



Brock's Performance Products • 4064 East Patterson Road • Dayton, OH 45430 • Phone: 937-912-0054 • Fax: 937-912-0062

Subject: 1000 clutch Failure-1000 Instructions

We get about ½ a season on a stock clutch/stock wheelbase 160 RWHP 1000's.

Here is a note we send to customers if they ask about potential causes for abnormal clutch wear:

The GSXR 1000's have a VERY tall first gear ratio in the transmission. (It is almost like launching in 2nd gear on other brands!) This is VERY hard on clutches... We drop 1 tooth on the front gear and 1 on the back for normal sized riders with a stock wheelbase. Larger riders and/or long swing arm bikes should gear for 5th in the quarter.

We will check the clutch every several outings to be sure that a single plate does not need attention....if it does, we replace that plate and any others. We only replace the entire clutch pack after a catastrophic failure.

You are drag racing...you develop more heat in the clutch than you would imagine. (Over 750 degrees!) If the steels are not warped they are fine....do not worry about discoloration. If the fibers are glazed or burned...replace the bad ones.

We also use 100% FULLY SYNTHETIC MOTOR OIL ONLY!!!
Organic oils can't take the heat generated by launching these bikes.

As a general rule: If you need to leave the line at more than 3000-4000 Rpm's...your bike is geared WRONG for your application, or you need to change your riding style. (You had also better have an Uncle at a Suzuki dealership or you will go broke purchasing clutches!!!)

Additionally, if you have a big cc engine or Nitrous....you need to investigate switching to a lock up unit with our S10-cck Clutch Cushion. The 1000's basically have a 600/750 based road race (single launch per race) clutch pack. They will not take the additional power OR a very large rider for long.

Finally, The Clutch Cushion Kit can NOT repair broken clutch components!
If your outer basket backing plate springs are worn out...replace the outer basket.

The steel plates eventually damage the aluminum inner hub when launching from a dead stop on ALL motorcycles. This forms notches on the splines of the inner hub. If the inner is notched to the point that the steel plates can not slide freely.....they bind! Where they bind effectively determines how much clutch you are using.

For example: If the 3rd steel plate back from the pressure plate binds, you are only using the steels and frictions from that plate out to the pressure plate. The plates from this point inwards can't be compressed thoroughly and they slip; this creates tremendous heat....before long you have an expensive mess.

We have found this to be the major cause of REPEATED clutch failure and excessive wear.....The inner basket is BROKEN, if the notches won't file smooth.....REPLACE IT!
They don't cost much and will save you \$ in the long run.

I hope this helps,
Brock
advice@brockracing.com

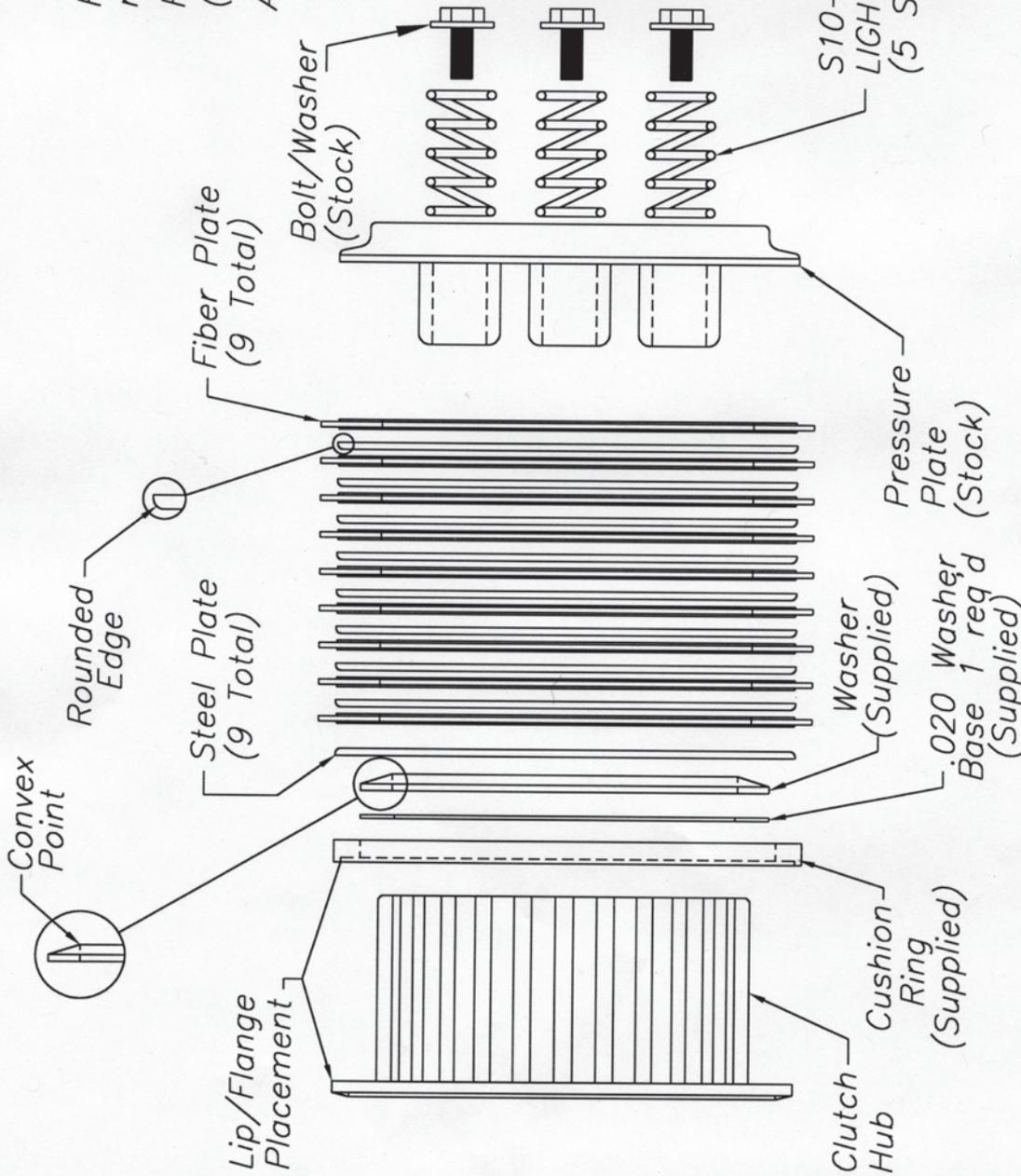
Instructions

Remove 1 fiber plate to make room for the cushion. (Discard)

Re-assemble as shown (Begin with steel).

Adjust free play in cable.

Call if you have questions.
Brock
937-298-6818



S10-CCK

ITEM	QTY	PN	DESCRIPTION
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED			
.X = ± .030			
.XX = ± .015			
.XXX = ± .005			
.XXXX = ± .0005			
FRACTIONS = ± .020			
ANGLES = ± 1 DEG			
BREAK ALL SHARP CORNERS AND EDGES UNLESS OTHERWISE SPECIFIED			
TITLE			
BROCK DAVIDSON ENTERPRISES, INC.			
www.brockracing.com			
ASSEMBLY DRAWING			
GSXR 1000 Clutch Cushion Kit			
SCALE	None	DESIGNER	BROCK D.
DATE	1-30-02	APP. BY	
SHEET	1 OF 2	ISSUE NO.	
SHEET SIZE	A	REV	#2 9-29-03
			1000_Cushion.dwg

Clutch Assembly - Side View

Not to Scale - Some detail removed for clarity



GSXR1000-600 Free Play Adjustment

Improper adjustment of the throw out mechanism under the sprocket cover plug can cause serious clutch life issues with these machines.

1. Turn in cable adjuster all the way into the clutch lever assembly.
2. Do the same with the cable adjuster on the sprocket cover. (Leave @1/8 inch exposed thread above the lock nut) Tighten the lock the nut.
3. Remove the rubber plug in the center of the sprocket cover.
4. Use a 10 mm socket to loosen the lock nut surrounding the slotted screw.
5. Use a flat screw driver to tighten the screw until it resistance is felt. Do not over tighten....just allow the screw to "seat".
6. Back off the slotted screw ½ turn.
7. Tighten the jam nut with the 10mm socket.
8. Replace the rubber plug.
9. Adjust the free play at the lever assembly. (FYI: There should be @1/2 inch free play at the end of the lever to start).
10. Fine adjust from here until the clutch engages at the riders desired launch point.

There should be no visible glaze or smearing on the fiber plates and they should be at least as this as the minimum book specification. Steels should be flat. (Stack steels together and try to look through them towards light...if they are flat, you should not see any light.) Bluing of the steels is normal after drag strip launches.

It is critical that that the inner clutch hub is not notched. Replace or file notches smooth.

The ACR ring MUST sit flat on the rear flange of the inner hub! File any casting flash which could prevent this.

For more information go to www.BrocksPerformance.com, **click:** Installation Instructions
 email: advice@brockracing.com or call the Tech Line 937-912-0061
Brock's Performance Products policies and warranty information: www.BrocksPerformance.com, **click: Policies**
Brock's Performance Products are designed for Closed-Course Racetrack use ONLY!