

ABC's Sixth Annual Collision Workshop

by Larry Plachno



The ABC Collision Repair Workshop offers a hands-on experience for those people involved with insurance, adjusting and estimating. Here, several attendees examine a coach that suffered a fire which started in an underfloor compartment and spread upward into the passenger area. Experts provide information on repairs while several members of the group share their experiences. NBT.

Bus passengers ride on one of the safest forms of passenger transportation. Year after year, statistics show that bus travel is considerably safer than travel by private automobile and almost always safer than most other forms of passenger transportation. As a result, accidents – and particularly major accidents – are rare; but when they happen there has to be a way of dealing with them.

In the old days, when I was first getting into the bus business, this situation was easier to deal with. Bus systems were simpler, body panels were metal, and service mechanics doubled as the body shop. Many bus garages did their own accident repair. At least one member of the garage staff was a Bondo expert, another knew how to use the

welding torch in the corner, and a third had a talent with frame members and rivets.

Those days have disappeared. Bus systems have become more complex and newer electrical systems include computer tech-



nology. Body panels and other components involve plastic or composite materials which are usually beyond the capabilities of a small shop. Moreover, with the higher cost of today's buses, downtime and getting repairs done quickly and professionally takes on increasing importance.

Over the years, ABC Companies has expanded its collision repair facilities and technical staff to meet a growing need in this area. Today, ABC is one of the largest collision repair providers to both the intercity and transit bus industries. ABC's largest facilities are located at Winter Garden, Florida and Faribault, Minnesota although other ABC locations in Texas, New Jersey and California provide some service and repair work.



Activities at the Sixth Annual Collision Repair Workshop got underway on Friday morning in Winter Garden when Lee Loper (left) introduced some of the ABC staff. NBT.



The collision repair shop at ABC's Faribault, Minnesota location is also well equipped and has an excellent reputation for providing major motor-coach repairs. ABC COMPANIES.

As time went on, and as bus systems, materials and repair techniques became more complex, the people of ABC realized that an information gap was developing. Many individuals involved with collision repair such as claim adjusters, insurance people and estimators could benefit from information and viewing the state-of-the-art techniques which have been developed. As a result, ABC put together its first Collision Repair Workshop in 2000.

That first Collision Repair Workshop was so successful and so well received that ABC Companies has turned it into an annual event. Subsequent Collision Repair Workshops were scheduled and held at the ABC facility in Winter Garden, Florida in 2001, 2002, 2003 and 2004. The latest, largest and sixth annual event was held in Winter Garden in March of 2005.

Information provided at the workshop is geared specifically to collision repair and related procedures and concerns. Attendees include a wide range of individuals who are active in bus insurance, claim adjusting, claim estimating and related fields. Presenters include knowledgeable people from the ABC staff as well as other industry experts. Much of the information is presented in a "hands-on" environment where attendees can see and even touch the damaged vehicle and see repair work in progress. The program of activities varies from year to year and includes new techniques, new industry developments, and new services available from ABC Companies. A major portion of each year's agenda responds to suggestions, requests and questions from prior attendees with some emphasis on current developments and problem areas. Those who have attended in the past benefit from coming back again. Many people have attended every year or almost every year.

This workshop also presents a marvelous networking opportunity for those involved with bus collision repair. Among the atten-

dees at this 2005 Workshop were Champ Coddington, Eldon Boone, two leading bus adjusters, as well as Joe Labrozzi and other people from insurance companies. They, as well as others, participated in some of the discussions and shared their experience and knowledge with the group. Many of the attendees were members of the National Truck and Heavy Equipment Claims Council. ABC is a member of this very high profile group that works directly with the collision community.

ABC's Sixth Annual Collision Repair Workshop took place on Friday, March 11, 2005 at the ABC facility in Winter Garden, Florida. Some participants arrived a day early to join in a golf tournament on Thursday. However, the actual workshop sessions

took place on Friday in the Collision Repair Shop at Winter Garden.

Activities got started on Friday morning with a welcome by Lee Loper, ABC's regional vice president and general manager at the Faribault, Minnesota facility. Adding his welcome was John Oakman, the regional vice president and general manager of ABC's Winter Garden location. Attendees then were given an opportunity to tour the facilities and inspect several coaches being worked on in the collision repair shop.

The first workshop session of the day was presented by Gus D'Andrea, the frame shop manager and estimator at Winter Garden. Appropriately, he covered the operation of ABC's heavy-duty frame machine and frame puller. It was pointed out that the advantages

Some of the workshop attendees take a few minutes to examine ABC's heavy-duty frame machine and frame puller. Several people indicated that there were several advantages to starting any major collision repair work by putting the frame back into its original shape. Replacement frame members and exterior panels will not fit properly if the frame remains bent out of shape. NBT.



of starting a major repair by pulling the frame back into shape could include retaining more existing framing and reduce the corresponding labor costs for replacement.

Several attendees agreed on the advantages of starting a major repair with a heavy duty frame machine. It was noted that replacing frame members was not a good idea if the frame structure was bent out of shape since panels and doors would then not fit properly.

A brief discussion also suggested that there were major advantages to giving bus collision repair work to a company with substantial bus experience. Coddington mentioned that ABC in Minnesota saved a major insurance company approximately \$100,000 in repair costs because they had the jigs to restore the coach frame to OEM specifications. He also mentioned that the cost of towing a coach to a qualified repair facility could easily be justified.

D'Andrea suggested that some of the collision repair work on buses can be highly specialized. As an example, he showed where welding stainless and carbon steel required both a special welding gas as well as special welding wire to do the job properly.

Greg Dotseth, the service operations manager at Faribault, started the second workshop session which covered hidden damage. The primary idea was to make people understand that in many collisions or fires, damage could show up in unexpected places. A bus hit in the front could easily sustain frame damage in the rear, and a bus fire could cause problems in hidden locations. The best solution is to take your time. If necessary, peel back the skin or remove a cap in order to make sure you have found all of the damage.

In one case, when a rear cap was removed on a bus, damage was revealed to both the air conditioning system as well as several lines. In another situation, ABC was asked to re-repair a coach with a leaking waste tank. The tank had been punctured by a screw during an accident, but this was not discovered during the initial repair. Going back in to fix the problem cost the insurance company \$40,000, considerably more than if the problem had been found and repaired initially.

As recommended by previous attendees, the third session dealt with the increasingly important subject of wiring harnesses. Dotseth and Elmer Holz, the service manager from Faribault, displayed some wire harnesses and spoke about repair problems relating to wiring. Holz suggested that a fire in the center of a bus effectively cuts the bus in half because it destroys all of the wire harnesses, which then must be replaced. Even a small fire can require costly repairs because wire harnesses are expensive and are often hidden and difficult to get to and replace.



Greg Dotseth addresses the group and projects some photos to illustrate several points. The primary workshop sessions took place in ABC's collision repair shop in Winter Garden. Attendees were able to view repair work in progress on several buses in the shop. NBT.



Although technically not a collision repair, some time was spent discussing engine compartment fires. There are several possible causes for engine compartment fires including turbo failures. Most are expensive to repair because of wire harness damage. NBT.

Once a wire insulation has been burnt, damaged or cracked, it becomes susceptible to moisture, oxidation and unreliable operation. Wires can be spliced in limited circumstances, but replacing the wire harness is usually the recommended and safest course of action. This can become increasingly complex because at the same time you may have to replace connections, P-clamps, and other fixtures to bring the bus back to OEM standards.

It was also mentioned that there are problems with some of the early multiplex systems which did not have a fail-safe mode. In the event of an accident or fire, the system will continue to try to activate certain

components which could create additional problems. Replacing an ECM to OEM standards could cost \$1,500 for the unit plus \$500 for reprogramming.

Holz talked about a coach in the shop which had suffered a fire towards the center. It was mentioned that the fire apparently started with a battery cable and then worked its way up into the passenger area. The importance of battery and cable maintenance was stressed, particularly since modern ECU units run on only five volts and can be affected by power fluctuations.

Holz then provided information on an engine compartment fire where a tur-

bocharger exploded and caused a great deal of wire harness damage in the engine compartment. A main wire harness carries a price of \$7,000 and a power train harness runs more than \$4,000. Hence, the cost of wire harness replacement mounts up quickly, and this does not include the price of labor.

A discussion centered around a turbo failure which was repaired and then failed a second time within a mile of leaving the garage. In this case the problem was most likely caused by shrapnel from the first failure left in the intake pipe. It was stressed that repairs should be done by a qualified shop that knows enough to flush out and clean out the system and replace components as necessary.

Following lunch, Holz provided a brief presentation on multiplex systems and how they compared to traditional coach wiring. The general feeling was that multiplexing was an improvement but could certainly make collision repair more involved.

This year's guest speaker was Sonny Murianka from the National Highway Traffic Safety Administration's Office of Defects Investigation. He provided some interesting statistics including the fact that more than 42,000 people lost their lives on U.S. highways last year and most deaths and injuries are caused by multi-vehicle accidents.



One of the buses in the collision repair shop suffered substantial front end damage. Attendees were able to view repair work in progress. In this case both major frame work as well as replacement of wiring harnesses was necessary. NBT.

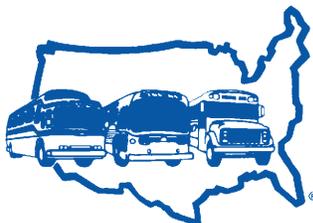
Murianka proved to be an interesting speaker since his primary responsibilities revolved around investigating suspected vehicle defects to determine whether action or a recall was necessary. While he gets

involved with all types of vehicles, he did mention several cases involving buses.

One of his saddest cases got started when clothing manufacturers put tassels on kid's clothing and backpacks. Several children were killed when their tassels caught in school bus grab handles as they were exiting and they got dragged or pulled under the bus. The solution was to have the grab handles redesigned and the clothing manufacturers were also advised of the problem. Another interesting situation involving three bus fires in two days was resolved when it was discovered that the bus body builder failed to relocate a hydraulic reservoir as required by the chassis builder.

Information on NHTSA activities, investigations and recalls is available on line at www.NHTSA.Dot.Gov. Murianka welcomes information where the same vehicle defect or problem can be documented on several vehicles. He can be reached at (202) 366-5196.

From there we moved on to session four when John Hicks from Caterpillar spoke about engines and the forthcoming 2007 and 2010 EPA regulations. Most engine manufacturers have been recycling exhaust gasses to reduce emissions. Caterpillar has instead elected to reduce heat peaks and NOx emissions by using a two-stage turbocharger with high and low pressure sections to introduce more clean air into the engine cylinders.



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Gus D'Andrea (left) and Elmer Holz (center) discuss wiring harnesses. In addition to projecting photographs, they show actual examples to the attendees.



Actual wiring harnesses of several types were put on display. The main wiring harness for a coach can cost as much as \$7,000 and that does not include labor. NBT.

Eventually, all engines will probably use catalytic converters to reduce emissions. Cat now has engines meeting the 2007 standards and is currently working on the 2010 standards. Hicks also mentioned that the introduction of low sulfur fuel is expected to reduce engine performance.

Louis Hotard, the director of technical services at Winter Garden, presented Session Five which concentrated on the new ZF AS Tronic transmission. Like a conventional stick shift, it does have a throw-out bearing and a self-adjusting clutch but no torque converter. Features include the fact that a computer actuates the clutch and shifts gears based on demand and economy, and the driver operates it like an automatic transmission.

Hotard mentioned that with its built-in retarder, the AS Tronic eliminates the need for a Jake Brake. With increasing concerns about noise on the highways, the quiet built-in AS Tronic retarder can be used where the Jake Brake is not permitted.

Operators like the fact that the AS Tronic only requires five gallons of oil with the retarder and will go 200,000 miles between oil and filter changes. Heavy oil is used and not Dexron®. ABC offers the AS Tronic transmission with the Detroit, Cat or Cummins engines. Mears in Orlando is putting 37 coaches with AS Tronic transmissions in service in May. Sales of the AS Tronic transmissions is rapidly approaching 50 percent of new seated coaches.

The Collision Repair Workshop closed with a presentation by Steve Germaine, the RV service manager at Winter Garden, who spoke about RV collision repair at ABC Companies. Lack of good repair facilities and parts has been an increasing problem on RV repairs. As a result, ABC has been doing more RV collision repairs for insurance adjusters and insurance companies.

Germaine mentioned that ABC has extensive experience dealing with RV repairs

and RV owners. Most RV owners do not realize how much time is involved in making repairs following a major accident or fire. He went on to say that many RV owners appreciate the quality of work provided by ABC.

One interesting observation that came out of this workshop is that insurance company representatives, adjusters and estimators are friends to bus owners and operators as well as being supportive of the bus industry. Perhaps unknown to many bus owners, in many cases the adjusters and estimators put in extra effort to find hidden damage and to make sure that repairs are handled professionally. The better insurance companies are willing to pay the price to transport the bus to a qualified repair center and

to bring the bus back to OEM standards and restore its value.

It is obvious that everyone involved in the operation including the insurance companies, adjusters, estimators and the technicians doing the collision repair work are all trying to cooperate to make sure that repairs are done quickly and are done by qualified people to OEM standards.

Attendance at the ABC Annual Collision Repair Workshop has increased from year to year for obvious reasons. More than 50 people attended this year. Some were there for the first time while others indicated that they return year after year. If you feel that you would benefit by attending the 2006 Annual Collision Repair Workshop, just get in touch with your contact at ABC Companies and ask for information. □

Collision repair work on motor homes and recreational vehicles has become an increasing part of ABC's activities. Steve Germaine spoke about some of the unique considerations involved with recreational vehicle repairs with their owners. This Country Coach RV was in the collision repair shop in Winter Garden during the workshop. NBT.

