Adjusting Power Assisted Steering linkage

First and foremost the problem with PAS is that it operates in a very dusty area. After at least 40 years or so there will be a lot of wear! Before you adjust the steering all the play in the steering, drag-link arm and cylinder mounting bushes must be removed by renewing the bushes and if necessary the centre post. The ram retaining pin may also be worn/broken/seized in the main frame extension or mounting bracket. (Fig. 1 item 10 & Fig 2. item 5) This needs to be repaired to prevent future failure and possible loss of steering.

The adjustable link ends and pins on the control valve (Fig 1 item 5.14 & Fig. 2 item 3.13) are notorious for wearing, new parts would overcome this, but if parts are not available your option could be to drill the holes oversize and fit bigger pins. (Although the picture shows a 3 cyl. set up the other Middleweight tractors are similar)

To adjust the steering arm and linkage first remove one of the clevis pins from the adjustable link, slacken the large locknut and screw the adjusting screw (Fig 1. item 15 and 6.15) fully anti-clockwise to lock the drag link arm to the steering arm. (Early tractors had a tapered screw which screwed down clockwise rather than up) Adjust the length of the control valve link (Right and Left Hand threads) until the clevis pin just falls freely into place, fit the split pin, screw up or down the adjusting screw (Depending on which screw is fitted) three complete turns and lock the locknut.

When you fill/top up the reservoir make sure the steering is on full right hand lock. Turn the steering from lock to lock to expel all air then recheck at full RH lock. Use Automatic Transmission Fluid (ATF) oil.

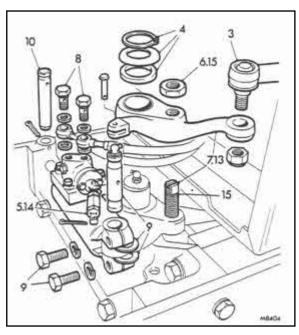


Fig 1. Exploded view of Power Assisted steering components

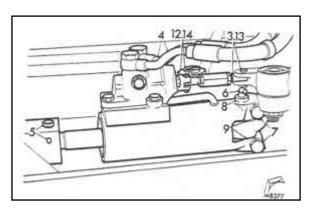


Fig 2. 253 - 245 - 502 Power Steering Ram