

Belcher Bits BB-32: H-21 Floats 1/48

Belcher Bits

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Background

The Piasecki H-21 was originally developed for the USAF as an arctic rescue machine to pick up downed aircrew in the far north, and to support remote radar sites. The original design included flotation devices built around the landing gear, essentially large donuts either permanently fitted or deployed as required. The disadvantage to these was instability; they tended to hold the helicopter high out of the water and in all but the calmest water, the helicopter was likely to tip over. Furthermore, these floats resulted in high drag in flight.

Subsequently, a new design of floats was produced. The main gear floats were well above the wheels, and the nose float was attached to the underside of the forward fuselage. These floats were both more stable and lower drag and they were used through to the end of the service lives of these machines.

Not all services used floats, but some RCAF machines were fitted and nearly all Swedish machines (which were intended as anti-submarine machines and thus spent a large portion of their time over water) carried them on a permanent basis.

These resin parts are designed to fit the Special Hobby kit of the H-21.

Nose Float Assembly

The nose float bag is designed to fit under the nose of the aircraft as shown in Figure 1. The narrower part is to the front. When assembling the nose gear, leave off the upper strut (part C2) and stabilizer bars (C5). The lower nose gear strut is fitted in the depression in the base of the nose gear float. On the real aircraft, the upper strut and bars were there, of course. The actual float was a U shaped tube which fitted around the nose gear, and the whole thing was encased in a waterproof bag.

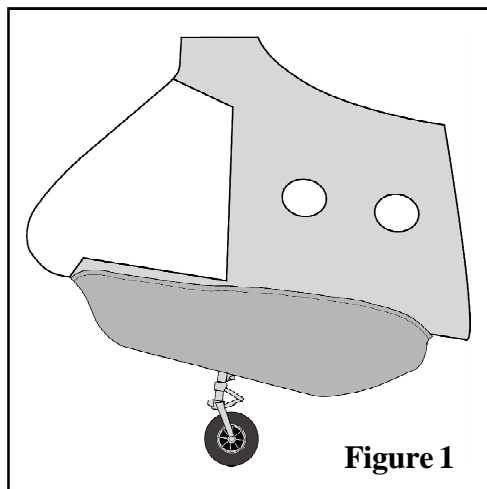


Figure 1

Main Float Assembly

To be honest, I am not sure what holds all this on the real aircraft. However, to represent it in scale would not be robust enough, so I am proposing a method which should easily support the weight of the heavy resin floats. Assemble the landing gear as per kit instructions. Drill a 1/32" (0.75mm) hole in the top of each main wheel and insert a short length of brass or steel rod. Drill a similar hole straight up the roof of the gear well in the fairing piece. Note that the slot is in the inboard face, and it is vertical. The outside of the fairing slopes out, so make sure you drill parallel to the inside face. See the drawing in Figure 2.

The float bag glues directly on the fairing piece.

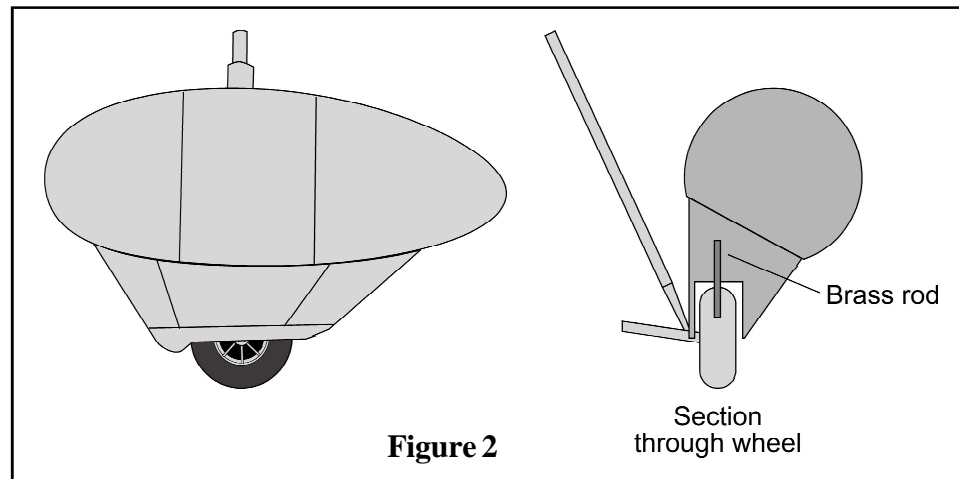


Figure 2

Painting

Check your references. The main gear fairings were metal and were usually painted the fuselage colour. The bags could be an aluminized fabric or painted.

References

1. The Piasecki H-21 Helicopter, R. Brandt and W. Davies, 2007
2. Illustrated Parts Catalogue for H-21 Helicopter



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