



MGA Body Restoration

Quality metalwork is essential to providing a firm foundation for your MGA's fit and finish. Eclectic Motorworks has the experience to carry out all the critical steps of your MGA's sheet metal restoration. Our fixture-based sheet metal repair and welding processes ensure that your MGA's body is restored to the highest quality inside and out.

Background

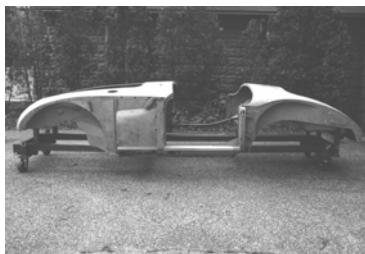
Our purpose-built shop fixtures ensure that we can offer an MGA sheet metal restoration that is second-to-none in accuracy, fit, and finish. Our main fixture emulates the MGA's frame—except that our tolerances are within 1/32" while the factory's were within 1/4". The main fixture establishes more than 50 key measurements of the MGA's body. Combined with other fixtures exclusive to Eclectic Motorworks, more than 70 dimensions of your MGA are kept in check.



Our welding procedures ensure that your car will be rebuilt to better-than-new specifications. Whenever practical, we duplicate or simulate the factory's welding processes to ensure your car's welds are restored to function and look correct. We use a combination of MIG (Wire Welding), TIG (Heliarc), and Resistance (Spot) welding processes throughout the restoration process.

Procedure

We prefer that your car comes to us as a rolling shell on its frame and that we restore your frame before we start work on your body. When we receive the rolling shell, we will measure and record all critical dimensions. We'll also make note of all problems, from minor rust damage to major collision or rust damage. We'll develop a detailed cost estimate and discuss it thoroughly with you before any work commences.



MGA body tub mounted on rotisserie/shipping dolly

We then remove the doors, bonnet, boot lid and wings (fenders). The body is removed from the frame using our lifting fixture. The body is mounted to one of our rotisseries and sent to be sandblasted along with the wings. Our sandblaster has stripped many MGAs and is very careful not to damage any panels. Certain panels, such as doors, bonnet, boot and front and rear cowl tops, are hand stripped, as sandblasting would damage them. If you have concerns about sandblasting, we can arrange to have the body plastic media blasted or chemically stripped for additional cost.

Upon return from the sandblaster, a quick re-evaluation is made of the body's condition. Then the body is mounted on our fixture for repairs. We strive to make all repairs using accurate replacement panels and welding processes similar to the ones used by the factory.

When all repairs to the main body shell are finished, we make any necessary repairs to the doors, bonnet, boot lid and wings. We ensure that all panel gaps are 1/8" and even—these are better tolerances than the factory used. We mount your body tub back to your frame and recheck all of these tolerances before the car goes to the painter.

We don't offer in-house paint and final bodywork, as there are a number of high-quality shops that can do an excellent job in varying price ranges. We mount your body back on one of our rotisseries and ship it to the body shop of your choosing. When at the body shop, your body will require a thin coat of filler over many of its panels, then primer, block sanding and paint.

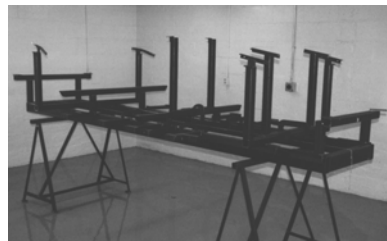
After your car comes back from being painted, we will work with you to determine the next step. Many of our customers finish the car's re-assembly themselves, while others chose to have another shop like University Motors finish the restoration.

Eclectic Motorworks' Fixtures

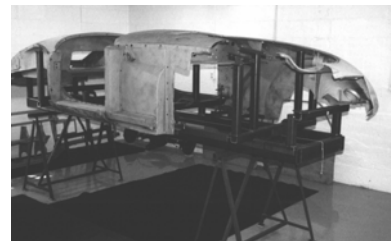
We have developed what we believe are the best set of fixtures available. These fixtures ensure more than 70 critical dimensions on your MGA are maintained. Our main fixture has eight permanent stations welded to it. These stations are in the same position as the eight main mounting points on the original frame. After the body is mounted to this fixture, we have about ten clamp-on fixtures to establish various dimensions of the body. There are fixtures for the sills/pillar assembly, front and rear fender mounting areas, bonnet surround, inner cowls and other areas on the body. These fixtures have been developed using factory drawings as well as measurements taken from many MGAs.



Main alignment with eight permanent stations



Main fixture with all stations attached



Body mounted on main fixture for repair

Welding

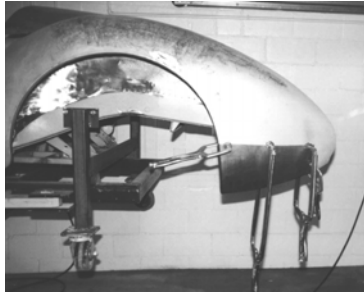
Sheet metal welding is a difficult skill to learn and many shops take shortcuts to minimize welding. With the advent of modern fillers and adhesives, welding continues to be minimized in automotive bodywork. While these modern fillers and adhesives work very well, a good weld is almost always superior.

We have analyzed every weld on the MGA and believe the best welding process for the MGA is the factory's process. We either use the same method as the factory, or a carefully chosen modern method that simulates the look of the factory method. We improve on the factory's work with closer tolerances for an excellent fit and finish.

When we install patch panels, we butt-weld the seams using the TIG welding process. After minimal grinding and hammer/dolly work, the weld seam is virtually undetectable. Sometimes, no filler is required after welding. Sills, pillars, rocker panels, and other parts are installed using our state-of-the-art spot welder—it welds just like the factory.

The proof of quality in our welding processes is best seen by example. We'll gladly show or send you welding samples that compare our processes to the common processes used by many shops today.

Panels and Panel Fit



*Rear fender patch panel made
on the Eclectic Motorworks
English wheel*

Many repair panels are available for MGAs and are of varying quality. We know which are the best to use and what modifications are necessary to make them correct. In many cases, we reproduce panels in-house using various tools including our English Wheel.

MGAs are notorious for poor panel fit. The body is complex and quality assurance from the factory was poor. We ensure that your panels will have even gaps all the way around before the car leaves the shop. We also make sure there are no stresses in the panels that may develop into poor fit or cracks over time.

We've studied MGA doors extensively and understand what it takes to make the doors not only fit, but shut well. Your doors will shut without excessive force and will not pop open later.

Bodywork and Paint

We have chosen to focus on metalwork and welding and therefore do not offer final bodywork and paint services. When we finish your car, it will be clean, bare metal and ready to go to the body shop of your choice. Since we'll have done all the hammer and dolly work, welding and ensured panel fit is correct, the body shop can focus on what they do best: the final finish of your car. And the results will show.

While it is possible for us to finish a car so that no body filler is necessary, it is rarely cost-effective to do so. It is common for a body shop to put a thin coat of filler over nearly the entire body before a concours-quality paint job. The high quality of today's fillers make this possible as a cost-effective way to quality work.

If you do not have a body shop in mind, we have several in varying price ranges that we can recommend. We can coordinate delivery if you would like.

Pictures are Worth a Thousand Words

We're proud of our work and are sure you will be too. We'll provide you with literally hundreds of pictures that document the entire sheet metal restoration of your car. If you live too far away to visit your car, we'll post progress pictures regularly on our website and give you the originals at a later date.



Want to learn more? Visit our website (www.eclecticmotorworks.com) for hundreds of pictures of MGA sheet metal restoration. Then contact us for an appointment. We'll show you how our processes will give you the firm foundation for an excellent restoration.