



## Maxwell Propulsion Systems, Inc.

*Super Novo Vias*

19132 59<sup>th</sup> Dr. NE

Arlington WA 98223

360.474.8118 Phone; 360.474.8299 Fax

### **Transmission**

Refer to "<http://www.MaxwellPropulsion.com>", Support, Transmission, for photo array Label array (row, column)

### **Pinion Shaft and Gear**

1. (11,10) Pinion Shaft
2. (12,10) On flywheel
3. (13,1) Transmission Mounting Plate on flywheel and pinion
4. (13,2) Pinion Gear on pinion shaft. Note ledge of gear out from shaft (necessary!)
5. (13,4) compression Washer (13,5), (13,6), (13,7). Need strap wrench to hold gear, [50' lb torque]
6. (13,10) Clutch Assembly mounted on driven (counter) gear cover. Note flywheel. Mark cover with punch midway across exposed ring gear. You will use this with a small square to mark ring gear for #1 TDC.
7. (7,1) is gear cover.

### **Clutch Assembly:**

1. (1,5) Counter shaft and prop flange with seal in place
2. (1,6), (1,7) needle bearing in place on shaft. Note splines to couple to Sprague Clutch inner race.
3. (1,8) clutch inner race. (1,9) on shaft
4. (1,10) Outer race mounting plate
5. (2,5) Clutch outer race.
6. (2,9) clutch *dog* assembly (2,10) in outer race
7. (3,1) *Dogg assembly* retaining ring. (3,2) in place
8. (3,4) clutch bearing on rear side of the outer race (2,6)
9. (3,5) and (3,6) thrust washer, in place, (3,7) second thrust washer (3,8)
10. (3,9) inserting inner clutch race into outer race, dogs must tilt in correct dir for clutch action (propeller rotates ccw as seen by pilot)
11. (4,4) second (rear) thrust washer
12. (4,5) clutch retaining nut. [This nut transfers prop pull to bearing and to case]
13. (4,7) locking nut (4,8) in place
14. (4,10) setting clearance for free wheel of prop.
15. (5,2) locking screws in place (5,4) locking screw cage
16. (5,9) "Don't forget washers!" (5,10) cage in place
17. (6,1) Can nuts rotate off? Need lock to shaft. (Bugger threads?)
18. Row 6 is assembly in housing.

