

904/727 FOOT BRAKE VALVEBODY

12/22G05 High Pressure Band Off Units (GREEN PLATE)

GRINER ENGINEERING

515 E JACKSON ST PO BOX 111
MULBERRY IN 46058
SHOP 765-296-2955
FAX 765-296-2272
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 Bevelle 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 12/22G05 Valve Body

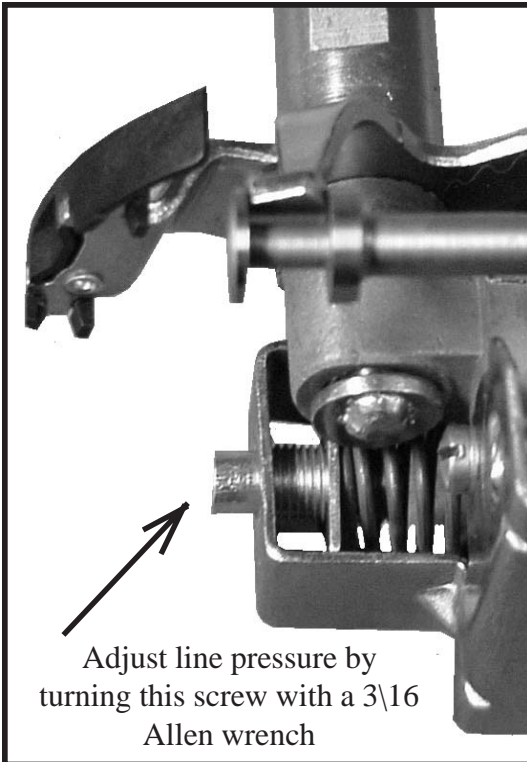
10 Servo Spacers (washers)

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 gague. 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 gague 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.

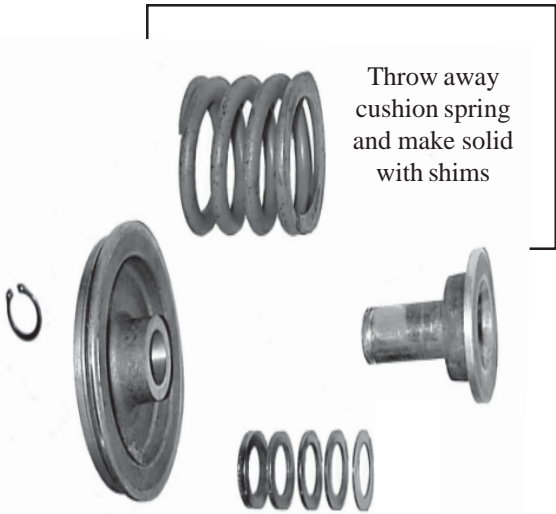


Marking On Valvebody
05 Underlined-(early design) and **05 B** (blue plate) are band ON
05 (green plate) is band OFF
 All valvebodies are high pressure unless requested otherwise (dated 03/10/07)

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).



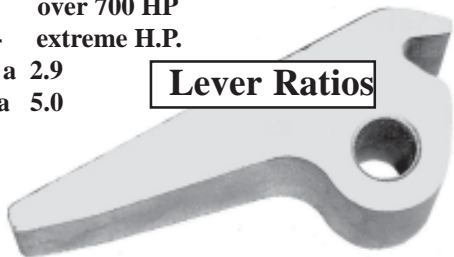
Throw away cushion spring and make solid with shims

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

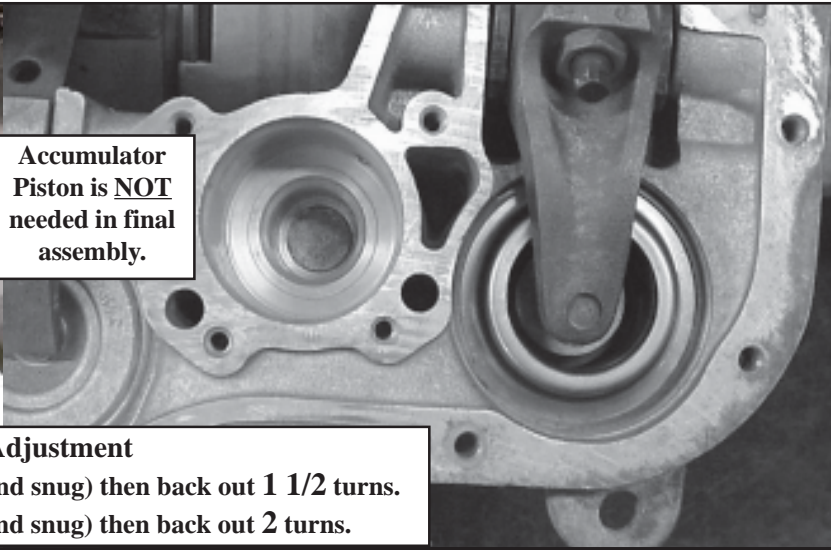


Rear Band Adjustment

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

