MaxFlight
CORPORATION

## MaxFlight Counterweight Troubleshooting Checklist

Due to the many variables, that affect correct counterbalancing of the MaxFlight hydraulic units, the following checklist is designed to help us in Technical Support to help you correct counterbalance failures.

Please follow the steps and fill in the blanks provided. When completed , FAX the information sheet to ATTN: Technical Support, MaxFlight at 1-(732)-942-1114.

Company Name;_____
Contact person and Phone #;_____, _____
Machine Serial Number. M-_____

1. With the program up, and cockpit power OFF, check the hydraulic pump pressure, what is the reading? _____ PSI.
2. Turn cockpit power ON, and program is up. Does hydraulic pressure drop to zero PSI ? _____
3. On VR2002 does Status box say/show platform lowered? If not lower the unit. On MT3000, FS2000 does the Down Sensor show GREEN? If not lower unit.
4. Does the counterweight move, Forward (Decrease)/ Backwards (Increase), with the unit lowered using the mouse? Either have tail cover OFF or have another person check movement with a flashlight. Move the counterweight through its entire travel from end to end till clutch on weight engages the end stops.
    a. Does weight go all the way to rear? _____
    b. Does weight go all the way to front? _____
    c. When weight is all the way forward, what is the distance between bottom of tail cover and the rear stand top? _____inches.
    d. Does the motor and jack screw, keep turning when end stops have been engaged by the weight clutch ? _____

    On VR2002 minimize operating screen, double click on top blue border, move screen off to the side. ON MT3000 and FS2000 encoder readings are in lower right windows. Bring up the control window, locate in such a way so you can read the pitch axis. Move the counterweight all the way to rear. Turn Hydraulics ON, raise the unit to balance point and press E-stop. What is the Pitch axis actual reading?_____ What is the Roll axis actual reading? _____
6. Lower the unit using manual lowering valve. Repeat step 5 this time moving weight all the way forward. What is the pitch axis actual reading? _____ . What is the Roll axis actual reading? _____ .
7. Are all motor mount bolts on KYB and torque arm tight? _____

8. Is there excessive play between bottom of torque arm and inside of uprights? _____
9. Are the **Rulan** plastic strips still installed on torque arm guide blocks? _____
10. Check the pitch encoder, ensure the set screws (two) are tight on pitch output shaft, the cable to the encoder must be stress relieved (looped from encoder to the left side clamp), cable must not hang straight down or pull on the encoder when it raises. Are the above steps OK? _____
11. Check the pitch encoder torque mount, must be secured by top bolt and nut, not cracked or bent. Is this OK? _____
12. Turn hydraulics back ON.
13. On both sides, measure distance between bottom of pitch bearing blocks and top of first lift cylinder cross clamp (see picture). Right side; _____inches, Left side inches _____.
14. Raise unit to balance point and E-Stop hydraulic power. Repeat step 12 with the unit at raised balance point. Right side _____ inches, Left side _____ inches.
15. Has there been any maintenance done on the hydraulic system recently?
    a. Filter change? _____
    b. Changed fluid or type? _____
    c. Adjusted any regulators? _____
    d. Are plug connections to the lift and hydraulic bypass solenoid clean and tight? _____.
16. Lower the unit using the manual lowering valve.
17. Has anyone recently made any settings changes either in settings pages or Reg-Edit? _____. Software changes? _____.
18. Is the roll of the cockpit level when unit is raising to balance point? _____. This is especially important if you have problem balancing going from heavy load to light.
19. When unit/platform is balancing, does the pitch movement go through "0" position prior to raising o the top? _____.

After reviewing the above answers, Technical Support will call and/or Fax recommendations on corrective action.

**Please be as concise as possible when answering and/or measuring. These answers will affect corrective action recommendations.**

**Pict #1** **Pict #2**