

# Healey Werks Restoration 101

Article and photos courtesy of Craig Hillinger, Healey Werks

**E**very full restoration begins with the careful disassembly of the car. The first significant step is thorough documentation. As the car is pulled down, all components are recorded and any irregularities or differences in construction are noted. This practice ensures that during the rebuild and reassembly process, these irregularities are not lost as these can be very specific to low production or hand-built cars. This documentation is accomplished through hand sketches, notes and copious amounts of pictures that are taken and archived for future reference.



*E Type Jaguar Suspension assembly.*

**EDITOR'S COMMENT:** We realize not all of the photographs included are Maserati. However, since our featured Maserati Sebring has not undergone all of these steps, we are using photos of various cars already completed.

In the Sebring project, as said before, the car will be disassembled and documented. All of the pieces will be inspected and checked for damage to identify other problems that may be a problem in the reassembly process, such as fit. With the car disassembled, we will then assess for rust, corrosion and any structural issues that may exist. The repairs to chassis and body are then carried out. These repairs are crucial to any project and must be done to exacting detail to provide structural integrity as well as cosmetic appearance and panel fit.



*Maserati 3500 right front suspension before disassembly.*



*3500 after reassembly.*



Now that the car is disassembled, all of the components are now addressed. First, the suspension, steering, brakes, and related driveline components are disassembled, checked for stress fatigue, cracks wear or any other damage. The engine and transmission are also

stripped and checked for wear, component failure, or any other problem that may exist. Once this step has been completed, the engine components can then go to the machining process and be brought to tolerances for reassembly.



*Maserati 3500 Engine in disassembly process.*



*Healey 3000 engine reassembly.*



*What a mess! Original wiring harness from Maserati 3500.*



*The recreated Maserati 3500 wiring harness.*



*Maserati 3500 dash being assembled.*

Secondly, all of the wiring and electrical components are inspected and checked for any problems that may exist with them. The wiring harnesses are then duplicated and components are rebuilt or replaced.





At this point, all of the chrome and stainless brightwork is checked and repaired. Then all of the pieces are put away until the body work is completed. The brightwork is then prefit to the car before it goes to chrome. This ensures a perfect fit when the plating comes back for final assembly.

The interior parts are also evaluated, fabricated and rebuilt. These finished pieces are then put away until these components are ready to be installed.

*Jaguar XK 140 fender being remade.*

*Below: Maserati 3500 windshield prefit of trim, in copper prior to chroming. This is done to ensure proper fit prior to sending the trim for chroming.*





With a painted body/chassis, the careful reassembly of mechanical parts, suspension, wiring, etc. can begin. Once the mechanicals are rebuilt onto the car, the engine, transmission, cooling, and fuel systems are reinstalled. The car is now made into a running and driving vehicle. Then the vehicle is run and tested to ensure that all of the mechanical and electrical systems are functioning properly. This step is important because once the interior and trim are installed, it becomes more difficult to make corrections and adjustments. This also prevents finished trim, bright work or interior from being damaged. Once the mechanicals have been fine tuned, the process of trim, lights, chrome, and interior can be completed.



*Healey 3000 front hood being fitted to front clip. This ensures proper fit in the final assembly stage.*

*Jaguar XK140 body fit and metal finishing.*



This should serve as a general outline to a full restoration. Please join us to see much greater detail as you follow our Sebring project. ■



*Maserati 3500 in final trim out.*

