

## **Automotive Body and Glass Repairer Career Exploration via a Hands-On Paint Scratch Repair Activity**

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### **Introduction**

Automotive body and glass repairers inspect damaged vehicles, remove damaged parts, repair metal car frames and chassis, use hand tools to hammer out dents or minor body damage, weld parts into place, grind, sand, and buff repaired surfaces, and apply new finishes to vehicles. The hands-on paint scratch repair activity described in this article is a great way to learn how to use some of the tools that an automotive body and glass repairer would use. This type of activity could help you to determine if this type of career would be for you.

### **Responsibilities of Automotive Body and Glass Repairers**

Automotive body and glass repairers are involved with fixing collision damage on vehicles so that the vehicles can look and operate as originally intended. Individuals in this career work with metal and often have to bend the frame of a vehicle after it has been deformed by a collision. Often, the metal frame must be manipulated back to the original specifications of the manufacturer. Equipment such as metal cutting guns, plasma cutters, and pneumatic devices are commonly used in this field. Many hand tools such as metal files, screwdrivers, hammers, and wrenches are also used. There are some instances where automotive body and glass repairers are involved with painting repaired parts; however, this is typically done by painting and coating workers who specialize in this area of work (U.S. Department of Labor, 2014).

### **Becoming an Automotive Body and Glass Repairer**

It is possible to enter this career with the minimum of a high school diploma; however, most employers prefer to hire candidates who have formal training obtained through a technical school or community college program. These types of programs typically combine classroom instruction with hands-on training. Even after being hired, training must continue throughout the career. In fact, many employers send their employees to advanced training programs to continue refining their skills. Certifications are also encouraged which are often obtained from the National Institute for Automotive Service Excellence or the Inter-Industry Conference on Auto Collision Repair (U.S. Department of Labor, 2014).

### **Pay and Benefits for an Automotive Body and Glass Repairer**

The U.S. Department of Labor (2014) provides details relating to compensation for this field as of 2012. The 2012 median annual pay is stated as \$38,380 per year. Salary.com (2014) reports the median annual salary for an automotive glass installer/repairer as \$48,715 or an hourly wage of \$23.00 per hour. This source identifies additional benefits such as bonuses, 401k/403B, disability insurance, healthcare insurance, pension, and time off. This can bring the total compensation from \$48,715 to \$70,484 annually.

### **Job Outlook for an Automotive Body and Glass Repairer**

The U.S. Department of Labor (2014) reports job outlook data current as of the year 2012 automotive body and glass repairers. The number of jobs in 2012 was stated as 172,200. The job outlook from 2012-2022 has a growth rate of 13%, which is as fast as the average when compared to all occupations. The employment change from 2012-2022 is estimated at 22,900.

### **Interview with Jason Hoskins an Automotive Body Shop Painter at the Ed Martin Collision 14 Center in Anderson, Indiana**

Jason Hoskins is an automotive body shop painter at Ed Martin Collision Center at 5400 Scatterfield Road, Anderson, Indiana. This premier collision center is managed by Tony Francis. Jason Hoskins was interviewed by Dr. Edward J. Lazaros on December 8, 2014. To read more about the Ed Martin Automotive Group, visit [www.edmartin.com](http://www.edmartin.com) To read more about the Ed Martin Collision Centers, visit, <http://edmartin.com/collisioncenters> in the following section, you can read the questions that Jason was asked about his career, and you can read his responses:



#### **What do you like most about your job?**

*“It is satisfying to me to be able to please the customer by being able to repair their vehicle so that it is just as good as new”* (J. Hoskins, personal communication, December 8, 2014).

#### **What would you say to someone who was looking to get into this type of career?**

*“You should be someone who is open to learning new information and being able to use your hands”*. (J. Hoskins, personal communication, December 8, 2014).

#### **What do many people not understand about this field?**

*“There is a lot of science and technology that goes into being able to repair a vehicle well. For example with paint, air temperature, humidity levels must be carefully monitored because it can influence dry time and cycle time. A lot of research goes into determining things such as the*

*brand code, paint code, and paint variant to guarantee a perfect finish and match*". (J. Hoskins, personal communication, December 8, 2014).

## **Paint Scratch Repair Activity**

### **Materials and Equipment Required**

- Electronic Mil Gauge
- Electric Buffer Machine
- Soft Shop Towel
- 3M Perfect-It EX Rubbing Compound
- 3M Perfect-It Wool Compounding Pad
- 3M Perfect-It Machine Polish
- 3M Perfect-It Foam Polishing Pad
- 3M Perfect-It Ultrafine Machine Polish
- 3M Perfect-It Ultrafine Foam Polishing Pad
- Microfiber Polishing Cloth



### **Activity Procedure**

1. Safety glasses should be put on prior to starting the activity.
2. Determine if the paint on the vehicle is an OEM (Original Equipment Manufacturer) finish. This is important because it will determine how much paint material is on the metal panel. If it is not an OEM panel, the thickness of the paint material may vary from the original specifications. The thickness of paint material may influence how well a scratch can be repaired via buffing. To determine if the paint is OEM, an electronic mil

gauge can be used. If the paint is an OEM finish, the electronic mil gauge should read 4.5-5.0. If it is not a factory finish, the gauge will be out of this range either positive or negative. If it is not a factory finish, proceed with caution because the thickness of the clear coat may not allow for the scratch to be easily buffed out. **See Figure 1.**

Figure 1.



3. Run your fingernail over the scratch to determine the depth. If your fingernail catches in the scratch, it may be too deep to repair by buffing. If your fingernail does not catch in the scratch, the repair can most likely be made via a buffing method. **See Figure 2.**

Figure 2.



4. Apply 3M Perfect-It EX Rubbing Compound to the painted surface. **See Figure 3.**

Figure 3.



5. Attach the 3M Perfect-It Wool Compounding Pad to the electric buffer machine and turn on the electric buffer machine and apply pressure as the buffer pad is rotating on the paint material. This may only take 30-60 seconds depending on the gravity of the damage to the painted surface. **See Figure 4.**

Figure 4.



6. Inspect the painted surface to make sure the damage was removed with the electric buffer machine and the 3M Perfect-It EX Rubbing Compound. Swirls will be evident in the paint from the buffer pad. See **Figure 5**.

Figure 5.



7. Apply 3M Perfect-It Machine Polish to the painted surface using a soft shop towel. See **Figure 6**.

Figure 6.



8. Attach the 3M Perfect-It Foam Polishing Pad to the electric buffer machine and turn on the electric buffer machine and apply pressure as the buffer pad is rotating on the paint material. This may only take 30-60 seconds depending on the gravity of the swirls in the painted surface. See **Figure 7**.

Figure 7.



9. Apply 3M Perfect-It Ultrafine Machine Polish to the painted surface using a soft shop towel. See **Figure 8**.

Figure 8.



10. Attach the 3M Perfect-It Ultrafine Foam Polishing Pad to the electric buffer machine. Turn on the electric buffer machine, and apply pressure as the buffer pad is rotating on the paint material. This may only take 30-60 seconds to eliminate fine scratches that may have been left by the rubbing compound and the machine polish. **See Figure 9.**

Figure 9.



11. Use a microfiber polishing cloth to remove any machine polish from the painted surface. **See Figure 10.**

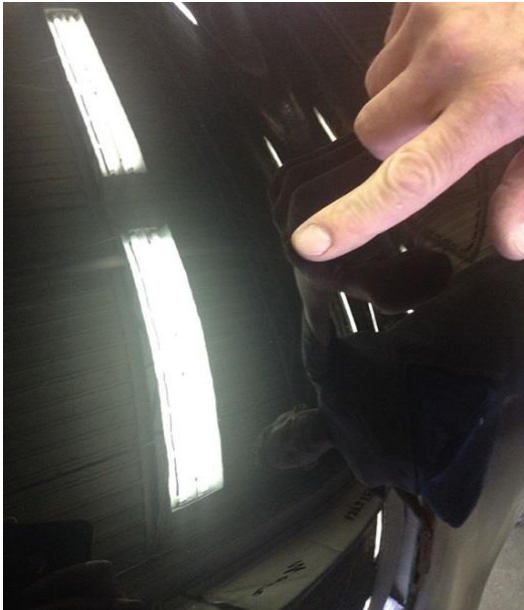
Figure 10.





**12. Inspect the finished job to guarantee perfection. See Figure 11.**

Figure 11.



### **Conclusion**

Students who like using equipment and tools and have fun with this activity may want to consider a career as an automotive body and glass repairer. With a growth rate of 13% from 2012-2022 and a median annual salary ranging from \$38,380 to \$48,715 (depending on the source), this is a career field that may warrant further consideration.

### **References**

U.S. Department of Labor, Bureau of Labor Statistics (2014). Retrieved from <http://www.bls.gov/ooh/installation-maintenance-and-repair/automotive-body-and-glass-repairers.htm#tab-2>

Salary.com (2014). Retrieved from: <http://www.salary.com>