



September 23, 2004

Dear AutoFish Users,

Now that the tagging season is winding down, we thought a friendly reminder was in order for the **Annual AutoFish Maintenance**. Maintaining the system is critical for smooth operation and completing this list will help ensure a smooth startup in the spring next year. We also offer a service call which includes the following listed items. If you are interested, please contact NMT.

To begin the process, all components of the system should be thoroughly rinsed and cleaned to remove silt and fin buildups.

#### **Vision System:**

1. Remove the shields, spinners, and spinner plates from the camera on each line. Clean with a soft cloth and replace any damaged parts.
2. Remove and clean the prism on each line with a 100% cotton cloth.
3. Inspect connectors on camera and spinner for water intrusion, corrosion, or fatigue. Make sure wires and cables are securely fastened to the camera holder.
4. To ensure smooth adjustment of the camera mount, clean and lubricate the two X axis shafts and the two pins and four screws on the Y axis.
5. Check backlights for water intrusion. Any dark sections in the backlight indicate damaged LEDs and will need to be replaced.

#### **AutoFish Lines:**

6. Remove and clean the XY clipper shafts with alcohol. Coat the shafts with Super-Lube and remove excess grease prior to reinstalling.
7. Remove the fish adapter plates and clean the shafts with alcohol. Coat the shafts with Super-Lube and wipe excess grease with a clean towel.
8. Apply Super-Lube grease to the height and width adjustment pinions (the toothed shaft near the adjustment wheels) and move the mechanisms to distribute the grease.
9. Remove and clean the strainers from each line.
10. Check all screws for adequate tightness. Replace any damaged or stripped screws.
11. Check all bushings, bearings, and belts for excessive wear. Contact NMT for replacement parts.

12. Check all frame feet for loose or broken screws.
13. Grease line feet.
14. Remove and adjust gate assemblies.
15. Remove top gate channel cover and remove and clean all components of the gate channel. Check all components within the channel to ensure proper operating conditions and reassemble.
16. Check alignment of the gate channel exit with the clamping area and adjust if needed.
17. Check for water intrusion in the sensor board cavities (in gate channel). Damaged and/or corroded boards need to be replaced.
18. Check for water intrusion in the control box. RTV can be used to seal any leaks.
19. Check that clippers are in good working order. Remove and clean all clipper components and check belts and cables for damage and proper tightness.
20. Check all holder shafts for stripped gears by pushing and pulling the shafts (with the power on).
21. Inspect the nose sensors for worn insulation on the cables and replace if needed.
22. Check for correct home position of all nine mechanisms.
23. Check all home sensors for any wear and adjust.
24. Check all cables and wires on and around the lines for wear or damage.
25. Each MKIV mount should be taken apart, cleaned, and lubricated.
26. Remove the water adjustment pipe in the rear of all VEs and thoroughly clean.

### **Adapter Plate Inventory:**

27. Check each set of plates for completeness.
28. Check that all head molds are securely attached to the head mold base. Reattach using DEVCON High Strength-5 minute epoxy Gel. Use caution not to use too much epoxy that it fills the needle hole in the head mold. An old needle can be used to make sure the hole is clear after applying the epoxy and re-attaching the head mold to the base.
29. Check and replace any stripped screws.

### **Sorter:**

30. Clean the sorter mirrors with a 100% cotton cloth.
31. Inspect the aperture wires.
32. Check the alignment of jet holes and jet adjustment lever.
33. Inspect sorter backlights.
34. Check all air cylinders on diverter gate system.
35. Check all fittings on air cylinders for proper tightness.
36. The pressure tank should be checked to ensure pressure is at 48 PSI.

37. Grease adjustment screws on VE.
38. Remove the water adjustment pipe in the rear of the VE and thoroughly clean.
39. Remove the strainers and clean.
40. Remove the drain on the bottom of the sorter booster pump to drain the water tank.

### **Trailer Shell and Components:**

41. Remove all items from drawers and cabinets and clean and restock.
42. Clean inside and outside of trailer shell.
43. Check power cords for defective sheaths.
44. Lube all tongue and stabilizer jacks with LPS 2 or 3 or WD40.
45. Check all tires for defects, nails, or foreign items.
46. Check all tires for proper air pressure.
47. Charge the battery (on the tongue) for a week, prior to shipping.

### **MKIV:**

48. Follow the cleaning protocol in the MKIV manual for cleaning the injectors and all of the components.

After maintenance is complete, open all valves so water can drain from the plumbing to avoid problems during freezing conditions. Turn on the heaters to dry the trailer prior to storage.

Also, remember to always rinse all mechanisms with bottled water after disinfection. This will flush the chlorine off the mechanisms and help keep the working parts free of corrosion.

Please feel free to contact Danielle, Joel, or Brian with questions about the specifics of any of the above listed procedures.

Have a great fall!

The NMT AutoFish Crew