

Hatz of the month:

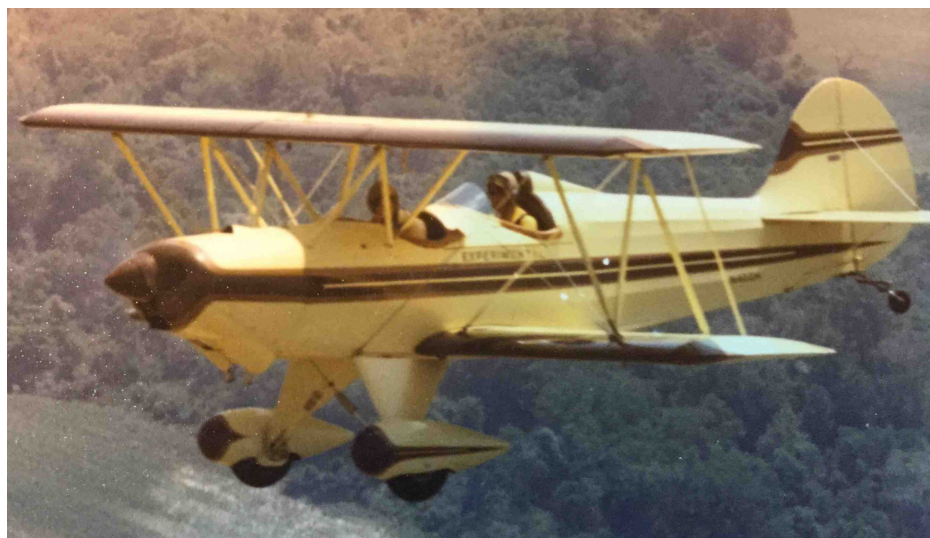
The Harvey Biplanes

Butch Harvey, Concord, NC

Hatz Biplane Association

There is a truism that the most accomplished among us are also the most humble. Butch Harvey is one such person. When he confirmed his intent to attend the annual HBA luncheon at Sun 'n Fun on April 6th, he sent along a picture of his first Hatz CB-1 - completed when he was just 19 years old! I had to know more about this, resulting in the following report from our fellow HBA member from Concord, North Carolina.

Hi Kent, I recall seeing your post about the Sun 'n Fun Hatz get-together. I would like to participate! I am very interested in building another Hatz-type ship with the Verner. Steve Wolf really sold me on the engine. [ed., Steve will be one of the speakers at our luncheon.] Here is a picture of my old Hatz that I built mostly during high school. Finished it when I was 19. I owned it for several



Above: Butch Harvey built his first biplane, a Hatz CB-1, while in high school. Below: The Harvey family trio of biplanes from the 80s consisted of a Smith Miniplane, a Baby Great Lakes, and Butch's CB-1.



years and sold & delivered it to Charleston, SC from Mt Vernon, Ohio. It is now owned by Bob Hilbert who keeps it at his airstrip (37IS) near Poplar Grove in Illinois.

There are four generations of pilots in my family; three of them have owned biplanes. My grandpa Russell Harvey, my dad, William Harvey and my "Uncle Bob", Robert Harvey, me, then my son Michael Harvey. Dad had the orange Smith Miniplane, uncle Bob had the Baby Great Lakes and I had the old man Hatz - as a teenager! Mike, my son, has the Pitts now as well. The Smith Miniplane now hangs in Corky Coker's museum in Chattanooga.

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The View from Above

Jeff Orear, President
Hatz Biplane Association



Having seen pictures of Hans and Sam Gautschi's beautiful Vintage Hatz, and also wanting to have a vintage look to my Classic, I decided a speed ring for my radial engine was in my future.

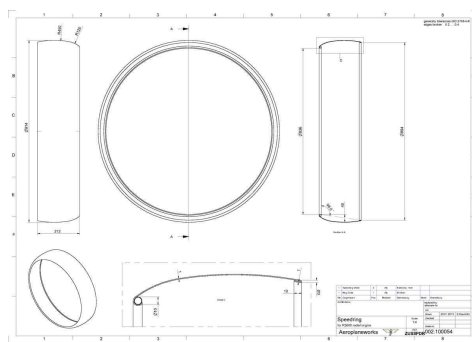
One of the modifications Hans and Sam did to their Rotec was to manufacture new rocker covers due to the originals not sealing well. They incorporated hard points on four of them to accommodate mounting their beautiful speed ring for their airplane. Wanting to prevent any known issues with my engine, I ordered a set of covers from Hans and Sam, and had them include the same provisions for, at that time, a possible speed ring. I'm really glad I did.

Carlo Cilliers demonstrated some outstanding talent and workmanship creating his speed ring out of aluminum for his Rotec powered Classic, certainly a factor in his winning a bronze Lindy last year at AirVenture. I felt that if I had time and a stack of aluminum sheet that afforded me several remakes, as well as access to an English wheel, I might - underline might - approach a fraction of the

quality that Carlo attained. So as with my boot cowl, I again turned to fiberglass.

Contrary to how I made my cowl, I omitted making a mold and decided to make a one-off from a plug. Thankfully Hans and Sam provide the drawings they made to construct their ring on their website, so I used them to make my plug.

I started making the plug by



making a front and back disk following the dimensions on the plans and then supporting them between each other the width that the ring would be.

Then I made 64 ribs out of



1/16" plywood that created the airfoil shape of the ring. I made a master and then used a router to keep them all consistent. Then they were glued to the disks evenly spaced.

Most people use Bondo to



smooth out the surface of a plug, but I like using joint compound. It's cheap, doesn't stink, easily sands. Down side is that it takes longer to dry, and is not as hard as Bondo. I made a curved sanding block out of aluminum and an old mouse pad to help get the contour right.

I brushed a coat of epoxy resin on to seal up the joint compound and harden it. This is



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then sanded, and a second coat applied. You still need to be careful not to dent the foam/joint compound while laying up fiberglass tho. To create the rounded front lip of the speed ring, I hot glued a length of 1/2" tubing purchased from the aviation aisle at Menards. Polystyrene foam was hot glued between all the ribs and sanded to shape. I also used some caulking where the tubing meets up with the forward plug disk so



the fiberglass would not lock in. Next the plug is waxed with release compound with several coats. This is not as critical as with making a mold. It just makes



breaking the plug off the completed part easier.

The ring was then laid up using West System epoxy resin and 6 layers of 9 oz fiberglass cloth. Peel ply was applied to help even out the surface.

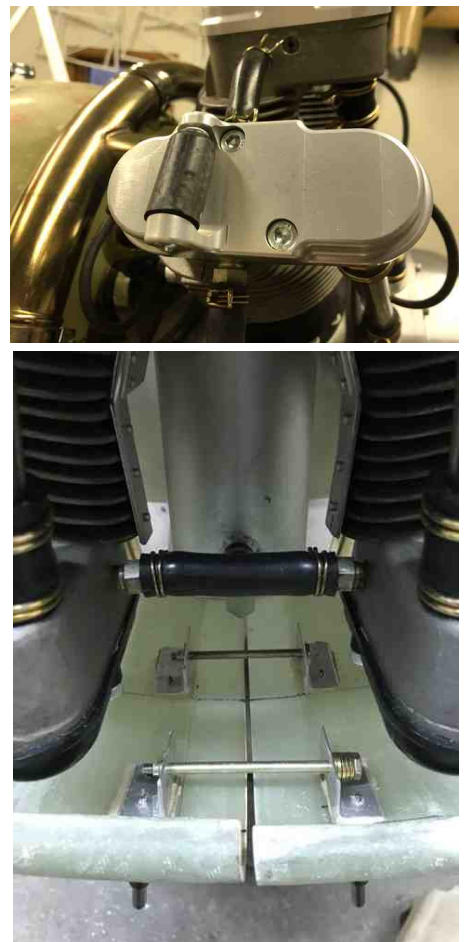
Four anchor blocks were made out of delrin to nest onto the rubber mounts on four rocker covers, the outer surface being contoured to match that of the ring. Aluminum faired clamps were made that sandwich the fiberglass between them and the



delrin blocks. Tinnerman washers could be used in their place.

Two bolts are used that pass through aluminum angles mounted to the ring to squeeze the ring together which essentially clamps the ring to the four rocker cover mounts. The bolts in the picture were just used for fabrication. Proper length bolts are now in place. An aluminum sleeve was made and will be riveted to one side of the ring that covers the seam where the ring comes together.

When all is in place and the two clamping bolts are tightened and safety wired, the end result is



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Origins of the NACA cowling, aka "Speed Ring"

NACA, the National Advisory Committee for Aeronautics, was modernized after WWI, opening its first wind tunnel at its Langley Lab (Hampton, VA) in 1920. Fred Weick, a 1920 graduate of the Illinois Institute of Technology, was hired in late 1925 by NACA. He helped design the first full-scale wind tunnel in the US dedicated to propeller research. He also led studies on drag-reducing cowlings for radial engines, or "speed rings". The testbed for his work was the Curtiss AT-5A Hawk biplane, featuring a Wright Whirlwind J-5 radial engine. It reached a top airspeed of 137 mph with the NACA cowling compared to 118 miles per hour without. In his spare time Weick developed his W-1 "safety plane", and then later the more famous Ercoupe, which incorporated many ideas from the W-1. He joined Texas A&M in 1948, where he developed the forerunner of the Piper Pawnee crop-duster, and then later was the co-designer, with Karl Bergey, of the Piper Cherokee line of aircraft.



a very stable and solid installation.

The ring was then primed with high fill primer that really does a great job filling pinholes. Persistent pinholes were dealt with by squeegeeing glazing putty into them.

Again, I hope this helps anyone who is contemplating making similar parts out of fiberglass. I am by no means any sort of an expert, but the techniques and materials seemed to work out well for me.

Hatzy building, and as always, remain calm, and Hatz on!

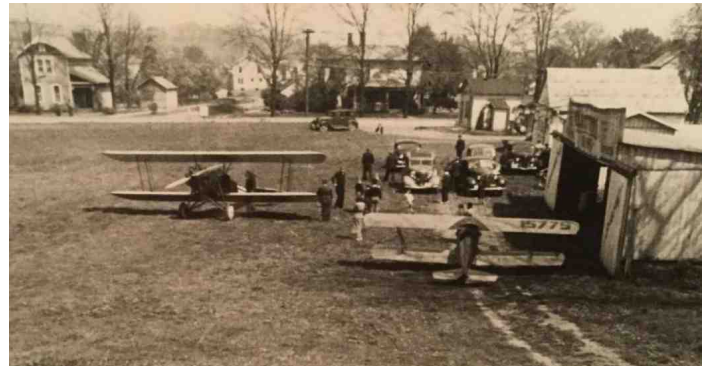
Jeff Orear

Right: Curtiss AT-5A biplane, testbed for NACA Langley's research on drag-reducing engine cowlings, aka "speed rings". It originally had a propeller spinner over the hub and a cowl over the crankcase and inner portion of the engine cylinders.





Butch's grandfather, Russell Harvey, and his father, William Harvey, with their wives and one of the Harvey family aircraft.



Phillips Special biplane: "It was a homebuilt from the 30s. An old friend owned it years later and put a VW on it....don't ask why!"



The Harvey's orange Smith Miniplane hangs now alongside a Fly Baby Biplane in the Coker museum in Chattanooga, Tennessee.



Proud father Butch Harvey with son Mike and the latest biplane in the family, a Pitts S-1S.

My uncle was my CFI, and my son Mike has his commercial, instrument, almost done with his CFI and will do multi in a couple weeks.

I was a night shift mechanic for American Airlines for 30 years. I'm still with AA but now work on Technical Publications, which has better hours! Over the years I have built or restored a number of aircraft. These included a Piper Vagabond, a clipped-wing Piper Cub, a Clements W-10 Tailwind, and a full-size Waco F-2 replica, which I sold.

I just helped my son Mike haul a Pitts S-1-S home that he bought from an elderly gentleman, a retired airline pilot, from just south of Knoxville. The previous owner had flown out of the same grass airstrip for over 50 years! Another neat thing - the owner of the airstrip bought the remains of the Falcon Aircraft Company from the 80s, a company which sold the Falcon Biplane, a boxy-looking certified Hatz!

I'm now busy cleaning up my shop in preparation for working on Mike's Pitts. He's given me a good

reason to clean up my mess! We are based at Bradford Field (NC05), north of Charlotte. Mike and his wife Emily are expecting their first child, so I guess Mike thought he'd better jump in now! He has done some work with ACME AERO. We put a set of their shock absorbers on our Clipped Cub. I think he will finish and play with the Pitts and then sell it. I've always wanted to fly one, I think...

My wife Janet and I look forward to seeing everyone at Sun 'n Fun.

Butch Harvey

Falcon F-1 Biplane Red Pitner's & Smokey Moore's Dream Achieved Hatz Biplane Association

Butch Harvey's mention of a certified, Hatz Look-a-Like biplane really piqued my interest. He sent me the image of an old flyer on the plane, once in limited product at the Jamestown, TN, Municipal Airport where Butch and his son Mike picked up Mike's new Pitts S-1S.

A quick web search led to a thread from 2019 on the Biplaneforum.com concerning a Falcon F-1 for sale in Texas. Better yet, there exists an AOPA article written in 1977, by none other than William Garvey, about the Falcon and its colorful owner, C.E. "Red" Pitner. (I have placed a PDF of the article in my HBA archive at aerosouth.net/hba).

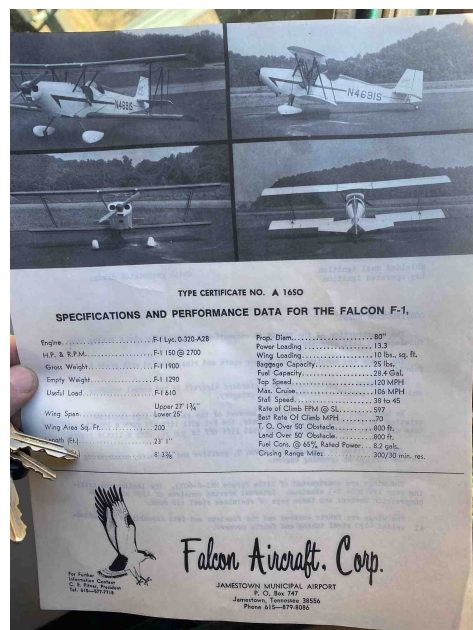
While the article makes no mention of a connection between the Hatz and the Falcon, there is definitely some similarity between the two, especially on the choice of construction materials and the use of a Clark Y airfoil. Does anyone have more knowledge concerning the aircraft's original designer, the late Mr. E.L. "Smokey" Moore?

While Red and Smokey proved it was possible to make a small fortune in aviation - starting from a larger one - kudos to them for realizing a dream that many others are too timid (or sensible?) to pursue. I, for one, admire them both for giving it a try!

Kent Misegades



Falcon F-1			
Basic price \$23,750			
Specifications		Performance	
Engine	Lycoming O-320-A2B 150 hp @ 2,700 rpm	Takeoff distance	800 ft
		Over 50 ft obstacle	
Propeller	McCauley, fixed-pitch 2 blade, 80 in diameter	Rate of climb	597 fpm
		Maximum speed	120 mph
Wing	Upper 27 ft 1 1/4 in Lower 25 ft	Maximum cruise	106 mph
		Range with 30 min. reserve	300 sm
Length	23 ft 1 in	Landing distance	800 ft
Height	8 ft 3 3/4 in	Over 50 ft obstacle	
Wing area	200 sq ft		
Wing loading	10 lb/sq ft		
Passengers and crew	2 (tandem)		
Empty weight	1,290 lb		
Useful load	610 lb		
Gross weight	1,900 lb		
Power loading	13.3 lb/hp		
Fuel capacity	28.4 gal (26.2 usable)		
Oil capacity	8 qt		
Baggage capacity	25 lb		



Marketing flyer on the Falcon F-1.
\$24k in '77, a year's wages in TN.

Top: C.E. "Red" Pitner with the first Falcon F-1, named after a Ford Falcon that happened to pull into the parking lot of Spike's Restaurant in Knoxville, TN as Red and Smokey were discussing a name for the F-1.
Below: two of the few Falcon F-1s built, one with rounded wingtips.



HATZ BIPLANE ASSOCIATION

LATEST CLUB NEWZ



Hatz Biplane Association

Sun 'n Fun 2022 Luncheon

Wednesday, April 6th

- Location: Jo's Place Pavilion, just inside the entrance to Camp Duffy. Go through the main gate to Camp Duffy and it's to your left.
- Time: 11:30 AM – 1:00 PM
- Lunch: available for \$\$\$. Non HBA Guests: Very Welcome!!!
- Meet Up: at the center of the Compass Rose, just east of BLDG A, at 11:15 and we'll walk to Jo's Place together.
- Host: Hatz Classic Builder, Sun 'n Fun VP Bob Beaty.
- Panel Speakers: Biplane experts Jim & Kevin Kimball & Steve Wolf, Sam Watrus of Verner Distributor ScaleBirds
- See: The Hutson's Award-Winning, Rotec-powered Hatz Classic!
- See: The Beaty's Verner-powered Hatz Classic Project!
- RSVP ASAP TO: kent.misegades@gmail.com
- See the upcoming HBA Newsletters for Details.



More Newz from the Editor

- Thanks to **Butch Harvey, Jeff Orear, Bob Beaty, Chuck Smith, Jim Bobiak, and John Martin** for their contributions to this issue.
- Get your **Hatz embroidered logo gear** now from **Land's End** at <https://business.landsend.com/store/hatzbiplane/>
- An **archive of HBA Newsletters** can be found now at **aerosouth.net/hba**. This page is hidden from the general public.

The **NEWZLETTER** is published on a regular basis by the American Hatz Association dba Hatz Biplane Association, founded by **Lorin and Mary Jones Wilkinson**, Past President, Emeritus, for Owners, Builders and Lovers of the Great Little Biplanes Inspired by John Hatz.

More than **50 YEARS of Happiness**

Hatz CB1 Kelly-D Hatz Classic Hatz Bantam Vintage Hatz



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HATZ BIPLANE ASSOCIATION MEMBER SHOPS & EVENTS



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The first **Hatz Biplane Association Meetup of 2022** is just around the corner. As detailed on the previous page, we'll hold our **Second Annual Sun 'n Fun Luncheon** on Wednesday, **April 6th at Jo's Pavilion**, as in 2021. Signups are already running **100% ahead** of last year and several Hatz owners have confirmed their intent to fly their planes to the event. A special treat at this year's luncheon - once again kindly hosted by Sun 'n Fun VP and Hatz Classic builder **Bob Beaty** - will be talks by two of America's most renowned builders of biplanes, **Jim Kimball and Steve Wolf!** **Sam Watrus**, the US distributor for the popular Verner radial engine, will join us once again. If you have not confirmed your plans to attend, please do this ASAP via email to **kent.misegades@gmail.com** See you Soon!

2022 EVENTS

February 5th, Chili Chilly Fly-In, Triple Tree Airport (SC00), Woodruff, SC, USA, tta.aero

April 1-3, Uncle John's Fly-In, Triple Tree Airport (SC00), Woodruff, SC, USA, tta.aero

April 5-10, Sun 'n Fun Aerospace Expo*, Lakeland Linder International Airport (KLAL), Lakeland, FL, USA flaysnf.org

April 27-30, AERO Friedrichshafen, Germany, www.aero-expo.com

July 21-24, Hatz/Pietenpol Fly-In*, Brodhead Airport (C37), Brodhead, WI, USA, eaa431.org

July 25-31, EAA AirVenture*, Wittman Regional Airport (KOSH), Oshkosh, WI, USA, eaa.org

September 1-4, Antique Airplane Association Homecoming & Fly-In, Antique Airfield (IA27), Blakesburg, IA, USA, antiqueairfieldia27.com

September 17-18 Meeting Aerien, Armor Aéro Passion, Morlaix, France, <http://aeropassion.fr>

September 19-25, Triple Tree Fly-In*, Triple Tree Airport (SC00), Woodruff, SC, USA, tta.aero

* - official HBA events

Please send event notices to the newsletter editor, Kent Misegades.

Progress Report

Smith / Komlodi Classic

Hatz Biplane Association



When Chuck Smith and building partner Skip Komlodi attended our Sun 'n Fun luncheon in 2021, they showed us pictures of their Rotec-powered Classic, nearing completion.

Chuck provided a few details on the plane: "We bought a CB-1 project and modified it into a Classic using the Rotec Radial. We knew we wanted a scallop design when we started the project."

"After looking at a lot of planes with similar designs we started cutting different size circles until we found something that would fit the spacing and went with it. The covering is all Poly Fiber material. The white under coat is Poly Tone Insignia White, the silver is Aerothane Nevada Silver and the blue is Christian Eagle Blue."

As can be seen here, they have created a real looker. As of February 12th, they were waiting on the final inspection, first flight and flying off the obligatory hours. Both Chuck and Skip are veteran builders and pilots of homebuilts, and some other interesting aircraft in their long careers in the sky. Their Classic is based in Winter Haven, FL, so we're sure to see it at Sun 'n Fun and other events in Florida soon.

Congratulations, Chuck and Skip!

Kent Misegades



Progress Report

Bobiak CB-1 Rebuild

Hatz Biplane Association



Jim Bobiak of Elk, Washington, sent us this report on his recently-acquired Hatz CB-1 project:

My Hatz was built by John Hughes. It was sold in 2019 and was ground looped on its first flight by the new owner, but without a prop strike. I am owner #3. I have repaired and replaced the bent fuselage tubing. I stripped the fuselage, repainted it and added extra gussets. I repaired the right wing damage and am ready to recover it.

I rebuilt the panel, getting rid of automotive gauges, keeping period-correct "steam gauges" and am currently rewiring the aircraft. I have moved all of the relays to the cold side of the firewall.

I tilted the rear seat back and it is no longer at a 90 degree angle. I cut and reenforced the top longeron so that I have drop-down doors for the front and back seats. Access will be from the left side.

I have a collection of old newsletters and get some great ideas from them. I have the original plans, but the cover page has water and sunlight damage. I need now to get the C.G. placement info as I will need to redo my weight and balance. My Hatz is powered by an O-320 and has a Sterba 76 x 54 prop.

Thanks Jim - look forward to your next progress report!

Kent Misegades



Owner Report

John Martin CB-1

Hatz Biplane Association



New HBA member John Martin from Tauranga, New Zealand recently posted a short message on the Hatz FB Group along with pictures of his CB-1.

"Hello from New Zealand. I'm new to the group. I've had the absolute pleasure of owning this beautiful Hatz Biplane ZK PEC for the past 12 years. Built by Peter Carpenter from Kerikeri, NZ."

A bit of sleuthing from your Editor resulted in some details on this lovely Hatz in Moth colors, thanks to "NZ Civil Aircraft", a blog on NZ Civil Aircraft.

"ZK-PEC (c/n 245) was built by **Peter E Carpenter** of Auckland and was first registered to him on 29/11/04. It was one of the first 'registered colour scheme' aircraft that I had seen (with no registration painted on). On 23/2/09 ownership changed to M E Vodane of Ardmore. And then on 25/1/10 it was purchased by **John C Martin** of Tauranga. It now wears "Buzzard Airlines" script, along with John's other aircraft. We may not see any more of these neat little aircraft here, although I have an idea that one was being built in the Waikato. However kits and plans are still available." (The Waikato is a local government region of the upper North Island of New Zealand.)

Kent Misegades




Hatz Biplane Association

The Great Stuff for Sale Page



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Show your **HATZ PRIDE** by wearing your Land's End Logo Gear or by buying a Hatz T-shirt like the ones shown above. Contact the NL editor Kent Misegades to get a T-Shirt while they last!



Plans



ORIGINAL HATZ CB-1 BIPLANE PLANS

A complete set of Hatz CB-1 plans, as drawn by Dudley Kelly!

Your plans set will carry its own serial number and will include weight/balance calculations, flying wire dimensions, a full-scale wing rib template drawing and more. Time to start building that Hatz!

\$200.00 US each



ORIGINAL HATZ CLASSIC

Your plans set will carry its own serial number and include all the information you'll need to build your Hatz Classic!

Plans \$250.00 US each

Preview Drawings \$45.00
Construction Photos \$25.00 Set
Or get both for one price!
Non-members \$60.00 Members \$55.00



ORIGINAL KELLY-D BIPLANE PLANS

The "simpler Hatz", designed by Dudley Kelly. Without a center section and with most of the curves squared-off, the Kelly-D is distinctive, yet flies much like the Hatz.

Your plans set will carry its own serial number and include all the information you'll need for that one-of-a-kind Kelly-D.

\$150.00 US each

Hatz Biplane Association Back-issue Newzletters



The Hatz newsletter back issues are available on a thumb drive. All issues from volume 1 number 1, through the current issue are present, with many of the pages in full color. The newsletter is in Adobe PDF format and is displayed exactly like the original paper master from which it was scanned. All text, photos, and advertisements are here. The Hatz Biplane Association history and communal support are presented in detail. Research in topics of interest can be investigated through the word search capabilities imbedded in the PDF file. All of the pages may be printed by the enthusiast (in color and/or black and white).

(Computer requirements: USB port and software to read the newsletter (PDF version 1.5). Software is freely available from (www.adobe.com). Adobe Reader version 4 works fine, though Adobe Reader version 5 or greater is recommended for word search capability.

Newzletter back-issues

Hatz Biplane Association Member's price: \$20.00 U.S. each
Nonmembers price: \$45.00 US (Thumb drive and 1 year HBA membership)

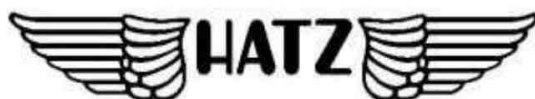
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Hatz Biplane Association Membership/Renewal Form

Please update information and return promptly! Also put any news or project information for the newsletter on the back.

Name/Spouse Name: _____

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The Association's newsletter is paperless. Please look for future issues in your email inbox.

Membership Locator: Do you wish to have your information added to our online member locator? YES NO

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Year:	Model Name:	Serial #:	N#:	Flying	Project
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!!!! NOTICE DUES INCREASE !!!!

*******Annual Membership Dues Are Now: \$25.00*******

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Thank you in advance for your cooperation and support.**