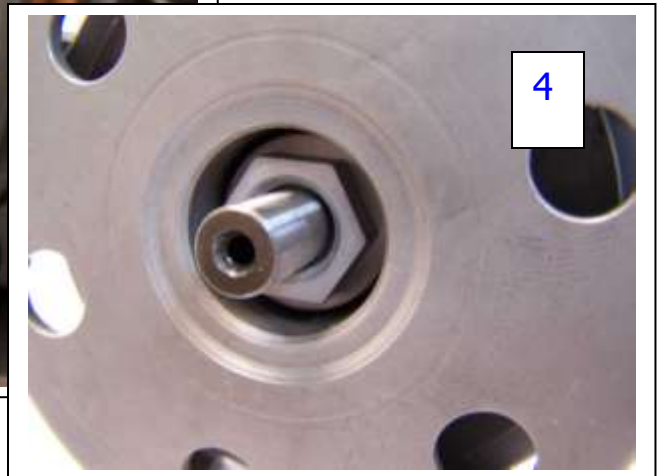
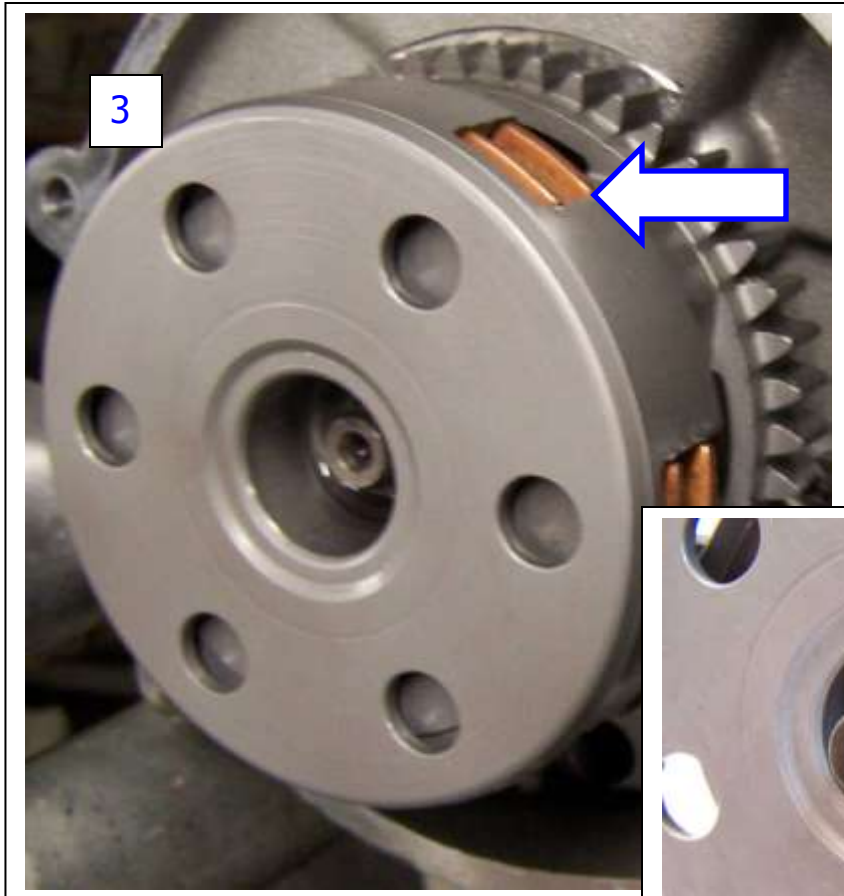
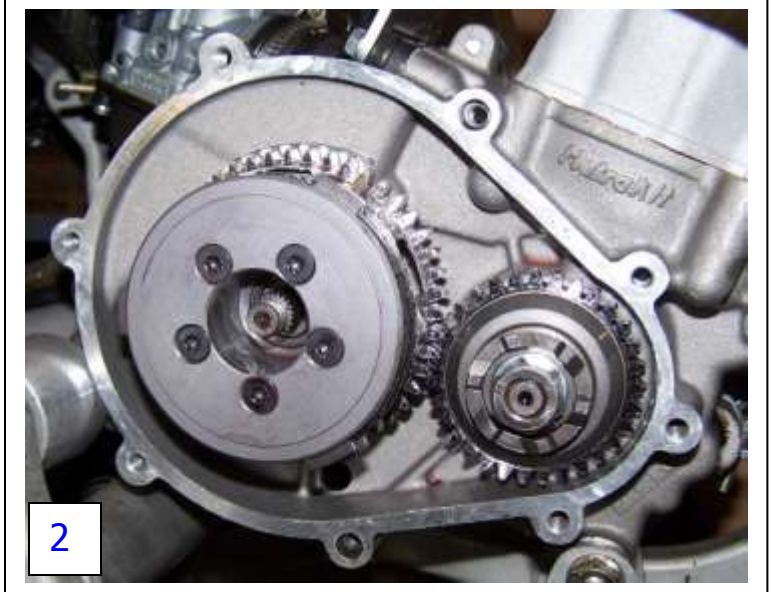


Metrakit 50cc MX Clutch Owners Manual Triple Disc

2015





- 1. Be sure to use factory thrust washer.**
- 2. Slide drive assembly over shaft. Rotate if necessary to insure gears mesh.**
- 3. Install basket onto spline in shaft. Be sure to align tabs of friction discs with slots in basket. See arrow**
- 4. Install flange nut with locktite and tighten with 14MM socket to 40 N.m or 348 inch pounds**
If you do not have an impact wrench use a Spanner Wrench through holes in basket as this will keep shaft from turning.
- 5. Using the "new" thicker factory cover gasket will eliminate need for grinding of weld shown on figure 5. If you do not have the thicker gasket the weld must be ground to flush with kick start gear. This allows clearance between weld and clutch drum. A Dremel will be needed to grind the weld. Flush grinding grit out of cover with hot soapy water . Install cover.**
- 6. Fill to 300ML ATF oil or Nytro oil from INTURACE .COM**
Improper oil will cause erratic engagement of clutch.

Note: Clutch is race ready. No bedding in of friction discs needed.

STALL SPEED

Stall speed is the RPM that the clutch locks up solid. In racing stall speed is often referred to "slipping" the clutch. Adjusting the clutch for more slip is actually raising the stall speed. Or when adjusting for less slip the stall speed of the clutch is lowered. The trick is to adjust the stall speed at the peak torque of the engine.

The power band of the 50cc 2-cycle engine is very narrow therefore proper clutch adjustment is necessary for maximum performance. A clutch that locks-up below the power band will cause the engine to bog and performance will be sluggish. However if a clutch locks up above the power band horsepower will be wasted in the form of heat. Heat is very bad as damage to clutch may occur.

The IRP is engineered from the factory with the stall speed setting at about 10,500 rpm that is very close to optimum right out of the box. Factors such as engine condition, exhaust system, air density, air temperature, and altitude affect engine power and therefore the stall speed. The chart below is therefore only a close estimate.

How to adjust the clutch.

The clutch comes with adjustable retainers installed. Follow the chart below if changing stall speed is necessary. A tachometer is important to obtain accurate data.

Retainer Height	APPROXIMATE STALL SPEED
.210" 5.33MM	10,500
.200" 5.08MM	10,600
.190" 4.82MM	10,700

Stall Speed Adjustment

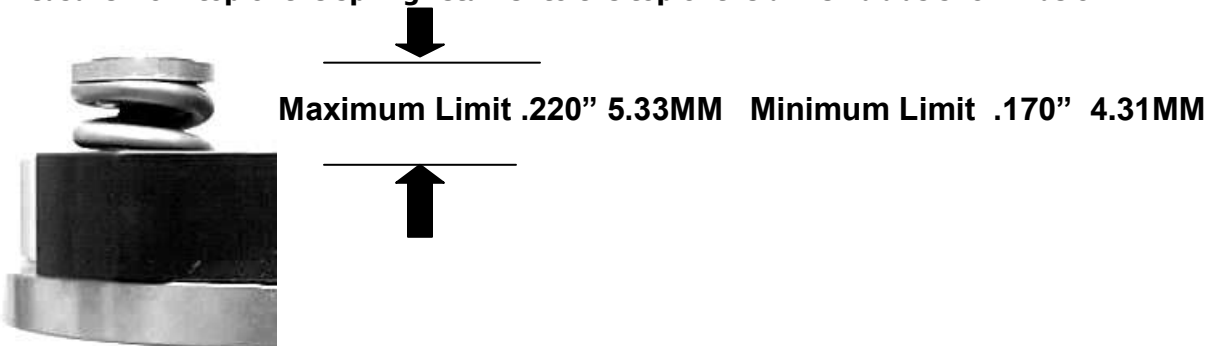
The clutch comes from the factory pre-adjusted for a stall speed of about 10,500 rpm. This is a good starting point for initial testing. You must experiment with stall speed for best performance you can raise or lower stall speed of the clutch.

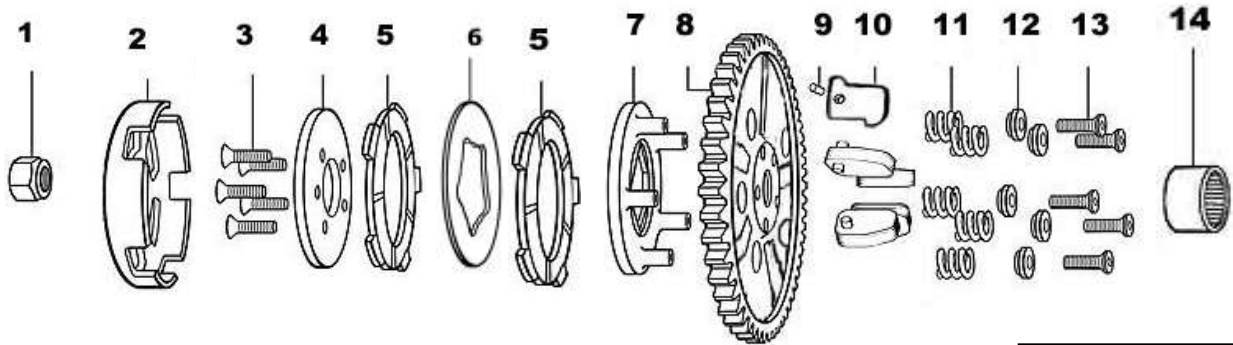
For higher stall speed turn all 5 flat head screws clockwise 1/8 turn per test session.

For lower stall speed turn all 5 flat head screws counter-clockwise 1/8 turn per test session.

Do not exceed adjustment limits below as springs will coil bind and clutch will not engage (lock up)

Measure from top of the spring retainer to the top of the drive hub as shown below.





Pat D487,760S

920320A Complete Clutch Metrakit 50cc 2011-15

Item	Part Number	Description	Units Required
1	920329	Nut	1
2	920328A	Drum 6 slot style	1
3	920206	Screw 10-32 x 1/2 Torx	5
4	920207	Fixed Plate	1
5	920227	Friction Disc, each 6 tab style cerametalic	3
6	920209	Floater .050"	2
7	920210	Pressure Plate	1
8	920322A	Drive Hub	1
9	920213	Dowel Pin	5
10	920323	Lever	5
11	920233	Spring, each .091" wire dia.	5
12	920325X	Retainer ,adjustable	5
13	334800	Screw 10-32 x 3/4	5
14	920321	Bearing for basket	1