

PORSCHE 928 RH Drive 1982-83

Brake vacuum servo booster removal and replacement by Mike Miller.

This will probably work for all 16 valve models. I have not tried 32 valve models but if it is possible for 32 valvers without engine or cam block removal this will be the way to do it.

First you will need to remove the brake master cylinder and the other components shown in this photo.



You
will

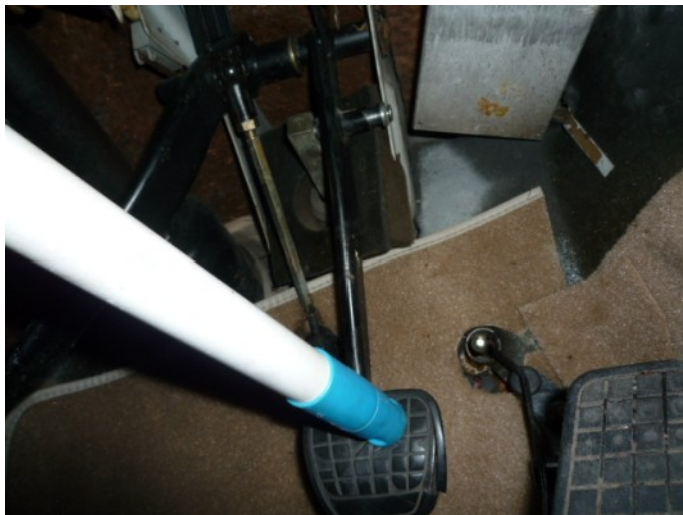
also need to undo the throttle cable rigid tube mounting bracket nut on the stud on the inner wing to allow the rigid tube to wobble!



Undo the securing clip on the air-con rigid pipes securing them to the suspension turret to allow a little springiness.

In the foot well the vital thing is to push in the plunger rod in the booster on the brake pedal side of the booster to its maximum travel and retain it there with a suitable clamp or clip and flat drilled plate where the master cylinder fitted. I did this by pressing brake pedal approx half way down with the pedal to plunger pin half out.

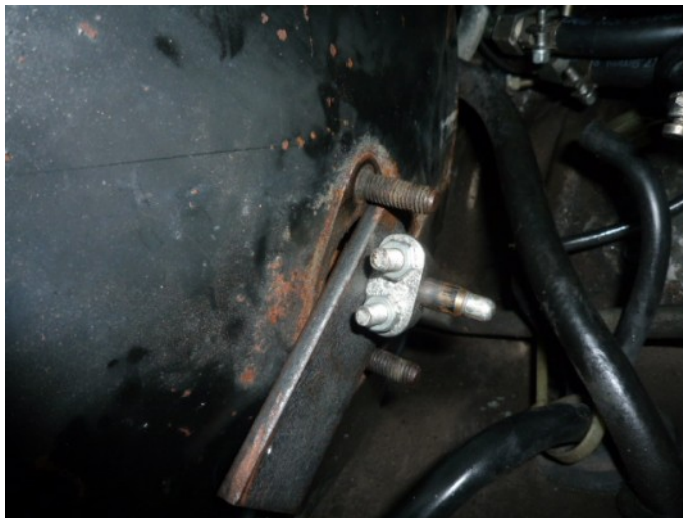
FIRST STAGE





Then clamp the push rod at the master cylinder end to stop it retracting. I loosened the end piece on the pushrod pedal. I then inserted the pin from the other side and lodged the square end face of push rod block against the pin so I could use the brake pedal to push the booster plunger to the end of its travel in the booster and then clamp it there on the engine bay side. See pic below.

Part way in will not do. **The push rod has to be in against the internal stop in booster.** This is easy to feel so do not force and risk damage.



SECOND AND FINAL STAGE

Prise the check valve with the vacuum hose out of the booster under the bonnet. I sprayed it with silicone spray to ease removal.

Now tie the brake lines and any looms out of way. Particularly ease away any hose or looming between booster and bell in the inner guard that the booster outer diameter will have to swivel out into for removal.

I pulled the windscreen wash filler hose out under the wing.

I removed the short rubber hose from windscreen wash pump (under where master cylinder was) before spraying the 3 mounting pull through rubbers with silicone spray under wheel arch so I could pull the pump out and let it rest further down.

Now ease the booster forward until all four securing studs are out of bulkhead then start twisting it anticlockwise as far as it will go until the threaded end of the brake push rod fouls the edge of the hole in the bulkhead. Check what the engine side of the booster is being restrained by and pull the booster forward retaining its current angle until the threaded push rod just clears bulkhead hole.



Continue to rotate the booster anticlockwise as in the photos until you can wriggle it out. The photo immediately above shows the angle of the booster for final removal or initial insertion if putting it back in.

REPLACING BOOSTER

This is the reverse of removal but you need to prepare the booster with the push rod fully in and clamped, I used my drill press as in the picture below but if you have a helper the spring pressure is not that strong so I imagine it could be done by hand with two of you.

CAUTION: THE BAKELITE/PLASTIC CYLINDER THAT MOVES IN AND OUT WITH PUSHROD MUST NOT BE SCRATCHED AS IT TRAVELS THROUGH A GREASED SEAL.



As the grey rubber boot is easily dislodged whilst getting the booster in and is a pig to get back on from the foot well I wired it on as in the picture below.



When the booster is bolted in release the pushrod clamp, fit the locknut and push rod end piece, adjust the length of the rod as per Workshop Manual (just a little play with push rod fully back against the internal stop in the booster). Grease and insert the pivot pin and don't forget the pedal return spring.

Now all the under bonnet stuff goes back in, bleed brakes etc etc. Don't forget vacuum hose to booster! Check everything in accordance with workshop manual and you are done.

Mike Miller