

# Annual Inspection of Clamar Amphibious Floats M1400



Updated August 12, 2010

Note: Floats must be on blocks for annual inspection  
(See owner's manual)



## Item # 1: Nose Wheel Assembly

- Tire air pressure: 30 PSI
- Tread wear: none even wear if any
- No cracks in wheel: nuts should show 4 threads Take the wheel off and grease the bearings in the nose wheel. Flip the bearing covers off using a small straight screw driver and lay in grease. Bearing can be purchased locally and will eventually require replacement. Greasing will extend the life of the bearing.
- Check vertical bolt tension - you should have 2 concave "Bellville" washers installed
  - Nut should be cotter pinned 1to 2 holes max past when first compression point is felt. By placing your hand on the front and rear of the tire there should be some resistance to turning.
- Remove rear horizontal bolt to check bushing in the arm itself
  - Replace if showing any wear gear arm is solid 6061 T6 at that point
- You have a stainless bushing strap on outside wall of the wheel well at this point.
  - There should be no wear and bolts should be stainless ¼ 28 by 7/8 inches attaching this part to the wheel well.
- Horizontal bolt should be installed and should be tight with no side-to-side movement of the arm. This should be checked weekly during flying season and there should be no shimmy or very little shimmy depending on your load distribution if this is done correctly.
- Gear indicator rods should be original colors and should move freely.
- All compression nuts should have at least 2 threads showing. Grease through fittings on front and back of gear arm.

Note Remove the front 2 top covers and observe the ball drive actuator in action both in the up and down position. Check all bolts and nuts for proper position, thread count and cotter pin placement. No internal maintenance is required unless irregularities are observed.

Any replacement parts may be purchased from Clamar. Tires and tubes can be purchased from Matco or Aircraft Spruce. See vendor list on last page,

## Item # 2: Main Wheel Assembly

- Tire pressure: 50 PSI
- While on blocks wheels should turn freely with little noise or friction. Ensure any friction noted is not brake friction. Remove caliper if necessary. We have had customers replace axles because they were never greased.
- Grease until grease comes out the pressure check hole or what some people call the "witness" hole and this should be done on a regular basis if in and out of the water during flying season use EP2 grease. Grease through fitting on the end of the axle
- Have someone cycle the gear while you observe to confirm it is operating smoothly as designed.
- Ensure all bolts in place with cotter pins as designed.
- Remove cover over main gear actuator and observe action while having someone cycle the gear up and down. No maintenance is required on an annual basis. Adjustments have been made at installation time to ensure balanced movements.
- Check thickness of brake pads if necessary replace see Grove phone # at the end
- Check brake line for wear and freedom of movement when gear cycles
  - Line should be replaced at least every other year if you are using Nylaflo Nylon line. This line is available from Aircraft Spruce or Clamar.
  - Some customers have upgraded to stainless braded line 3/32 ID with brakes being so important on amphis you might consider this change too.
- Check tire for flat spots or any wear replace if needed



**Note:** Much like your outboard motor it is wise to force out any water in the wheel axle area by filling it with grease. Also wise to ensure no water is in the floats when freezing time starts and even leave covers loose so no condensation collects.

All aluminum parts have been hard coat grey anodized so being in water for longer periods will not damage them.

If the aluminum side trim or the stainless steel skid plate on the keel loosen use Proforma PF 224 to reinstall. Both the trim or bumper strip and the stainless skid plate can be purchased from your local Metal Supermarket store.



### Item #3 General rigging and Hull check

- Check that water rudders are going the same direction as the air rudder - even a slight variance will cause trim issues while in the air.
- Check cable tension when rudders up
- Check cotter pins in place and no uneven wear issues. Oillite bushings should be in the right place.
- Check rudder horn bolts for wear and tightness or any cracks. Check fly wires for tightness. Use the turn buckle for adjustment.
- Any scratches on hull can be sanded and filled before touch up paint
- Fly wire (cable) tension should all be equally tight with the wings level. Use the turnbuckle to tighten or loosen and ensure retaining clip is secure and in place.
- If you have leaks in top covers check o-rings also you may wish to remove the cover completely and re seal with Proforma PF 224. One trick we have found is to put the sealer on both the float and the top cover and then replace the screws. Also some customers use Vaseline on the o rings for more sealing.
- Proforma PF 224 is a urethane adhesive and can be purchased locally from your automotive after market store. Always wear rubber gloves when working with this product.

**Note: For long term storage remove all tops and leave baggage compartment in open position**  
**Parts Source:**

Nose Wheel tires and tubes:	Aircraft Spruce 1 800 861 3192 or Matco 1 801 335 0582
Main tires and tubes:	Aircraft Spruce
Brake Line "Nylaflo":	Aircraft Spruce
Brakes:	Grove: 1 888 432 7524
Grease	EP2 Local auto or marine store

Any other part is available from Clamar at a reasonable cost and is in stock at all times. Expect overnight shipments anywhere. [www.clamarfloats.com](http://www.clamarfloats.com)

CLAMAR FLOATS  
74 Orion St. | Brunswick, ME 04011  
Tel: 603-828-5373 | email: [paul.richards@clamarfloats.com](mailto:paul.richards@clamarfloats.com) [www.clamarfloats.com](http://www.clamarfloats.com)

