

# 904/727 FOOT BRAKE VALVEBODY

12/22G05B High Pressure Band On Units

## GRINER ENGINEERING

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no web site at moment

\*\*\* NOTE \*\*\*

This is a brand new product. A lot of thought has gone into this valve body. It is Auto Cad designed and CNC machined. Oil flow will equal my billet valve bodies, so expect exceptional shifting characteristics from this unit. It flows almost 3 times the oil of the old Turbo Action Cheetah. Actually the whole design based around the Shuttle Ball. There is perfect spot to place a **HUGE 12mm nylon ball in a 1/2 bore**. This gets rid of a horrible obstruction. Also the pressure regulator is vastly improved.



**This unit can be adjusted from 140/220 lbs, about 8 lbs per turn.**

( about 180# or more for High Horsepower, Nitros or blower)

### SET UP TRANS - 727

Wedge Drum O.K. Install All 15 Springs, (late, 1.40 length) .010/.012 Clearance Per Clutch.  
Front Clutches Use Soft Paper (OEM) OR Red High Performance. Slotted or Waffle Type Only.

Higher Horsepower May Require 5 Clutches, but In Most Applications 4 Is All You Need.

Rear Drum (Try To Install An Extra Bevel Snap Ring (limit travel)) .006/.010 Per Clutch  
End Play (High Drum To Pump) .005/.015

Teflon Rings (A Must) Cast Iron Drum Only

Front Band (Hand Snug) 10 Inch Lbs / Out 1 1/2 - 2 Turns

Front Band - Flex is OK. Use A Soft paper (OEM) Wedge (narrow) Band

Rear Band (Hand Snug) 10 Inch Lbs / Out 2 1/2 - 3 Turns

Lever Ratio 2.9 3.2 3.8 Are Acceptable. In rare instances A 4.2 or 5.0 Is To Be Used

Filter - Use Large Dacron (fuzzy) Type Fluid - Type "F" Synthetic Is OK

### SHIPPING LIST

1 12/22G05B Valve Body

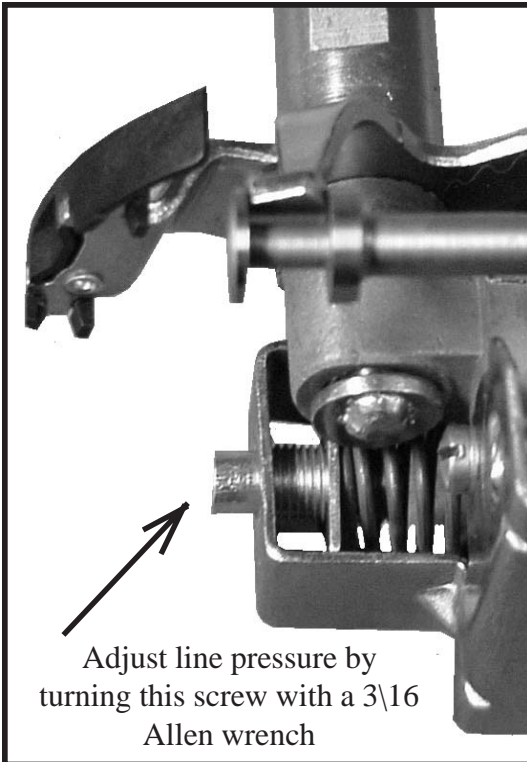
10 Servo Spacers (washers)

5 - large dia. multiple thickness

5 - small dia multiple thickness

1 Set 727 Teflon Rings

1 Set 904 Teflon Rings



Adjust line pressure by turning this screw with a 3/16 Allen wrench

**LINE PRESSURE**  
 \* range, about 140 220 PSI \*  
 3/16 allen wrench adjusts line pressure and seconds as a makeshift gage. Expose enough threads to insert the allen wrench between the steel backing and the threaded retainer that seats the spring. This setting is about 160-180 lbs. To get a precise setting a pressure gage reading must be taken. the pressure then can be fine tuned (increase cc/w, decrease c/w) at a rate of 8 lbs. per turn to get the setting you need.

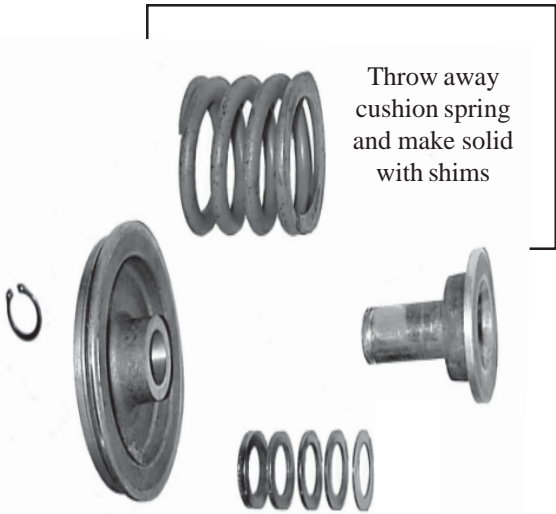


**Marking On Valvebody**  
 Underlined 05 is a early marking  
**05 B** is later marking  
 Both are BAND ON valvebodies.  
**H** Stamp is removed  
 H stands for High Pressure.  
 All valvebodies are high pressure unless requested otherwise  
 (dated 12/10/02)

**REAR SERVO**

727 and 904

Five multiple thickness shims, Thickest washer is chamfered to accommodate for radius on stem, arranged to replace the cushion spring (below).



Throw away cushion spring and make solid with shims

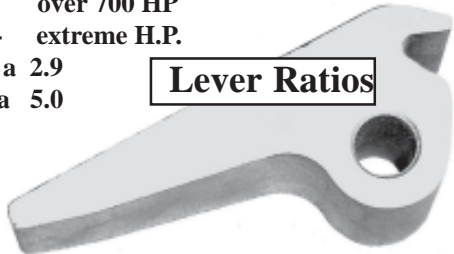
Remove as much play as Possible, May not use all washers.

**727 Lever Ratios**

Start with a easy to find 3.2 ratio for most applications. Wedge drum, and 4 clutches.

- 3.2 ratio - under 700 HP
- 3.8 ratio - over 700 HP
- 4.2 ratio - extreme H.P.
- rarely a 2.9
- never a 5.0

**Lever Ratios**



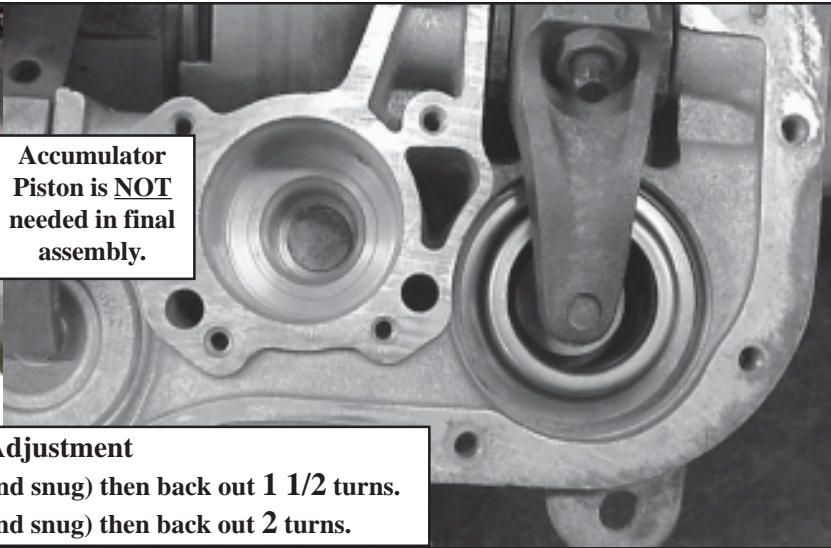


### Rear Band Adjustment

Rear 727 • Tighten to 72 Inch lbs. (hand snug) then back out 2 turns.

Rear 904 • Tighten to 72 Inch lbs. (hand snug) then back out 3 1/4 turns.

Accumulator  
Piston is **NOT**  
needed in final  
assembly.



### Front Band Adjustment

Front 727 • Tighten to 72 Inch lbs. (hand snug) then back out 1 1/2 turns.

Front 904 • Tighten to 72 Inch lbs. (hand snug) then back out 2 turns.

## SET UP TRANS 904

Front Clutches - 4 clutch drum is OK. Use orange coil spring. .010/.012 Clearance per clutch

Use Soft Paper (OEM) OR Red High Performance Slotted or Waffle Type Only.

Higher Horsepower May Require 5 Clutches, but In Most Applications 4 Is All You Need.

Rear Drum .006/.010 Per Clutch. Use only OEM Mica type clutches (Green or Grey)

End Play (High Drum To Pump) .005/.015

Teflon Rings

(A Must)

Cast Iron Drum Only

Front Band

(Hand Snug)

10 Inch Lbs / Out 1 1/2 - 2 Turns

Front Band - Flex is OK. Use A Soft paper OEM (narrow) Band (wide band wears on the side)

Rear Band

(Hand Snug)

10 Inch Lbs / Out 2 1/2 - 3 Turns

Lever Ratio 3.8 is acceptable. In higher horsepower instances, A 4.2 or 5.0 Is To Be Used

Filter - Use Large Dacron (fuzzy) Type

Fluid - Type "F" Synthetic Is OK

### Teflon rings work great

- Hand form ring
- Fill groove with assembly grease
- Press rings into groove



## 904

Start with a 4.2 ratio

5.0 for extreme H.P.

... Important note ...

It is better to increase line pressure  
rather than increasing lever ratio.

Lever Ratios

