

# TR6-TR250-TR4A IRS Chassis Frame Repair

The chassis frame of the TR' poses a serious rust problem. The frame is a built up box section assembly. When the cars were new, they left the Triumph factory with very little rust protection. A thin coating of black paint is all that ever separated the TR' chassis from rust!

Unless you own an exceptional car, one that was never winter driven or one that had its underbody & chassis spray oiled every year; your car is probably suffering from some degree of chassis rust.

In many cases, the rear suspension (trailing arm) mountings become so badly rusted, that the suspension begins to break away from the chassis. The results of this could be catastrophic. Fortunately what usually happens is that the chassis bends and tears slightly. The rear wheel alignment goes askew. Often the affected rear wheel then rubs the wheel well. You will quickly become aware of the problem as tire smoke permeates the cockpit!

There are several ways to go about fixing the problem.

You can purchase a new or second hand chassis frame and bolt your driveline & body onto it. This is a perfectly acceptable, if not expensive, repair method.

Be prepared to spend a fortune for a brand new chassis. Should you be lucky enough to find a rust free used chassis you would likely have to spend \$2500+ for it.

Unfortunately we see many TR6s repaired by the patch & fill method. Angle iron or some other "junkyard" steel is welded or brazed over the gaping holes in the chassis. Usually a thick coating of black tar is smeared over the repaired area, ostensibly to prevent further rusting. More likely this is done to hide a substandard repair job.

The most reasonable means of chassis repair is to repair your existing frame with a combination of the correctly fabricated repair components and a little bit of hard work!

The worst areas of rust out on the TR6 (or TR250-TR4A) chassis are in the rear, where the rear suspension attaches, and also where the exhaust pipes pass through the centre section.

The trailing arm "legs" are straight box sections, about two feet long. These sections tie the main inner frame rails to the rear of the outer rails. They are easily visible underneath the car, behind each door opening.

Most importantly these boxed, or closed channel sections, support the rear suspension trailing arms and thus the rear wheels. Obviously they must be very strong and rigid.

Examine yours carefully. Check for rust holes or a lot of surface rusting and bubbles, particularly in the lower edges. Also look for signs of previous repair work that may have been poorly done.

To do this repair properly you will need to remove the affected suspension/trailing arm assembly. In fact, to do the best possible job, the entire body should be lifted off the chassis.

As you can see, the box section repair panels that we are offering are professionally made. They are pressed from the correct gauge of steel for the job. Correct stiffeners and supports are welded inside the channel for the all-important trailing arm pivot mounting bolts. The repair panel is supplied in two pieces for proper installation. The main channel is first "grafted" into your existing frame and welded in position. The smaller "U" channel is then inserted into the previously installed main channel and fully welded.

After this installation you may wish to install new upper & lower cruciform plates. These are stamped steel plates with pressed stiffening ribs.

Here's what happens when a frame gets severely rusted. In this photo, you can plainly see that the trailing arm mounting "legs" have completely broken away. This has left gaping holes where these frame sections once were.

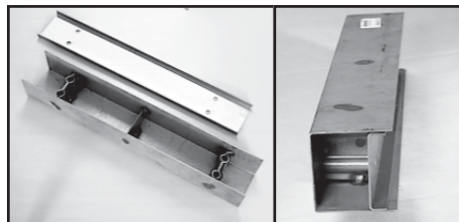
New trailing arm repair section in position.

Note: Careful trimming and alignment are necessary before welding.

After carefully grinding out the welds, the upper cruciform plate can be lifted away. Installing new trailing arm mounting repair sections will pretty well dictate that you install new upper & lower cruciform plates as well. They will be ruined during the removal process.

Look what was hiding underneath this lower cruciform plate! In this case, the main chassis rails are almost totally rusted out. The strength of this frame is badly compromised. Repairing the rusted out frame rails is easy when the damage is open and fully exposed. New steel plates can be grafted into the main rails and then new upper & lower cruciform plates installed.

## Trailing Arm Mounting Section

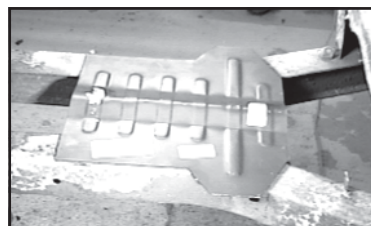


Fits all TR6-TR250 & TR4A IRS 1965-1976  
Fits LH or RH 2 needed per car.

BO-FRREP-211346  
**Reg. \$115.50 Sale \$79.95 ea**

## Upper Cruciform Plate

Fits TR6 1969-1976



BO-FRREP-214253  
**Reg. \$112.70 Sale \$79.95**

## Lower Cruciform Plate

Fits all TR6-TR250-TR4A IRS 1965-1976  
BO-FRREP-211650

**Reg. \$83.75 Sale \$64.95**



## Front Suspension Lower Control Arm Pivot Bracket

These brackets are welded onto the main frame rails at the front of the car.

The lower control arms (actually the pivot brackets) bolt on to them. They are notorious for cracking. Driving over a large pothole is often enough to crack a pivot bracket or even cause it to break away from the frame rail. Since these brackets support the front suspension, it could be a dire occurrence. Check yours!

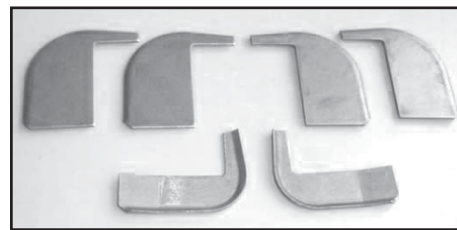
New pivot brackets are relatively easy to install. They are simply welded to the frame rails after the old brackets have been removed.

Checking the condition of your control arm brackets (and any needed repairs) should be part of any TR6 chassis overhaul.

Fits any 68 - 76 TR6 or TR250. Four needed.  
BO-FRREP-139580  
**Reg. \$44.70 Sale \$34.95 ea**



## Lower Control Arm Pivot Bracket Reinforcement-Gusset Kit



Even with new pivot brackets, there's no guarantee that they won't get bent or distorted if you drive over a big bump.

We recommend purchasing a gusset kit to beef this area up.

Kit includes a set of six fabricated steel plates. These are welded onto the sides of both pivot brackets and onto the main frame rails. Installation is straightforward and will strengthen this traditionally weak area of the TR' chassis.

Includes brackets for both side.

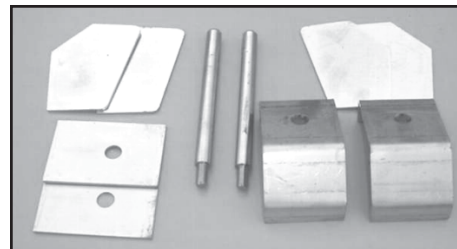
Fits any 68 - 76 TR6 or TR250.

BO-FRREP-RFK158

**Reg. \$76.50 Sale \$69.00**

## TR6 Differential Front Mount Repair Kit

New Item



Engine torque pulls hard on the RH front differential mount. A car that has been driven hard (like popping the clutch and burning rubber) will more likely have damaged differential mounts. The differential hangs on steel pins that are welded into the chassis frame rear cross member(s).

The front mounts are by far the most susceptible to breakage, though it does happen to the rears occasionally.

The steel pin tears away where it is welded to the cross member. Also, the lower bracket cracks where it is welded on.

We now have a professionally made kit of parts to repair the damage.

The kit includes new mounting pins, brackets, and reinforcing plates. These must be welded onto the cross member after the damaged old parts are removed. The old mounting pins and brackets are most easily removed with an angle grinder.

This job can be done underneath the car if needed. It is best done with the body removed and a carefully prepared chassis frame. We don't live in a perfect world however...

BO-KIT-140009K

**Reg. \$177.50 Sale \$159.95**

## TR6 Differential Mount Pins

If your differential mounts on the chassis have cracked or broken away, they will need to be repaired. You can purchase the kit listed above.

Alternatively you can purchase the pins alone (the pins are included in the above listed kit).

Sometimes the mounting brackets that secure the



pins are still OK. In fact this often occurs. The threaded ends of the pins get broken off when you try to overzealously remove the nuts if they are seized with rust. You are better off grinding the sides out of the nuts and chiselling them off if they are seized. If you just wrench on seized nuts with all your might, there is a better than average chance of breaking the end of the stud off. Once this happens you'll need to replace the stud. That involves cursing and swearing, grinding and welding...

We are selling the pins themselves for a lot less money than the repair kit.

If you don't need the brackets and gusset plates, this will save some real dough!

Originally there were two different length pins, longer for the front mounts and shorter for rear.

We carry only the long style pins. These have a total length (including the thread) of about 6 1/2". Fits front or rear. Four required.

BO-PIN-147400

**Reg. \$31.40 Sale \$21.95 ea**

## TR6 Differential Mount Washer-large

The differential mounts slide up onto the pins on the chassis. They are secured with four large heavy steel plate washers and then four Nyloc nuts.



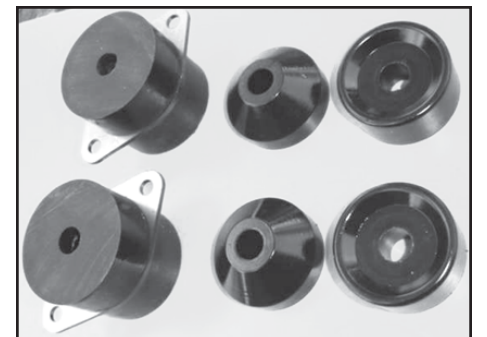
These big steel washers end up getting incredibly rusty on most cars. They simply wouldn't do on a car that has been detailed or restored. We have new plated washers in stock now.

Four needed.

HW-WASHE-134234

**Reg. \$5.65 Sale \$3.69 ea**

## TR6 - TR250 Poly Differential Mount Kit



TR's have always had issues with their differential mounts.

Both the front & rear mounts are made of soft rubber. Oil which "seeps" out of the differential softens and deteriorates the mounts as time goes by. In the case of the rear mounts, the steel tube that is "glued" into the rubber becomes "unstuck". This allows the mount (along with the differential) to move up and down as you accelerate or decelerate. Left like this for a while, the differential mounting pin will break right out of the chassis-and repair is rather unpleasant!

Replacement differential mount kits have always been a popular item for the TR6.

Until now, we've had only the stock rubber mounts. We now have a high quality poly mount kit. It is only slightly more expensive than stock, but my hunch is that it will last many times longer.

Fits any 1968 - 1976 TR6 or TR250.

MT-KIT-1P

**Reg. \$134.75 Sale \$89.95**

## Extra Item

## TR7 - TR8 Turn Signal Switch

We now have turn signal switches in stock. I needn't tell any ardent TR7 enthusiast how ridiculous the turn signal switch supply has become.

For the past two years there has been nothing but a few old-stock switches at two hundred and twenty bucks!!!

The mechanism inside the switch body is pretty complicated. It always fails eventually. Of course you can't purchase parts to fix your old switch...

This switch has several functions. It operates the turn signals, the end pushes in to beep the horn, and the lever moves forward and back to operate the high beams.

Some plastic piece inside usually breaks, resulting in the handle going "limp". Then the headlights won't stay in the HI or LOW position.

Also, the gizzards fail electrically so that the signals stop working.



This switch is correct for all 75 - 79 cars. Works just fine on 80-81 cars too. (The only difference being the shape of the plastic on the end of the lever.)

The switch and its pigtail wiring harness are otherwise identical for all years.

SW-TURN-30611

**Reg. \$172.50 Sale \$99.95**