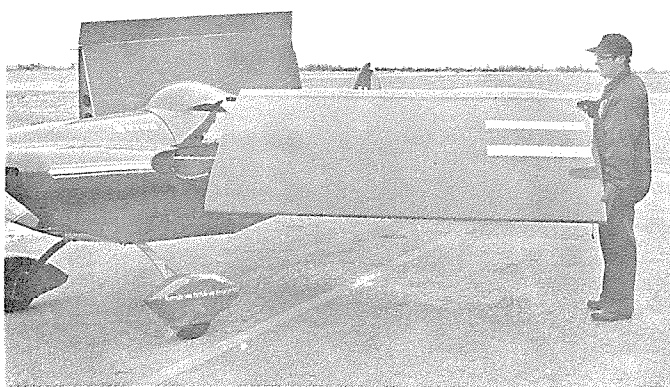
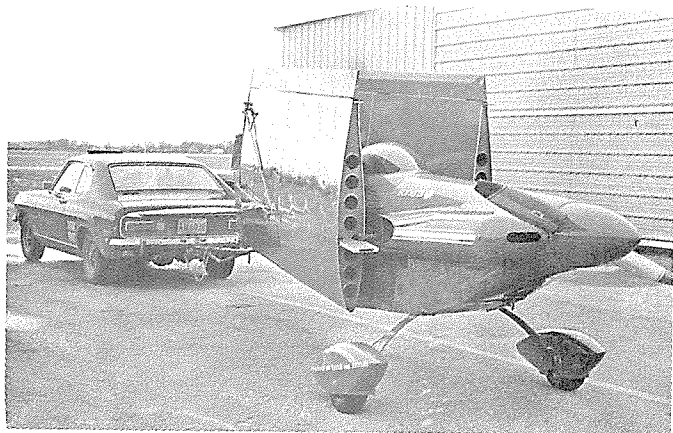
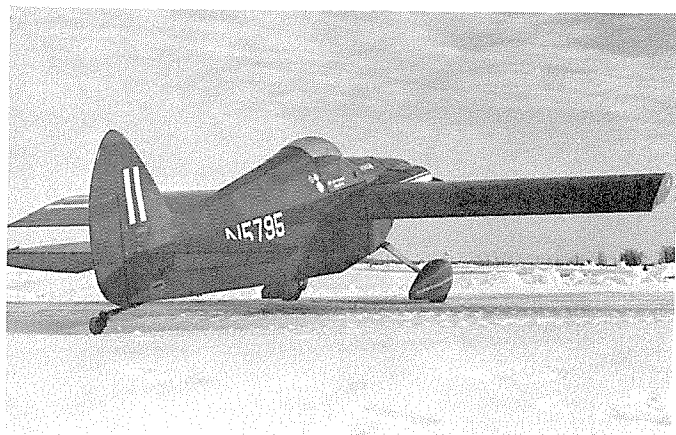
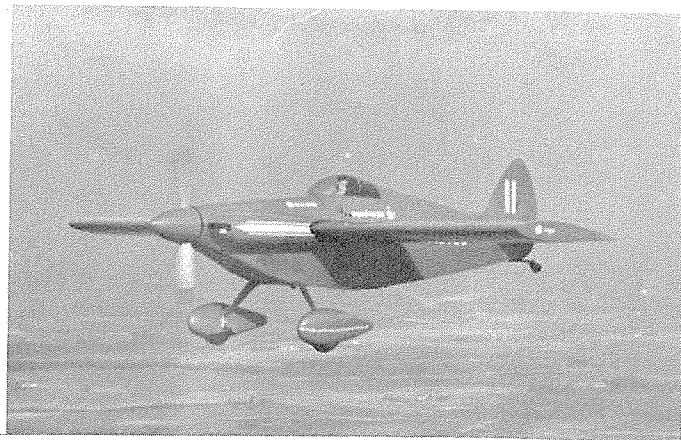


sonerai

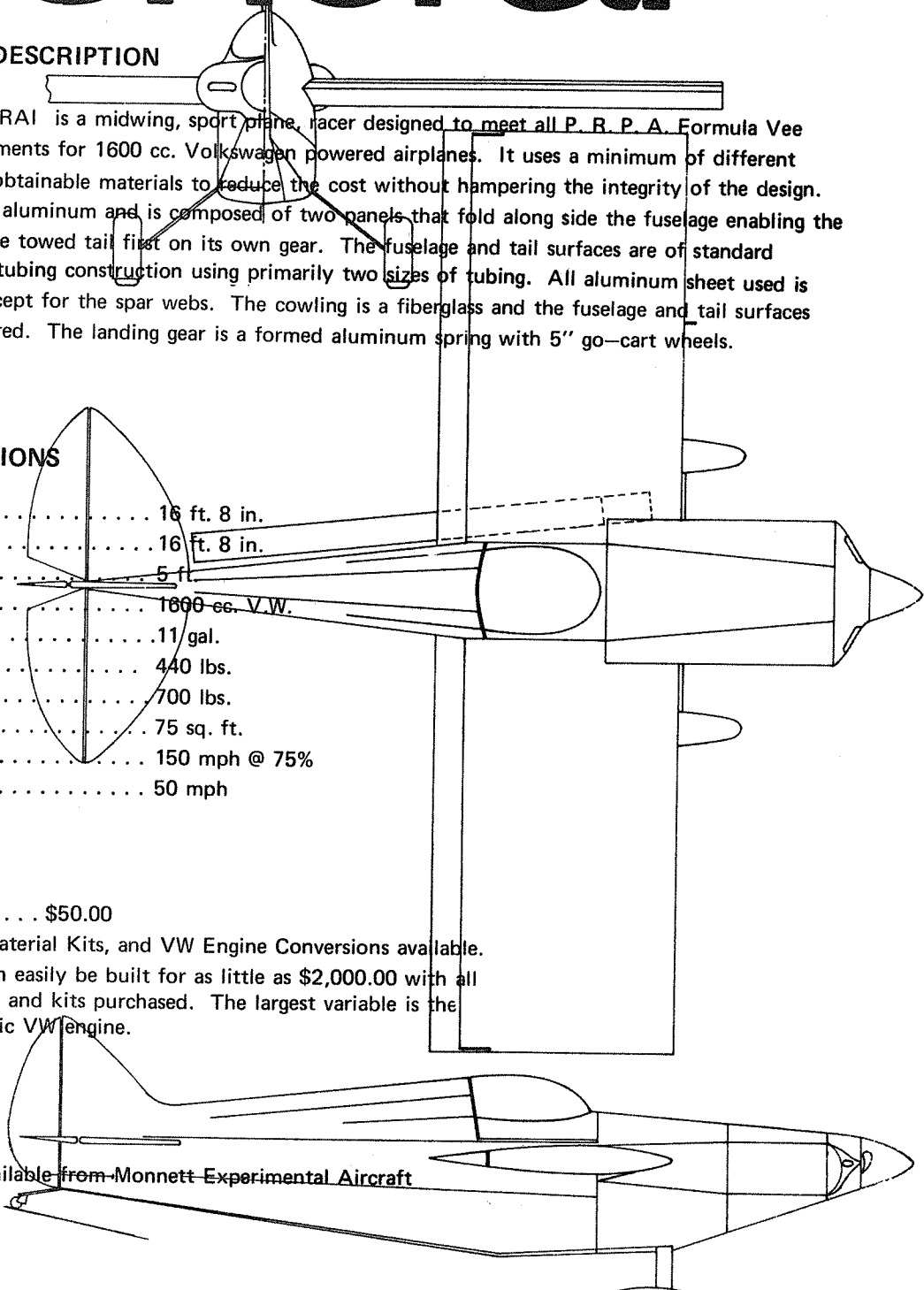


sonerai

GENERAL DESCRIPTION

The SONERAI is a midwing, sport plane, racer designed to meet all P. R. P. A. Formula Vee Racing requirements for 1600 cc. Volkswagen powered airplanes. It uses a minimum of different sizes of easily obtainable materials to reduce the cost without hampering the integrity of the design. The wing is all aluminum and is composed of two panels that fold along side the fuselage enabling the SONERAI to be towed tail first on its own gear. The fuselage and tail surfaces are of standard chrome-moly tubing construction using primarily two sizes of tubing. All aluminum sheet used is .025 Alclad except for the spar webs. The cowling is a fiberglass and the fuselage and tail surfaces are fabric covered. The landing gear is a formed aluminum spring with 5" go-cart wheels.

SPECIFICATIONS



Span	16 ft. 8 in.
Length	16 ft. 8 in.
Height	5 ft.
Engine	1600 cc. V.W.
Fuel Capacity	11 gal.
Empty Weight	440 lbs.
Gross Weight	700 lbs.
Wing Area	75 sq. ft.
Crusing Speed	150 mph @ 75%
Landing Speed	50 mph

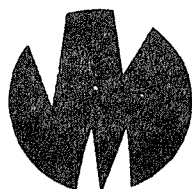
COSTS

Plans \$50.00

Components, Material Kits, and VW Engine Conversions available.

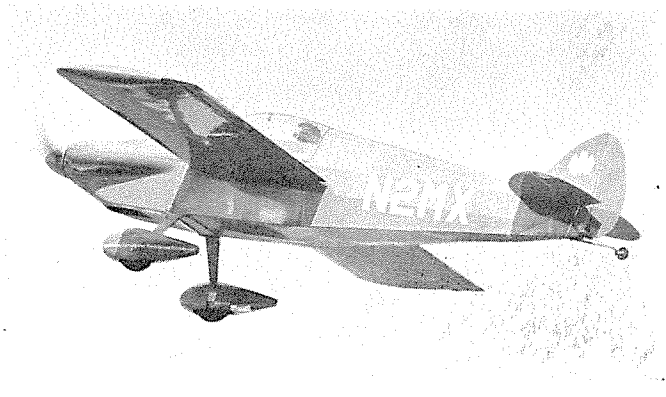
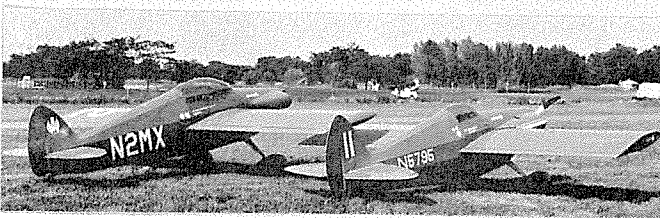
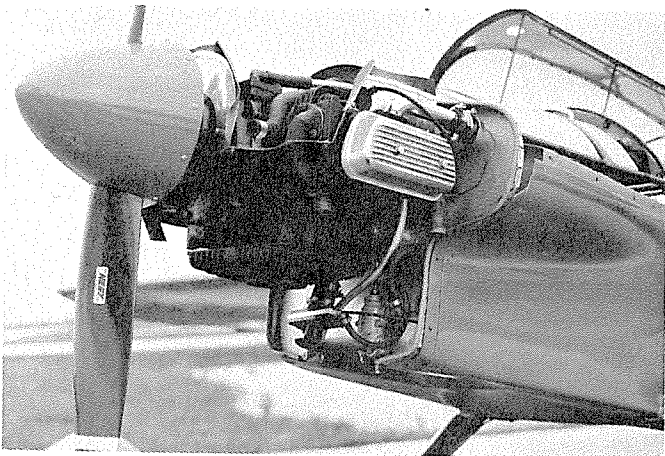
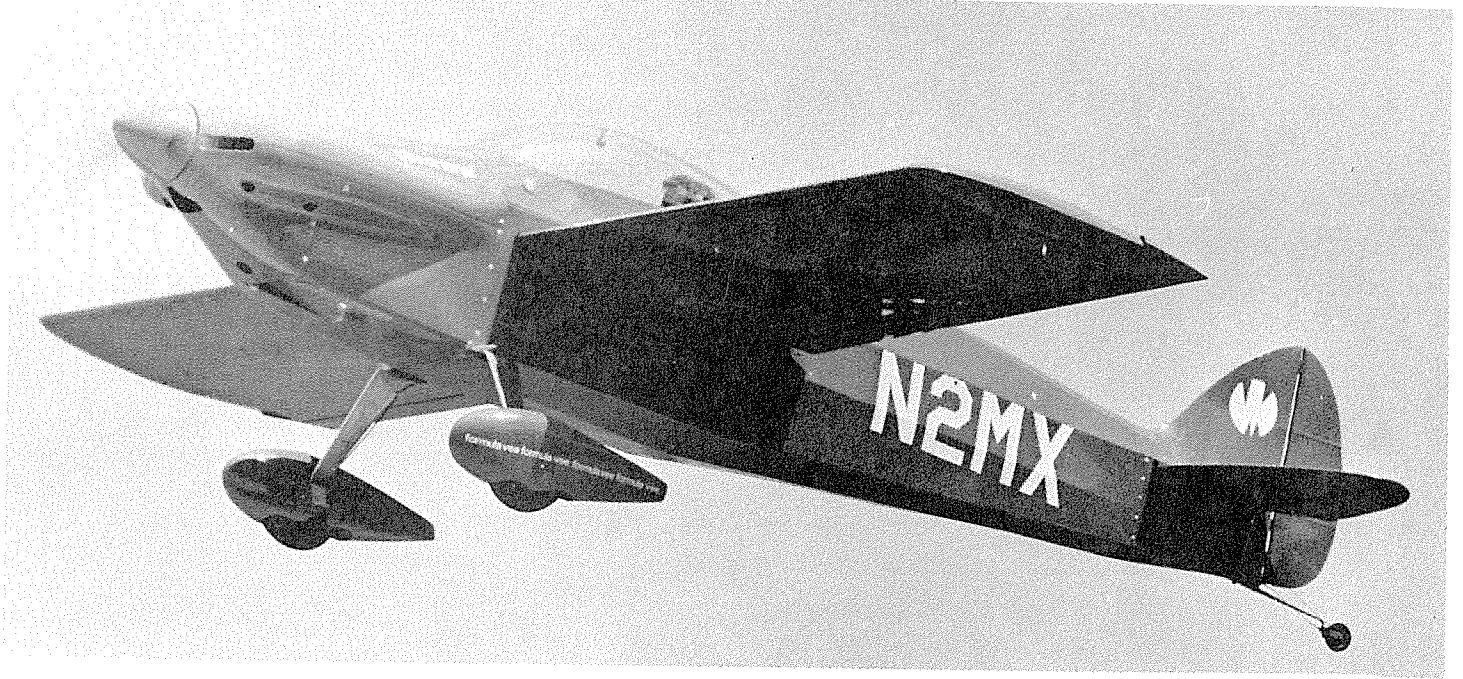
The airplane can easily be built for as little as \$2,000.00 with all the components and kits purchased. The largest variable is the price of the basic VW engine.

Components available from Monnett Experimental Aircraft



monnett experimental aircraft, inc.
410 adams, elgin, ill. 60120

sonerai 2 place!



sonerai two-place!

GENERAL DESCRIPTION

The SONERAI II is a midwing, two place, volkswagen powered roadable sport plane. It uses a minimum of different sizes of easily obtainable materials to reduce the cost without hampering the integrity of the design. The wing is all aluminum and is composed of two panels that fold along side the fuselage enabling SONERAI II to be towed tail first on its own gear. "Pop" type flush rivets can be used to skin the wing. The fuselage with simple built in engine mount and the tail surfaces are of standard chrome-moly tubing construction. The fiberglass cowling easily removes to allow complete access to the engine, magneto, tank and instruments. The fuselage rear and the tail surfaces are fabric covered. The landing gear is a formed aluminum spring with 5" go-cart type wheels. A taper rod type tail spring is employed.

SONERAI II is an answer for the individual who wants a high performance, two place sport plane that is simple, inexpensive to build and maintain. Its 140 m.p.h. cruise and 420 pound useful load with a 1700 c.c. VW make it outstanding in its class.

SPECIFICATIONS

Span	18 ft. 8 in.
Length	18 ft. 10 in.
Wing area	84 sq. ft.
Empty weight	506 lbs.
Gross weight	925 lbs.
Useful load	419 lbs.
Fuel capacity	10 gal.
Cruising speed	140 m.p.h. at 3400 r.p.m.
Stall speed at gross	45 m.p.h.
Engine	1700 c.c. V.W. (88 m.m. bore) or larger Monnett "SONERAI Conversion"

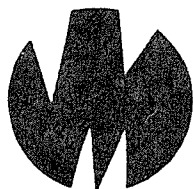
COSTS

Plans \$75.00

Components and material packages available soon.

From: Monnett Experimental Aircraft, Inc.

The complete airplane can be built easily for \$2,500.00



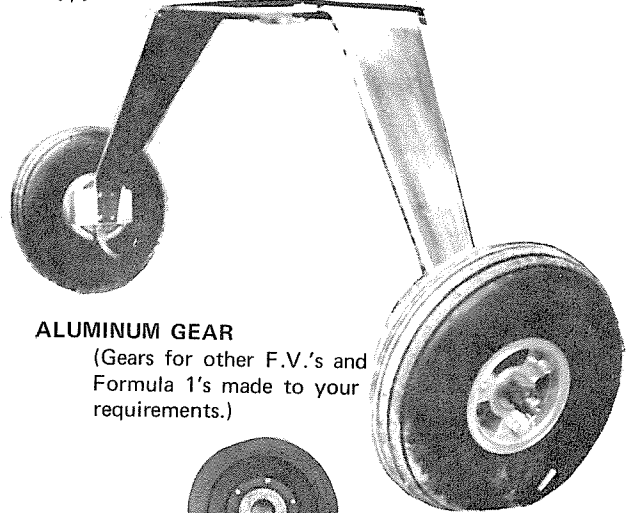
monnett experimental aircraft, inc.
410 adams, elgin, ill. 60120



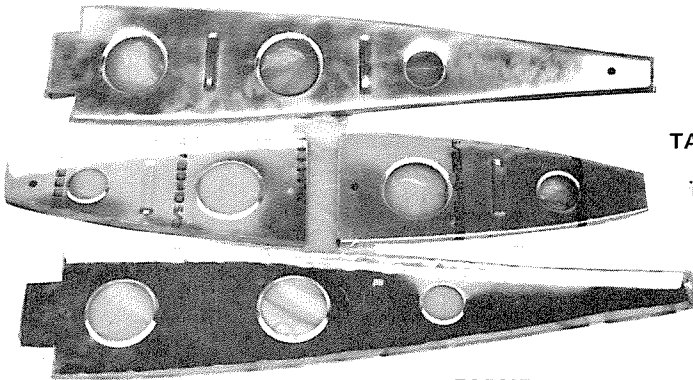
MONNETT EXPERIMENTAL AIRCRAFT, INC.
410 adams elgin, illinois 60120



CANOPY — Clear or Tinted
(Also custom sizes available
on request up to 20" X 68" X 14"
to fit other single place or tandem
aircraft. Write for quote.)



ALUMINUM GEAR
(Gears for other F.V.'s and
Formula 1's made to your
requirements.)



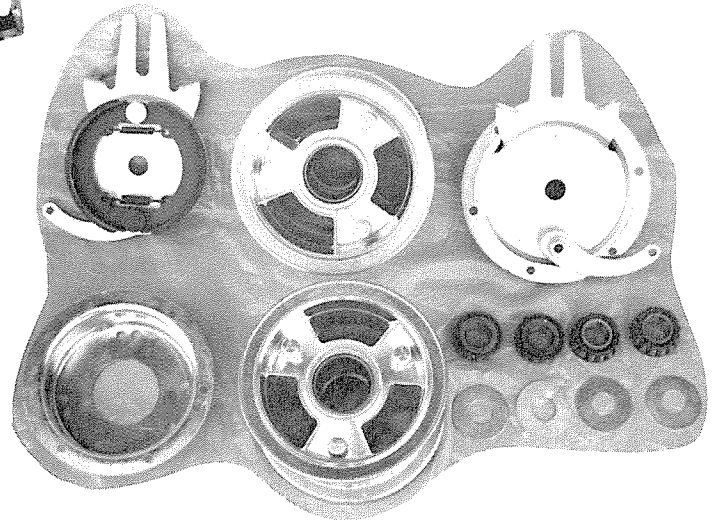
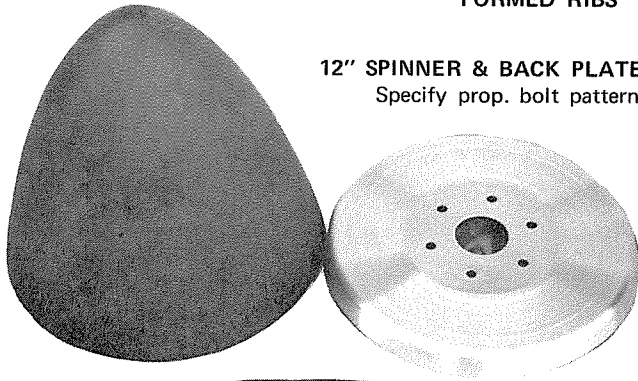
FORMED RIBS

TAIL WHEEL W/ BEARINGS

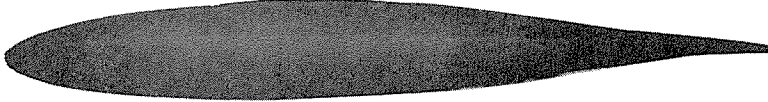


TAPERED ROD TAILWHEEL SPRING

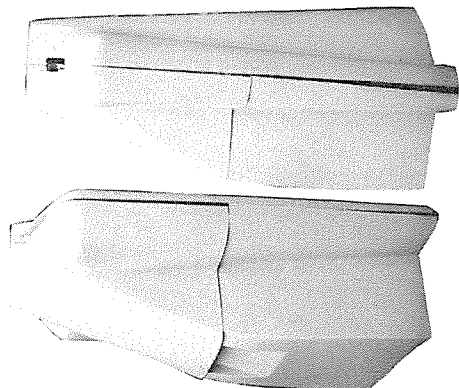
12" SPINNER & BACK PLATE
Specify prop. bolt pattern



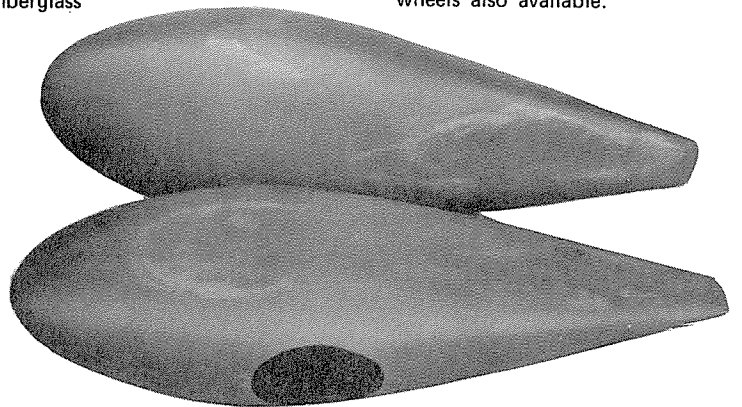
5" AZUZA WHEELS & BRAKES
Standard 500:5 tires fit. 6"
wheels also available.



WING TIPS — Fiberglass



COWL — Full fiberglass



WHEEL PANTS — 500:5
Two piece racing type also
available.

Components

Instruments

131-1 2" Tachmoter
132-1 2" Cylinder Head Temp & 14mm sender
133-1 2" Exhaust Temp Gauge & sender
134-1 2" Carb Temp Gauge & sender
in standard aircraft case.

131-2 2" standard Tachometer
131-3 3" standard Tachometer
132-2 2" Cylinder Head Temp & 14mm sender
133-2 2" Exhaust Temp Gauge & sender
in automotive type case.

Fuselage

141-1 Clear Canopy - Sonerai I
141-2 Green Tinted Canopy - Sonerai I
141-3 Bronze Tinted Canopy - Sonerai I
241-1 Clear Canopy - Sonerai II
241-2 Green Tinted Canopy - Sonerai II
241-3 Bronze Tinted Canopy - Sonerai II
rough trimmed to fit Sonerai's

142 Canopy Cap
For folded type windshield canopy as a Cassutt or
Wittman Racer uses.

143-1 Full Cowling - Sonerai I
243-1 Full Cowling - Sonerai II
Virtually builds the front end of the airplane from
the spinner to the instrument panel. Only metal work
on the front of the airplane is the firewall and belly
pan. Air intake and exhaust ducts are built in.
Matches a 12" spinner and Monnett Engine Conversion.

143-2 Cowl Nose Bowl
Front bowl to fit 12" spinner and compound curves to
cheeks. Air inlets molded in.

144 Fiberglass Spinner
12" diameter with spun aluminum backplate.

145 Aluminum Gas Tank - Sonerai I
245 Aluminum Gas Tank - Sonerai II
all vents and caps included.

247 Motor Mount Spacers - Sonerai II
four cast spacers of proper length to space engine
from the firewall.



MONNETT EXPERIMENTAL AIRCRAFT, INC.
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Wings

- 151 Formed Ribs - Sonerai I includes 32 pieces
251 Formed Ribs - Sonerai II includes 36 pieces
Reinforcing flanges completed. Only work left is
final fluting and straightening.
- 152 Spar Channel Kit - Sonerai I
252 Spar Channel Kit - Sonerai II
All four 2040 spar channels sheared and bent to size.
- 152-3 Cap Strips - Sonerai I
252-3 Cap Strips - Sonerai II
Cut to length with all rivet holes punched.
- 154 Ailerons - Sonerai I
254 Ailerons - Sonerai II
Formed to size.
- 154-2 Aileron Counterbalances - Sonerai I
Cast aluminum to match fiberglass wing tip. Replaces
lead weights and formed counterbalance rib. Very
easy to install.
- 153 Fiberglass Wing Tips
Ready to rivet on. Must be cut for counterbalance.

Gear

- 160 Aluminum Landing Gear - Sonerai I
260 Aluminum Landing Gear - Sonerai II
Completely formed, ready for installation.
- 162-1 Azusa Wheels and Brakes
5" wheels for a 3/4" axle. Internal expanding, mechanical
brakes. Other sizes available upon request.
- 163-11 Brake Cables
165-1 Tires
5:00 x 5 Arco 6-ply.
- 165-2 Tubes
4:50 x 5, will fit 5:00 x 5 tires.
- 164 One piece Wheel Pants
Fit 5:00 x 5 wheels and tires. Less than 2 lb. each!
- 164-2 Split Wheel Pants
Split vertically at the axle center line, having front
and rear pieces. Allow a very tight fit and are designed
with competition racing in mind. Very light. Easy to
install.

Tail

- 171 Tailwheel
5" boggie. Complete with bearing. Axle diameter is 1/2".
Can be bushed down.
- 171-2 Tailwheel Caster Unit
Rough casting to fit wheel. Simple drill and tap
operation to finish. Complete with drawings.
- 171-3 Tailwheel Pant
Fiberglass pant for cast caster unit.

- 172 Tapered Rod Tail Spring
 Light weight. Very easy to install. Provides pivot
 for tailwheel caster unit. Requires heat treating.

Component Packages for Sonerai II

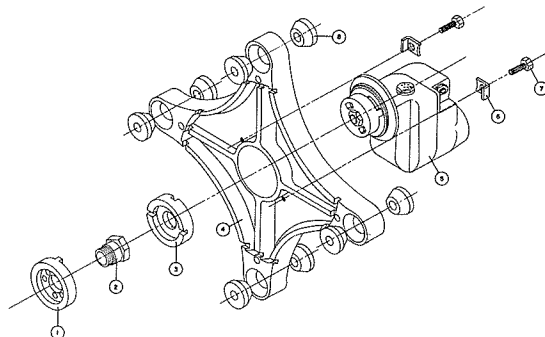
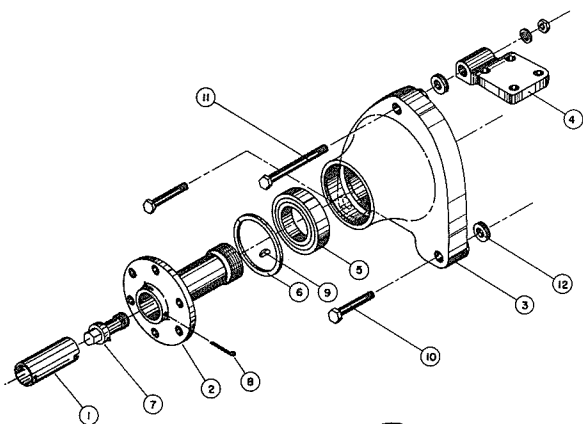
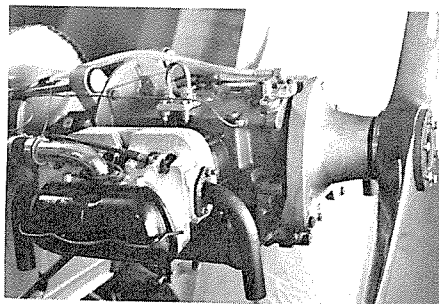
- 250 Wing Package includes:
 Formed ribs
 Formed front and rear spars
 Formed ailerons
 Fiberglass wing tips
 Spar caps punched for rivets and cut to length
 Spar plates sheared to size
 Wing skins cut to rough length
 Hinge material
 Spar rivets (Skin rivets not included)
- 240 Fuselage Package includes all necessary:
 Chrome-moly tubing
 Chrome-moly flat stock
 Bushing stock
 Firewall material
 for one airframe and control surfaces.
- 246 Hardware Package includes all necessary:
 AN Bolts
 Nuts
 Washers
 Fairleads
 Cable
 as specified on the plan's materials list.



Volkswagen Engine Conversion

New VW Engine Conversion as flown in Sonerai Aircraft provides:

- * Low cost
- * Easy installation. It bolts on with no machining or modification to the basic engine necessary.
- * Front Unit is a 4" streamline prop extension unit with a sealed bearing to take the radial loads.
- * Rear Unit provides magneto mount, drive couplings, and anti-vibration engine mount.
- * Units can be easily transferred to other engines (VW).
- * Fits on 1600 cc square back, transporter, or type 3 engine cases.
- * Gives engine an aircraft engine look - allows for streamline cowlings and exhaust stack clearance.
- * Several options available to homebuilders.



MONNETT EXPERIMENTAL AIRCRAFT, INC.
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Volkswagen Engine Conversion

Options available:

- 111-C Complete Unit
 Magneto Mount Unit includes:
 Casting
 Slick Magneto
 Crankshaft magneto drive coupling
 Lycoming anti-vibration rubbers
 Necessary nuts and bolts

 Prop Hub Extension Unit includes:
 Cast bearing housing cone
 Bearing
 Prop hub extension shaft
 20 mm retainer bolt
 Cast adaptor block
 Snap rings
 Oil cooler adaptor block

 Installation Manual

 Drawings for the baffeling and manifold system.
- 111-1 Magneto Mount Unit only
 Complete as above
- 111-2 Prop Hub Extension Unit only
 Complete as above
- 111-3 Back Casting and Plans includes:
 Rough magneto mount casting
 Plans for magneto drive unit
- 111-4 Front Casting and Plans includes:
 Rough cast bearing housing cone
 Rough cast adaptor block
 Plans for prop hub extension shaft
- 111-12 Slick Magneto
- 112 Adaptor Casting to adapt the conversion to 1300 on up
 "Beetle" Engines. Attaches to front of oil pump and
 bottom case bolt. Specify 6mm or 8mm oil pump studs.
- 113-1 Intake Manifold Flanges cast for 1500 single-port heads.
- 113-2 Intake Manifold "Y" for injector carbs. Aluminum.



MONNETT EXPERIMENTAL AIRCRAFT, INC.
410 adams elgin, illinois 60120

Price List

April 17, 1974

Instruments

131-1	\$39.90	tach	aircraft
132-1	28.70	C.H.T.	
133-1	29.70	E.G.T.	
134-1	43.60	Carb Temp.	
131-2	33.90	tach	automotive
131-3	39.90	tach	
132-2	22.70	C.H.T.	
133-2	22.70	E.G.T.	

(above prices include shipping)

Fuselage

141-1	45.00	clear canopy
141-2	50.00	green
141-3	50.00	bronze
241-1	NYA	
241-2	NYA	
241-3	NYA	
142	17.00	canopy cap
143-1	170.00	cowl
243-1	170.00	"
143-2	50.00	cowl nose bowl
144	16.00	spinner
145	90.00	tank
245	85.00	"
247	NYA	

Wings

151	90.00	ribs
251	100.00	"
152	43.00	spars
252	43.00	"
152-3	NYA	
252-3	NYA	
154	NYA	
254	NYA	
154-2	NYA	
153	22.00	wing tips

Gear

160	110.00	gear
260	120.00	"
162-1	50.00	pr. (includes) W&B
163-11	3.50	pr. (shipping) cables
165-1	16.10	ea. tires
165-2	3.50	ea. tubes
164	35.00	wheel pants
164-2	45.00	" "

Tail

171	8.50	tailwheel
171-2	NYA	
171-3	NYA	
172	35.00	tailspring

Components Packages

250	410.00	Wing
240	320.00	fuselage
246	NYA	hardware

Engine Conversion

111-C	350.00	complete
111-1	180.00	Back
111-2	180.00	front
111-3	50.00	rough back
111-4	50.00	rough front
111-12	71.50	magneto
112	25.00	adaptor
113-1	NYA	
113-2	NYA	

Plans

Sonerai I	\$50.00
Sonerai II	75.00

Purchase of plans require signing an agreement. Includes newsletter service which keeps you posted on new developments, new products, any corrections, or changes in plans. II plans include a construction manual. Available to I planholders for \$5.00.

Illinois Residents add 5% Sales Tax to prices.

Prices reflect current increases in raw materials. Prices are subject to change without notice.

Prices do not include shipping unless indicated.

Due to the custom built status of components, allow 8 wks. delivery. Especially on the Engine Conversion, Cowl, Tank.

NYA - Not Yet Available. These items are not available for delivery at this time. We are making every effort to have these parts available as soon as possible. Planholders will be notified automatically when they become available.

CHERRY RIVETS

In stock:

CCC-4-2	1/8" Flush Stainless "N" Rivets	1000	\$20.00
CCP-4-2	1/8" Protruding Stainless "N" Rivets	1000	\$20.00
CCR 264ss-3-4	3/32" Flush Head Plate Nut Rivets	100	\$5.00
		1000	\$43.68

Can order: write for details

G28	Hand Operated Rivet Tool	\$19.00
GH780	Pneumatic Hand Tool (super for extensive riveting and dimpling!)	\$105.00

Cherry Commercial "Pop-Type" Rivets offer superior strength compared to competitors and standard AN type rivets. They are stainless steel with a stainless steel mandrel. The rivet is designed so that after the rivet is pulled the stub of the mandrel is locked in the rivet so it does not rattle around.

The flush head rivets are 1200 and the proper gripth length for skinning the wings. The protruding head rivets are excellent for use where flush rivets are not necessary - ie: ailerons, rib attachment, etc. The 3/32nd plate nut rivets are excellent for attaching fasteners to fiberglass components and metal fairings. They are cadmium plated steel and the mandrel comes completely out.

We will be expanding our stock to aluminum and plated steel rivets as the demand requires it.

Please note these rivets are made by the Commerical Division of Cherry Rivet and are not to be confused with Cherry Aircraft Rivets.

Articles

the Sonerai can be seen in

I

<u>Air Progress</u>	Nov. '71
	July '72
	Nov. '73
<u>Popular Mechanics</u>	May '72
	Jan '74
<u>Private Pilot</u>	June '72
	Feb. '73
<u>Sport Aviation</u>	March '73
	Nov. '73
	July '73
<u>Sport Planes</u>	July '73
	Sept. '73

II

<u>Air Progress</u>	Nov. '73
<u>Popular Mechanics</u>	Jan. '74
<u>Sport Aviation</u>	Nov. '73
<u>Sport Planes</u>	Nov. '73
	Jan. '74

VW ENGINE PARTS

<u>Part #</u>	<u>Description</u>	<u># required for One Engine</u>	<u>List Price</u>
311-105-101F	crankshaft	1	\$58.00
113-105-209	timing gear	1	3.46
113-105-213	key	1	.25
113-105-219	spacer	1	.45
111-105-233	distributor drive gear	1	3.00
113-105-277	dowel pin (crank)	4	each .15
111-105-305E	gland nut	1	3.06
113-105-245BF	oil seal	1	1.00
113-105-249	key (dist. drive)	1	.15
111-101-123	dowel pin	4	each .05
113-101-129	washer	6	each .08
113-101-131A	nut - self sealing	6	each .30
311-101-353A	cyl. head (1500)	2	each 49.95
311-101-355/D	cyl. head (dual port)	2	each 53.95
N145021	stud 10x204	8	each .50
N145061	stud 10x240	8	each .60
311-105-401B	connecting rods	4	each 10.00
311-109-301A	push rod	8	each 1.05
113-109-309C	cam follower	8	each 1.60
311-109-335	push rod tube	8	each .45
311-109-601	intake valves	4	each 1.25
113-109-612A	exhaust valve (chrome)	4	each 3.00
113-109-623A	valve spring	8	each .45
113-109-641B	valve spring seat	8	each .21
113-109-651A	valve cotter	8	each .12
111-115-107 A/K	oil pump (complete)	1	6.50
311-115-107 A/KBX	high volume oil pump	1	9.00
111-115-161	nut - self sealing	4	each .25
311-115-175A	oil strainer	1	1.08
113-115-181A	oil strainer cover	1	1.42
113-109-021D	camshaft + O	1	17.50
RCV-24	super track cam		25.50
RCV-23	street grind cam		24.50
MPS-88BB	88mm big bore piston/cylinder kit		90.00
311-198-269	85.5mm rings		13.95
311-198-069 B/D	85.5mm piston/cylinder kit	1	82.84
111-198-007	gasket set - complete	1	3.60
113-101-481F	gasket		.25
111-198-461	main bearings (s & d)	1	8.10
111-198-541	camshaft bearings (s & d)	1	2.15
113-105-701	connecting rod bearings	1	3.15
N11-006-2	nut 6mm		.05
N11-008-3	nut 8mm		.05
N11-010-4	nut 10mm		.07
N11-152-1	jam nut		.05
N120226-2	spring washer		.02
N12-228-2	spring washer		.02
N11-062-3	cap nut		.06
N-10-350-2	bolt 8x50mm		.10

Feb. 23, 1974

Monnett Experimental Aircraft, Inc.
410 Adams
Elgin, Ill.
60120