

## 10 Front Suspension

### 10.1 Assembling Front Shock Absorbers



- This is the same process as described when assembling the rear shock absorbers, so refer to section 5.1 on how to do this.

**N.B.** The front springs are stiffer than the rear springs.(thicker wire)

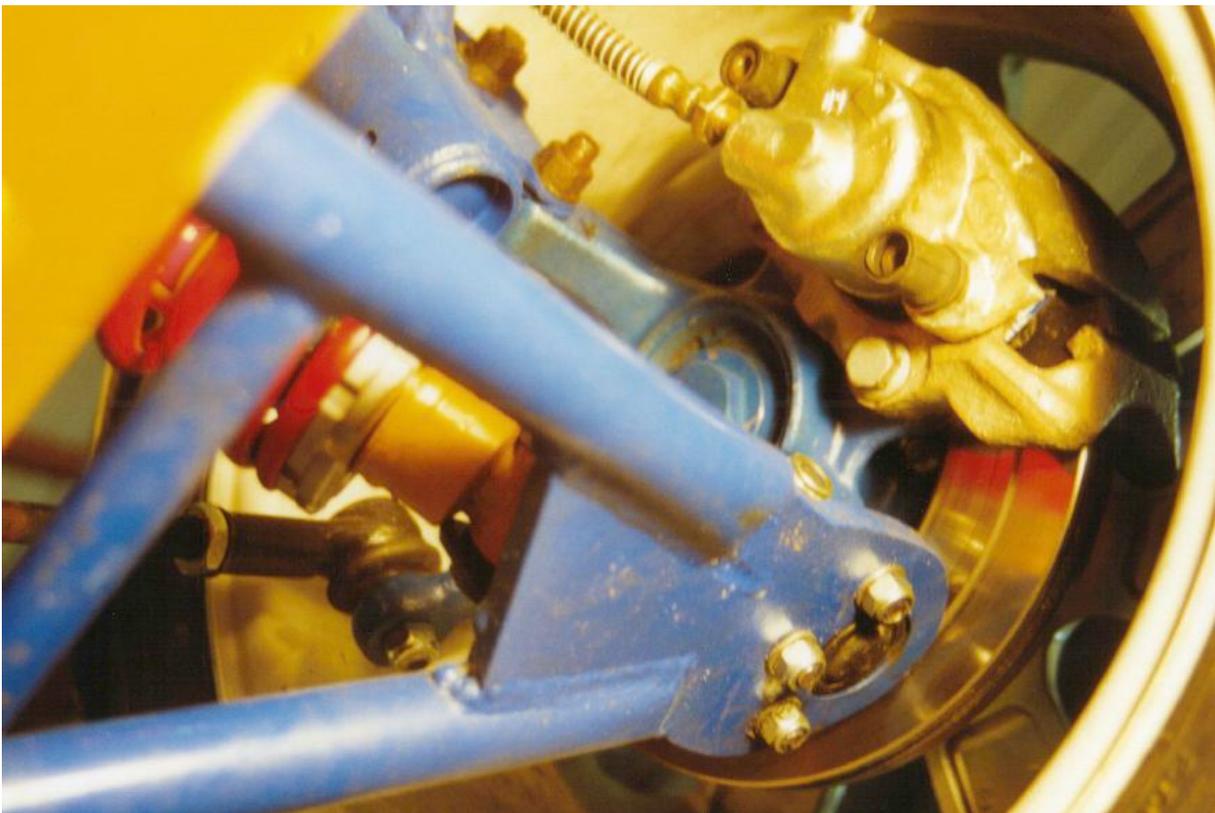
**Fig 10a**

## 10.2 Fitting Ball Joints

fit these as described below

**Lower Wishbone**

**Fig 10**



### **What you need:**

Lower Wishbones.

6 x M8 x 25 cap (hex) bolts with nyloc nuts.

2 x Ball Joints.

- Place the ball joint into the hole on the lower wishbone, with the ball joint pointing up - same side as the suspension bracket.
- Mark with a pen the three hole positions, pilot drill with 3.2mm bit, then drill with 8



mm bit, you will need to drill through the three holes in ball joint and wishbone together., fitting a bolt after each hole drilled.

- Secure the ball joints to the wishbone.
- Repeat for second wishbone.

### Upper Wishbone (super Six)

Fig 10b



#### What you need:

- Upper Wishbones.
- 6 x M8 x 25 cap (hex) bolts with nyloc nuts.
- 2 x Ball Joints.
- Drill.
- 8mm Drill Bit.
- 3.2mm bit
- pen

The upper wishbones also need holes to be drilled into them to fit the ball joints to them. Looking side view at the top chassis rail with the wishbone held in place the ball joint faces down.

Drill these the same way as bottom wishbones.

Secure ball joint to wishbone using bolts and lock nuts provided. Fig 10a 10b

- Repeat for second wishbone.
- **R6 and B6 the top ball joint screws into wishbone**

### 10.3 Fitting Bushes

The both wishbones requires bushes to be fitted to them

### **What you need:**

Lower wishbone.  
bushes.  
Washing up liquid  
grease

The larger rubber type, first check for any burrs inside the round section, apply the soap inside the tube section and on the bush, using a vice/press push in - use a socket or another piece of tube as a spacer to be able to push completely in.

The steel sleeved bush, first sand off or file the zinc coating, remove powder coating from inside the tube section of wishbone, grease outside of bush and inside the tube, push in using a vice or press.

It is advisable to hold the wishbone up against the chassis brackets and check the distance the bushes will be required to be put in- this is a fine adjustment and can also be obtained by either removing a small amount from the end of the steel center of the bushes or fitting a small thin washer between the bush and chassis bracket.

## **10.4 Fitting Upper Wishbones**

### **What you need:**

4 x M12 x 90 bolts with nyloc nuts.  
Upper Wishbones.

- They sit in the brackets at the front on the side of the top member of the chassis.
- Fit the bolts through the wishbone brackets and chassis brackets with the nuts facing towards the rear of the car.

## **10.5 Fitting Hub (super six)**

### **What you need:**

Hub.  
10mm bolt(cap head)

- The hub has a bracket cast at its base which sits over the ball joint on the lower wishbone.
- **R6 and B6 the Sierra hub has built in taper for the lower ball joint**
- Once the hub is in position secure the hub to the ball joint with the bolt provided. The hub is shown in figure 10c 10d





Fig 10c

fig10d

## 10.6 Fitting Modified Leg

### What you need:

- Modified Leg.
- Hub.
- 2 x Top camber bolts
- 2 x standard lower bolts.

- The modified leg attaches to the hub as shown in figure 10c.
- The camber bolt is positioned in the top hole with the standard bolt in the bottom hole.
- All the bolts are inserted so that the nuts face towards the rear of the car.

## 10.7 Fitting Lower Wishbones

### What you need:

- Lower Wishbone.
- 2 x 12mmx90mm bolt
- 2x ½"x2.5" bolt
- Lock nuts

- Lift the wishbone into position between the chassis brackets
- Fit the bolts through the brackets and bushes.fig10



- Tighten all nuts and bolts.
- Repeat for second wishbone.

### 10.8 Fitting Front Shocks

#### **What you need:**

4 x 0.5" x 2.5" bolts with nyloc nuts.  
2 x Shock Absorbers.

- Firstly fit the shock to the chassis using one of the bolts, ensuring that the nut faces the rear of the car.
- Now fit it to the lower wishbone bracket. It should now look as fig10a.