



## Front Upright Assembly 2003 version – Standard Caliper

### ASSEMBLY OF UPRIGHT WITH STANDARD CALIPER

Attach the steering tie rod (2) to Vertical link (1) using bolt (16) and spring washer (21) pass the bolt through the tie rod, the tie rod spacer shim (17) and into the vertical link.

Pass the tapered end of stub axle (3) through the vertical link and the tie rod then secure using plain washer (20) and nyloc nut (12).

Torque: Bolt (16) to 25lb ft (34NM)  
Nut (12) to 60lb ft (81NM)



Fig 1: Vertical link

- a. Nyloc nut
- b. Plain washer
- c. Stub axle
- d. Vertical Link
- e. Spring washer
- f. Bolt
- g. Shim washer

Press the outer bearing runners (8) into hub (7) with the tapered side facing outwards.

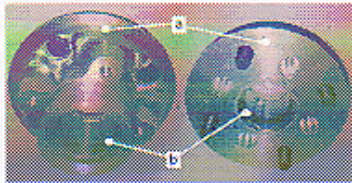


Fig 2: Bearing & Hub

- a. Hub
- b. Bearing runners

Attach the Brake disc (4) to the front hub. Apply thread lock to bolts (18) place washer (19) up to the head of the bolt and pass through the disc and into the hub. Insert all four bolts before finally tightening.

Torque: Bolts (18) to 25lb ft (34NM)

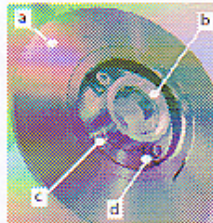


Fig 3: Disc & Hub

- a. Disc
- b. Hub
- c. Caphead bolt
- d. Plain washer

Grease the bearing roller assemblies (8) liberally ensuring that the bearing is fully packed with the grease.

**Note: Bearing grade grease must be used**

Support the vertical link in a vice. Slide the bearing shim (9) over the stub axle followed by the first of the bearing roller assemblies (8). Ensure that both parts are pushed up against the vertical link.

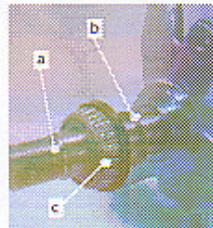


Fig 4: Shim & Bearing fitment

- a. Stub axle
- b. Bearing shim
- c. Bearing roller assembly

Place the disc and hub assembly over the stub axle and insert the second bearing assembly (8). Place the outer collar (10) against the bearing and secure in place with the castellated nut (11)

Torque: Nut (11) to 8lb (11NM)

Back off nut if required until castellation lines up with a split pin hole in the stub axle. Insert split pin (8) and bend back the end to secure and tidy.



Fig 5: Outer bearing and collar

- a. Bearing roller race
- b. Outer collar
- c. Castellated nut
- d. Split pin

Slide the caliper (5) over the brake disc ensuring the bleed nipple is at the top of the upright and secure in place using bolts (14). Fit spring washers (21) to the bolts, pass through the caliper, the caliper shim washers (15) and thread into the vertical link.

Torque: Bolts (14) to 40lb ft (54NM)



Fig 6 Caliper fitment

- a. Caliper
- b. Caliper shim washers
- c. Vertical link

Remove the pad retaining pins and anti rattle shims from the caliper. Fit the brake pads (8) ensuring the braking material is towards the disc. Place the anti rattle shims between the metal back plate of pads and the caliper piston (the arrow on the shim must point upwards). Refit the pad retaining pins ensuring they pass through both the pads and the anti rattle shims, lock the pins in place with the clips provided.



Fig 7: Pad fitment

- a. Caliper
- b. Brake pads
- c. Pad retaining pins
- d. "R" clips
- e. Anti rattle shims
- f. Brake disc

Finally loosely fit nut (13) to the threaded section at the bottom of the vertical link (do not tighten onto nyloc section)