

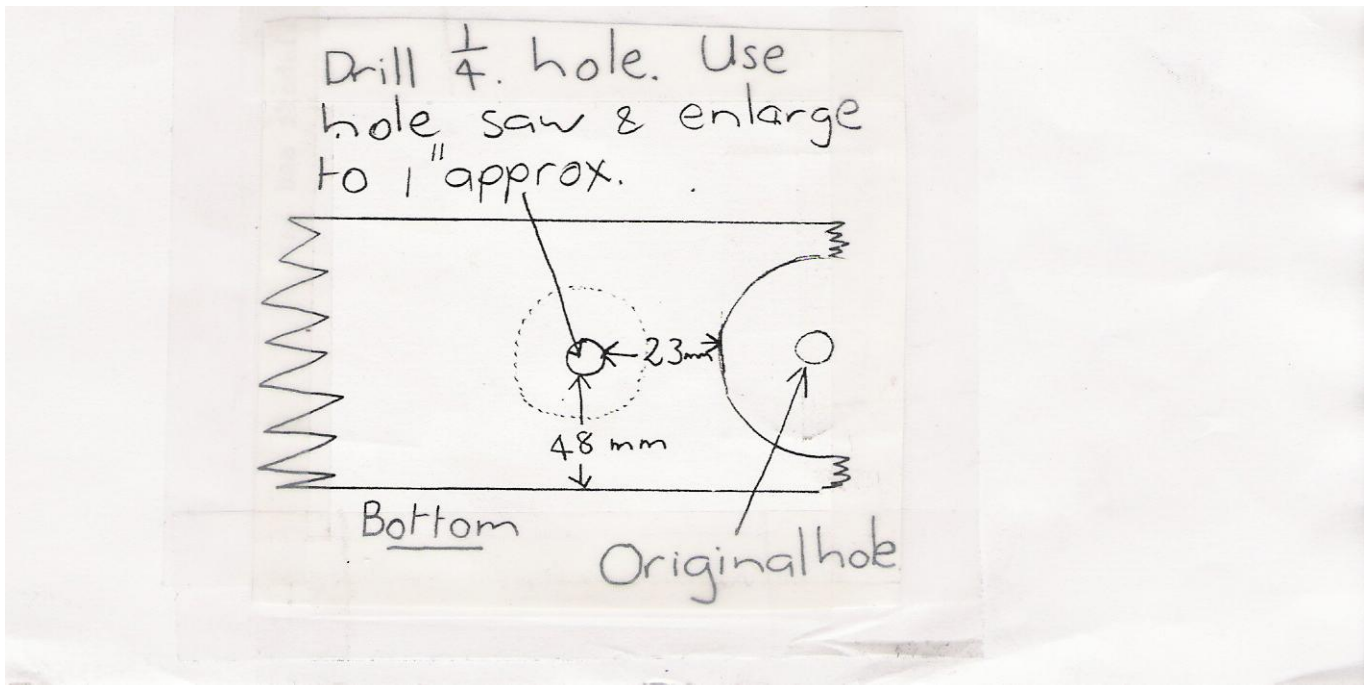
Castlemaine ROD SHOP

LC-LJ TORANA BODY & FRONT END STRENGTHENING KIT INSTALLATION INSTRUCTIONS.

Kit contains:

- 2 off Main Rails
- 1 off Back tie bar
- 2 off Internal anti-crush plates
- 2 off Machined spacer washers
- 1 off Front crossmember strengthening plate
- 4 off wishbone strengthening rods
- 2 off front crossmember to radius arm strengthening brackets
nuts, bolts and washers for installation of kit

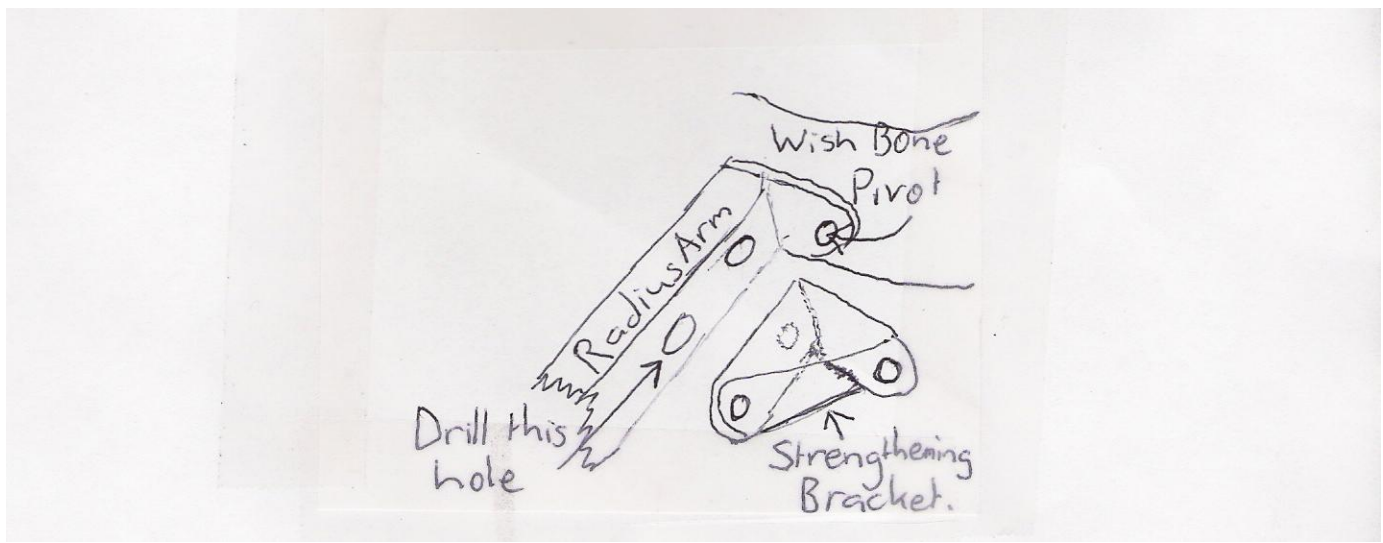
Step 1: Remove front end from the car and wash it with a steam cleaner. The best job can only be done if the suspension is pulled apart. With a sanding buff clean paint and dirt from the bottom of the crossmember, around the edges and the hole in the middle. The steel plate is then located with an even gap around the edges, clamp tight and tack weld to hold. Remove clamps and tap ends down, clamp and tack prior to full welding around the outside. The pre cut hole in the plate is to allow welding. If your crossmember has been dented, heat plate and peen around hole until it meets prior to welding.



A wire feed mig welder makes the best job of it. The shaped bars are for welding along the top edges of the wishbone, reshape if not following the edges properly, weld on and reassemble front end. The two radius arm strengtheners are to be fitted.

They will only fit one way. Bolt in with the control arm bolt. One hole already exists in the radius arm and one hole must be drilled.

See diagram for location to allow a straight drill through and to allow a socket in to tighten. Most Torana's crack badly in this area. These brackets are designed to make this area more rigid.



Step 2: To fit rails - scrape all body deadener from under the guards where chassis must fit. This is most important as any foreign matter here will throw the whole kit out. If the bottom edge of the stock chassis along where the gearbox crossmember bolts in is bent or out of shape from being jacked up here, or for whatever reason, the body must be reshaped to original or again the kit will not fit properly. Grind 6mm off where the plate sits up to give extra clearance and for main bolt hole to lineup. Grind washers off outside of chassis rail. Remove the nut from the rear trailing arm and push the bolt in until the end of the thread is just visible.

Fit the chassis rails to the front of the body and fit the bolt that holds the front radius arm in. If lined up drill through original hole, bolt up and drill others in this area. Do not over tighten.

Holding the chassis hard up with jacks fit the rear radius arm bolts with the machined spacer washers between the rails and brackets. If this bolt doesn't line up which it will unless severe body stretching has occurred. This is the only area to slot hole in chassis kit. Drill holes up through floor and through rear side body rails. Bolt up fitting the rear tie bar and the two flat drilled plates on the rear inside floor. Drill the

1/4" holes around the edges of the rail kit and bolt up using the 1/4" bolts and large flat washers around edges and on inside of car down the fire wall face.

A full range of gearbox crossmembers, speedo cables, sumps, engine mounts and many other items are available to make conversions on LC-LJ Torana's easy.

Exhausts: When fitting tail pipes the rear tie bar has been designed to allow exhaust pipes to pass between the tailshaft and bar.







View of test vehicle in bare shell form as well as the components supplied in the complete kit.



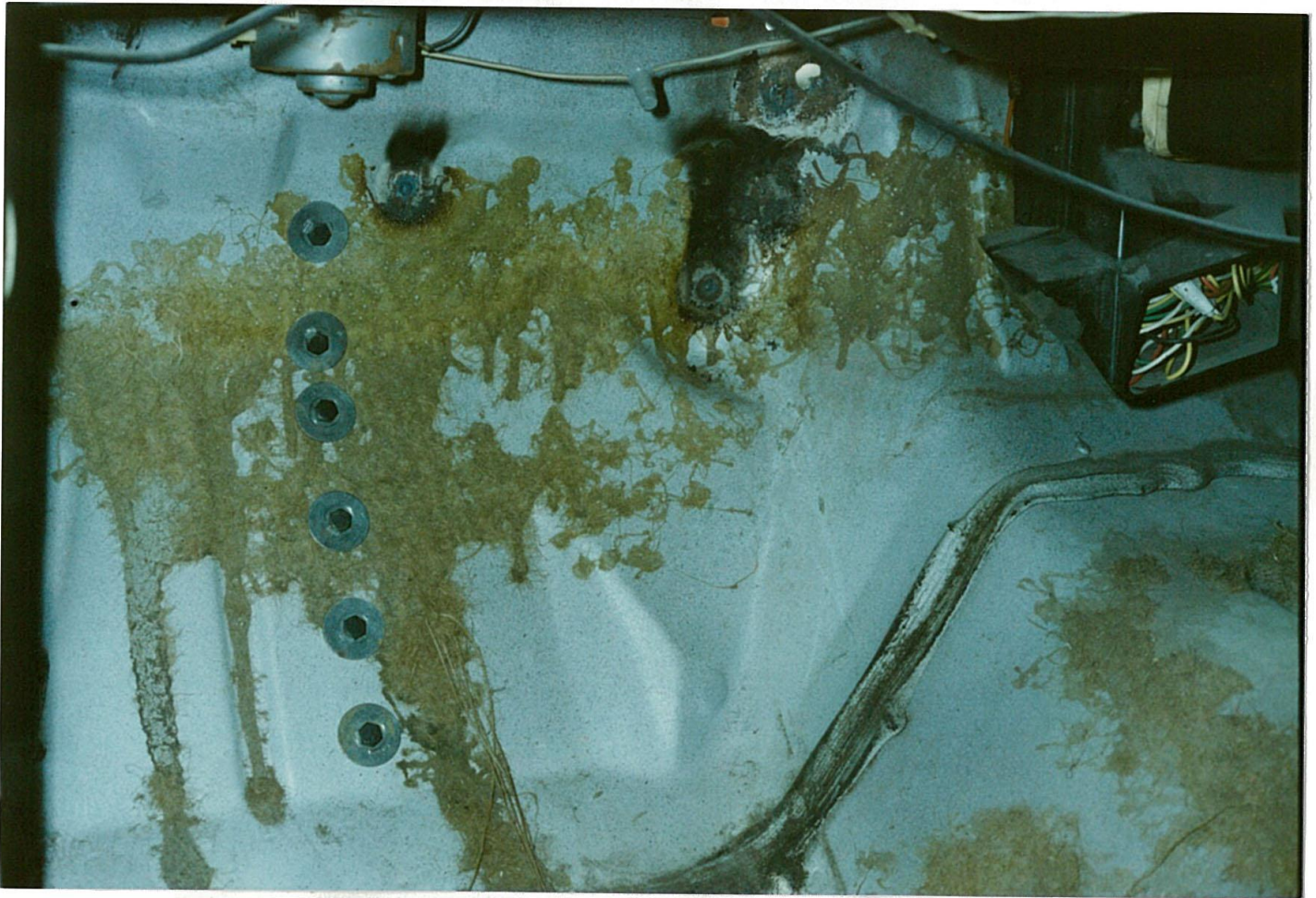
View of the front chassis rails, adjacent to the firewall, as seen from the centreline of the vehicle, showing attachment points indicated by the nylock nuts.



Lower section of the "U" shaped reinforcement section, attached to the original vehicle's chassis rail, showing through bolts adjacent to the flange of the original chassis rail. On the far side of the "U" shaped section, the R.H.S. is commenced with a tapered section.



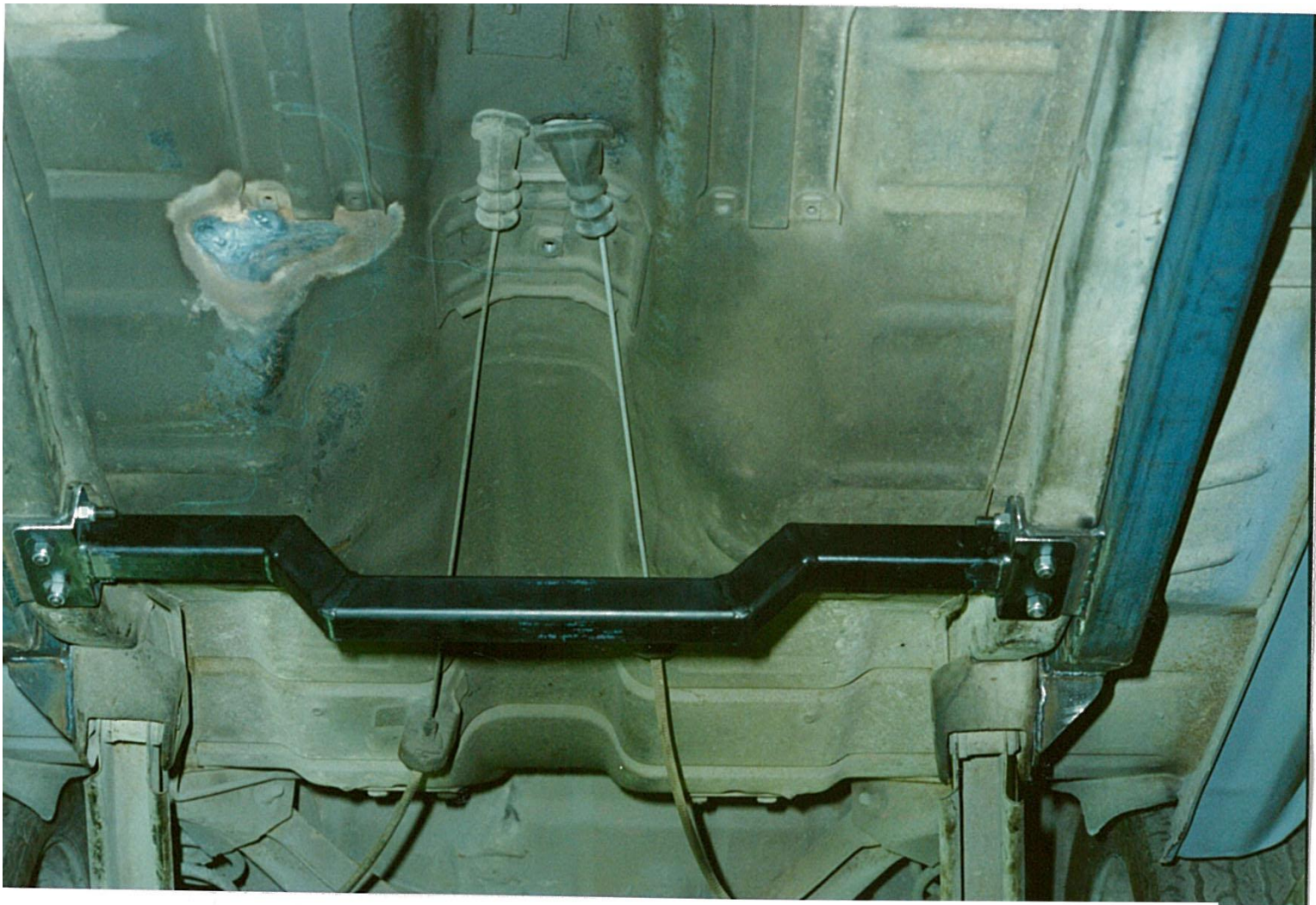
View from the outside of the chassis rail, i.e. from under the front mudguard, showing the reinforcement plate and commencement of the R.H.S., as well as the attachment points between the chassis rail and the vehicle floor.



View of the interior of the vehicle floor, showing the attachment bolts of the reinforcement plate with mudguard washers to distribute the applied load.



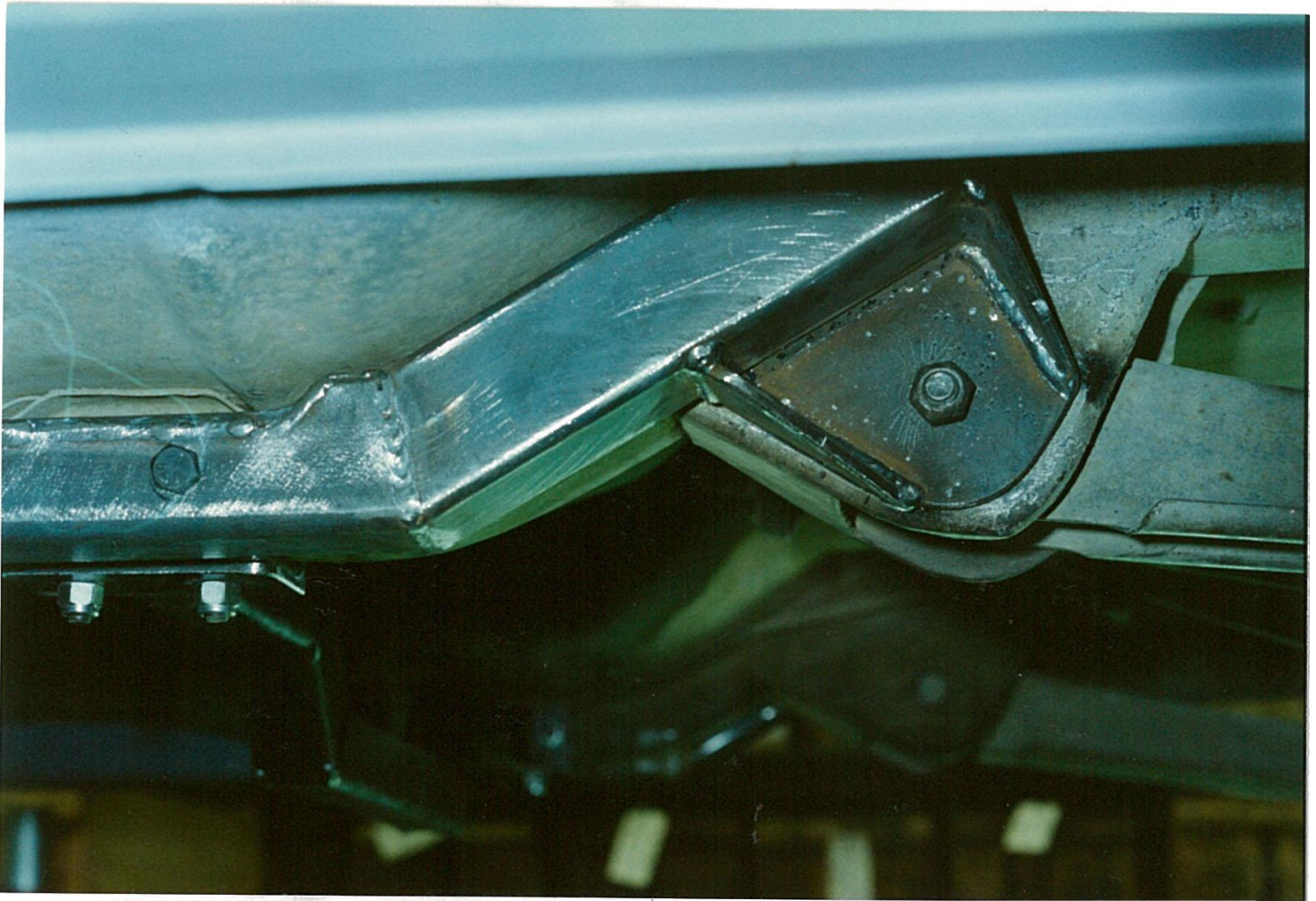
View of the underside of the vehicle, showing the R.H.S. reinforcement chassis rail placed adjacent to the original top hat section chassis rail. This also shows the main attachment points at the front and the rear of the vehicle, as well as additional attachment points near the rear suspension point where an additional crossmember is bolted on.



Detailed view of the additional rear crossmember which is stepped to allow room for the tailshaft, associated with suspension movement. The two vertical bolts pass directly through the original top hat section chassis rail and provide additional attachment to the vehicle floor.

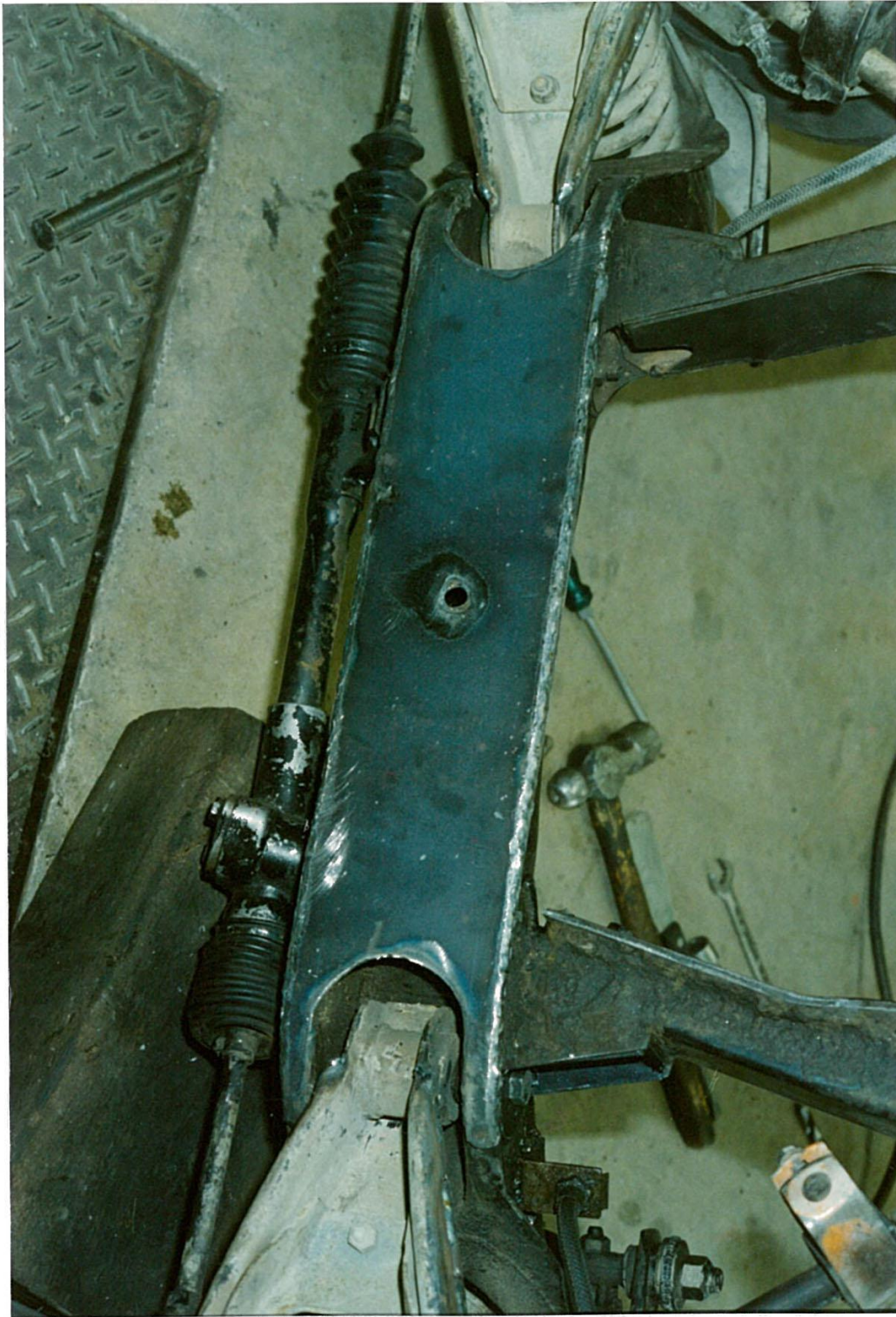


View of the floor under the rear passenger seat, where the spreader plate of the chassis and crossmember attachment point is located.



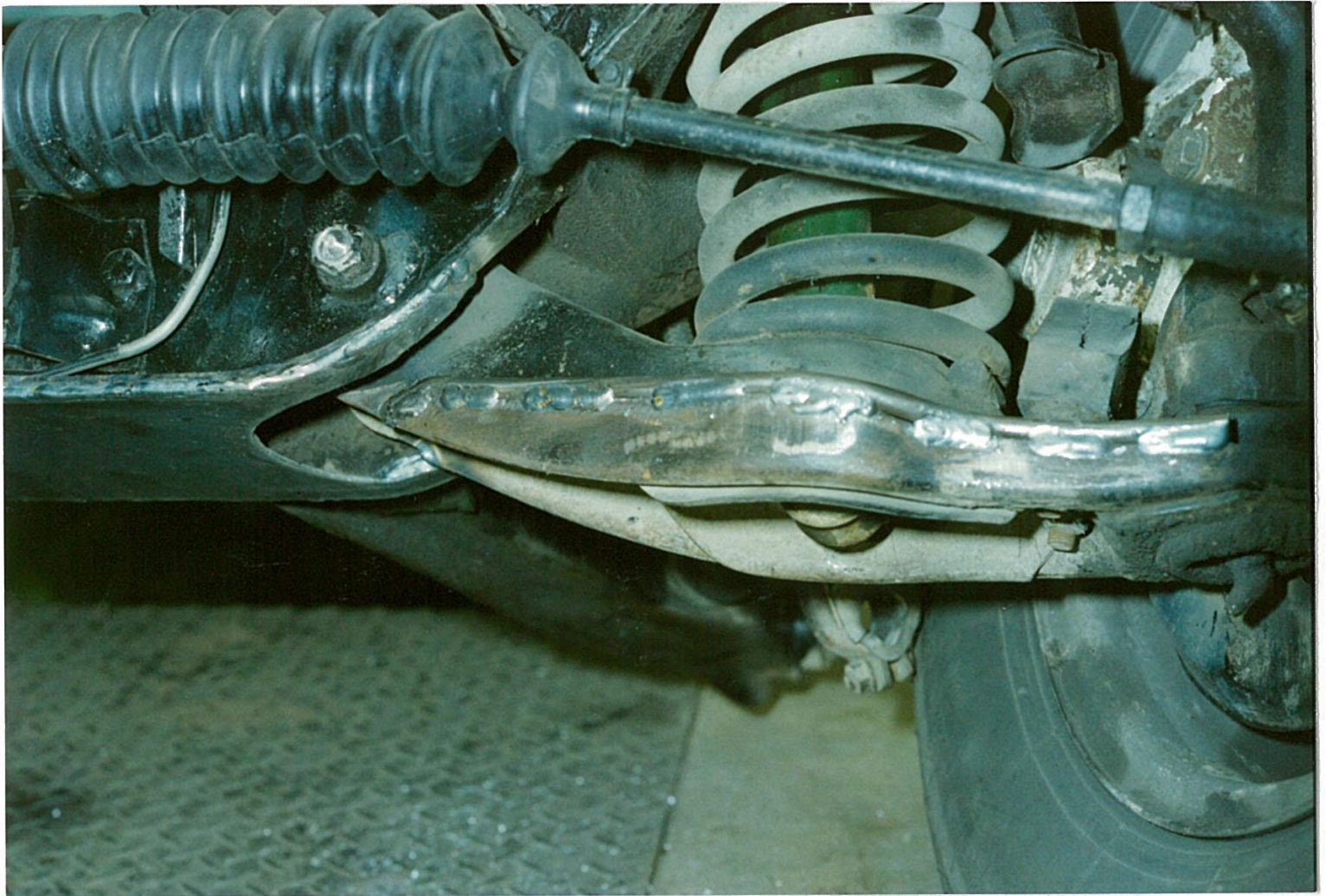
Side view of additional R.H.S. chassis rail, showing the rear crossmember attachment point and final attachment to the lower rear suspensions point.

A tapered washer is placed between this mounting flange and the side flange of the suspension point to prevent distortion when the bolt is tightened.

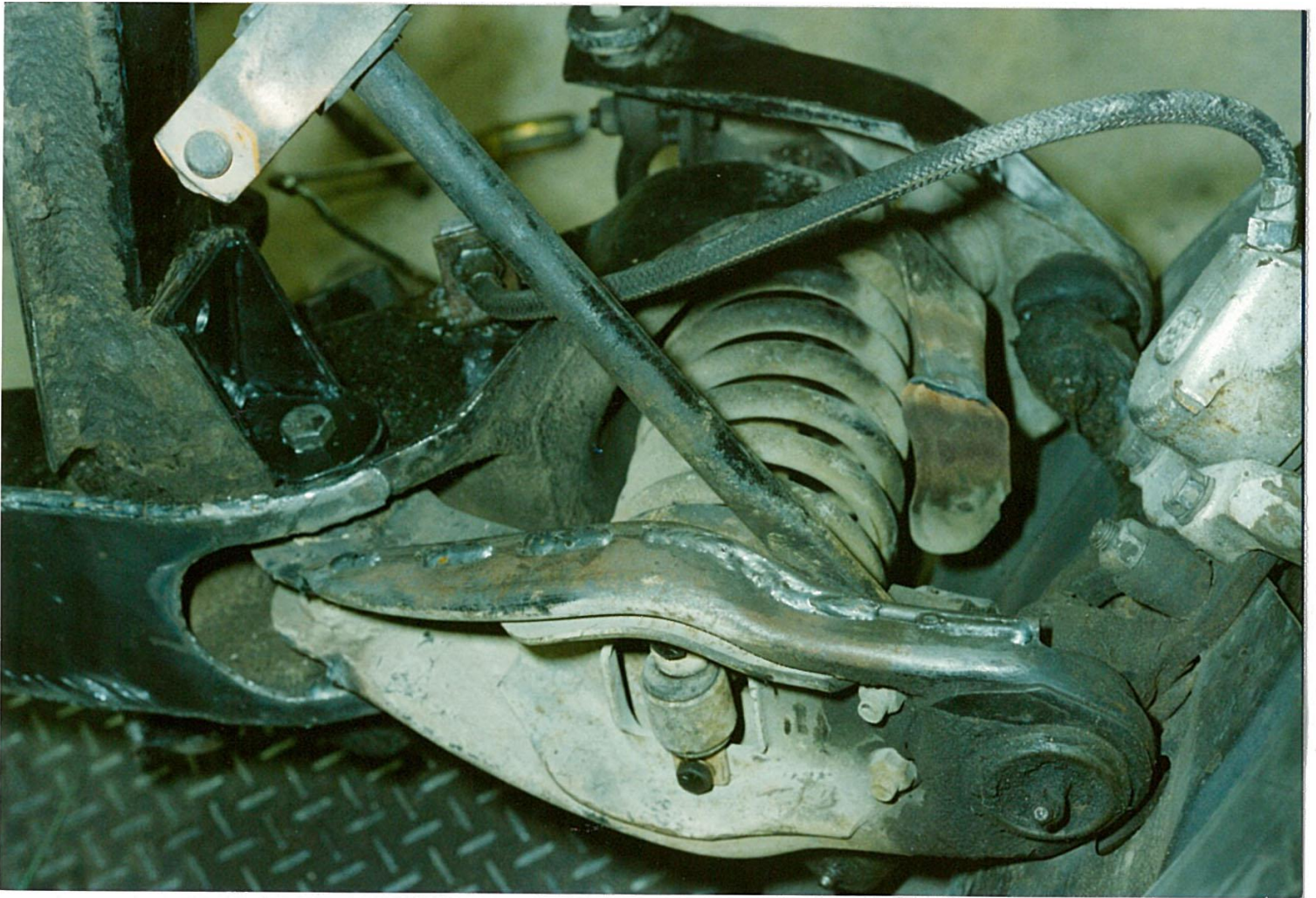


View of the underside of the crossmember showing the installation of the reinforcement plate and full perimeter welding. The original drain hole in the center of the crossmember has been retained.

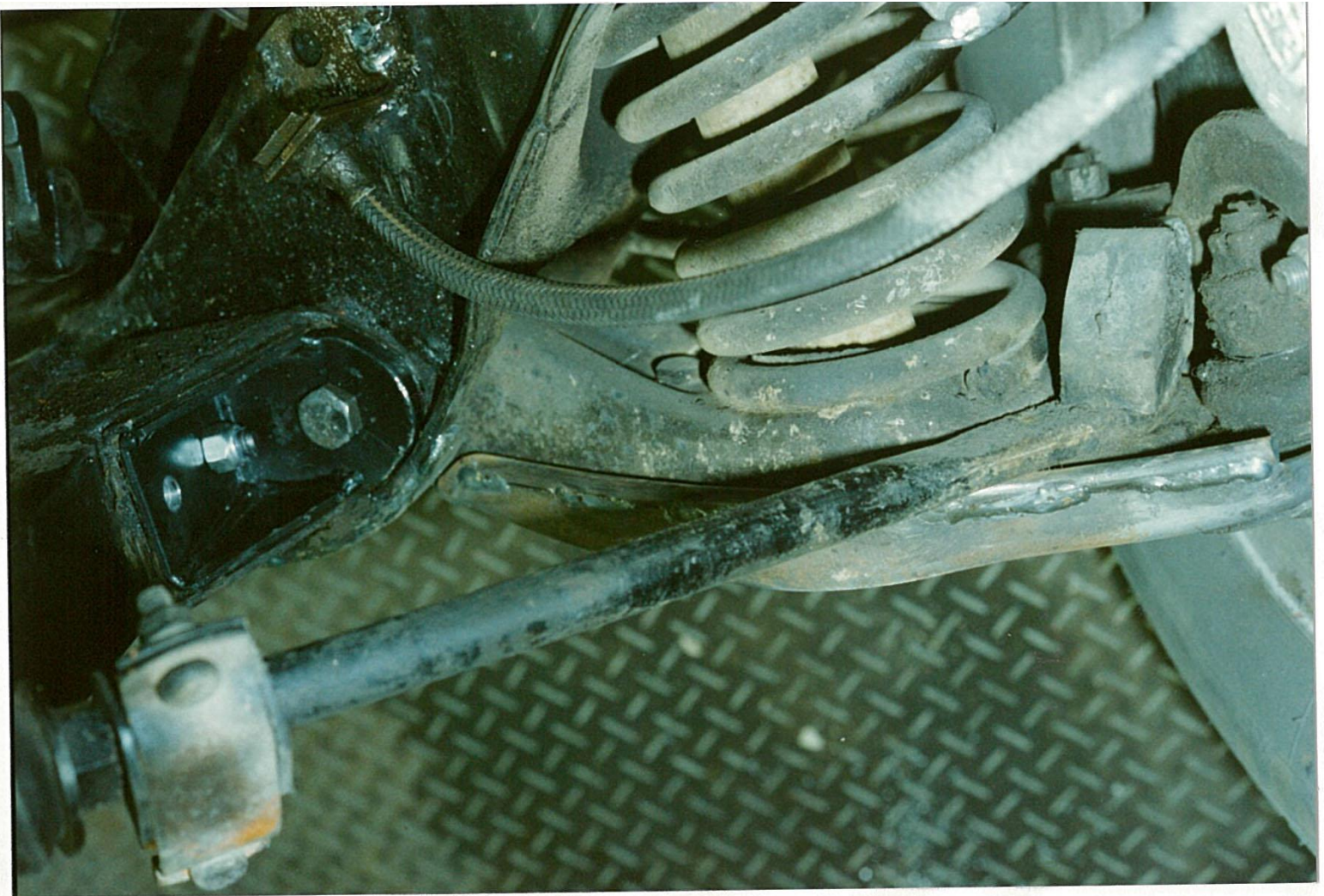
As far as possible, the lower plate of the original crossmember should be straightened prior to attachment of this reinforcement plate.



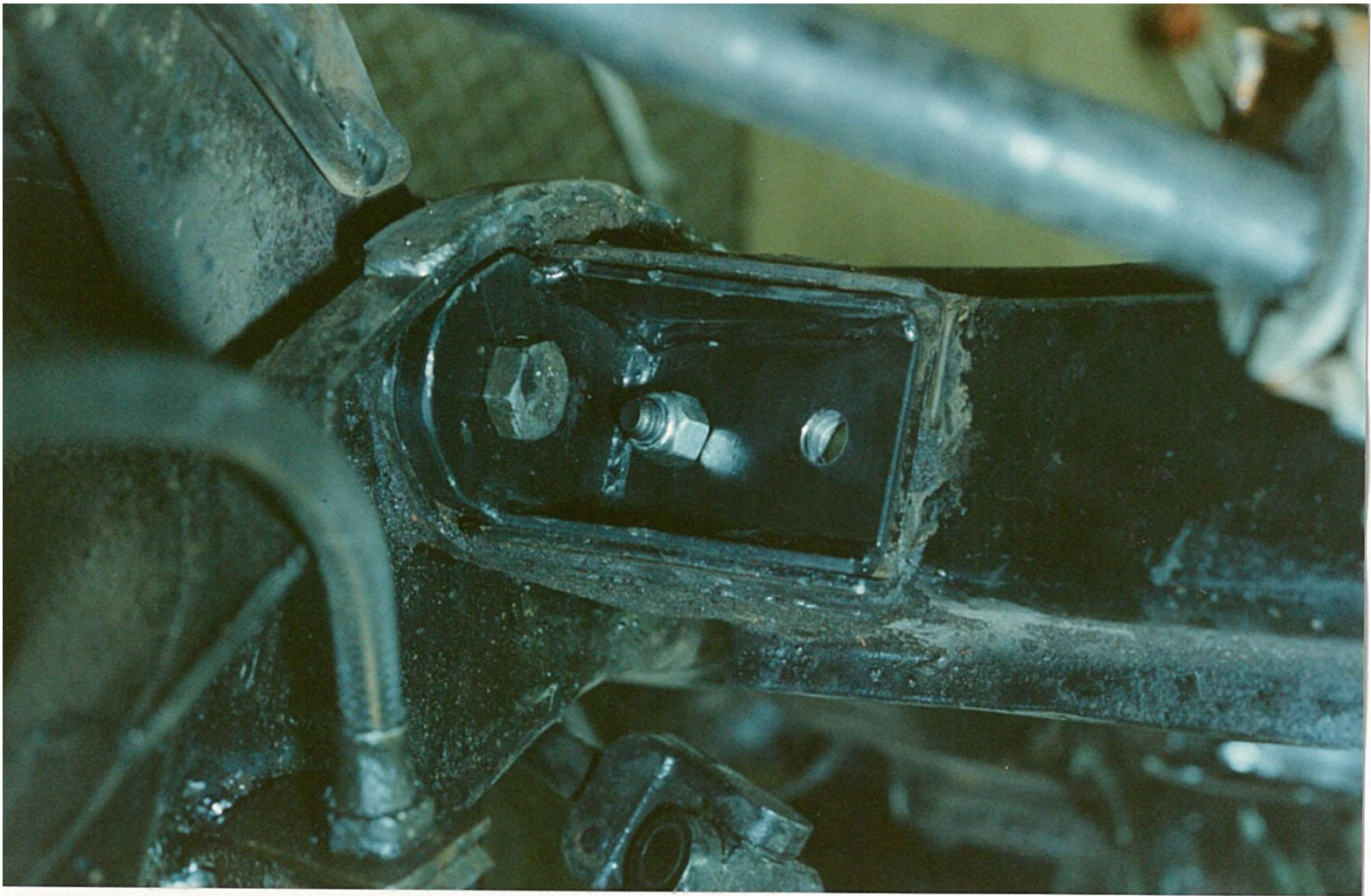
View of the lower suspension control arm, showing the reinforcement bar welded to the up-turned side of the flange. A similar bar is attached to the lower control arm on the other side.



View of other side of suspension control arm where a similar bar is welded on. This also shows the reinforcement bracket installed between the front crossmember and the torque control arm.



Alternate view of reinforcement bracket



Detailed view of reinforcement bracket, showing the main suspension bolt installed as well as the first side bolt which fits through an existing hole.

A third attachment hole must be drilled to fit the additional bolt required in the longitudinal section.