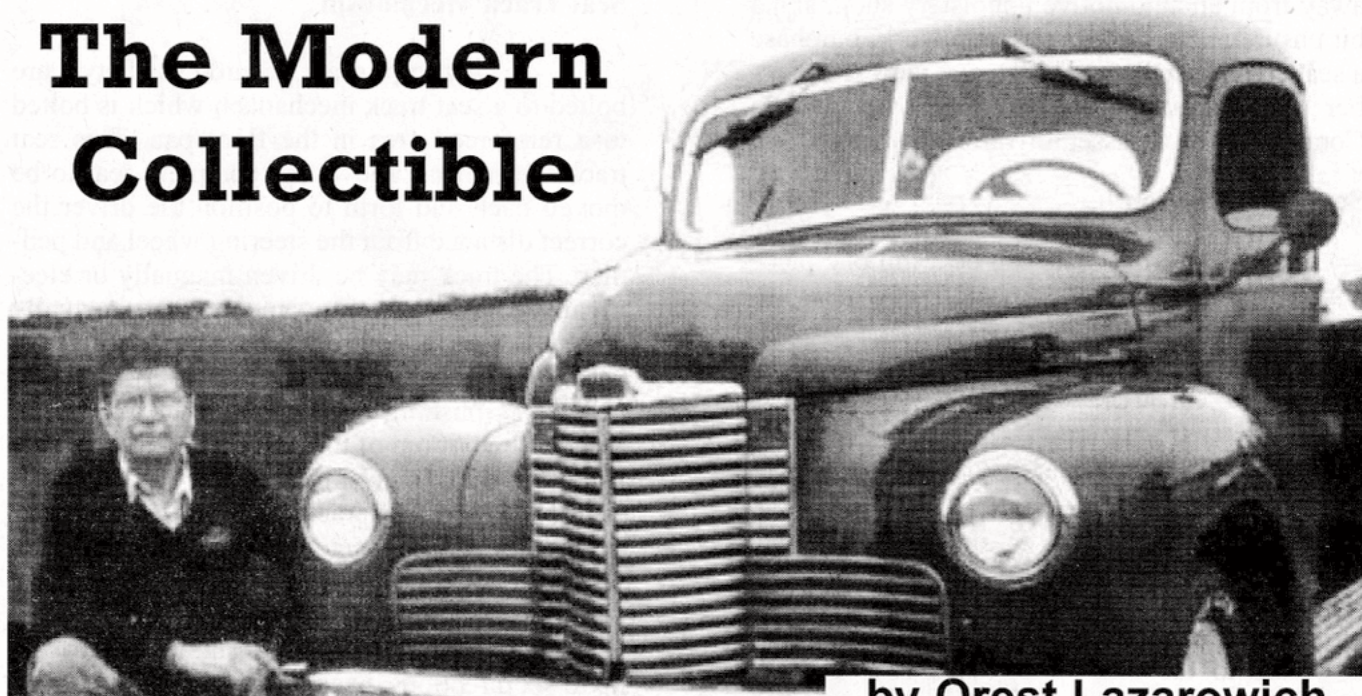


# The Modern Collectible



by Orest Lazarowich

*A DETAILED TECHNICAL COLUMN INTENDED TO TARGET MANY MAKES AND MODELS OF POST-WAR CARS AND PICK-UP TRUCKS*

## Upholstering Seats

After you clean the interior of the vehicle, inspect the condition of all the upholstery material. Look for tears or small cracks in the seat material. Small cracks or tears in vinyl material can be repaired with a vinyl patching kit. Faded vinyl can be renewed with dye. Small holes in fabric can be repaired by patching with similar material. Check for fading and the usual wear on fabric. There is no repair for fabric that suffers severe sun damage in a vehicle that is kept outside without a cover. The upholstery must be replaced. If the seat covering material is in good condition, but loose on the seat, then the seat springs are sagged or broken. Repair the seat and replace any necessary padding. Remove the covering very carefully because you will be reusing it. Even if this is a low mileage collector vehicle the driver's side of a bench seat or the driver's bucket seat will have most of the wear. You can remove the seat and replace the worn portion of the seat cushion cover or visit the auto recycler

and check if they have a better seat in a color the same or similar to yours.

Before you start any interior repair/replacement of the upholstery, evaluate your vehicle. Is this a daily driver? Is it only used for car shows and club meets? What is the condition of the body metal, the paint and the glass? What about the engine and the running gear? Are the tires reliable? If you have owned this vehicle for some time and you are keeping it in good road condition, it is worth the money to freshen up the inside. Upholstery is a special skill, but it is not impossible. Kits are available to re-cover seats and door panels and you should be able to do it yourself and save the shop fee which can be expensive (see *Skinned Knuckles*, February 2009 and July 2009 for further details on re-padding and re-upholstering a car seat). However you must do a good job of it because your work is always on display. Check with your club members to see if someone has experience in replacing seat covers. It is a good idea to have a buddy to work with you. If you are a couple of hours



away from an automotive upholstery shop, and a bit unsure about doing your own work, purchase a seat cover installation DVD, and view it a number of times before starting any work. Concentrate on disassembly/assembly tips.

### Seat Construction

The front seats can be a full one-piece bench-type seat or single bucket type with/without a console between the seats. Both types of seats are constructed from two main parts: the seat cushions and the seat backrest. Some front seat backrests may have a head support. The backrest on a four-door model is bolted to the seat cushion and cannot be moved. The front backrest in a two-door vehicle is split 50/50 or a 40/60 and is hinged to swing forward to allow access into the back seat. On the pick-up the backrest is hinged so that it will swing forward to reveal a storage area and/or the gas tank. The rear seat cushion and the rear backrest are similar to the front bench seat. The backrest is bolted in place, and the seat cushion is held in position by metal clips welded to the floor pan. They can be removed separately, and there is no disassembly. If these back seats have never been removed, you might be lucky enough to find a build sheet tucked into the springs. This build sheet lists the original parts that were installed at the factory.

On older vehicles the seat springs are made up of rows of coils attached to a box-type frame which is bolted to the seat tracks. The springs are covered with burlap and then layers of cotton padding and then the trim cover. On newer vehicles the seat springs are a flat waffle-weave no-sag zig-zag (senuous) type covered with a foam rubber cushion. With bucket seats, coil springs or rubber straps with a rubber seat insert are used under the foam padding.

### Seat Track Mechanism

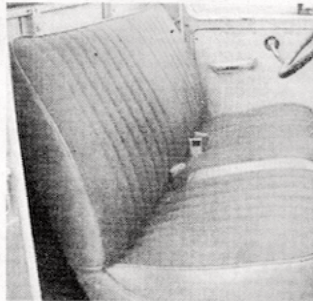
All front seats, regardless of style are bolted to a seat track mechanism which is bolted to a reinforced area in the floor pan. This seat track mechanism allows the complete seat to be moved back and forth to position the driver the correct distance from the steering wheel and pedals. The track may be driven manually or electrically. The forward movement of the manually operated track is controlled by a coil spring; the backward movement is controlled by the seat occupant's pushing back on the seat. A locking lever at the bottom of the seat on the driver's side locks the track mechanism in the various positions. The right seat track is controlled by either a wire or rod connected to the left seat-track release lever.

Power seats are designed to move in up to six directions; back and forth, up and down, and a forward or a backward tilt. In some designs a built-in switching device returns the seat to a previously selected set of conditions when the ignition switch is turned on. The seat adjustments are controlled by a cluster switch located on the left side of the seat.

### Re-covering Waffle-Weave Spring Type Bench Seats

If you are repairing the seat frame and the springs and not replacing the seat cover, you must remove the seat cover very carefully because you have to put it back on. Do not tear it when you cut the hog rings open. If you are replacing a torn or worn portion of the seat cover or inserting a new piece of foam, the same applies. Make arrangements with an automotive upholstery shop to repair the seat cover. It is difficult to match new material to old, and they may suggest a complete new seat cover. No matter how skilled your wife is as a seamstress, do not attempt to make this repair using a domestic sewing machine. Seat covers can be of cloth, vinyl, a cloth/vinyl combination, leather or a leather/vinyl combination.

If you are going to replace all the seat covers and/or the padding, locate a kit and uphol-





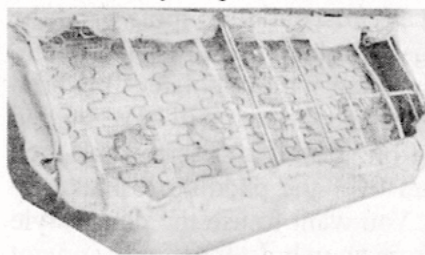
stery material supplier before you start taking anything apart (see the LeBaron-Bonney ad on page 41). If they do not have what you want, you can send in samples of the original upholstery material and see if they can match it. Reproduction seat covers are sewn to original patterns. Measure the seats to make sure they are the original for the vehicle. It is possible that a previous owner could have changed them. When the kit arrives, open the box and lay out the pieces. If the seat covers have vinyl panels, you will find it easier to put the seat covers on and work out any wrinkles when the temperature is at least 65 degrees F. Read the enclosed instructions at least twice before you start any work. You may have to purchase a clip or two of hog rings which are wire clips that hold the upholstery material to the frame and a pair of hog ring pliers, if they are not included with the kit. Check the local hardware or automotive supply store.

Before you order a seat cover kit, but knowing the price, check with the local automotive upholstery shop for their price on sewing a set of new seat covers. They may not have any original patterns so the old seat covers will have to be removed and measurements made. Remember, the shop makes its money on labor, and so they will probably tell you that they cannot guarantee their work unless they install the covers and any necessary batting and foam. If they will sew a set of seat covers, compare the price, and ask to see other vehicles they have done. If you are not happy with the work, do not enter into any agreement. If there is no automotive upholstery shop within a close area, visit the furniture upholstery people. I had very good luck in finding a local furniture upholstery person that I could work with and who had experience with automotive upholstery. I had him sew all the seat covers, recover all the panels and sew a new headliner for my '41 Ford coupe, and I installed everything with his help. The material match was not original, but the color match was very close.

### Bench Seat Disassembly

The front bench seat assembly is difficult to remove from the vehicle by yourself. Make the pieces lighter by removing the backrest from the

bench seat assembly. Prop, or tie open, the vehicle doors. Do not scratch the paint finish. Cover the exposed areas with a couple of old towels or a blanket. Remove any trim pieces that cover the ends of the seat. If the backrests swing forward, remove the pivot bolts or C-clips, and remove the backrests from the bench seat. If the backrest is one piece, remove the bolts that hold it to the bench seat, and lift it away from the seat. Remove the bolts that hold the bench seat to the track mechanism. Carefully remove the bench seat from the vehicle. Place it on a sturdy workbench. If there are rubber seat stops for the swing seats, remove the screws that hold them in place. Measure the location of the screws holes, and make a note. This will help in locating the seat stops in the new material. Turn the seat cushion over and make a diagram or take a picture of the location of the hog rings that hold the old upholstery to the seat frame. This sounds too simple, but it is very important. It shows you where the



factory attached the seat cover when it was installed over a new spring base. What you want to do

is locate the new seat cover as close as possible to this location. The old seat has flattened out and you are going to try and squeeze it back into its original shape. Draw a diagram of how the seat cover material is folded around the backrest supports and where the hog rings are installed. Note how the seat cover material is folded around the back of the seat cushion.

Use diagonal side cutters, and cut only the hog rings that attach the cover to the seat frame. Do not cut the ones that hold the padding. Don't waste your time opening these rings as in trying to reuse them. They are very inexpensive. Strip the cover off. Look for a seam (pocket) sewn out of grey material alongside the upholstery material. This is called the 'listing' and it holds the 'listing wires' that wrap around the upholstery skirts to prevent the seat cover





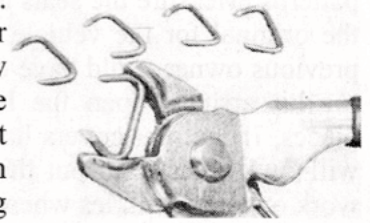
from tearing loose from the seat frame. Pull these wire(s) out, if the seat cover is going for repair so they don't get misplaced. Examine how the padding is applied over the seat springs. There may be a cotton pad over the foam cushion or a foam cushion over the padding. If the foam is hard and starting to crumble, it should all be replaced. It has lost its compression value and it is not a good idea to replace only the damaged area. If the foam rubber is against the springs, you should consider inserting a burlap covering between the springs and the foam rubber. This will protect the foam from the imprint of the spring. Make a diagram of the location of the hog rings that hold the cotton padding and the foam cushion to the frame. Hog ring the burlap cover in place, and then locate the foam and padding.

If the foam and padding are reusable, inspect the frame for damage, and replace any broken or sagging springs. Make the necessary repairs, clean up any rust and then spray paint the frame and springs with black rust resistant paint. Do not do any welding with upholstery material on the frame. Over time the seat will have sagged and spread out a bit. Install a sheet of one-inch replacement foam over the padding to make up for this sagging. You want to use the dense style foam available from an upholstery supply and not a hobby store. Use 3M contact spray adhesive to hold the foam to the padding. Trim the foam to fit the seat using a serrated utility knife.

Compare the size of the new seat cover to the old one. If you are installing a kit, make sure you are comparing the same seat cover. If the seat cover doesn't match, check the packing slip against the order form. Mistakes happen. If the cover fits, transfer the listing wires from the old cover if none are included in the kit. Polish them clean if they are rusty. Slide them into place. Slip the repaired seat cover or the new seat cover over the padding and fit it for size. Get a buddy to help because it is difficult to compress the springs and the added foam and pull the cover over all at the same time. If you are pulling the cover over foam rubber, it will help to mist the foam with a mix of water and liquid dishwashing soap out of a spray bottle. Pull the seat cover around the corners.

Make sure the seat cover is centered and that the piping along the seam lines up with the edge of the cushion. Stretch the seat cover out on all the corners, and hand work the cover to remove any wrinkles. When the cover is in place pull the material down to the seat frame tight enough so that it will not sag.

You need your buddy's help. Now that you know the seat cover will fit properly you can start to place the hog rings.



Turn the seat over and attach the seat cover to the seat base in the same location as the old cover. Start at the middle of the front with four hog rings spaced two inches apart as close to the old marks as possible and catching the listing wire. Next pull the seat cover snug and attach a few hog rings at the rear. Try to fold the material so that the hog rings go through two layers of material. These hog rings have very sharp ends so use care as you fit them into the hog ring pliers. Turn the seat over on some clean cardboard or towels to keep it clean, and check the seat cover for tension. There should be some bounce when you hit the cushion with your fist. Adjust the tension on the seat cover with the hog rings at the rear of the frame. If you have to remove any of the hog rings to release some of the tension on the seat cover, the holes won't show. This tension will allow for future stretching.

If this seat has the backrest supports in the middle of the seat, fold the material around them now and fasten it with hog rings. Hand work the cover from the center outward to obtain a smooth appearance. With your buddy helping to compress the springs and the padding, continue attaching the seat cover with the hog rings. Be sure the upholstery is centered and the seams line up. Make sure the listing wire stays tight. Do not poke the hog rings through the seat cover where they will show. Turn the seat over, and check for wrinkles. Relocate some of the hog rings if necessary. If this is vinyl upholstery, you can use a hair dryer to smoothen out the wrinkles. Warm the vinyl and then smooth it out by hand. Do not



get the vinyl too hot. If it is uncomfortable to the hand, then it is too hot. Take your time, and remove all the wrinkles.

When you get to the corner, pull down on the skirt and make sure the piping lines up along the edge of the seat cover and the seat cushion. There may be a listing wire here so pull the skirt tight, and attach the seat cover to the seat frame with hog rings. If this is a cloth seat cover, you can apply steam from a kettle to work out a wrinkle. You may have to change the location of the hog rings. Fold the material around the backrest supports on the ends of the cushion. If there are a few wrinkles on a vinyl seat cover, put the seat out in the sun or use the hair dryer to stretch the wrinkle out. Locate the holes for the seat stops with an awl and screw them in place.

### Re-covering the Backrest

Remove the one piece backrest from the rear passenger area or the split backrests from storage, and place them on the workbench. The upholstery kit for the backrest on the pick-up truck may not have any upholstery material to cover the back of the backrest. Make a note of how the seat cover material is folded around the support arms. The split seat has two support arms for each backrest. The one-piece backrest has one support arm on each end. Check for listing wires in the cover material and the back skirt that covers the back of the backrest. Cut the hog rings free, and remove the old cover. Remove the padding, and set it aside. Repair the frame if it is cracked, and replace any broken springs. If the springs or frame show rust spots, clean the rust up and spray paint the springs and the frame with rust resistant black paint. Replace the padding if it has matted together. If you decide to replace it with a foam cushion, you must install a burlap cover against the springs. Attach the burlap cover with hog rings.

If there are listing wires for this cover, install them. The backrest seat cover fits over the padding material like a pillow case over a pillow. Stand the backrest up, line up the pleats with the center of the backrest and pull the seat cover into position. If you cover the top of the padding with

some Saran wrap, the cover will slip on easier. You can also roll the cover back on itself and after the top is fitted, unroll the cover as you pull it down into position. Similar to rolling a stocking down and then rolling it up when your foot is in stocking. Make sure the piping along the seam is lined up with the edge of the backrest. Reach under the cover, and work the top of the padding to fit the cover. Work out any wrinkles with your hand. Fold the material around the support arms, and use hog rings to fasten it to the bottom of the backrest frame. Join the front and the back of the cover to the bottom of the frame. There could be listing wires here to keep the material from tearing away from the hog rings. Try and make a nice smooth seam at the bottom because this part of the backrest shows when it is tilted forward.

The rear cushion and backrest are re-covered in a similar manner. If you are re-covering bucket seats, do one seat at a time. Take some pictures and/or make a diagram of how the seat cover is attached to the frame. If you are having a bit of a problem, use the other seat as a guide if the new material doesn't want to fold and fit properly. Remove some of the hog rings, if necessary, and refit the seat cover. Do not cut away any material. Check the old cover to see how the material is folded. If you are not replacing the carpet and trim panels at this time, vacuum the entire passenger compartment. Put the rear backrest in place first and then the rear seat cushion. Lubricate the seat track mechanism. Bolt the bench seat in place. Assemble the backrest(s) to the bench seat. Clean-up and polish the metal trim panels that fit around the front seat base. Sit on the front seat, and check the seat track mechanism for smooth operation. Happy motoring.

S.K.

### Next month: Carpet, Interior Trim Panels and Headliners

*Editor's Note: Our good friends, LeBaron-Bonney have offered advice and assistance with your upholstery job. They also have a network of authorized installers that can help with your LeBaron-Bonney upholstery kit. See their ad on page 41 of this issue.*