner; Left Corner of Front Bumper Fascia Front and Right Side; Left Front Fender Panel; Left Front Wheel; Left Front Outer Door Panel; Left Front Side View Mirror Assembly; Left Rear Outer Door Panel; and Left Rear Quarter Panel. Additionally, take height photos of the damage with a Keson Pocket Rod. Make sure to capture the rod on the ground. These photos will assist the insurance company later if there is subrogation. Remember, all photos must be taken on a plane and not from the shooter's eye-level perspective.

■ Run the VIN with the dealer to obtain all the options the vehicle is equipped with (such as lane departure, lane keep, parking aid, parking assist, distance cruise control and pre-collision systems, to name a few). Knowing the options will assist the damage assessors in reviewing the procedures for these systems in the mechanical or electrical sections of the repair manual, as they will generally not be mentioned in that publication's collision repair section.

■ Perform a diagnostic scan of the vehicle systems and determine which are collision-related and which are unrelated (or pre-existing issues).

■ Now, perform a preliminary check of the vehicle. Start at the opposite end of the damage, which would be the right rear tail lamp area. Check the truck panel gaps, open/close operation, rear door gaps and operation, front door gaps and operation and hood panel gaps and operation. It was noted that the hood to the left of the front fender panel gap was negative and the right-side gap was excessively positive at the front area.

■ Make sure the steering wheel is straight, and try to have the vehicle on a flat surface. Now, check all four-wheel positions. Also take note of the tire position when viewed from the front or the rear and from the side. In this example, there were no visible indications of misalignment.

■ Next, partially disassemble the vehicle. In this example, remove the front bumper fascia, left head lamp assembly, left front fender panel and splash skirt. After disassembly, it was noted that the front bumper absorber was deformed and fractured, but the bumper reinforcement was unremarkable. In addition to the headlamp lens being fractured, three mounting tabs on the rear of the lamp were fractured and separated. This evidence (along with the unacceptable hood panel gaps) suggested there may be structural misalignment.

■ Next, measure the vehicle with a three-dimensional electronic measuring system. (Follow the EME54 Theory.) In this example, the radiator core support and front area of the upper and lower uni-rails (frame) were displaced towards the right.

■ I performed a run-out test of the front wheels and found a slight wobble on the left wheel assembly. The right wheel assembly and hub were unremarkable. I swapped the known good right-wheel assembly with the questionable left front-wheel assembly. The left wheel wobbled on the right hub, indicating that the aluminum alloy rim was deformed (besides sustaining gouges and scrapes to the face). The known good right wheel rotated in an unremarkable manner. I removed the front wheels and performed a comparative right-to-left side measurement of the suspension components. It was determined that the cast aluminum knuckle was slightly deformed and displaced at the attachment to the strut cartridge. I then used a mechanic's stethoscope or microphone to listen to the hub bearing assembly. A scraping noise was heard on the left side, indicating at minimum a deformed ball bearing in that assembly.

■ Now, the damage assessors will categorize the components that must be replaced, those that must be repaired and those that will be affected by the repairs.

■ All components that were removed and will be reinstalled after repairs (and that do not require repair and/or refinishing, such as the right headlamp assembly, door trim panels, etc.) must be wrapped and protected.

- Now, the damage assessor will start their damage report by looking up all the OEM replacement procedures, fasteners and material requirements. *HOT TIP: Look up all electronic system components that will be removed, such as the parking aid and pre-collision avoidance system.* This vehicle uses information from the distance cruise control camera (which is mounted to the grille and was R&I'd during the blueprinting), and the front and rear parking sensors. The information on what is required for these systems will be in the mechanical or electronic section of the manual under replacement procedures.
- Now, the damage assessors will send out a parts, fastener and materials price check or pre-order to the dealer. The assessor will continue with writing the damage repairs while waiting for the accurate prices.
- During the writing of the report (or just prior), the damage assessor may have conversations with the structural and refinish technicians to determine what operations are required and the approximate judgement repair times. This will give the damage assessor a better understanding of what is required (and why).
- Now, the damage assessor will complete the damage report and will review it with the parts manager, structural repair technician and foreman. Any and all corrections will be made then.
- Now, the vehicle will be placed in the waiting area for inspection from the insurer (if they do choose to exercise their right to inspect the vehicle).
- Once the dealer sends back the parts list with the verified prices, the damage assessor can complete their damage report by making the adjustments to the prices and parts numbers (if necessary). Once this is completed, this now will become the repair facility's FINAL INVOICE. Once the insurance company shows up to inspect the vehicle, be sure to check your state laws on the allowable time they can take before they start to forfeit some of their rights. The damage assessor will present the final invoice and explain to the insurer that these are the charges they owe the vehicle owner to restore the vehicle to its pre-loss condition as per the OEM protocols and procedures.
- Once the insurer leaves, the repairs can begin if you inform the vehicle owner of the costs and receive their approval and signed permission.

Please feel free to make this a Standard Operating Procedure (SOP) for your shop, and feel free to make changes to the list that are applicable to your shop. As always, please send me an email if you have any questions or concerns. **H&D**

Larry Montanez, CDA is co-owner of P&L Consultants with Peter Pratti Jr. P&L Consultants works with collision repair shops on estimating, production and proper repair procedures. P&L conducts repair workshops on MIG & Resistance Welding, Measuring for Estimating and Advanced Estimating Skills. P&L also conducts investigations for insurers and repair shops for improper repairs, collision reparability and estimating issues. Larry is ISO 9606-2 Certified for Audi and Mercedes-Benz and is a certified technician for multiple OEM Collision Repair Programs. P&L can be reached by contacting Larry at (718) 891-4018 (office), (917) 860-3588 (cell) or info@PnLEstimology.com.