RK935 Rebuild Kit
1. Take a 5/32 allen wrench and remove the four screws in the head of the pump. (Figure A)

2. Separate the head from the pump with a flat screw driver. (Figure B)
3. Remove the valve plate and discard the large gasket. (Figure C)
4. Clean up the inside of the pump head.
5. Note how the cylinder sets inside the body of the pump. (Figure D)
6. Remove the cylinder from the pump body. (Figure E)

7. Look at the piston and how it goes back together. Note the way the piston cup is facing up. (Figure F)
8. Save the O-ring gasket from the top of the cylinder. (Figure G)

9. Remove the screws in the retainer plate with a 1/8\textsuperscript{th} allen wrench. (Figure H)
10. Separate the retaining plate from the piston head. Discard the retaining plate, piston cup and **one of the 1/8th allen head screws**. (Figure I)

11. Clean off the retaining plate and the piston head with a nylon scratch pad. (Figure J)
12. Open up the rebuild kit and take out the piston cup, retainer plate and cylinder.

13. Set the retainer plate inside the piston cup. (Figure K)

14. Pick up the retainer plate and the piston cup as one piece and set it on top of the cylinder. Note: The top of the cylinder has a groove in it for the gasket. (Figure L)
15. Make sure the piston cup and the retainer plate are setting level on top of the cylinder. (Figure M)

16. Take the palm of your hand and push both pieces into the cylinder. (Figure N)
17. Use your fingers and push both pieces to the bottom of the cylinder (Figure O).

18. **Do not** push the retainer plate and piston cup out of the bottom of the cylinder.

19. Check the bottom of assembly to make sure all of the pieces are flush with the bottom of the cylinder. (Figure P)
20. Softly set the cylinder with the piston cup and retainer plate on top of the piston. (Figure Q)

21. Line up the holes in the retainer plate with the holes in the piston. The cut out in the new style retainer plate goes away from the fan blade.

22. Install thread locker in the screw holes. (Figure Q)

23. Install the screws in the retainer plate. The new philips screw goes in the recess of the retainer plate. (Figure R)
24. Push the cylinder down into place. Make sure it seats all the way. (Figure S)
25. Install the cylinder gasket in the groove on the top of the cylinder. (Figure T)
26. Remove all the hardware from the valve plate. (Figure U)
27. Keep only the screw and nut.
28. Clean off the valve plate.
29. Remove the valve limiters and valves from the rebuild kit.

30. Install the valve on the bottom side of the valve plate. (Order is Valve, Valve Limiter, Screw)

31. Flip over the valve plate while holding the valve assembly from the bottom side.

32. Install the valve on the top side of the valve plate. (Order is Bent Valve, Valve Limiter, Nut)
33. Install red thread locker before putting the nut on. (Figure V)

34. Once the nut is on use a flat screw driver and tighten the assembly.

35. **Make sure valves are straight and covering the holes.**

36. Set the valve plate on top of the pump body. Make sure there is no gap between the valve plate and the body of the pump (Figure W)

37. **Make sure the nut is facing up and the valve limiter is pointing toward the fan blade.** (Figure W)
38. Check the pump for proper assembly by placing the assembled valve plate on the top of the pump body. (Figure X)

39. Hold the valve plate down firmly and rotate the fan blade. (Figure X)

40. The valve plate should stay in place.

41. If the valve plate feels like it is being pushed up make sure that the nut is on the top of the valve plate and that both valve limiter are straight.
42. Install the gasket back on the top of the valve plate. (Figure Y)
43. Install the head back on the pump. (Figure Z)
44. Put the screws in and torque them in a chris-cross pattern to 45 inch pounds.