

Chapter X: The Convertible Top and Tonneau Cover

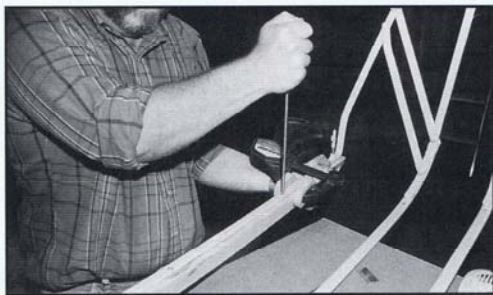
Carefully check the top bow assembly for bent bows and correct any defects. If the rivets at the hinge points are extremely worn, some of the slack can be removed by heating the rivet and peening them into a tighter configuration in order to remove some of the slack. Take care to only heat the rivet since there is a brass washer between the bows which could melt if too much heat is applied. Once the bow assembly has been reconditioned, it is ready for sandblasting and painting. Again, I would recommend the use of epoxy primer followed by coat of PPG's Concept. The color Sahara Beige, DCC 2437, is a color which closely matches the original color.

When ordering the new top, be sure it is correct for your car. The earlier models had a two bow system while the later models used a three bow system, the top must match the bow system. The top will come with installation instructions which I will not attempt to duplicate but rather illustrate in step by step fashion. The original tops were made of a tan duck canvas which was not always water tight. Moss Motors offers an excellent multi-ply canvas top which is an improvement over the original type. Although vinyl tops are available, they are not in keeping with the original car.

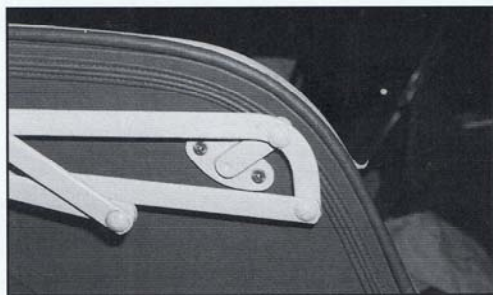


If you should receive a top rail which is straight, as I did, clamp the wood into an exaggerated bow for a few days and the wood should conform to the curvature of the windshield and leading edge of the top bow assembly.

Clamp the new top rail to the bow assembly with the leading edge of the metal bow and the wood flush with each other. This is the face resting on the windshield frame. Fasten with flat head wood screws.



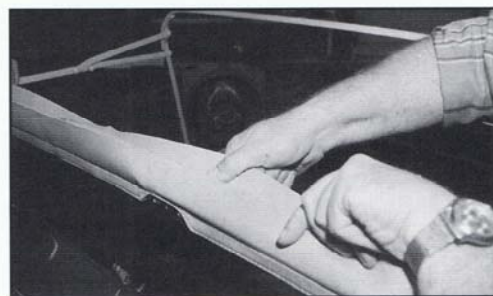
Since holes from the original location of the pivot arm no longer exist because of the new interior panels, this is an approximate location for a first fit. Make sure the horizontal members of the bow assembly, which are over the doors, lock into place.



Center the strip equipped with the weather flap over the windshield and cut the necessary holes for the wing bolt posts.



Pull the lower piece of canvas to the rear so that the weather flap rests against the windshield frame. Staple the rear part of the canvas first.



It is a good idea to use a new top rail for the leading edge of the frame. At the time of this restoration my supplier failed to cut the appropriate bow in the wood member. As a result, I had to clamp the wood into a bow so that it would fit the contour of the assembly and the top of the windshield frame. The top bow should be secured to the top bow's leading edge using flat head wood screws in each of the countersunk holes in the leading edge of the frame. Note that the clamp is keeping the leading edge of the metal frame flush with the edge of the wood. This will be the face resting on top of the windshield frame.

With the bow assembly fully opened and the help of a friend, position the bow assembly into place. Since the interior panels are new, it is impossible to locate the original holes for the screws securing the pivot arms to the sides of the tub. The second photo from the top on this page gives an approximate location for the mounting position of the pivot arms. With the bow assembly in position, the distance from the horizontal bar over the door should be about 20.5 in. above the rear corner of the top of the door.

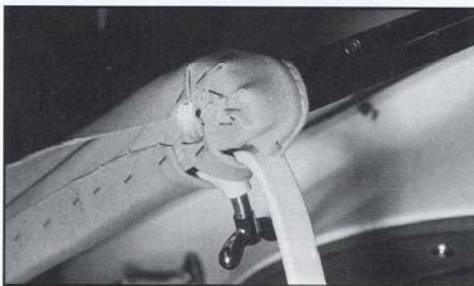
The top kit should contain a sewn strip which is used to cover the wood top rail. Locate this strip so that the indentations in the weather flap are properly centered as they relate to the windshield wiper arms. The photo at the left shows the strip, with holes cut for the wing bolt posts of the top corner brackets. Position the top bow on the wing bolt posts and pull the rear part of the canvas so that the weather flap is flush with the windshield frame as seen in the bottom photo on this page. The desired result is shown in the

photo on the right on a car with the early style windshield wipers, note how the cut outs center on the windshield wiper arms. The next step is to staple the rear edge to the top rail. Begin by pulling the inside flap over the top rail so that the weather flap, shown at the right, is snug against the windshield frame. The function of this weather flap is to keep the rain from blowing in between the windshield frame and the top. Work the canvas around the ends of the top rail as shown at the right. Small darts will have to be cut out of the material to accommodate the tight radius. Cut outs are also made in the material to accommodate the wing bolt posts. Do this with minimal cutting and fold the material under itself so that no frayed edges are visible. The next to the bottom photo on this page shows a view of the fold from the bottom. The final step is to fold the leading flap over the top bow and staple it securely into place (see bottom photo). Make sure that there are no puckers and remove all excess material. Install the copper top bow sockets from the bottom of the top rail making sure the holes align so that the wing bolt can penetrate into the socket freely. Crimp the two tabs outward on the upper side of the rail to secure the bow sockets into position. Judging from the size of the holes in the leading edge of two bow assemblies, I can only assume that they did not use the copper sockets.

After each item is fastened to the top bows, it is a good idea to back away from the car and visually check the alignment to see if the top bow assembly is still lined up with the car. Should adjustments be needed, it is best to make them before proceeding with the next step.



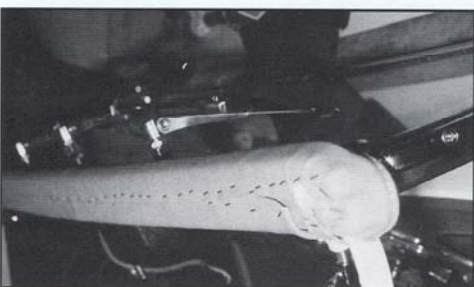
Make sure the weather flap is centered over the windshield wiper arms as shown in this early model TD with only two indentations. Later models will have three indentations.



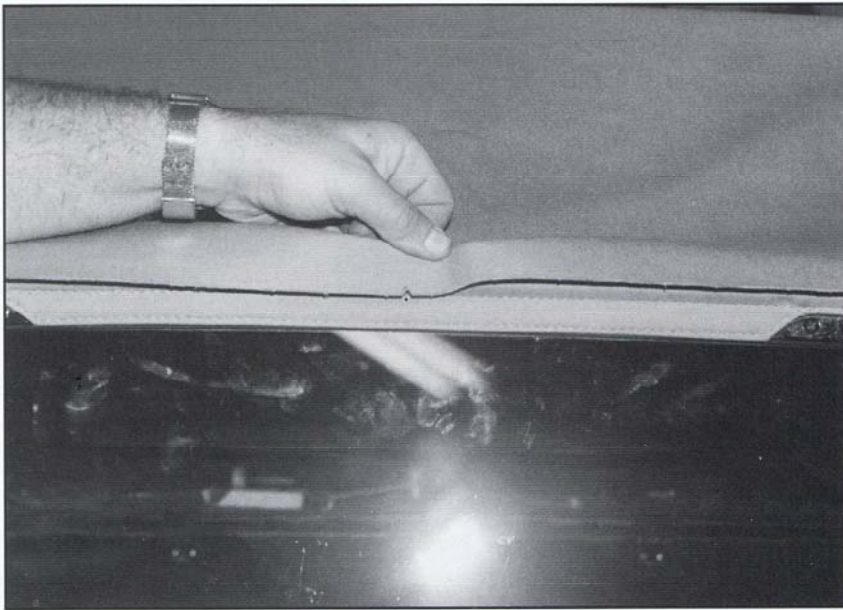
Cut the necessary darts in the canvas to make a smooth transition around the corner. Note that the trailing edge is stapled first and the leading edge is fastened last.



Fold the canvas back under itself as the wing bolt stud is rounded to avoid frayed edges.

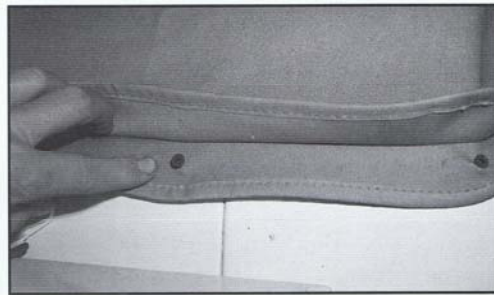


Staple the leading edge to the top rail avoiding pleats and ridges in the material. Install the copper top bow sockets, if required.



Center the leading edge of the top, indicated by a notch cut by the manufacturer in this case and the mark made at the center of the top bow.

The rear edge of the top is temporarily fastened to the rear hood tack rail with dry wall screws. Later snaps were installed in these holes and snap studs in the tack rail.



After the front edge of the top has been centered, the location of the long seams is marked on the top rail (small dots at the rear of the arrows). These marks will be used to center the top straps as shown.



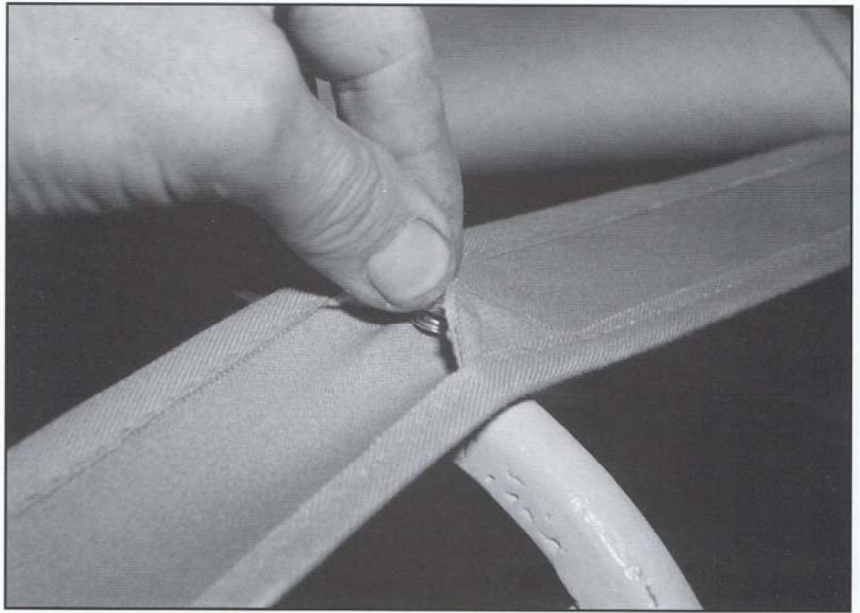
Center the top with the car using the two parallel seams on the new top as guides. As seen in the photo at the left, the manufacturer of this top cut a notch in the center of the front edge. Find the center of the top, both along the front edge and along the back seam, make a small mark in each location. Now, find the corresponding center point on the rear rail and the front of the top rail. Position the top so that these marks align. The back seam has a fixed position while the front edge will be cut to fit. With this in mind, the rear securing strip can be located and attached to the rear hood tack rail. The original tops were secured with brass wood screws and countersunk washers. Many TD owners find it more convenient to secure the top with snaps so than one can access the storage compartment from the rear of the car. In the photo at the left, dry wall screws are being used as temporary fasteners before the snaps are installed. The fastener should be located in the up and down center of the hood tack rail. Begin from the center point of the car and work toward the sides. There should be a total of 13 fasteners at about 5" intervals. On the car illustrated, I only used 11 snaps.

Pull the top to the front of the car and locate the center between the two seams. Now mark the location of the two seams on the top rail (see photo at the left). Note the small dot on the top rail directly behind the arrow which lines up with the seam. This will be the guide for mounting the top straps (already in place in this photograph). To mount the top straps, begin by folding the main top out of the way. If you used the snap fastener method, it can actually be removed. The straps

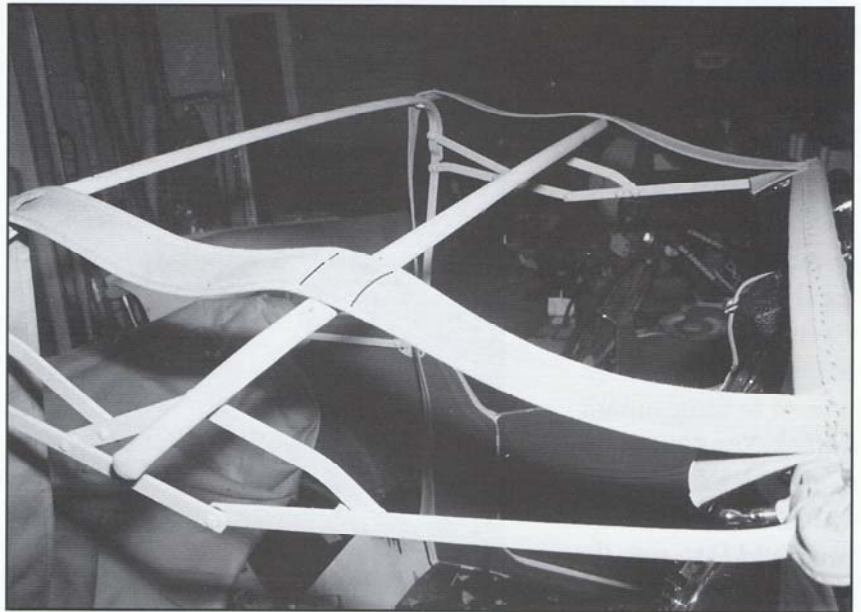
included in the kit have a front and back which is determined by the location of the screw protectors sewn into the straps. The photo at the right shows the self tapping screw and washer fastened to one of the bows and how the protective flaps work. (Do not actually fasten the straps to the bows at this time.) The function of the protective flaps is to prevent the screws from wearing a hole in the underside of the top. Position both straps so that the protective flaps are centered over the existing holes in the main bows (see bottom photo on this page). With the top bows in their proper position, the leading edge can be fastened to the top rail (see photo at top of p. 190).

Fold the excess material to the underside and staple it to midpoint of the top rail. Do not cut off the excess material at this time in the event some adjustment is needed in future steps. Now pull the straps in a straight line to the rear of the car (see photo at bottom of p. 190). The protective flaps should line up with the holes in the top bows. Fasten the straps to the hood tack rail. Once again, I used snaps versus the wood screws.

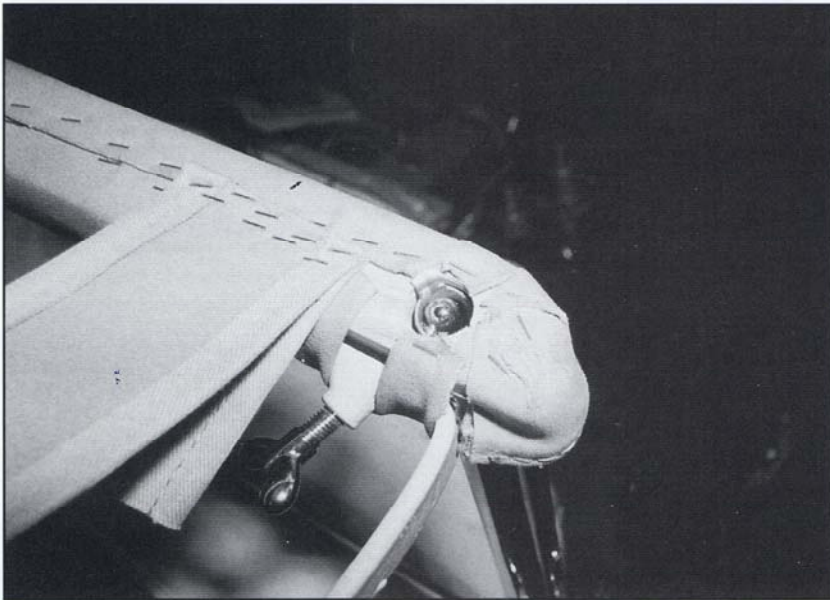
Pull the top to the front of the car lightly stretching it to the front of the top rail. Use a minimal number of staples to hold the top in position. With the top tentatively in place, position the rear floating bow so that it aligns with the seam between the rear deck and the top panels (see top left photo on p. 191). Mark the position of the floating bow on the top straps, it should fall under one of the protective flaps. The top straps can now be secured to the bows with a self tapping screw and countersunk washer as seen in the top photo on this page.



The top straps are positioned to locate the protective flaps over the holes in the top bow. Later, a self tapping screw with a countersunk washer will be installed as illustrated.



Fit the top straps so that the protective flap is located over the holes in the top bows.

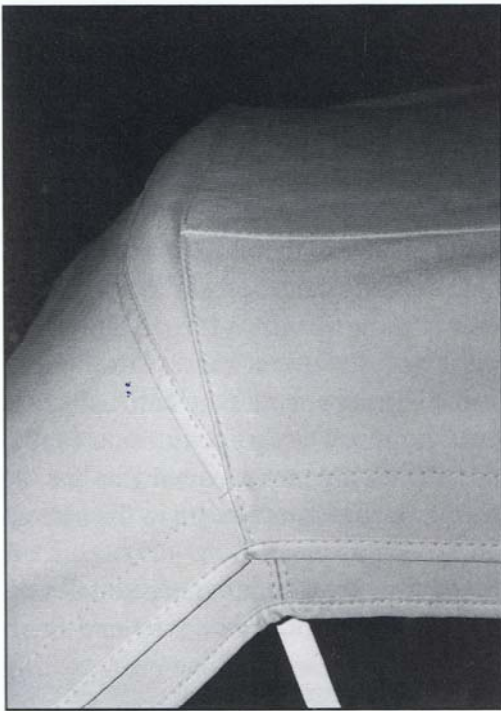


Fasten the top straps to the top rail half way between the front and rear edge. Leave the excess at this time. The copper top bow socket is visible with the crimped tabs.



Pull the top straps straight back aligning with the holes in the top bows and fasten to the hood tack rail. In this case, snaps instead of screws were used.

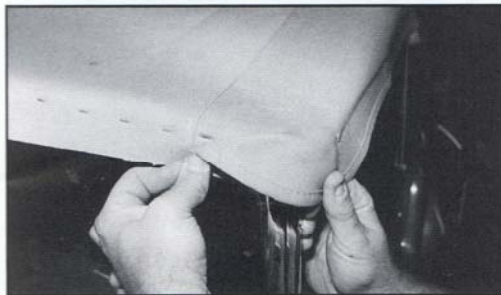
The leading edge of the top can now be secured to the top bow. Check that both center points are lined up and pull the top forward. Begin fastening from the center outward left and right evenly to produce an even overhang on both sides (see top right photo on p. 191). Again, look at the car from a slight distance to ensure evenness on both sides and that the top has not been pulled to one side. The corners are the most difficult part of the procedure. The left middle photo on p. 191 shows how tension must be placed on the exterior seam of the weather flap to pull it down over the corner of the top rail. The thumb on the right shows the desired result while the leading edge is folded back against the top rail. As we think about removing the extra canvas, keep in mind that the hidem will form a line across the top of the windshield as seen in the right middle photo on p. 191. Thus all trimming and frayed edges should be roughly along this line. In order to produce a smooth plane over which to staple the hidem, the folded material will have to be removed as seen in the lower left photo on p. 191. Once you feel comfortable that the overhang will wrap around the corner smoothly, cut out the material so that the two seams will butt against each other (see lower right photo on p. 191). The excess material along the entire front edge can also be trimmed away (see photo at the top of p. 192). The object is to have a smooth line which follows the upper seam of the weather flap and continues straight toward the corner. The bottom photo on the bottom of p. 192 shows the desired result when the hidem has been installed and the chrome tips are nailed into place. Start



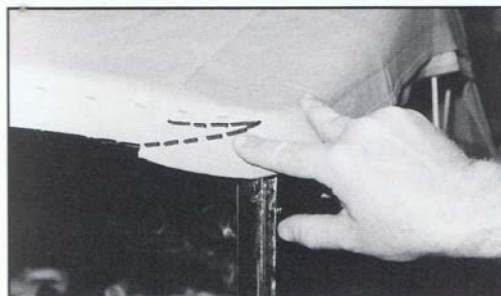
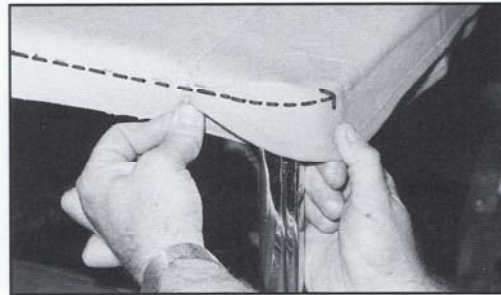
(L) The rear floating bow should rest in the seam between the top and rear panel. Mark the location and install the self tapping screws in the floating top rail.



(R) Center the top on the top rail and fasten it with a minimum number of staples. Check the amount of overhang on each side to make sure the top is even.



(L, center) Firmly grab the weather flap and pull it around to the front of the car. At rest the flap will flare out away from the car, enough tension must be exerted on the seam to make it pull into the car.

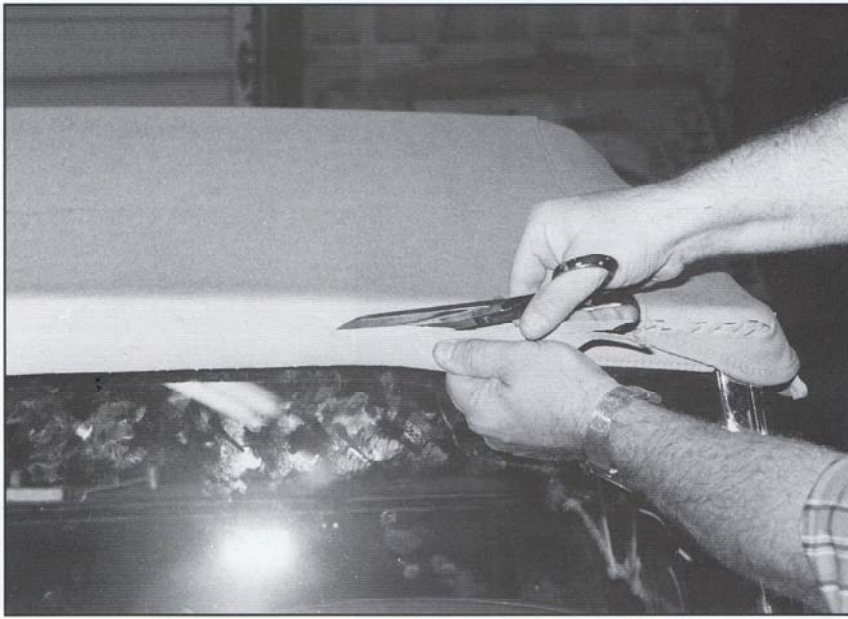


The V shaped dart represents the material that must be cut away in order to produce a level surface for the hidem.



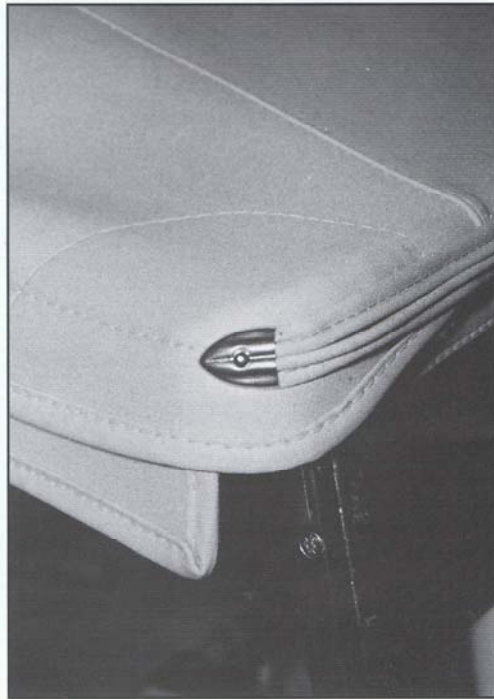
Once the dart has been cut out, the two edges should butt against one another forming a smooth line.

(R, center) Bring the fold around to form a continuous line from the line of staples to the seam over the weather flap. This line will eventually be covered by the hidem.



The remaining overlap on the front edge of the top can now be cut away.

The hidem strip is used to cover the cut edges just above the weather flap on the leading edge of the top rail. Be sure to predrill the hole for the nail securing the chrome tip. The tip should point to the seam line in the top as illustrated.

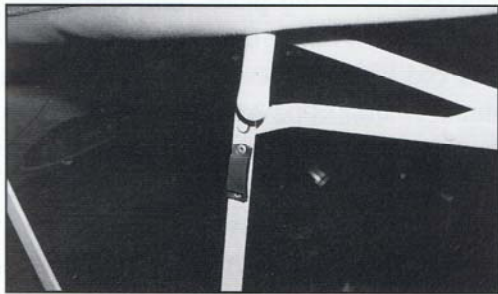


the hidem in the center of the top and work toward the corners (see top photo on p. 193). The hidem should cover all rough cloth edges so they will not fray. The bottom photo on p. 193 shows how the hidem should align with the upper seam of the weather flap. It is also advisable to predrill the hole for the nail in the new chrome tip with a 1/16 in. drill since these nails are often made of a soft metal and will not penetrate the hard ash without bending. The tip should end at about the point where the weather flap for the side curtain begins as seen in the bottom photo on this page.

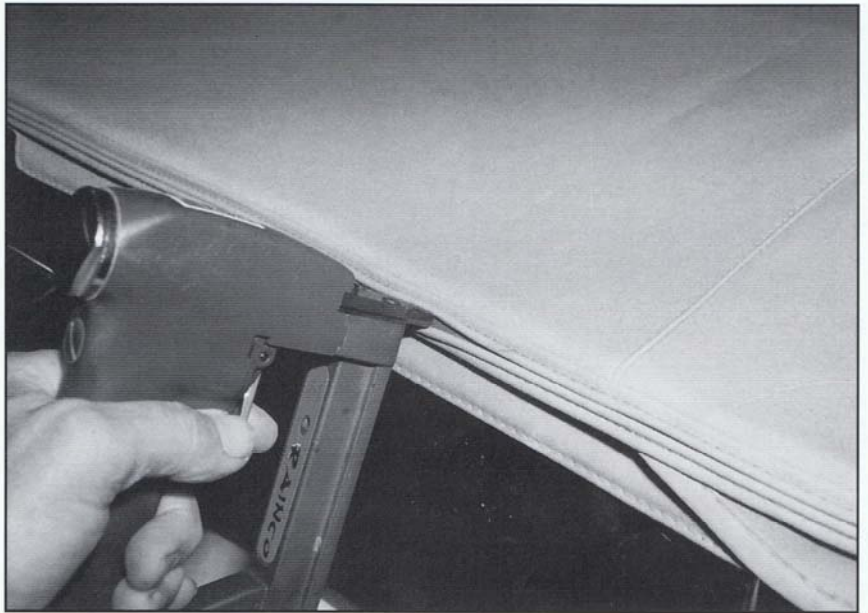
Do not be discouraged if some components have to be removed and readjusted. This can be done by carefully

removing the staples with a small screw driver. It is not necessary to have the top tightly stretched because it will shrink with time, especially after being exposed to rain. Drag lines or puckers, on the other hand, should be corrected immediately. If the top fits smoothly, the excess pieces of the top straps can be trimmed at the top rail.

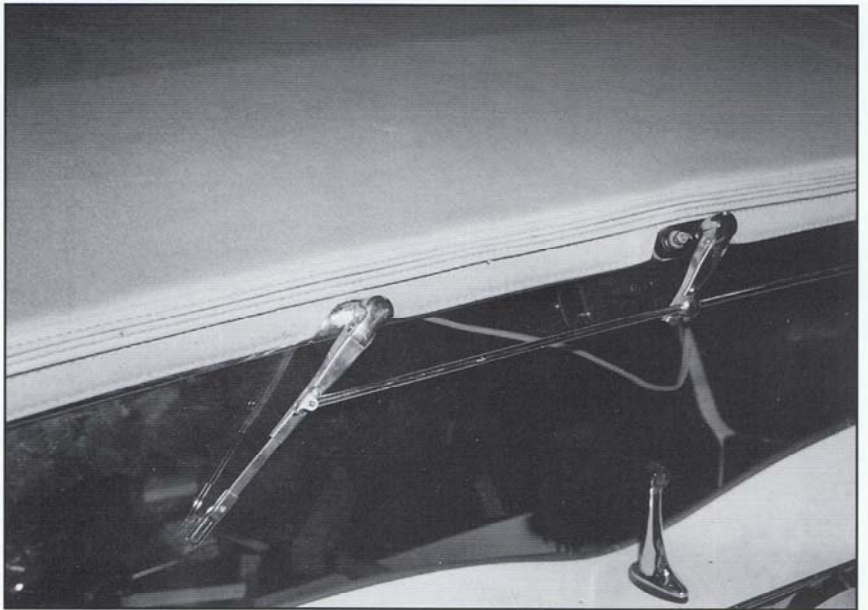
You may have been wondering what two small rectangular pieces of rubber included in the rubber kit are for. These are buffers for the uprights on the top bow assembly which cushion the side curtains from the metal. They can be installed in the existing hole with small rivets as shown in the photo below.



Install the rubber cushions on the top frame to protect the side curtains when they are in use.



Use the staple gun to fasten the hidem working from the center toward each edge.



A front view showing the hidem directly above the seam of the weather flap.

The side curtains should fit into the channel of the pillar of the windshield as shown.



The new side curtain cover has been bolted to the side curtain frame.

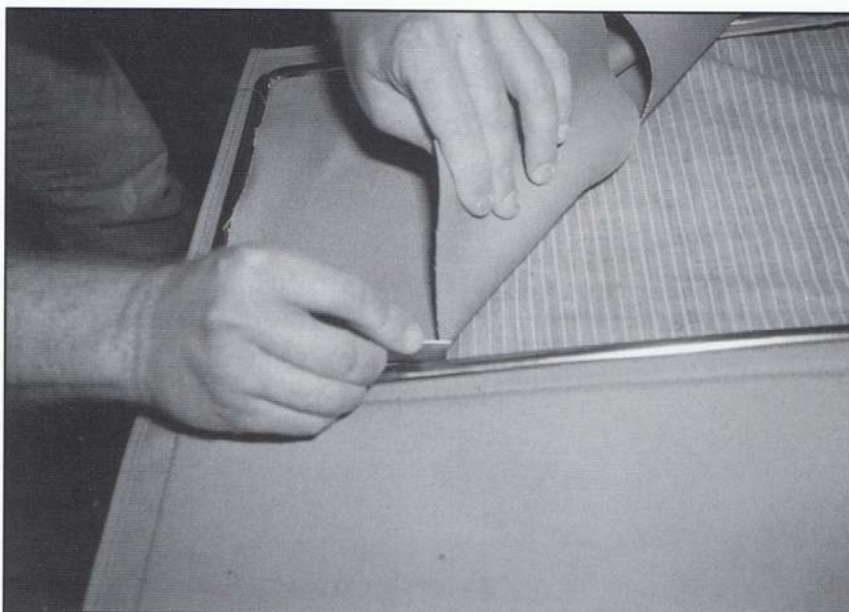


The Side Curtains

The frames for the side curtains should be inspected, cleaned and painted in the same manner and color as the top frame. Be sure to purchase the side curtain panels at the same time as the top since colors may vary slightly during different production times. The panels come complete with clear plastic sewn into the canvas. I would also purchase a new strip set for the side curtains which are the chrome strips outlining the windows.

Since the interior panels on the door are new and the former mounting holes no longer exist, the location for the side curtain mounting plates must be determined by fit rather than being guided by the old screw holes. New side curtain sockets should be installed in the holes provided in the arm rest portion of the doors. Do not bolt them all the way to the bottom since that may damage the paint. They are meant to have some up and down adjustment and the hole which receives the pin from the side curtain frame is off center thus allowing for minor in and outward adjustment of the curtain. To position the side curtain mounting plates, insert the side curtain frame in the sockets at the rear and position the mounting plate on the frame holding it in place with the wing nut. The mounting plate will be very close to the hidem in the upper front corner of the door. Secure it with only one screw at this time. To assure a good fit, the convertible top should be up allowing the side curtains to be fit as they will be used with the top up. Hold the side curtain panel against the frame and inspect the fit with the door

closed from both inside and out. Having a friend with a great deal of patience, to do the holding is a great help. Check the alignment with the windshield; the leading edge should be parallel to and fit into the channel of the vertical windshield post (see top photo on p. 194, although this photograph was taken with the top down). Next, make sure the side curtain will fit into the overlap of the convertible top. The final check is the rear vertical edge of the side curtain. It should be parallel with the rear door edge and there should be enough overlap to permit the front curtain to overlap the rear side curtain. If you are satisfied with the fit and your friend is still holding on to the side curtain cover, make a final check of the seams from the inside of the car. There should be a seam which roughly outlines the frame and should be directly under the metal of the frame. While it may be difficult to have the seam and the frame line up perfectly, it is not a good idea to have the seam show on the inside of the frame (the part that will be the window). Should this occur, the holes punched through the plastic insert will be visible when the material is cut away. Adjustments to correct such problems include; rotating the side curtain socket, moving the mounting plate, or even bending parts of the side curtain frame to produce a satisfactory fit. Once a proper fit has been achieved, mark the inside corners of the window opening on the side curtain cover. Remove both units to the work bench. Use these marks to position the frame on the inside of the curtain cover and mark the hole to be punched for the bolts supplied with the new trim kit. Since most small hand held punches will not reach



Trim the excess canvas out of the window opening on the inside first. Trim the outside to follow the trim strips and making rounded corners to match those of the inside.



The final step is to install the snap studs for the side curtain flap retainers as illustrated.

far enough into the material, some of the hole may have to be drilled. Do this very carefully with proper support on the underside because it is possible to crack the plastic window insert. Attach the new side curtain cover with the trim kit as seen in the photo at the bottom of p. 194. Once the side curtain cover is mounted to the frame, trim away the excess material covering the plastic window. Use a new single edge razor blade and follow the inside outline of the curtain frame first. Apply only enough pressure to cut the canvass material and not the plastic window insert. Then cut away the outside material making sure to follow the outline of the inside edge as the corners are rounded (see photo at the top of p. 195). Carefully trim away any loose threads leaving only smooth lines.

Follow this same procedure for the rear side curtains. Once all four pieces are complete, the final step is to install the stud for the snap on the inside of the door for the curtain flap. With the side curtains in position, pull the strap to the inside of the door and mark a position when the strap has sufficient tension to hold the flap securely against the door (see photo at the bottom of p. 195). Screw the stud into the door and recheck the fit. By now you have noticed that when the door is shut, the side curtain does not slip into place under the overlap on the convertible top. That is probably the primary function of the flap on the side curtain, someone with long arms can reach through and up to tuck the side curtain under the convertible top's rain flap.

When all is said and done, they will probably still leak somewhere in a pouring rain.

The Tonneau Cover

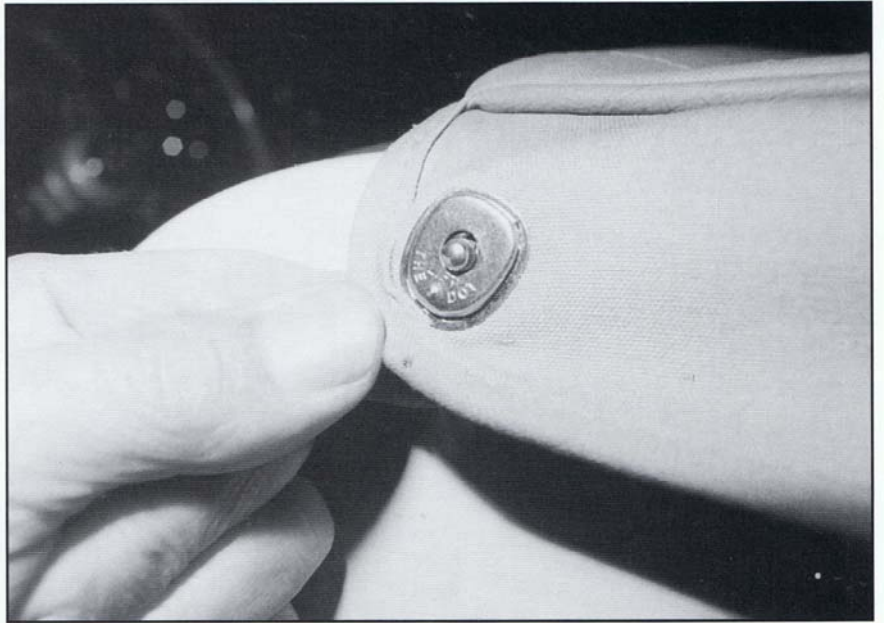
The tonneau cover is one of the nicest features of the TD. Since I tend to drive my TDs on nice days, the convertible top is virtually always down. The tonneau, on the other hand, is always in place so I can close the car while parked at work or to simply go into a grocery store for a few moments. It protects the interior from fading and the feathered air force which likes to make bombing runs on M.G.s. The tonneau is also affective protection against an unexpected thunder storm which may pop up while the car is parked. Since the cover is held in position by a number of lift-a-dot snaps, it is easy to open and close or even completely remove in only a few seconds.

To install a new tonneau cover begin by locating the holes in the sheet metal from the previous cover. Install new lift-a-dot studs in the appropriate places. It is a good idea to predrill the holes in the new wood below the metal since the studs have brass screws which are likely to twist off in new ash hardwood. I have found it useful to put a small fiber washer under each stud to protect the paint and prevent water from entering the opening. These are available from Clarke Spares & Restorations of Doylestown, Pennsylvania. The studs in

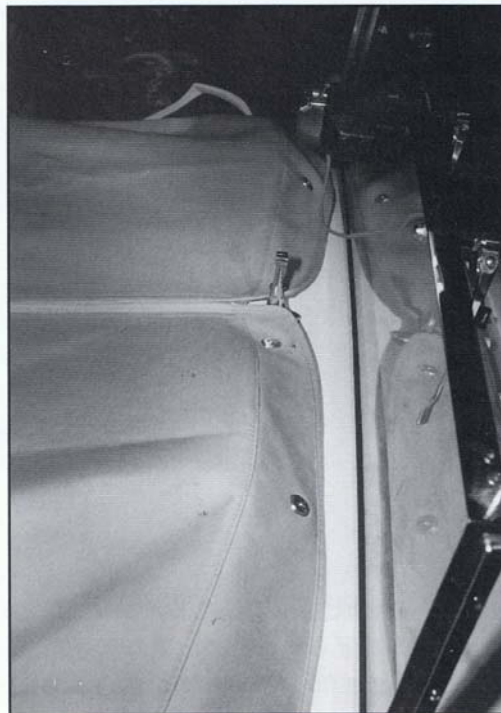
the dash cowl have threaded shanks which are fastened with nuts and washers from below.

Once the studs are in place, begin by test fitting the cover from the front to the rear of the car. Center the cut outs over the gas tank supports, have someone hold it in position while checking the front alignment with the cowl and steering wheel. Since the cover has extra material to go over the steering wheel, it must be ordered specifically for a right or left hand drive car. Begin by marking the location of the studs in the front of the cover so that the seam of the cover lines up with the contours of the dash cowl. Install the female part of the lift-a-dot snap in the canvas. These snaps should be installed with the word "lift" to the nearest outside edge. In other words, if you think of putting a finger under the canvas to undo the snap, it should be under that portion which says lift (see photo at the right). There is a special punch available which cuts the hole and four slits all at one time. If you do not have such a punch available, punch the hole first and then cut four slits with the corner of a razor blade making holes only large enough to let the pins of the top half of the snap protrude through the canvas. Now position the lower half of the snap over the protruding pins and crimp them toward the center.

As with the convertible top, begin in the center and work toward the outside of the car. The photo at the right shows the four center snaps in the dash area in place.



The lift-a-dot snaps are positioned with the word "lift" to the nearest edge for easy removal.



Install the snaps on the front of the tonneau so that the cover conforms to the outlines of the cowl. Be sure it is centered on the car.

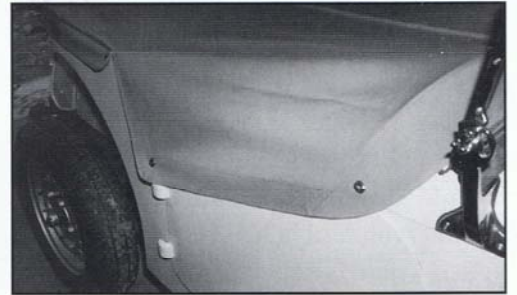


Fit the snap on the rear of the tonneau with the convertible top in its normal rest position. Again, work from the center of the car to outside.



Check for a clean line down the center of the cover and test fit the sides to make sure the drag lines can be eliminated.

Repeat the same procedure in the rear of the car (see photo at the left). Note how the snaps are very close to the seam of the cover but should not be in the seam. The convertible top must be neatly tucked into place to allow a clean square fit of the tonneau cover. The lower left photo shows a clean line down the center of the car while there is a drag line from the high point in the cowl to the rear edge of the door. To correct this drag line, begin by installing the two snaps near the rear edge of the door; this should complete the rear deck area. Now install the last snap over the door latches to pull the cover into final position (photo below).



Install the snaps toward the rear of the car first and those over the door latches last to remove all drag lines.