

4.5.10 Water Ballast

- (a) Use clear water without any additives.
- (b) Increase tyre pressure to 4 bar < 58 psi>, when using full water ballast.
- (c) Wing integral tanks together hold about 190 Litres <50.2 US gallons, 41.8 Imp. gallons>.
- (d) Maximum permissible water ballast depends on loading conditions, see pages 4-11 ff.
- (e) Two tanks per wing.
- (f) Tail tank (3.8 to 5.5 Litres <1 to 1.5 US gallons, 0.84 to 1.21 Imp. gallons>) has 2 cockpit water ballast levers: the short one opens the outer wing tanks only, both levers open both tanks; the tail tanks always opens during operation of one of these levers.
or Tail integral tank (12 Litres <3.2 US gallons, 2.64 Imp. gallons>) has 1 cockpit water ballast lever operating all tanks simultaneously.

Important Note: When using water ballast, always fill inner wing tanks first, thereafter fill outer tanks with the remaining amount.

Inner tanks each carry about 65 Litres <17.2 US gallons, 14.3 Imp. gallons>;
outer tanks each carry about 30 Litres <7.9 US gallons, 6.6 Imp. gallons>.

- (g) Use as clean water as possible to avoid damage of sealing rings by foreign matter.
- (h) **Filling sequence:** always tail tank first, then wing tanks.

Warning: *Wing water ballast always must be compensated by tail tank water according to table page 4-12.*

4.5.10.1 Vertical Tail Fin Tank Loading Procedure

- (a) Open dump valves by shifting lever or levers in cockpit forward.
- (b) Insert tail fin tank adapter to filling funnel tube and connect to dumping outlet just inside lower right rudder cut-out, with rudder deflected to the left.
- (c) Fill tail fin tank via funnel in relation to intended wing water amount, see table page 4-12.
- (d) **Markings correspond to 0.5 Litres <0.13 US gallons, 0.11 Imp. gallons> steps, equivalent to 0.5 kg <1.1 lbs>.**
- (e) Use water level in funnel tube relative to markings on inside of translucent right rudder gap seal to determine correct amount in relation to wing amount. Specified amount of water must be verified under the following conditions:
 1. Wings level
 2. Landing gear and tail end on ground
 3. Filling tube near markings
- (f) Upper red marking corresponds to maximum amount of tail fin water ballast:
5,5 Litres <1.45 US gallons, 1.21 Imp. gallons>
3,8 to 4,1 Litres <1.00 to 1.08 US gal., 0.84 to 0.9 Imp.gal.> for the combination of tail fin tank with tail fin battery box
12 Litres <3.17 US gal., 2.64 Imp. gal.> for the integral tail fin tank.
- (g) The combination of battery and/or water cannot be chosen at will, because battery position was fixed during last C.G. weighing, see also entry on page 6-1/2.
- (h) Close dump valves by shifting single or double cockpit lever backward and remove funnel from tail. For filling of wing tanks, the cockpit levers must stay in the closed position.

Warning: *Mandatory tail tank filling always exactly to markings under right rudder seal and filling tube water level in correct relation to total wing water amount according to table page 4-12. Otherwise, keeping to the maximum approved rear C.G. position cannot be guaranteed.*

Warning: *Filling funnel meshing is mandatory to guarantee tail fin tank valve function.*

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