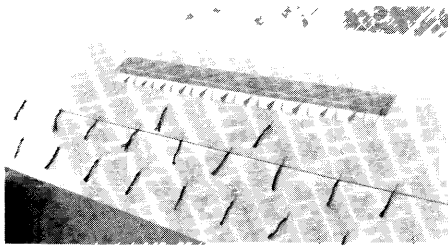


Quickie

NO. 23

QUICKIE NEWSLETTER

SPRING 1984



NEW DEVELOPMENTS

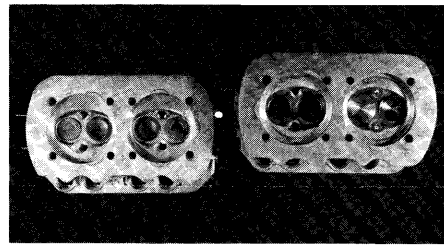
Q2-QUICKIE VORTEX GENERATORS

Many people have asked if anything can be done to improve the trim change phenomenon associated with rain and bugs on aircraft which already have the GU canard airfoil. At QAC we have never stopped researching this problem. Some recent tests indicated that a possible solution has been found. To understand how we have "cured" the problem, we must first know what causes it. Research by NASA, QAC, and others indicate that contamination on the leading edge of the GU airfoil causes the boundary layer of air moving over the surface to thicken. As the boundary layer gets thicker, it can no longer follow the top surface and begins to separate at the trailing edge. This separation moves forward increasing the drag and decreasing the lift of the airfoil. This can be seen by the pilot in rain. He will notice that droplets of water will appear to be stagnant on the top rear surface of the airfoil. This clearly indicates separation.

The solution we have found is the application of Vortex generators to the top surface of the canard airfoil. Vortex generators provide a powerful mixing of the boundary layer and delays the separation.

We have tested one configuration of Vortex generators on Scott Swing's Q2 s/n 2229. In these tests we applied the generators to about 24" of span on both sides and flew with and without tape transition strips with no apparent change in performance or elevator position.

These tests are just beginning and much remains to be done but we are convinced that this will solve the problem.



NEW HEADS FOR Q2

Many builders did not receive the letter that QAC sent out regarding the new heads for the Revmaster engine, so we are repeating the announcement here.

We have asked Revmaster to extend the deadline on this option and they have graciously agreed.

As mentioned in Newsletter #22, Quickie has been testing some new cylinder heads and lower induction pipe for the Revmaster engine. This testing has now been successfully completed and the package is now approved.

The new heads feature larger stainless steel valves, improved seat material, larger ports, and combustion chamber modifications to unshroud the valves.

The new lower intake manifold is required to flow the extra air that the engine can now use. The compression ratio remains the same. Flight tests by QAC indicate that you may expect the following:

1. At least a 10 mph increase in both cruise & top speed.
2. At least a 200 fpm increase in rate of climb at all gross weights.
3. Improved mixture distribution between the cylinders.
4. Equal or better cooling.
5. At least equal fuel economy at the same cruise speeds.

A special rate has been established for QAC customers until August 6, 1984 of \$650.00 exchange. After that date the price for this option goes to \$750.00. Anyone who is flying will be given priority over other orders.

A core charge of \$250.00 has been established. What this means is that you need not send in your old components until after you have received the new ones. This way no one's aircraft will be down while waiting for delivery of this option. The core charge will be refunded within 10 days of receipt of the original components.

A complete set of installation instructions will be included with each package. These instructions will also be available to anyone who wishes to avoid the core charge by sending in the old heads and manifold first.

Revmaster will do the installation for anyone who wishes at their Hesperia, CA facility for a labor charge of \$100.00.

You may order this head option through your local dealer or QAC and if you have any questions, don't hesitate to call.

Q2/Q-200 PRICE INCREASE

Current prices will hold until August 6, 1984 when the following prices will be in effect:

1A	\$4,700.00 — an increase of \$805.00
1B	\$3,500.00 — an increase of \$450.00
Q2 Package 2	\$2,050.00 — an increase of \$200.00

Q-200 Package 2 (no change) \$2,900.00

There will be a discount of \$1,000.00 for those who purchase 1A, 1B, & 2 all at one time after August 6, 1984.

Those of you who have only purchased Package 1A should keep the deadline in mind.



BEL-RAY OIL

Quickie Aircraft has been using and testing Bel-Ray's Aero-1 synthetic aircraft oil for over two years in a number of different aircraft and engines. Aero-1 is FAA approved for both Lycoming and Continental engines including turbo charged models. It is STC'd for 100 hour oil changes. Our experience indicates that oil consumption is drastically reduced with Aero-1 as compared to other oils we have used. Aero-1 does not thin out with heat and can be used at extremely low temperatures as well.

Aero-1 will be available through QAC shortly, contact us for details.

OSHKOSH COUNTDOWN

The 32nd Annual EAA Convention will be held July 28, 1984 thru August 4 this year. Last year almost 800,000 people attended and the show gets larger every year.

All sport aviation enthusiasts should attend. A large number of Forums are held on subjects ranging from new and old aircraft to the latest NASA work. Quickie Aircraft will hold two Forums this year:

Sunday, July 29, 1984: 8:45-10:00 a.m.
Wednesday, August 1, 1984: 11:45-1:00 p.m.
Both in Forum Tent #4

Quickie Aircraft's Booth this year will be in the North Exhibit Building, Spaces K9 and K10. Quickie Aircraft's Builder Banquet will be held on Monday, July 30 at:

The Wine Maker, which is on the Airport
Cocktails at 6:30 p.m.
Dinner at 7:30 p.m.
\$9.50 per person

If you wish to attend, contact QAC for reservations.

QAC will be awarding prizes in various categories as usual, but this year everyone who brings their aircraft to Oshkosh will receive an award from QAC.

Anyone needing help finding a place to stay at Oshkosh should call the EAA Housing Hotline weekdays at (414) 235-3007.

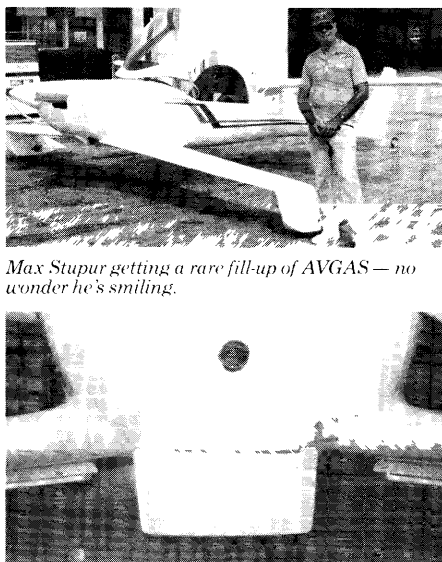
Q2/Q-200 NEWS

QAC must temporarily suspend our return program on unused Q2 parts applied towards Q-200 and Q2 Turbo packages. This is due to the large inventory that we have taken in trade. We will resume the program as soon as some of this inventory is sold to new customers. In the meantime anyone interested in participating in this program should write us and we will start a waiting list, first come, first served.



NEW COWLING INLET

We have been testing a new type of inlet for the Revmaster at QAC. We initially tried this "smile" inlet on the Turbo with excellent results. On the standard Revmaster experience has shown that if the engine is *not* lean, then the oil temp will run much closer to the limits than the cylinder heads. In using the smile inlet the cool air is much closer to the oil cooler and allows less inlet area which results in less drag and more speed. A one or two page plans addition will be developed and released shortly.



Max Stupur getting a rare fill-up of AVGAS — no wonder he's smiling.

Q2/Q-200

We have been testing a "Belly Board" drag, increasing device installed on Scott Cheney's Q2 s/n 2062 here at QAC. While the Q2 can be landed in relatively short distances, you must come in very slowly and make very precise judgements on approach and flare. Most people tend to come in too fast and flare too high which tends to lengthen runway requirements.

The belly board increases the aircraft's drag substantially (75-100%) when deployed. What this means is that the pilot can now make his approaches 5-7 mph faster for good over the nose visibility and still touch down and stop in shorter distances. Also, if a brake failure occurred, the additional drag of the board might mean the difference between an incident and an accident. As installed on Scott Cheney's airplane some changes in the deployment mechanism need to be made before this option can be released. Also, we have only tested this device on the new LS (1) 0417 mod canard where it does not appear to affect the stall characteristics. This may not be true for the GU canard.

By the way, those of you who will be using the constant speed prop on the Revmaster will have some of the same effect when the prop is in low pitch as it should be on final.

Q2/Q200 Pictorial Plans Addendum



Q2/Q-200-TURBO PLANS ADDENDUM

QAC has published a Pictorial Plans Addendum. This is an 8 page supplement consisting of 48 large photographs with captions. Any builder may obtain a copy by *writing* to QAC and requesting one. Please include your serial number. We are indebted to Jim Maris, s/n 2337, for the use of his extensive photo collection.



Richard and Elizabeth Kautz, married April 28, 1984. Take a close look at their wedding cake.



Q2 TURBO NEWS

The Turbo Q2 is featured in a cover article in June '84 "Homebuilt Aircraft" magazine, not the July issue as we had earlier been told. Please note the performance curves and specs in this newsletter. They are based on extensive flight testing by Eric Schilling of Revmaster.

TURBO KIT PRICES

The final parts for this option should be available in 30-45 days. Prices for the Turbo are as follows:

\$3395.00	Revmaster Engine
	Base Price
1660.00	Turbo Option
	(includes oil filter and geared starter)
1420.00	Maloof 2-Position Prop
1700.00	Maloof Constant Speed Prop

- Note (1) The 2 position or constant speed prop is *mandatory*.
- (2) We recommend the constant speed over the 2 position for the Turbo.
- (3) There is a 4 month backlog on the prop at this time, so plan ahead.
- (4) The new canard is *mandatory*.
- (5) The cowling for the Turbo or the prop will cost \$275.00.

QUICKIE NEWS

CITROEN ENGINE

Revmaster has received only 8 inquiries from Quickie builders who are interested in this engine. They have decided to proceed but on a lower priority basis. What this means is that they will put it on the back burner until this fall.

Unfortunately, there are very few aircraft which use engines of this size. Please contact Revmaster if you are interested.

Revmaster Aviation
Attn: Dick Joh
P.O. Box 2084
Hesperia, CA 92245
(619) 244-3074 *92345*

NEW CANARD

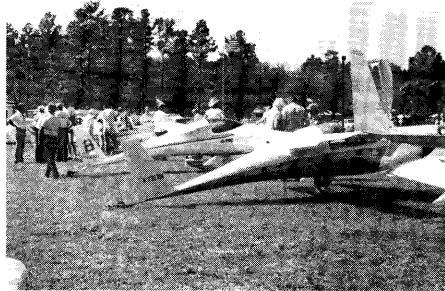
Lanny Rundell, Grass Roots Aviation, P.O. Box 215, Delhi, LA is supposed to fly the new Quickie canard airfoil at any time now. We will print an update sheet with full details as soon as we have the results of the testing.

Assuming testing is successful, production of the carbon fiber spars will not be delayed as the same tooling that was developed for the Q-200 canard was designed to be compatible with the Quickie version.

QUICKIE BUILDER TIPS

Problem: Coil wire on Quickie vibrated off (push on connector between coil and pins).

Solution: Install ring connector on wire at coil post, use nut and pal nut or self locking nut.



QUICKIE KIT PRICES

QAC knows of at least 150 Quickies that have made first flights.

Please keep builder tips, pictures, component weight information coming in.

Current delivery on a Quickie Kit is 3 weeks. Most components, including engines, are in stock.

Many dealers have Quickie Kits in stock so call your local dealer for availability.

Current prices are \$3,295.00 for Package 1 and \$1,700.00 for Package 2. Note that the complete kit now consists of two packages instead of the original three.

Available options are as follows:

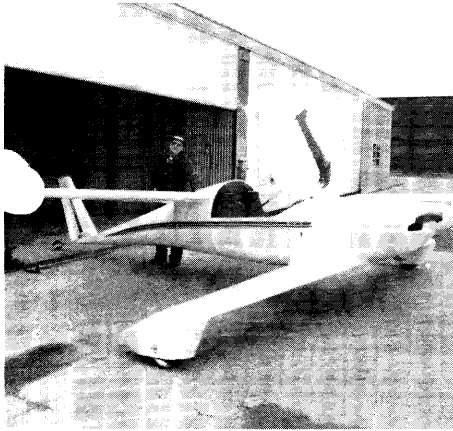
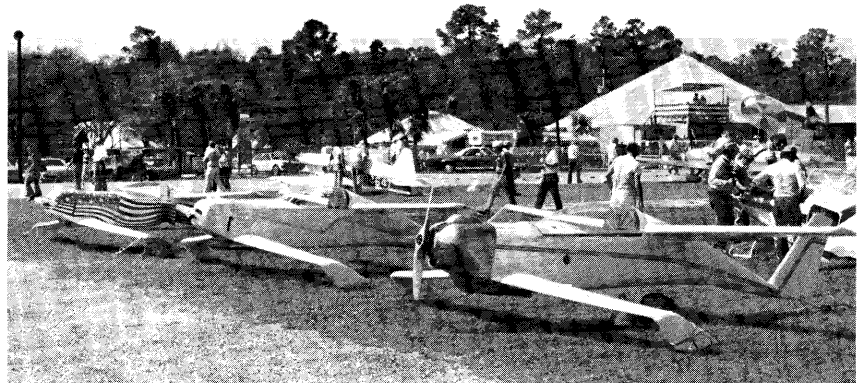
- \$125.00 Large Tire Option.
- 300.00 22.5 h.p. Option including Kevlar engine mount.
- 125.00 Kevlar engine mount separate.
- 125.00 Custom Upholstery set.
- 51.00 Prefabricated fuel tank. (Standard with Package 1.)
- 13.50 Communications or Navigation Antenna kit.
- 150.00 44" diameter propeller. (Discounted price for currently flying builders.)

The 44" diameter propeller is to be used with the large tire option and 22 h.p. engine option. This propeller provides greater rate-of-climb (about 20%) with a loss in top speed of about 4 mph. It would be particularly useful for short fields at higher density altitudes.

For those builders who would like a true climb propeller for the first few flights, rather than the cruise propeller provided with the kits, we have created a 42" diameter, 27" pitch climb propeller and will make it available as follows: with a deposit by the builder of \$150.00, we will send the special prop to the builder for his initial flights. When he returns the prop to us in good shape, prepaid freight, we will return his complete deposit.



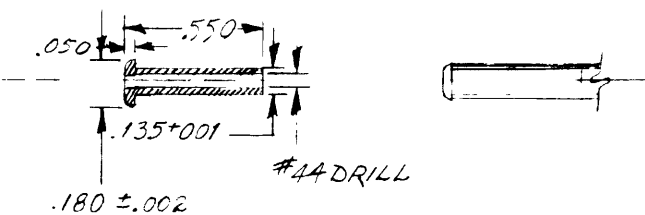
Several views of this year's Sun & Fun Fly-in.



Q2/Q-200 BUILDER TIPS

- (1) One builder has had a problem obtaining sufficient elevator travel with the new canard (LS-1 Mod) and redundant control linkage. One area to look at is parallelism between stick and CSA-8's, suggest no more than 20° forward of vertical axis for CSA-8 installation.
- (2) We think we have solved the dual master cylinder problem although haven't tried it yet... we don't have dual rudder or brake option on prototype since we don't intend to use it for checkouts. Those who have purchased a dual brake option should send (one) master cylinder back to QAC (Attn: Ron) for an exchange unit. (We will proof it on a test stand first, of course).
- (3) Q2 builders, some have had problems with bottom accessory clearance/mag cut-out. By maintaining about 1-2" clearance between top of cut-out bottom of top mounts, proper clearance should be obtainable.
- (4) Q-200 — check clamp tightness of intake tubes at regular intervals; we have had some problems on Q-200.
- (5) We are still receiving calls about confusion of canard sweep (LS-1 mod). You need to measure the difference between B.L. 15 and B.L. 100 (leading edge of foam cores) for a 10.5" sweep aft. Disregard any other numbers for jiggling purposes.
- (6)

NYLAFLOW (BRAKE LINE)
INSERT MAKE FROM BRASS



Brass inserts allow wider variation of torque on fittings without chance of compression failure. Trial fit before final assembly.

GENERAL INFORMATION:

We have the following phone numbers for the public:

(805) 824-4313 and (805) 824-4626. There is also a private unlisted Builder Hotline number given out only to builders. This number is for Technical Building Assistance only. The Builder Hotline hours are: Tuesday through Saturday, 1 p.m.-4:00 p.m. (PST). Since the demand on this line is large, we ask our builders to have specific questions ready before calling, and *not* to use the line for shipping information, backorders, or option orders. In this manner, we can maximize our builder support.

The Quickie Aircraft Corporation facility at Hangar 68, Mojave Airport, Mojave, CA is open Tuesday through Saturday, 9:00 a.m.-5:00 p.m. Please note that we are closed Sunday and Monday.

To improve customer service, please ask for the following personnel if you have questions in these areas:

Shipping schedule:

Package 1, 2, and 3 Ron Lundgren
Backorders Ron Lundgren*
Literature Debbie Shubert

*Ron requests that builders with backorder problems and/or questions call him between 1:00-4:30 p.m. PST on Tuesday, Thursday, and Friday. This will permit him to spend the mornings on shipping, thereby providing faster service. Ron also requests that all backorder and materials requests be sent to him in writing so that he will have a permanent record in each builder file. In this way, phone calls should only be necessary for followup and/or emergencies.

We ask that all builders please reference their serial numbers on all communications. This will make our job much easier. Also, when writing to QAC, always send a stamped, self-addressed envelope along if a reply is necessary.

Builders of both the Quickie and Q2 have the opportunity to receive rides in N81QA, our Q2, within the thirty day period prior to the builder's first flight in his own aircraft. These rides are by prior arrangement only; in addition, at the same time, suggestions and recommendations will be given to the builder on conducting his early flights to promote safer flying. Over 130 rides have been given to date.

Each Saturday, weather permitting and N81QA in town, we give a flight demonstration of the Q2. We usually get a large turnout on these occasions, and have been selecting an attendee's name from the hat at random for a Q2 ride.

We are doing quite a bit of flight tests on N81QA for new options and of course cannot take passengers during this period. We expect to be completed within 30 days and hope, at that time, to be back to normal operations. At least 7 of our dealers are now flying Q2s so contact your local dealer.

Q2 PACKAGING

It is important for builders to inventory the contents of all shipments within 30 days — from receipt — and to report all backorders and discrepancies to QAC in writing immediately.

As of April 1, 1982, Q2 Package 1 was broken down into two smaller packages, called Package 1A and Package 1B. The price breakdown will be as follows:

\$3895.00	Package 1A
3055.00	Package 1B
1850.00	Package 2
3395.00	Package 3

A builder electing to purchase Package 1A and Package 1B and Package 2 together will save \$300.00 at the \$8500.00 combined price. The price for a complete kit purchased in the most economical manner is \$11,895.00 complete.

Package 1A includes materials to construct the basic fuselage, bulkheads, consoles, etc., and pre-mounted canopy. Package 1B includes the remaining materials to fabricate essentially the remainder of the airframe. Package 2 is an engine installation, instrument, and miscellaneous materials package. Package 3 is the Revmaster 2100-DQ engine.

All packing of Package 1A will be done at QAC; we presently have Package 1A in stock and ready for immediate delivery. Backlogs on the other packages, except the engine, is 30 days. Orders on the Revmaster 2100-DQ engine will be filled in 60-90 days.

Many dealers have complete Q2 Kits in stock, please call your local dealer for availability.

Available options for the Revmaster 2100-DQ engine include:

\$280.00	Geared Electric Starter.
78.00	Oil Filter System.
32.00	Oil Sump Drain Assembly.
325.00	Vacuum Pump System.
650.00	(Exchange) Extra H.P. Cylinder Heads

Further options available include:

\$125.00	Forward Hinge Canopy
225.00	Cabin ventilation/ Heat package
80.00	Parking Brake option for the hydraulic disc brakes.
\$350.00	Custom Upholstery Set in Blue.
175.00	Prefabricated Fuel Tank.
81.00	500 x 5 tires exchange (\$95.00 outright).
150.00	Retrofit Aileron Reflexer.
235.00	Pre-fabricated Bulkheads.
720.00	Carbon Fiber Spar Kit. (Standard on all new kits.)
135.00	Pitch Control parts for old canard

Q2 builders should verify that they have the correct plans and updates. With either Package 1 or Package 1A, the builder should have Chapters 1-14, a Table of Contents, Appendix Sheets 1-5, Q2 Pilots Manual, Quickie Newsletters from 10 forward, and plans addendum

sheets ii thru vii. The plans for installation of the hydraulic disc brakes are on addendum sheets viii thru xii. With Package 2, the builder should have Chapters 15-20 and Appendix Sheet 6. Each non-engine option has an installation sheet that comes with it. Please dror Debbie, at QAC, a note if you don't have everything. QAC strongly recommends that all plans changes and builder tips be inserted into the builder's plans immediately upon receipt, so as to avoid errors. Builder tips are numbered as QBT _____ and the Plans Change Notices are numbered as A — QPC _____, with the highest number being the most recent tip or change notice.

Q-200 KIT PRICES

The Q-200 Kit is now available.

Package 1A contains the material to construct the fuselage, pre-mounted canopy and raw materials. Package 1B consists of wheels, tires, brakes, welded components, machined parts and other prefabricated parts to fabricate essentially the remainder of the airframe. Package 2 is the Continental 0-200 engine installation package. The prices are as follows:

\$3895.00	Package 1A
3055.00	Package 1B
2900.00	Package 2

A builder electing to purchase the complete Q-200 kit all at one time will save \$400.00 with a \$9450.00 combined price.

Q-200 RETRO PACKAGE

This package includes the components required to convert from a Q2 Package 2 to a Q-200 Package 2. It consists of: Continental mounting hardware, spinner kit, carb heat transfer valve, 5" propellor extension, prop washer, cowling, oil separator (a must), stainless steel carb heat muff, patented AR exhaust system, fiberglass inlet air and carburetor adapter pieces, elevator and aileron counterbalance arms, engine mounts, fuel pump, sheet metal baffling kit, liquid firewall, and appropriate hardware.

QAC is continuing our credit policy for returned Q2 components. See NL #20 or contact QAC for details.

SUBSCRIPTION FORM

QUICKIE AND Q2 NEWSLETTER SUBSCRIPTION — 1 YEAR \$6.00

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

CHECK MONEY ORDER VISA MASTERCARD

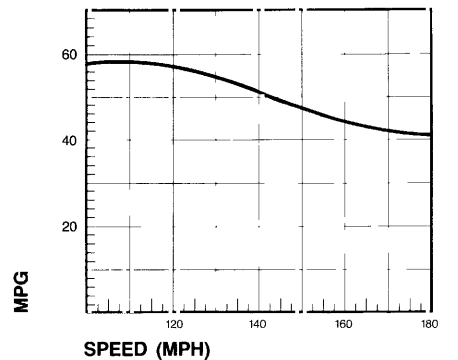
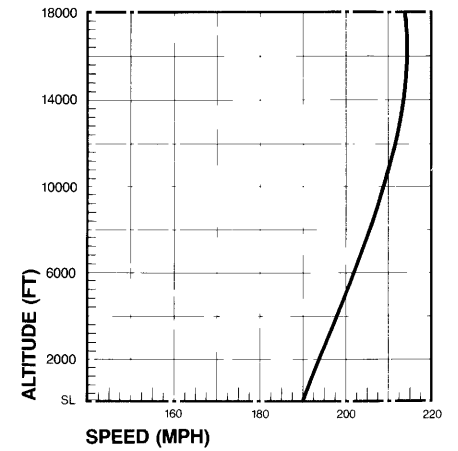
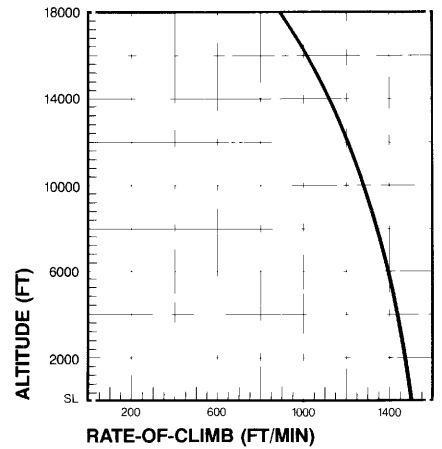
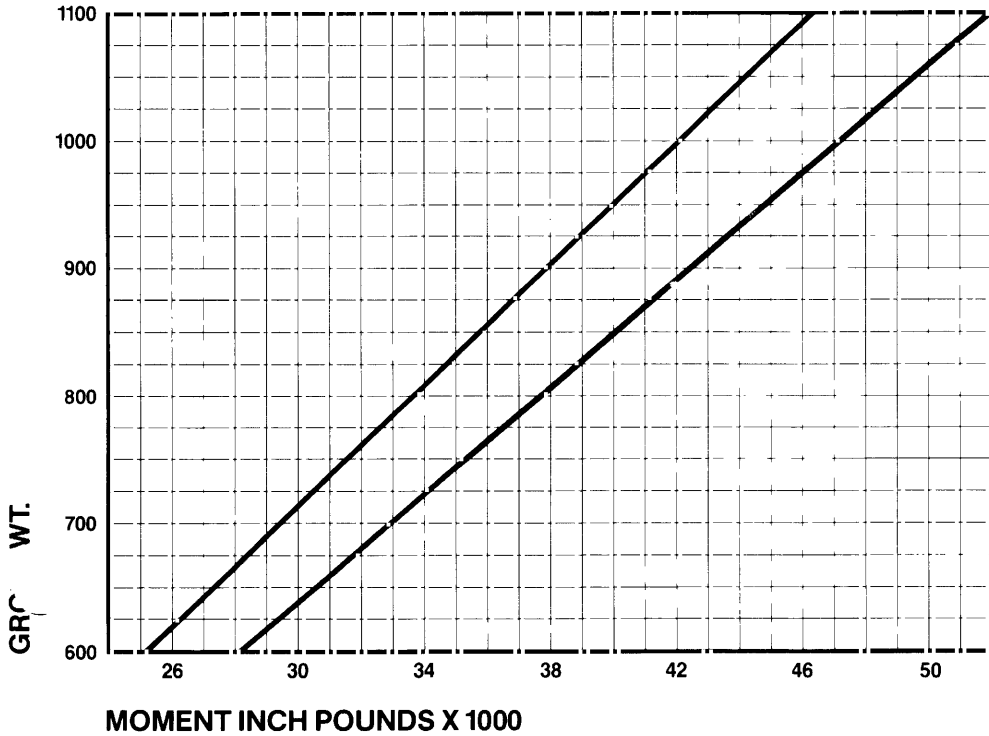
CARD NO. _____ EXPIRATION DATE _____

SIGNATURE _____

Q2 TURBO SPECIFICATIONS

WEIGHT & BALANCE

The enclosed chart is for the Q-200 and both the Q2 and Turbo with the new canard.



Empty Weight	535 lbs.
Gross Weight	1100 lbs.
Useful Load	565 lbs.
Takeoff Distance	525 ft.
Landing Distance	950 ft.
Rate of Climb @ 900 lbs. Gross (SL)	1500 FPM
Rate of Climb @ 12,000 ft.	1200 FPM
Maximum Horsepower @ 3200 rpm and 36" manifold pressure	75 HP
Maximum Speed	215 MPH
MPG @ 75% Cruise	45 MPG
MPG @ Economy Cruise	60 MPG
Service Ceiling	30,000 ft.

Published quarterly by

QUICKIE AIRCRAFT CORPORATION
Post Office Box 786
Mojave, CA 93501
(805) 824-4313

Quickie & Q2/Q-200 Newsletter
Subscription (1 yr.)* \$ 6.00
Quickie Information Package
(2nd edition)* \$ 8.00
Q2/Q-200 Information Package \$10.00
Pilot's Manual* \$ 8.00

*Add \$1.00 for Air Mail overseas (U.S. funds).
California residents should add 6% state
sales tax.

Quickie Aircraft Corporation is located on
the east end of the flight line at the Mojave
Airport, Mojave, California which is located
approximately 80 miles north of Los Angeles.
You are welcome to come by to see the Quickie
& Q2 prototype, to ask questions, and to bring
in parts of *your* Quickie for inspection.
The hangar number is 68.

We are normally open from 9 to 5 on Tuesday
thru Saturday, but you should call first if you
are coming from far away, since we occasionally
must close the office to attend a flyin, conduct
business, etc.

Weather permitting, Saturday, at 10:00
we often give a flight demonstration.

When writing to QAC, always send a
stamped self-addressed envelope along if a
reply is necessary.



QUICKIE DEALER PROGRAM

We encourage all prospective builders or Q-200s under construction for you to visit their local dealer, as our dealers to examine. Further, they can direct not only stock kits, plans, and some materials, but also have real live Quickies, Q2s you to other builders and enthusiasts in the vicinity.

CALIFORNIA

Q-AIRCRAFT OF SO. CAL.
P.O. Box 1551
Carlsbad, CA 92008
619/438-9097

NOR-CAL QUICKIE AIRCRAFT
P.O. Box 275
San Lorenzo, CA 94580
415/276-8102

FLORIDA

SOUTHEAST QUICKIE, INC.
8181 NW 66 Terrace
Tamarac, FL 33319
305/721-9265

ILLINOIS

Q-CRAFT
R.R. 1, Box 204
Eureka, IL 61530
309/467-4334

LOUISIANA

GRASS ROOTS AVIATION
P.O. Box 215
Delhi, LA 71232
318/878-9464

MAINE

QUICKIE NORTHEAST, INC.
P.O. Box 506
Norridgewock, ME 04957
207/634-2156

MICHIGAN

QUICKIE AIRCRAFT SALES
OF MICHIGAN
P.O. Box 201
Plainwell, MI 49080
616/685-5238
565 Lincoln Rd.
W. M-89
Otsego, MI 49078
616/694-2869

MINNESOTA

QUICKIE AIRCRAFT
MIDWEST, INC.
4982 Vine Hill Road
Excelsior, MN 55331
612/474-9245

NEW MEXICO

COMPOSITE AIRCRAFT CO.
P.O. Box 2351
Roswell, NM 88201
Located at Roswell Industrial
Air Center
505/624-1499

NORTH CAROLINA

RAY STROUD
P.O. Box 34
Wilkesboro, NC 28697
919/838-8957

OHIO

DELTEC AIRCRAFT
4230 Grissom Dr.
Batavia, OH 45103
513/732-0800

OKLAHOMA

QUICKIE SOUTHWEST
RT 2 Box 1490
Owasso, OK 74055
918/272-2775 • 918/744-4438

PENNSYLVANIA

R. F. "Bob" McFarland
AERO SERVICES
333 So. Front Street
Wormleysburg, PA 17043
717/763-7654 • 717/737-2665

SOUTH CAROLINA

CLIO CROP CARE
P.O. Box 422
Clio, SC 29525
803/586-9225

TEXAS

Q-CRAFT OF TEXAS
P.O. Box 1717
229-A Industrial Blvd.
Liberty, TX 77575
409/336-6991

PROFORMANCE AVIATION

15507 Hillcrest, #2004
Dallas, TX 75248
214/239-5579

UTAH

ROCKY MOUNTAIN QUICKIE
332 S. Independence Way
North Salt Lake, UT 84054
801/295-9681

WASHINGTON STATE

QUICKIE
NORTHWEST, INC.
17633 S.E. 301 Street
Kent, WA 98031
206/630-5080 • 206/630-5019

DISTRIBUTOR

OUTSIDE UNITED STATES

AERO-GARE
Bldg. 105, Mojave Airport
Mojave, CA 93501
805/824-2041

quickie
AIRCRAFT CORPORATION

Quickie Aircraft Corporation
Post Office Box 786
Mojave, CA 93501
(805) 824-4313

FIRST CLASS MAIL