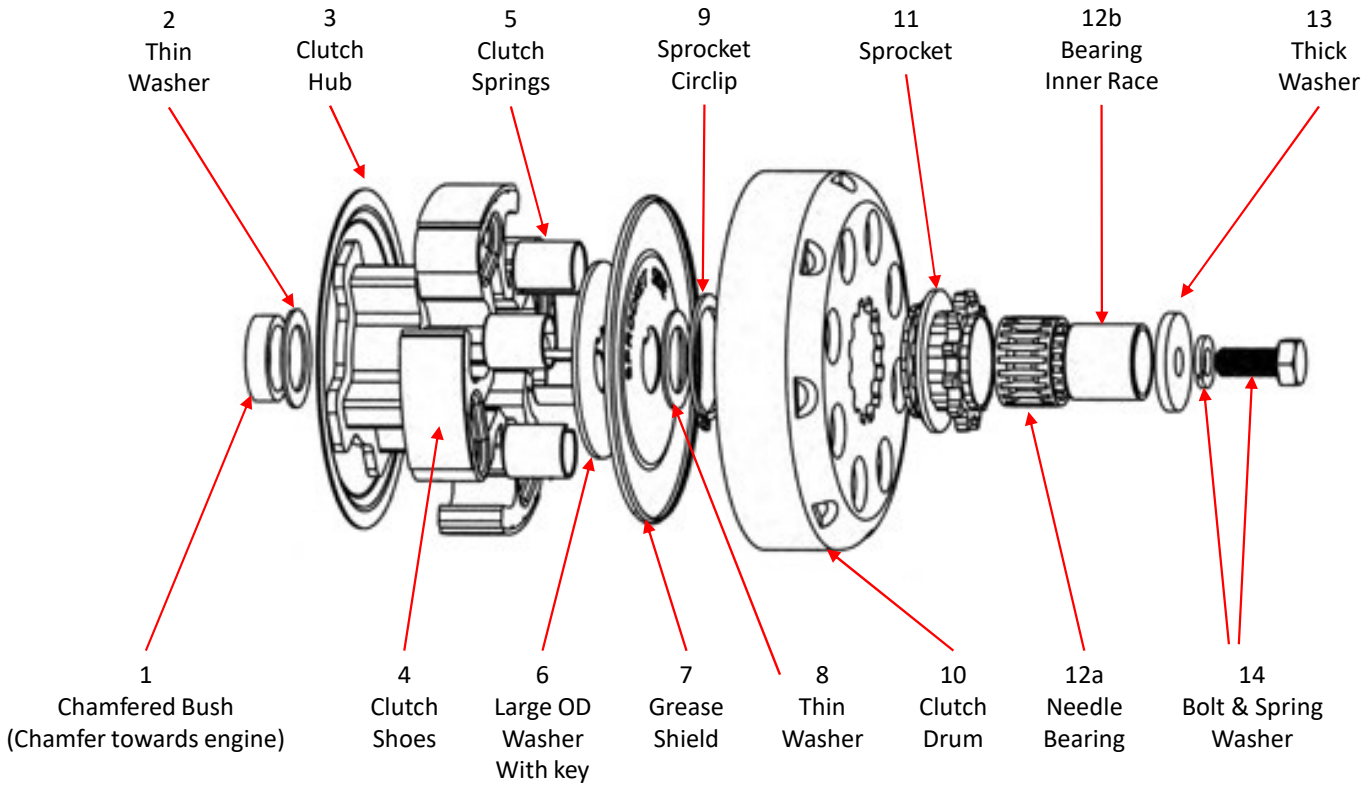

Hilliard Inferno Flame Clutch Assembly

1
Chamfered Bush
(Chamfer towards engine)

2
Thin
Washer

3
Clutch
Hub

4
Clutch
Shoes

5
Clutch
Springs

6
Large OD
Washer
With key

7
Grease
Shield

8
Thin
Washer

9
Sprocket
Circlip

10
Clutch
Drum

11
Sprocket

12a & 12b
Needle
Bearing

13
Thick
Washer

14
Bolt & Spring
Washer

Hilliard Inferno Flame Clutch Assembly Information
Briggs & Stratton LO206 (needle bearing type)

1. Clean the needle bearing and race (12a & 12b), clutch drum (10) and clutch hub (3) with brake cleaner or carburettor cleaner to remove anti rust coating
2. With the bearing race (12b) sitting inside the needle bearing (12a), apply a small amount of high temperature bearing grease to the needle bearing (12a)
3. Clean your hands so you don't get any grease on any other part of the clutch
4. Slide the chamfered bush (1) onto the crankshaft with the chamfered side towards the engine
5. Slide the thin washer (2) onto the crankshaft
6. Determine which direction you are going to run the shoes ("leading" or "trailing")
7. Slide the clutch shoes (4) onto the clutch hub (3)
8. Slide the four white clutch springs (5) onto the clutch shoes (4)
9. Slide the assembled clutch hub (3, 4 & 5) onto the crankshaft
10. Slide the large OD keyed washer (6) onto the crankshaft
11. Slide the grease shield (7) onto the crankshaft. Take care to orientate it correctly, see stamping on grease shield
12. Slide another thin washer (2) onto the crankshaft
13. Insert your sprocket (11) into the spline in the clutch drum (10)
14. Fit the circlip (9) into the groove in the sprocket (11) and check that the sprocket will not pull back out of the drum
15. Spray a small amount of CRC-5.56 or WD40 onto a clean cloth and wipe the inside of the clutch drum (10) where the clutch shoes (4) contact the clutch drum
16. Slide the clutch drum assembly (9, 10 &11) onto the crankshaft. Note: It will be loose until we fit the bearing.
17. Slide the needle bearing and race assembly (12a & 12b) onto the crankshaft and into the sprocket hub
18. Check to ensure that the clutch overhangs the end of the crankshaft by 0.5mm to 0.75mm (0.020" to 0.030"). If the clutch overhang is outside that range, you need to remove or add thin washers (2) to correct it.
19. Place the spring washer onto the clutch retention bolt (14)
20. Place the thick flat washer (13) onto the clutch retention bolt (14)
21. Apply a small amount of thread lock to the thread of the retention bolt (14)
22. Screw the retention bolt assembly (13 & 14) into the end of the crankshaft and torque to the recommended specification
23. Check that the clutch drum and sprocket assembly spins freely