CONTEXT
WaterTank_2Tanks_Cylinder_Ctx
EXTENDS
WaterTank_2Tanks_Ctx
WaterTank_ode_Ctx
CONSTANTS
B1
B2
H1max
H2max
H10
H20
delta_in_h1
delta_out_h1
delta_in_h2
delta_out_h2
AXIOMS
axm1: $B1 \in RReal$
axm2: $Rzero \mapsto B1 \in lt$
axm3: $B2 \in RReal$
axm4: $Rzero \mapsto B2 \in lt$
axm5: $H1max \in RReal$
axm6: $Rzero \mapsto H1max \in lt$
axm7: $H2max \in RReal$
axm8: $Rzero \mapsto H2max \in lt$
axm9: $H10 \in RReal$
axm10: $Rzero \mapsto H10 \in leq$
axm11: $H10 \mapsto H1max \in leq$
axm12: $H20 \in RReal$
axm13: $Rzero \mapsto H20 \in leq$
axm14: $H20 \mapsto H2max \in leq$
axm15: $Vmax = sLinComb2(B1, H1max, B2, H2max)$
axm16: $V0 = sLinComb2(B1, H10, B2, H20)$
axm17: $delta\_in\_h1 \in RReal$
axm18: $Rzero \mapsto delta\_in\_h1 \in lt$
axm19: $delta\_out\_h1 \in RReal$
axm20: $Rzero \mapsto delta\_out\_h1 \in lt$
axm21: $delta\_in\_h2 \in RReal$
axm22: $Rzero \mapsto delta\_in\_h2 \in lt$
axm23: $delta\_out\_h2 \in RReal$
axm24: $Rzero \mapsto delta\_out\_h2 \in lt$
END