Airwolf

Legal stupidity first off: I William Aldridge designed this model (and therefore am the copyright holder) and provide it free of charge (partially because I can't get rights to sell it) to anyone who wants to build it. I do prohibit the reproduction of this model for sale by anyone for any reason. If you wish to modify it, be my guest (it is in need of a finished cockpit) but such modifications don't give you the right to claim the whole design as your own. Hopefully you will be willing to share your improvements with the rest of us.

To give credit where credit is due Alex C.(I don't know if he wants his last name spread around) did the paint job on this model and I think he did a great job.

I designed this model because I wanted to give something back to the community and the previous legal stuff is the result of hearing about certain morons who have been selling models on Ebay and in other places that they downloaded for free off the internet (I forbid you from doing so), and it is my hope that this doesn't happen with this model. I know of several designers who have offered their models for free and then pulled them because of idiots like that so please help me and all other designers keep a good attitude towards sharing our stuff.

Now that I'm done venting for the good stuff.

Paper and Card Stock:

Pages 1 and 7 of this model should be printed on 20lb paper (with the exception of parts N5, N6, and M8, on page 7) pages 1 and 7 should then be laminated on 1/32" card stock. This model has been test built using 100lb and 67lb glossy, card stock. 67lb is recommended for most of the model with 100lb being recommended for parts like rotor blades that need additional rigidity but the whole thing can be done with 100lb if so desired. M8 is the pattern for the transparency for the windows.

Misc:

Connecting strips are needed to assemble this model and I have only provided 1 (part # B2 and it is not the greatest design) so you will have to make the rest yourself.

Some tabs are provided and in many areas I intend you to use edge gluing, in some places I simply got lazy and left tabs off where they might have been useful. In most of those places edge gluing will probably work if not use your brain and figure something out.

Numbering System:

The numbering system employed in this model is correlated to the major assemblies i.e., A series parts are assembled first then B etc. All part series start with the number 1 A1, A2, etc with the exception of N which starts with N0 because I labeled all the parts and found out there was a better candidate for the first part in the series and I didn't want to renumber the whole thing. There are some parts that are identical and have the same number (L5 on page 2 is one example) some parts have a L or a R in the part number and that indicates the side of the model (left or right) that the part goes on. Parts series K, M, and N are optional (cockpit and weapons) and the M series has not been test built. The cockpit is incomplete as I grew tired of designing this model towards the end. If anyone wishes to finish it they have my blessing just acknowledge where you got the rest of the model and don't try and sell it.

Disclaimers:

The diagrams are more to show part placement than method of construction. Also this model

was not refined to a great degree so I can make no guarantee as to blah blah blah blah…..

Part series A (frame):

After laminating pages 1&7 assemble parts A1-A15 as shown in diagram 1 then wrap ¼" wide strips of paper around A2, A10, A11, and along the top of A1. (*see diag 1*)

Part series B (fuselage and tail boom):

Assemble the nose (front of B1) by installing B2(connecting strip) and B3 (windshield). Don't close up the rest of B1 until you have installed the frame (Assembly A) then wrap the rest of B1 around the frame and glue in place. Roll B4 and B5 into cylinders and slide over the frame and glue in place.

Part series C (Main rotor gearbox and turbine housing):

Some of you may have noticed the "Extra Mesh" on page 3, I felt that it might improve the appearance of the model if the vents in the parts where cut out and the extra mesh was glued in on the back of the parts. However now that I've seen the completed paint job I think It's probably not necessary, but it's your choice.

I think *diagram 2* shows this better than I can explain it except for a few parts. C2 is a curved former and the tabs(not shown in diag.) hang out past the edge of C1. Part C5 is the Rotor gear box housing and interior of the turbine intakes. The back of the intakes glue around the shaded portions of C3. Before forming C7 cut out the light gray area at the top of C7. It might also be a wise idea to reinforce the very front of C7 by laminating another layer of card stock under the very front where C6 goes (but not under the intake portion). Cut out, shape and glue C6 (this is one of those parts tabs might have been a good idea) into the cut out area of C7 so that it forms a recess in C7. Lastly install the tail rotor driveshaft cover (C8) most of it sits on top of B4 and the forward little bit (tapered part) rests on C7.

Part series D (jet engine pods):

Part D1 is inserted through 2 slits that need to be cut in B4 (red lines) with printed side facing rear. D2 and D3 are the exhaust nozzles with D2 being the outside and wraps around D3. Glue the nozzles on top of the turbine blades printed on D1. Parts D4 wrap around the nozzles (see diagram 3). Next Glue D5's to side of fuselage, assemble D6 and D7 (intakes) and glue into front of opening of D5.

Part series E (stub wings and main landing gear):

Parts E1 and E2 are the bulkheads for the main gear bays. E2 gets folded in half on the line and has **1** piece of thick card sandwiched in the middle (if you decide not to build the guns you only need the inner portion of E2). Now is decision time if you want to build the guns in the extended position. After sandwiching the thicker card in E2 cut out the circle with the x through it if you want the guns extended. E3 goes through this hole and the aft end of the bottom gun sits on it (see diagram 4a). Wrap E4 around E1 and E2. If building the guns cut out the portion of E5 that is the cover for the guns and set it aside. Otherwise cut E3 off where indicated and form E5 not forgetting to cut out the opening for the landing gear bay and insert the assembly (E1-E4) into E5. Landing gear can be built extended or retracted (see diagram 4b for details). Part E8 (landing gear fork) is a little tricky to build, don't cut out the white rectangular portion in either end until after you have assembled the part and the glue is definitely dry. After that the wheel may be glued in place. If you are very ambitious like one of my Beta Builders you can glue part E9 inside

E8 and make really tiny axles and make the wheels rotate.

Part series F (tail rotor assembly and tailfin):

F1 is needed to keep the left side of F2 rigid. F1 is slightly smaller than the space it's glued to on F2 so place it as close to in the middle as you can. Then fold F2 and glue. Glue F3 onto F2 and F4 onto F3 as shown in diagram 5. Then fit assembly onto the end of the tail boom (B5). The tail rotor shaft is 1/16" diameter and 3/4" long. Assemble parts F5-F8 as shown in diagram 6.

Part series G (horizontal stabilizers on tailboom):

Cut slits in B5 and insert G1 then glue G2's on as shown (G2 are slightly too big so you will need to trim as needed). Then wrap the G3 parts around G1 and G2 as shown in Diagram 6. Glue G4R&L on the ends of G3R&L.

Part series H (Main Rotor):

You will need a 1 1/2" rod (paper or metal) 1/8" diameter for the rotor shaft. Also some narrow gauge wire will be needed for push rods. Parts H7 and H8 need to be laminated on 1/32" poster board and H10 and H11 need to be double laminated on 1/32" poster board. Inasmuch as was possible the parts were numbered from bottom to top. See diagram 7

Spinning Rotor:

If you desire that the rotor be able to spin you will need to make a roll of paper for the rotor shaft to be inserted into and cut the hole in C6 slightly larger than the role and insert the roll and glue in place so that the rotor shaft will be leaning towards the front of the Helo at a 5 degree angle. Glue Part H1 and H2 (H2 goes between the horns on H1) together and make a roll of paper about 2x the height of H2 and center that in the underside of H1 now glue this assembly on top of C6 as shown. Assembly 2 is comprised of parts H3-H6 (assemble as shown). Now build the rotor head (H7-H14) as shown. Insert the rotor shaft into top of C6 and slide assem. 2 down on top of assem. 1, then mount rotor head on very top of shaft (align as shown) and glue assemblies 2 and the rotor head in place on shaft and add pushrods as shown.

The pictures at the end of this document show parts H1 and H2 assembled and installed to good advantage.

Stationary Rotor:

Same as for spinning except for the roll of paper to hold rotor shaft and that you have to pick the angle you want the blades to be at and glue assem. 1 and 2 together.

Part Series I:

Part series I does not exist

Part Series J (Nose Gear):

J1 is rolled into a cylinder with the arrow being the end of the tube that is inserted into the nose of the Helo. Assemble J2 as shown and glue onto the bottom of J1. J3-J5 is the same as E8-E10 just smaller. See diagram 8 for proper installation. J6 is the gear door and is folded in half and glued in place as shown. If building the gear up cut the part in half and glue the black half over top the place that J1 is inserted.

Part Series K (Rocket launcher):

Score and fold the sides of K1 so the metallic looking sides face to the outside of the box this will create. K2 is glued to the bottom of the box so you can't see white if looking between the K3's. Refer to diagram 9. K3 are rolled into tubes and it is up to you to stuff something in the tube so you can't see in one end and out the other.

Part Series L (fiddly little stuff I left till last):

L1 is the little blister that goes on the underside of the nose. L2 are rotating beacons that go on the forward underside on B5 and just behind C6 on part C7. L3 is the outside of the turbine exhaust and L4 is the inside. The white line down the middle of L4 is for alignment purposes. After assembling L3 and L4 glue in place on C7. The 2 lines in the oval area (1 long 1 short) are also for alignment purposes and line up with the seams in L3 and L4. The opening in L3 and L4 face back and up. L5 are little vanes that go on either side of the rocket launcher (see diagram 9 for placement). L6 is the fairing for the top of the nose. L7 are little exhaust thingies that go over the circular vents on the side of C7 with the openings facing towards the rear (see diag. 2).

Optional Stuff:

Part series K should really be located in this section but I messed up while numbering parts.

Part Series M (Cockpit):

Instructions will not be given for this series (except for diagram 10), as I have not built it. I will note that M6 and M7 are the seats with M7 being folded in half and M6 folder in such a manner as to go between 2 M7's.

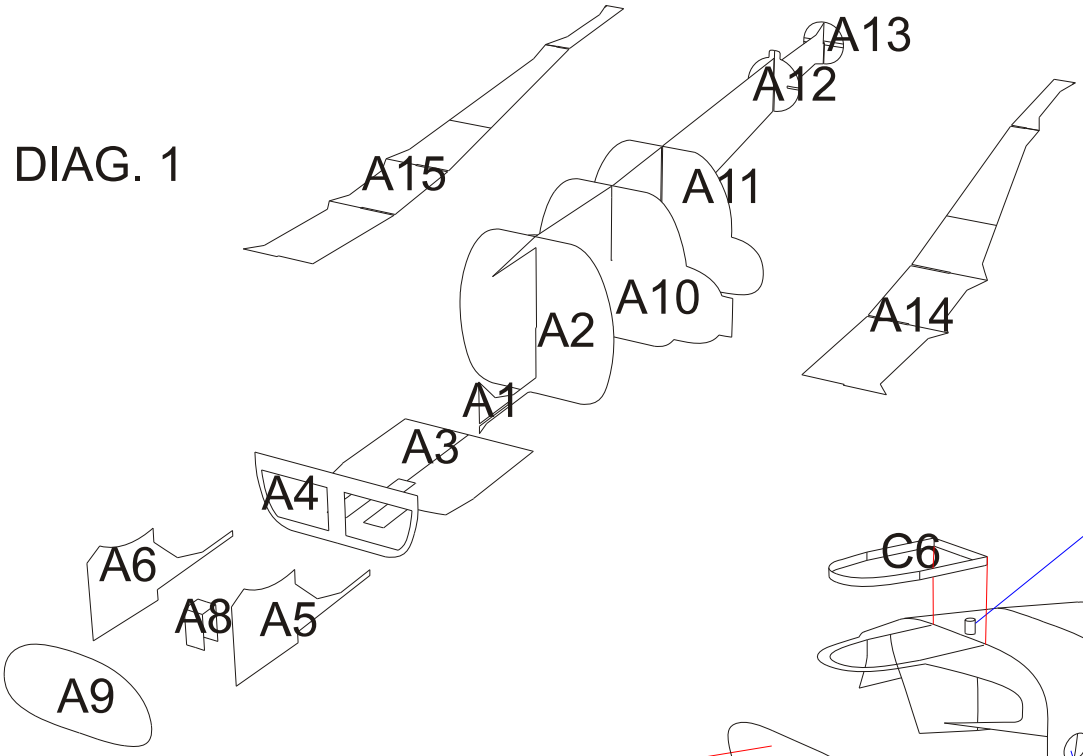
Part Series N (Chain Guns):

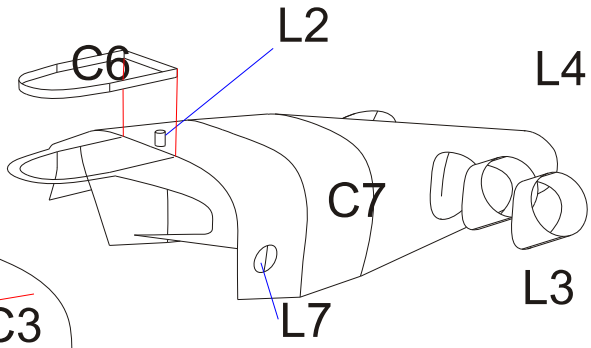
N0 mounts onto the sides of E2. Now locate the part of E5 that was set aside earlier. Glue N1 back to back with this piece cutting and shaping as needed, then glue N2 to the front. N3 and N4 are the bodies of the Chain guns and should be assembled as shown using edge gluing (note there is a little tab on N4 that should be removed). Narrow gauge wire will be required to make the 2 rods that hold the front of the gun covers. Now look at diagram 11 for the rest and assemble as shown.

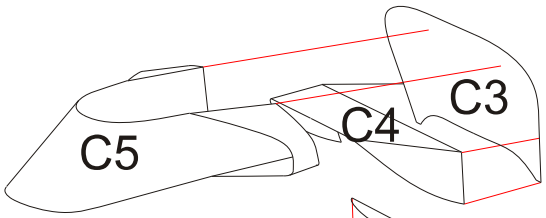
The End

Diagrams are on the next page.

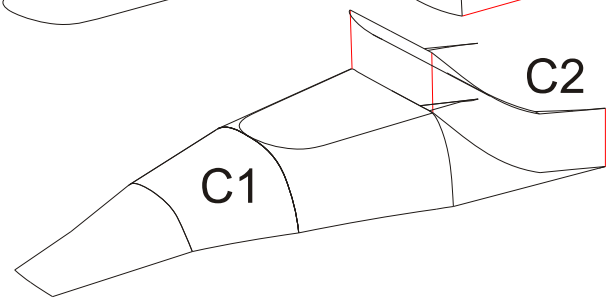
DIAG. 1



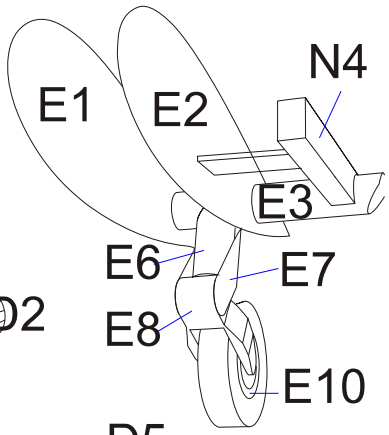




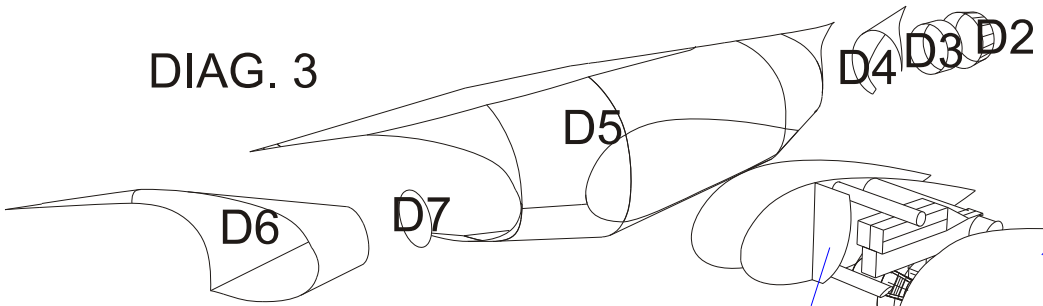
DIAG. 2

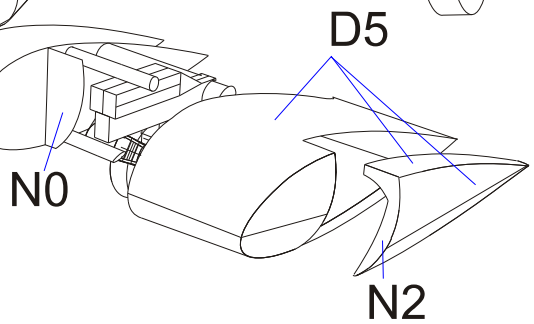


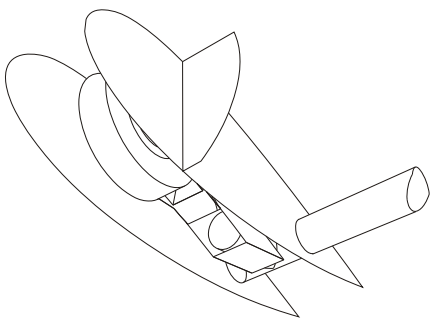
DIAG. 4A



DIAG. 3

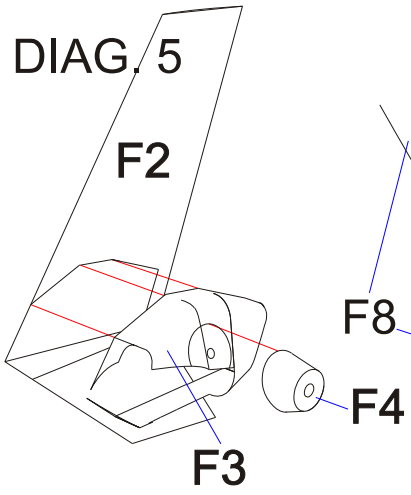






DIAG. 4B

DIAG. 5



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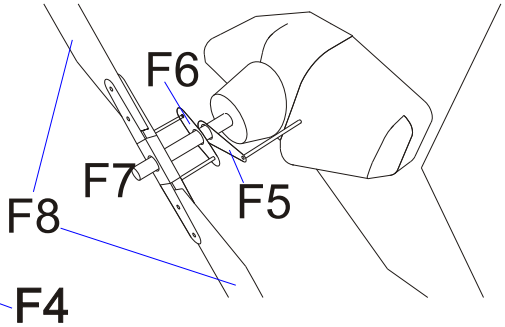

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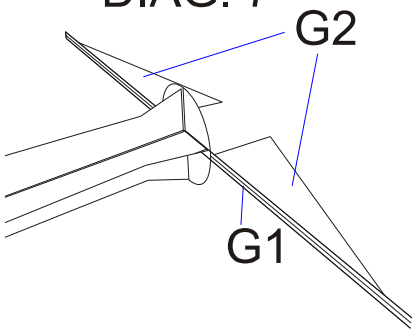

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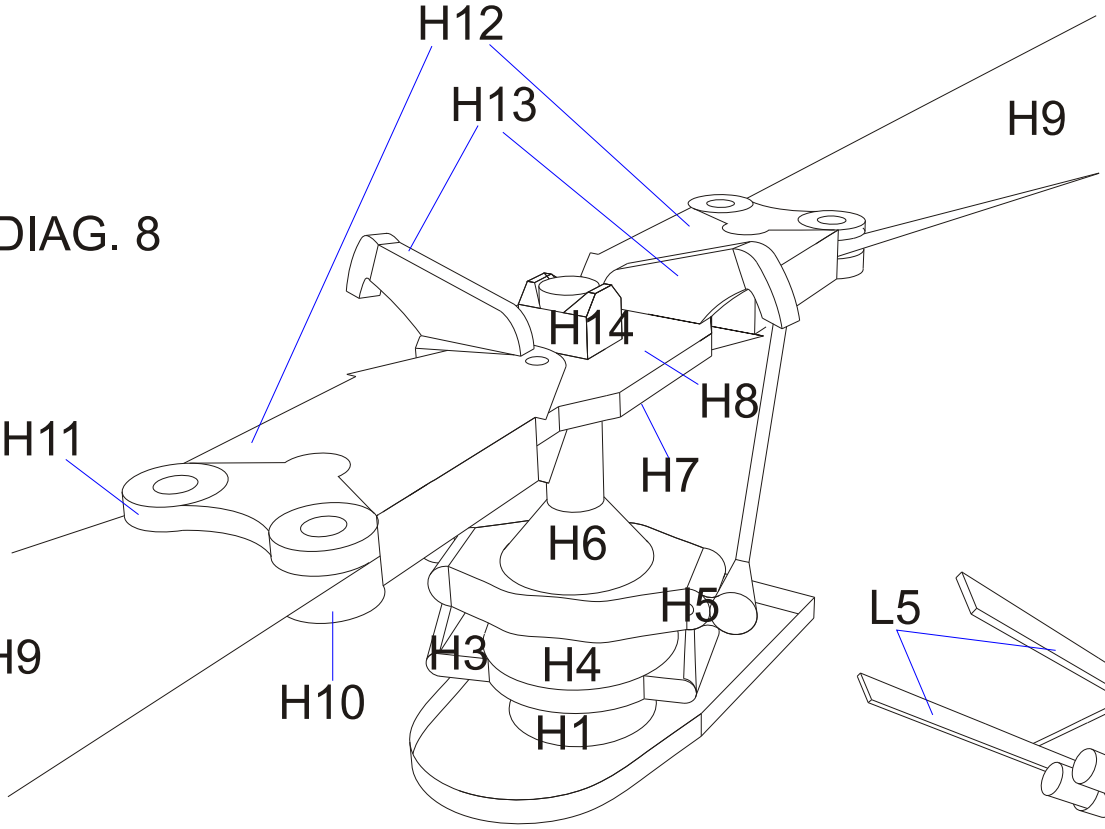
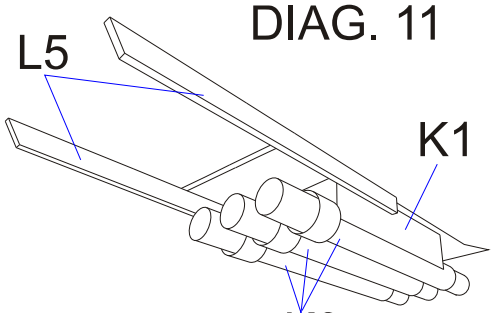
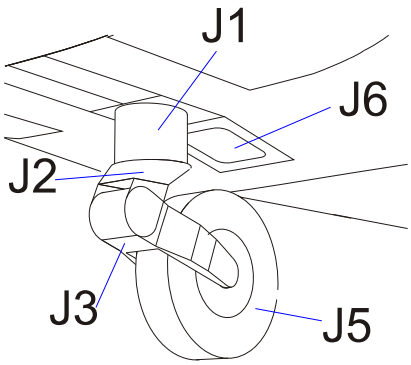


DIAG. 11

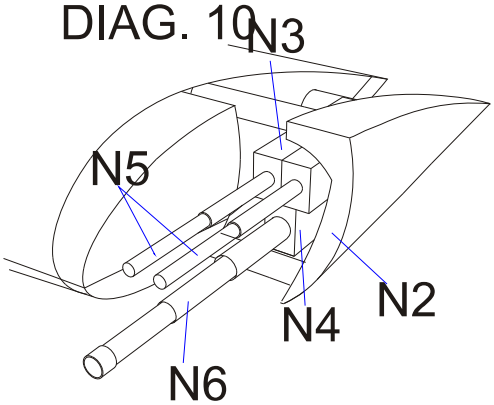


K2(NOT VISIBLE)

DIAG. 9



DIAG. 10



DIAG. 12