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Does the reach rod of your power brake booster (for about 1971 through 1985) that pushes the master cylinder piston have the correct parts and/or adjustments? It's very easy to check!

To the best of my knowledge, Avanti Motors never issued any letters of recall. They simply relied on their in house service department and certain large Avanti servicing dealers, like us, Nostalgic Motor Cars, to make any corrections needed.

They would call me and ask me to check and repair or replace certain things on the Avantis, that could be a problem. The Avantis could be in or out of the warranty program. I was instructed to send them a repair invoice, with the VIN (vehicle Identification number) and current owners name and any parts I installed. They would pay me for my labor and send me the parts that I installed to restocking my shelves. I was also instructed to tell the customer Avanti Motors did this at no expense to the customer, even if the car was way out of the factory warranty. This would happen a lot more than most people would think.

This particular phone call took place in about 1981-1982. I was instructed to unbolt the master cylinder on all 1971 and up power brake booster—no need to remove the brake lines—and just lean the master cylinder forward, on all Avantis that had 2 bolts holding the master cylinder to the power brake booster.

I was to check the reach rod, coming out of the front of the power brake booster. Apparently the supplier of the brake booster assembly (Bendix) over the years—they never knew when—had installed the wrong adjustable ends on that rod.

The correct master cylinder would have a female acorn counter bore (see photos next page) in the back end of the piston. The correct depth of the rod was to be adjusted at .985-inch off the face of the flat part of the booster. The problem was that Bendix installed the

wrong adjustable end on the rod. It had a flat end, instead of an acorn end. This would make your reach rod wrong for on the adjustment. The rod would be too long and the brakes would always be on to some degree and shorten the life of your brake pads, rotors and shoes.

If you have the flat end, going into a female acorn counter bore, it will be riding up on the curved sides of the counter bore and make the rod too long. You don't have to purchase an acorn end—I have them in stock—if you have a flat end. It can be turned down on a lathe. To this



.985 off the flat face of the booster reach rod, to the tip of the adjustable end.

day, over 40 years later,

they are still showing up when I receive boosters for a rebuild. I call that customer and ask them to check the back side of the master cylinder piston and make sure it matches the booster reach rod end.

Avanti Motors never knew when this mismatch took place or how many times it took place. But it was and is a problem. The biggest problem is when power brake boosters are sent out for a rebuild, or exchange, these shops are not aware of this problem (1971-1985 Avantis) I don't sell rebuilt booster any more on the exchanges system (where a rebuilt part is sent to you with a core charge and you send back your core for a refund) except if I know the car, or they have been a long time customer. The problem is, that some cars simply have the wrong



Flat End



Acorn End



Acorn (correct) adjustable end



Flat (wrong) adjustable end



booster—from what ever car—and/or the booster is in such poor condition, it can't be rebuilt and stand the test of time. When I receive a power brake booster, 1963-1985 for a rebuild. I personally inspect it to make sure it is an original Avanti booster and that it appears to be rebuildable before I send it out to the rebuilder. If it is not correct, or is questionable for that rebuild, I will call you.

When I receive the booster back. I totally inspect it and adjust the reach rod to the proper dimension for that year Avanti. I mark on the booster that the reach rod has been adjusted to the proper length with a note on a piece of masking tape "Reach Rod Adjusted—don't change."

You might also want to check to see if the booster is installed correctly. Before I install a power brake booster on a 1971 (about) through 1985, with 2 bolts holding the master cylinder to booster. I set the booster in a box with the reach rod sticking up and remove the rod. You will simply pull the rod out. There is a rubber cushion about 1/4" thick, that the reach rod head rest against.

I stick a screw driver down in the hole to make sure that rubber cushion didn't fall out. It's easy to tell if the screwdriver is hitting against steel or rubber. If the cushion is not in place, it most likely fell out inside the booster. Start shaking the booster until it falls out. If the cushion fell out, put some glue on the head of the reach rod and cushion and place the rod back into the booster. Check your reach rod for the dimension of .985-inch.

On the four bolt, 1963-1971 (master to booster) the booster reach rod is kept in place by a retainer clip located inside and really falls out.

The 1963-1971 booster requires a boot retainer, Illustration #112-36-1 part # 1555102 to be placed on the booster before four spacers, Illustration # 1112-2 part #1561759 are installed on the mounting stud to the bracket. These spacers 1561759 look like two washers stuck together, but the are special spacer, made for Avanti. Yes I do have them in stock. The 1971-1985 Avanti with 2 bolt boosters to masters didn't use the boot

retainer, only the four spacers #1561759.

After the booster and/or master cylinder are installed. I will adjust the brake pedal for height from inside the car. You can see that article in this current issue, of *Avanti Magazine*, titled "Is Your 1963-1973 Avanti Brake Light Switch Reliable? The failure rate might be higher than you think!"

