

# Servicing the Brake Proportioning Valve on 1979 1000SP Moto Guzzi

Greg Rees. September 2024.



All o-rings and rubber seals MUST be EPDM as they are immersed in DOT4 brake fluid.  
The Piston Seal was made to order by a local seal supplier.

Piston Seal: EPDM 7.45ID x 21.60OD x 5.00thick

O-ring: EPDM 111 0.424 x 0.630 x 0.103 inches

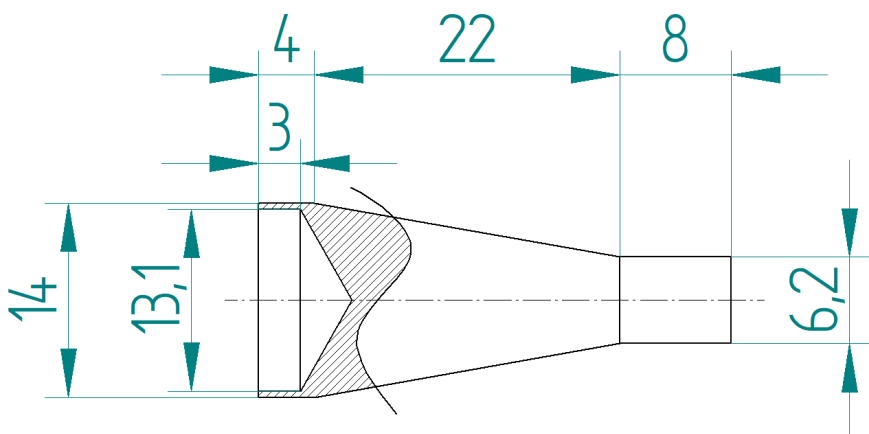
O-ring: EPDM 018 0.739 x 0.879 x 0.070 inches

## Disassembly:

- Remove Cap.
- Hold body firmly in vise and push Guide into Body to ease pressure on Circlip.
- Remove Circlip – be aware that the Guide may spring out unexpectedly if pressure is not maintained while the Circlip is removed.
- 3mm pin punch is used through the rear caliper hose connection to dislodge the Piston from the Body.
- Both O-rings are easily replaced when the Piston is displaced.

## Piston Seal Replacement:

An adapter must be used to ease a new Piston Seal into its position. Mine is made of brass and is dimensioned below.

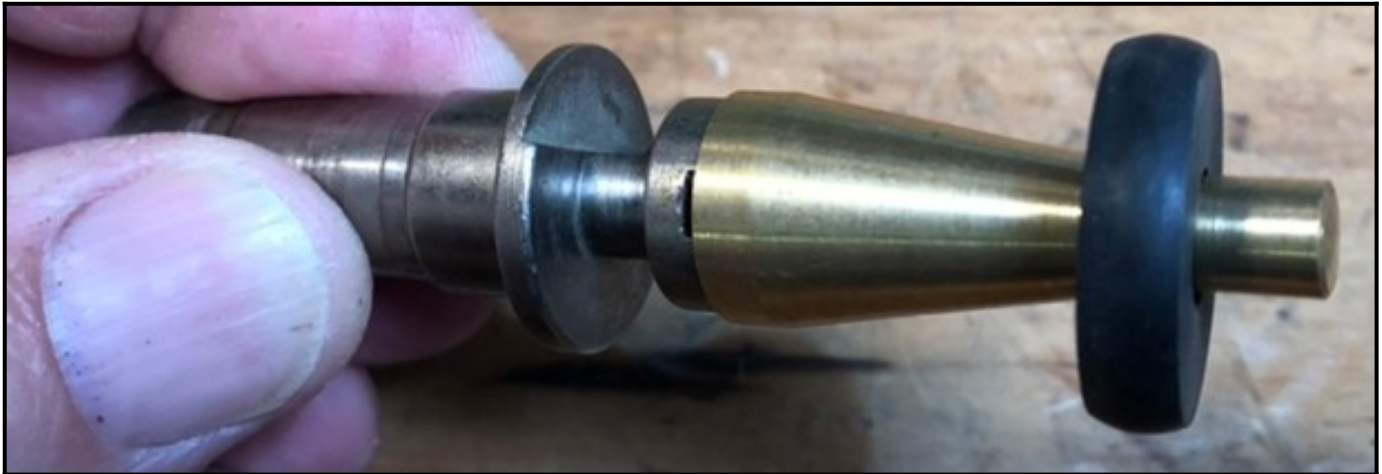


### Piston Seal Replacement (cont):

The new EPDM Piston Seal was placed in boiling water for about 10 minutes to warm it up and ease the stretching slightly. The slotted end of the Piston was lubricated with assembly lube and the Piston was placed firmly in soft jaws in the vise. The adapter was lubricated with assembly lube and placed over the slotted head of the Piston. Once the seal had warmed through, it was placed on the end of the adapter and pushed home. It slid into place with surprising ease.



### Piston, adapter and Piston Seal in place on a dry run:



### Piston Seal in place after being pushed on using the adapter:



## Reassembly:

Reassembly order is shown below:

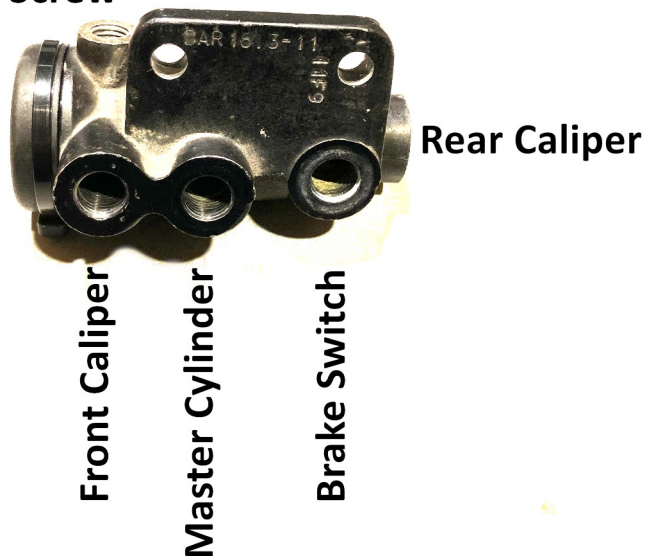


All parts should be cleaned and inspected carefully prior to assembly. All ports in the Body should be clean and clear. Internal bores in the body should be smooth and free of major wear marks.

- Apply assembly lube and insert Piston into Body.
- Place Spring onto Piston.
- Place Washer onto Piston.
- Apply assembly lube and place small diameter O-ring onto Piston.
- Make sure large diameter O-ring is in place on Guide, apply assembly lube and slide Guide onto Piston over the smaller O-ring and into the Body.
- Place the Body securely in a vise. Place suitable Circlip pliers into the Circlip. The Guide can be pushed into the Body with the points of the Circlip pliers until it is far enough in to allow the Circlip to seat into its groove.
- Place some waterproof rubber grease over the visible end of the Guide and Piston and install Cap.

## Connections:

Bleed Screw



This document was compiled during servicing of the Valve. It aims to collect information and present it in a straightforward manner.

Documents referenced during servicing:

“Brembo brake proportioning valve”

[https://www.thisoldtractor.com/moto\\_guzzi\\_tonti\\_brembo\\_brake\\_proportioning\\_valve.html](https://www.thisoldtractor.com/moto_guzzi_tonti_brembo_brake_proportioning_valve.html)

“Pascal and the proportioning valve -- SOME NEW PROGRESS”

<https://wildguzzi.com/forum/index.php?PHPSESSID=3aae4e8d51f4d486a0a504fd90febcbfd&topic=118967.msg1860283#msg1860283>

“Repairing a Brake Proportioning Valve for a Mille GT by Stan McDaniel”

[https://archive.guzzitech.com/BrakePropor-Stan\\_M.html](https://archive.guzzitech.com/BrakePropor-Stan_M.html)