Fitting Parabolic Springs:

With the polyurethane bushes and stainless steel sleeves fitted in the front eyes the springs are ready for fitting. If you have a built up axle it is easier to fit the wheels and position the axle upside down then loosely fit the springs. The axle can now be turned the correct way up and wheel-barrowed into position. My rear axle has been refurbished but the brake backplates are not yet fitted. This allows enough room for the axle to be slid into position after the springs are fitted.

The springs are secured to the front mountings with 7/16" UNF bolts and Nyloc nuts that I purchased as part of a kit. They came with Nyloc nuts but without washers. It is against my principles to fit nuts and bolts without washers and I used thin stainless steel washers under both the bolt heads and nuts.

With the front eyes located in the brackets the bolts were smeared with Lanoguard grease and inserted. The washer and nuts were then loosely fitted.

Notes.
The parabolic springs have quite a bow in them which makes them around a 1/2" shorter (measured between the centre of the spring eyes when not under tension) than the normal multi-leaf springs. When hanging unsupported they are approximately 1/8" too short to allow the rear shackles to be easily inserted.

I have experience now with five different NG kits and have noticed that with the axle not fitted and standard multi-leaf springs fitted to a chassis the bottom of the shackles point forward and the top of the rear spring eye is positioned approximately 3/8" below the chassis. Once the axle is fitted and the weight of the car is on the springs the shackles adopt a position which is almost vertical, adding the weight of the driver and passengers etc. causes the bottom of the shackles to move further towards the rear of the car.

Fitting the rear spring shackles:
I had purchased new rear shackles but repainted them as I wasn't impressed with the original finish. With the eyes in the spring and chassis cleaned out I smeared the eyes, bushes and shackle pins with Lanoguard then fitted the eight polyurethane bushes. With a piece of cardboard between the top of the rear spring eye and the chassis I jacked up under one spring very slightly which expanded the spring enough to fit the shackle. The new shackle assemblies came with plain nuts and spring washers and I changed them for stainless steel flat washers and Nyloc nuts. With the shackles inserted the end plates were fitted on the other side (concave surface towards the bushes) and the flat washers and Nyloc nuts were loosely** fitted. With the jack removed the cardboard could be slid out which left a gap of approximately 1/8" between the top of the spring eye and the chassis. I then inserted the cardboard again to protect the chassis paintwork until I fitted the axle and lowered the car onto its wheels. The second spring was then fitted in the same manner.

Note.
*** The bolts securing the springs to the chassis are not fully tightened until the weight of the finished car is on the wheels and the car has been bounced up and down and rolled backwards and forwards a few times to settle the springs.*