Publisher's Page

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Data is the Tool for All Jobs, Information is the Currency

Even if you've never heard the term *datafication*, you probably already know what it means. You may have been the last shop owner in captivity to actually use a computer, but even before that momentous change in priorities, you understood and appreciated the vast quantity of data and information available through the Internet. That, after all, was likely the reason you first put your hands on the shop keyboard.

It wasn't so long ago that lack of information was equated with lack of knowledge. Inability to access information was a hindrance to work, education, research, innovation, and economic decision-making for people, governments, and businesses. To not be 'plugged in' was to be locked out.

Now, however, the rich media sources assaulting all our senses generate complaints about too much information, information overload, data dumps—just too many choices. For some, data, facts, and figures have become virtualy indistinguishable from noise. No one has time to browse for pleasure.

Concern about access to information has given way to concern about how to cope with it. What most business people want today is *only* the information they want, and *only* when they want it. Auto body repair for an independent businessman is no exception.

It's not news that autos today, with their multiple computers and laminated composite materials, are an unprecedented class of machines. Fixing them requires skills that are also unprecedented. A technician today has to know more about the new engineering and structural components of the vehicle than an automotive engineer knew in previous generations.

With a finite amount of training time, the only real option is to consult an expert system that clearly and unambiguously explains how to handle the new generation power sources, tire pressure monitoring systems, airbag and restraint systems, active lighting, security systems, as well as how to manipulate new metal alloys and new composites and plastics. Requirements for training and expertise are not going to decrease in future vehicles—quite the opposite.

OEM information is the most dependable source for repair, diagnostics, specifications, and general procedures. New vehicle models incorporate technology that is completely innovative from year to year, representing a 'sea change' or 'paradigm shift' in auto body repair. OEM supplied information is not only helpful, it is often essential to make repairs, yet many shops attempt to muddle through with a minimum of consultation, relying on experience, hard work, seat-of-the-pants ingenuity, and the skills honed on previous generations of Detroit metal. Now it's often a stretch to call it metal.

To make matters worse, the tolerances that were—well, tolerated—in past model years are not only more stringent now, they can be much more time consuming to achieve. Trying to fine-tune by fiddling without using the optimal procedures is a fool's errand.

What's changing now is the realization that even with the most methodical, attentive, and detailed car repair, the best of intentions are often not enough to protect the shop financially, legally, and ethically or even to ensure smooth, efficient, and safe repairs.

Let's look at a scenario derived from real experience.

You've just come back from lunch and, much to your surprise, that 06 Trailblazer you checked out this morning is back. Hopefully Mrs. Jones just forgot something but the look on your estimator's face tells you something else is up. She is energetically explaining to him how the back window shattered when she closed the tailgate.

Half an hour later you've determined that the liftgate hinges are responsible. An item that the Technical Service Bulletin you hadn't seen until now clearly warns about. "Who's ever heard of a TSB for a liftgate?" your tech asks, but you're not in the mood to answer. What's disturbing about this TSB is that the welds that have broken around the upper liftgate hinges are in exactly the place the TSB warns about.

What you could have done is book several hours, print the TSB for the insurance adjuster, and given Mrs. Jones a better repair experience.

OEM websites have improved a great deal in the last few years and provide factory approved information direct from the manufacturer, however the price can be excessive depending on the subscription plan and terms of usage. Since the OEM sites are all different, navigating them can be a challenge and a time burner, while you search for the information, you can count your productivity ticking away.

Technical service bulletins are showing up in the most unexpected areas, like the liftgate on that Trailblazer. In that case, the damage was to a liftgate window. There can be much more serious consequences.

Elegant, but (literally) Electrifying

Now that Prius sales have passed the 1,000,000 mark and other hybrids are attempting to catch up, it's inevitable that many more super energized vehicles will roll into independent repair shops. Any prudent owner and manager will take extraordinary precautions to get his staff trained and prepared for additional exposure to these high-maintenance opportunities.

That Prius in your bay was rolled in—not pushed in— very carefully because of its claim to fame, that high voltage battery. It can generate sufficient voltage and the right current to cause fatal shock to an inattentive technician. The simple act of pushing the vehicle can generate a dangerous current. Before the dangers were widely known, too many first responders to crashes, including firefighters and paramedics, were killed or electrically burned due to insufficient grounding precautions at the scene. The voltage arc can also cause very expensive additional damage to the car components. Ignition key and service plugs must be removed and special protective clothing warn. Even invisible damage to the high voltage components can create a severe problem.

Smart metals

The smart metal revolution really began with the recent surge in aluminum usage in vehicles, which has has doubled since 2002. European manufactures now produce in excess of 100,000 all aluminum bodies annually, but North American OEs use even more aluminum per vehicle by weight—about 60 lbs more—due to more intensive Al use in engines and transmission casings.

The benefits are light weight, corrosion resistance and a combination of environmentally-sound construction—about 70% of aluminum used is recycled—lighter weight, rigidity and durability, but Al isn't restricted to exotic sports cars, or to high end cars like the Audi A8 or Jaguar XJ. BMW and Mercedes together produce more than 700,000 partial aluminum body structures annually. Ford estimates that 250 pounds of aluminum is used in each vehicle it now produces, including half of its hoods and some lift gates on SUVs. *Lift gates again.*

A Mitchell data study of repairable collision estimates found increases in average parts costs, as well as labor, additional items and paint costs, associated with aluminum. The conclusions: 1) the more aluminum in use, the higher the repair costs and 2) the more aluminum in use, the more control the OEM will have over the repair process.

Autobody News will pursue many of these generalities in more detail in future special issues, starting with our August issue on *Frame Fixes*. We will be continuing our Paint Primer, part 4, next month with a mid year update.