



1957 Hard Top Restoration

OUR FIRST FUELIE GETS A RESTORED LID

BY KEN KAYSER AND JOHN AMES \ PHOTOS J&M ENTERPRISES AND KEN KAYSER

The Corvette Motorama Dream car was unveiled in January 1953 by General Motors Styling at the Waldorf-Astoria to rave reviews, sans any sort of roof. The 1953 Corvette officially debuted at a Chevrolet Motor Division press event on September 15th, 1953 at the GM Proving Ground.

These early 1953 Corvettes were equipped with a crude, cumbersome, and lumpy black cloth folding top that did not befit the sleek and curvy Corvette body design. Coupled with removable side windows and no exterior door handles, the Corvette resembled European low cost, lightweight roadsters, but was neither low cost nor lightweight!

What was unique about the 1953 Corvette was that the ugly folding top stowed out of sight under a fiberglass, contoured body panel.

When the top was stowed and the panel closed, there was no indication of any roof at all, just as shown at the Motorama. This unique design earned GM Styling two U.S. design patents and has been a design icon on all Corvette convertibles ever since.

A few European sports car of the post-war era offered removable hardtops, and it did not take long for innovative manufacturers to offer hardtops for the 1954 Corvette. The first Corvette hardtop was produced by Model Builders in two versions;

both were one-piece Plexiglas bubble tops styled similar to the iconic Bell Helicopter Plexiglas bubbles. One of the Corvette tops was crystal clear, and the other offering was a deep green-tinted Plexiglas. Both became “hot houses” when in the sun and were not popular for very long! The second manufacturer to join the Corvette aftermarket craze was the Plastics Company that produced a painted fiberglass hardtop.

Chevrolet and GM Styling realized early on that American sports car



buyers would ultimately demand more-sophisticated doors with roll-up windows and also easier entry and exit. The 1954 GM Motorama Corvette was a one-off customized Corvette, complete with a tailored, removable hardtop, traditional roll-up side windows and exterior door handles. The public reaction to the changes was overwhelming.

Chevrolet immediately cancelled a planned styling upgrade for the 1955 Corvette to coincide with the new V-8 engine and, instead, concentrated on expediting a major restyling of the 1956 with the 1954 Motorama Corvette features. The all-new 1956 Corvette full-size clay model was approved on November 1st, 1954. The clay model Corvette was sculpted with the handsomely designed hardtop in place. Chevrolet Engineering then began the arduous task of turning the clay model into thousands of manufacturable component parts.

The earliest known Chevrolet

1 This is our headliner, inner moldings, rear moldings and attaching hardware prior to starting disassembly.

2 The side molding is unclipped and removed. Carefully pop one side off and then lift the molding to remove. This is showing how the side moldings pop off.

Engineering sketches of the 1956 Corvette are dated March 7, 1955. The set of twenty, very detailed sketches show every individual 1956 Corvette fiberglass body panel and where the butt joints and bonding strip reinforcements were to be located. It is no coincidence the set of Corvette sketches are in hardtop form. GM Styling and Chevrolet did not want a repeat of the 1953 Corvette with the ungainly folding top, and thus, the hardtop was styled to be very elegantly integrated with the body design.

The 1956 Corvette hardtop was allocated RPO-419 and engineering detail drawings for every part in the hardtop assembly were begun in late-April 1955. The engineering of the 1956 hardtop was complete and "Released for Production" on September 15th,

1955. Five months from concept to production is truly a remarkable achievement. Most of the new 1956 Corvette publicity photos were of RPO-419 hardtop equipped models.

RESTORATION OF THE FIRST FUELIE'S HARDTOP:

One of many decisions you need to make along the way when restoring an early Corvette is determining who is going to do your hardtop. If you decide to do it yourself, here are some suggestions that are sure to help. First, get a digital camera and take a bunch of pictures. Then review them and take some more; you can never have enough when it comes time to put it all back together again.

Be sure to obtain a copy of the Corvette Instruction Manual (a.k.a. AIM) for your year Corvette (in

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3 The rear moldings are removed prior to the side inner moldings. They are removed the same way the side molding is. This allows you to see the attaching hardware for the outer moldings.

4 This shows the vertical weatherstrip being removed

our case, the 1956 and Pilot 1957 Corvette hardtops are different than the regular production 1957 through 1962 hardtops.) The factory Corvette Instruction Manual is drawn in exploded view, which will assist you in disassembly and later in reassembly.

The 1956 Corvette hardtop has an aircraft-grade-aluminum front header bar for securing it to the upper windshield frame. The header bar has a narrow polished area exposed at the leading edge. The header bar is screwed to the fiberglass roof panel using clutch head screws. After the attachment of the header bar to the roof panel, traditional fiberglass bodywork overlays and conceals the screws so that after painting the joint, the method of attachment is

and the holes for the rivets that attach the weatherstrip to the vertical channel.

5 The wrong rivets were used before. The pop rivets should be a bucked-style rivet that holds the hardtop to the rear window channel.

fully concealed. You will have to find these screws under the fiberglass to disassemble! We only suggest doing this if you are replacing or repairing the header bar. Otherwise, you can carefully re-polish the aluminum top surface. The regular production 1957 and all later solid-axle Corvette hardtops have a three piece, two-inch-wide stainless steel trim closeout on the hardtop's leading edge that conceals the fasteners.

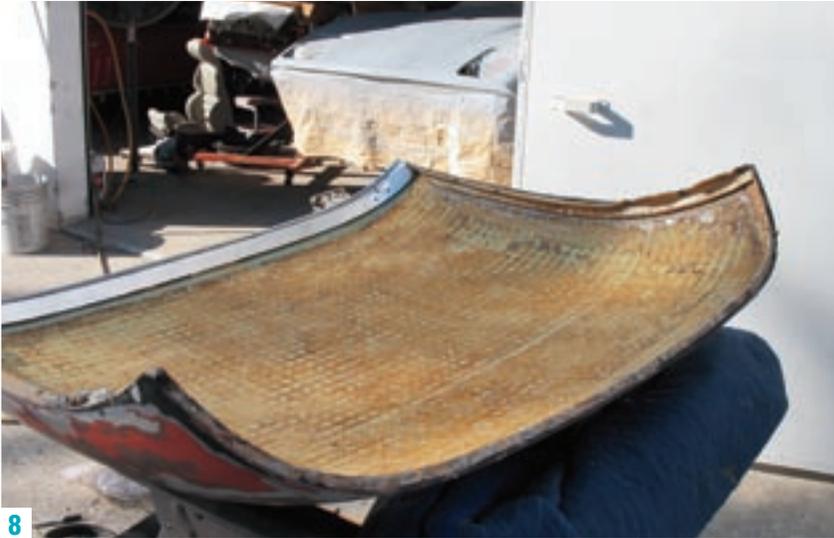
The headliner is available in an excellent reproduction and will need to be replaced in the vast majority of restorations. You may find a heat gun helpful to soften the headliner and glue for removal.

Be careful! Many of the stainless steel parts are not reproduced and

6 The rivets were drilled out and the frame was pulled back from the hardtop.

7 Frame removed from the hardtop so prepping for paint can begin. Rear glass is still attached at this point.

will be expensive to replace if severely damaged during disassembly. Refer to the Corvette Instruction Manual frequently. Start with the inner moldings by removing clips; the sides and rear will pop off with a little prodding. The moldings around the outer window areas have nuts and slotted head screws. Remove all of the nuts and carefully push on the studs, and the moldings will come off. Remove all of the screw heads and pull them out. You should be able to get all the moldings off from around the windows. Pull the back glass out carefully, so as not to crack or break it. You might need to go around the weatherstrip and loosen the caulked areas first. The side quarter windows have rivets on



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8 Frame removed from hardtop, notice the header molding is still attached as it screws into the hardtop, unlike later-style front moldings that clip on.

9 Pulling rear window with the rear lower molding removed; frame removed from hardtop.

the vertical channel that you have to remove to get them out. They are a little more difficult to remove because of the old foam which holds on tightly after 50 years.

We then removed the weatherstrip from the upper door area. There are some Phillips-head screws holding the top fiberglass to the frame, with three on each side, next to the side glass. At the rear of the top where the frame meets, there are some rivets holding the frame to the fiberglass. You will have to drill the rivets out with a 3/32-inch or 1/8-inch drill. The frame can then be removed from the top... use caution as there will be a lot of old caulking holding them together. Again, a heat gun will help soften the caulking.

10 This shows the Plexiglas without rivets and the outer molding attaching hardware removed. Basically, this is what you'll need to remove to get the outer moldings off and the rear window out.

11 These are the correct rivets for the hardtop

INSPECTION AND EVALUATION: Carefully clean and inspect each part: weatherstrips, stainless, chrome, rivets, gaskets, brackets, Plexiglas windows, headliner, latches, etc. Make your complete list of parts and judge the re-usability of each part to your personal satisfaction. Note the parts you would like to replace with new or to have reconditioned like new. You will have to strip the paint from the roof panel to evaluate its condition fully.

Most of the shiny metal parts are stainless steel, and a few are chrome plated. If the stainless steel needs to be welded, straightened or have dents removed, you may wish to consult a professional. If it only needs polishing, you can do it yourself with

frame and plain head barrel nut that holds the outer moldings. Also shows the bracket for attaching the hardtop to the car.

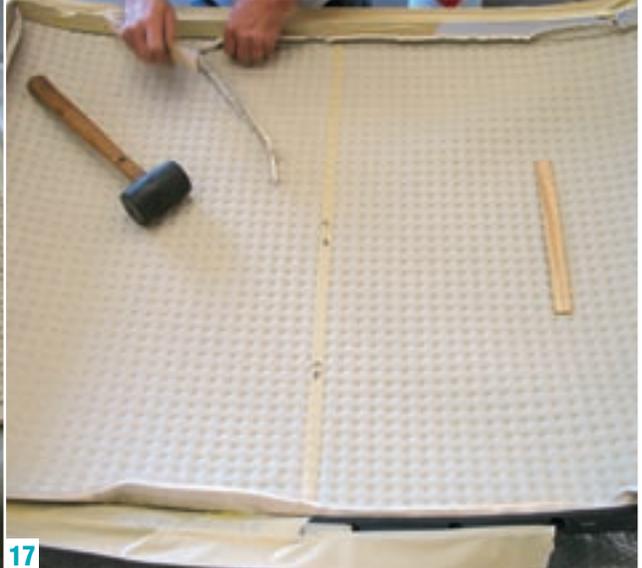
12 The hardtop in primer and ready for paint. Front molding is masked off.

a good wheel set and the proper grit rouges. You can research the necessary steps and methods on the web and/or contact the Eastwood Company (www.eastwoodco.com).

The Plexiglas can sometimes be reused. After gently cleaning with soap and water, take a close 10x look at the clouding and scratches. Minor clouding and slight scratches can be removed much like polishing paint. It may require a lot of elbow grease or buffing with a small machine, but if successful, you have the joy of knowing the windows are original!

If you need to purchase new windows, it is best to do the entire set new. Check your date codes on the glass to see if they correspond with your car. If not, you need to

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13 We sanded the Plexiglas with 1,500 grit, then moved to 3,000 grit to get the scratches and blemishes out.

14 Polishes used to buff up the windows after sanding. Use 10 first to get the majority of scratches out, and then use 17 for final polish.

15 With the headliner removed, you can see that the factory used a lot of glue. We're cleaning the caulking off of the edges.

16 We found the center of the new headliner and marked an inch longer on each side of the old

headliner to allow for extra material.

17 We're tucking the headliner up under the moldings and trimming the edges to the correct length. You only get one chance to do this right, so be sure before you cut.

replace them with correct date-coded Plexiglas AS4.

Next, begin checking for availability of new reproduction hardtop parts as very few, if any, NOS parts are available. Where reconditioning is necessary, check several vendors and don't just buy on price alone! Get references and referrals. Be prepared for some prices and costs to be shocking.

REASSEMBLY OF YOUR HARDTOP: The painted fiberglass roof panel needs to be as good as the body of the car and the same color shade! Refinishing the old fiberglass panel is exactly the same as the body. Don't take shortcuts or skip any steps, or you may regret it

later. After paint and allowing time for drying, you can start the buffing. You may want to delay the final polishing until after reassembly.

Check and inspect your inventory of parts and then re-inspect again, making sure everything is to your personal satisfaction! After the top is painted, you need a big table that is securely covered with a thick layer of soft non-scratching material. This will be your work area!

The first step is to install the headliner, most likely a brand new one. Set the top upside down on the table and establish where the centerlines are, front to back and left to right. Then open the new headliner (which should be bigger than you need) and do the same. If

you still have the old headliner, you can use it for a pattern; just cut the new headliner a little bigger. Then glue down one side and work it in the corners. This will take some time, some trimming, and a lot of patience. When secure and aligned to your satisfaction, repeat the process on the opposite side.

After the headliner glue is thoroughly set, move on to the top frame molding attachment. First, caulk the areas and remember that the boys at St. Louis used plenty of it! Next, install the top fiberglass to the header and side rails using the Phillips screws. Install all the new 1/8-inch rivets loosely along the back window edge trim and then start riveting them in place. Once that fun



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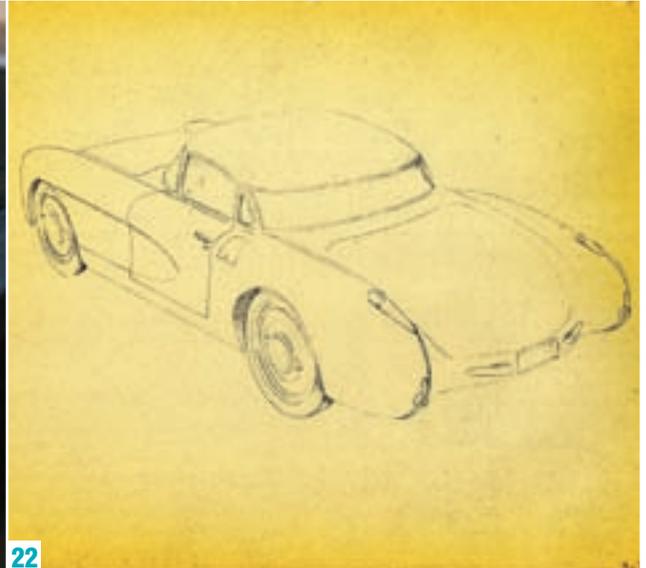
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18 Working the rear corners up into place. This is the hardest part of installing the headliner and quite time consuming. Be patient.

19 Installing lower weatherstrip and prepping to install side glass.

20 This shows the correct rivets in the rear glass and the retainers for the rear outer moldings.

21 This shows side glass rivet and screw that holds the driprail on the hardtop.

22 This rare Chevy Engineering hardtop sketch shows the design of the new for '56 hardtop. This time, the top was designed as part of the car, not as an add-on. Note the date (March 7th, 1955). Image: Ken Kayser Archives

is done, we move on to the side glass and reinstall the glass to the channel. The front weatherstrip is riveted to the front window channel... note the glass fits very tightly in the channel. Rivet the vertical weatherstrip to the top & bottom.

Install the main weatherstrip in place and then the back glass. Slowly work in the molding with the nuts and screw heads, leaving them loose until everything is adjusted and fit. Make sure the weatherstrip fits snugly in place and hasn't rolled off the window. Double check the final fit, then slowly start tightening everything down a little at a time, going around the complete set of screws several times. Now it's on to the inside trim. Very carefully snap

the side pieces in place, then the back pieces, and finally, the center connector.

The final step is to install the weatherstrips. The side weatherstrips use Phillips screws to hold them in place. The front weatherstrip slides into the channel on the front molding. Once the front weatherstrip is in place in the channel, you install the small spiral rivets into the holes in the header molding. Take a hammer and lightly tap the rivets into place.

AUTHENTICITY IS NOT ALWAYS 100% ATTAINABLE: The original Chevrolet 1956-62 side door glass weatherstrips were on both the folding top and the hardtop, located along the top and rear edges of the door

glass, and were covered in black cloth. Reproduction weatherstrips today are most often molded rubber without the extra cloth covering. If your hardtop is fortunate to have the original cloth-covered weatherstrips still in good condition, you may wish to take extra care during the disassembly so as to reuse for originality! All is done now, except for the final cleaning, polishing and installation on your Corvette! ■

FOR YOUR INFORMATION

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