The BJ8 brake servo operates by using a combination of vacuum pressure and atmospheric pressure to move a large Vacuum piston into a Hydraulic piston increasing line pressure to the brake system. Air Valves control the flow of air, and simply stated, when brakes are applied atmospheric air is drawn in on one side and the Vacuum Piston moves in the direction that manifold pressure draws it.

Maximum efficiency is obtained when the atmospheric air provides minimal resistance to the vacuum air. If the flow of atmospheric air is restricted it creates a competing vacuum to the power of the manifold vacuum, reducing brake power. Now to clause MMM.9. If you have a factory workshop manual containing the second supplement series, on page MMM.9 you will find one sentence stating that the molded cellular air filter (#13 in diagram) that filters air coming into the atmospheric air port should be changed whenever new linings are fitted.

When was the last time you did that? Restricting atmospheric air flow from a dirty filter will result in increased resistance in servo operation.

The filter is only available from Norm Nock, I haven’t found another source. Cost is about $20 for filter and a cover.