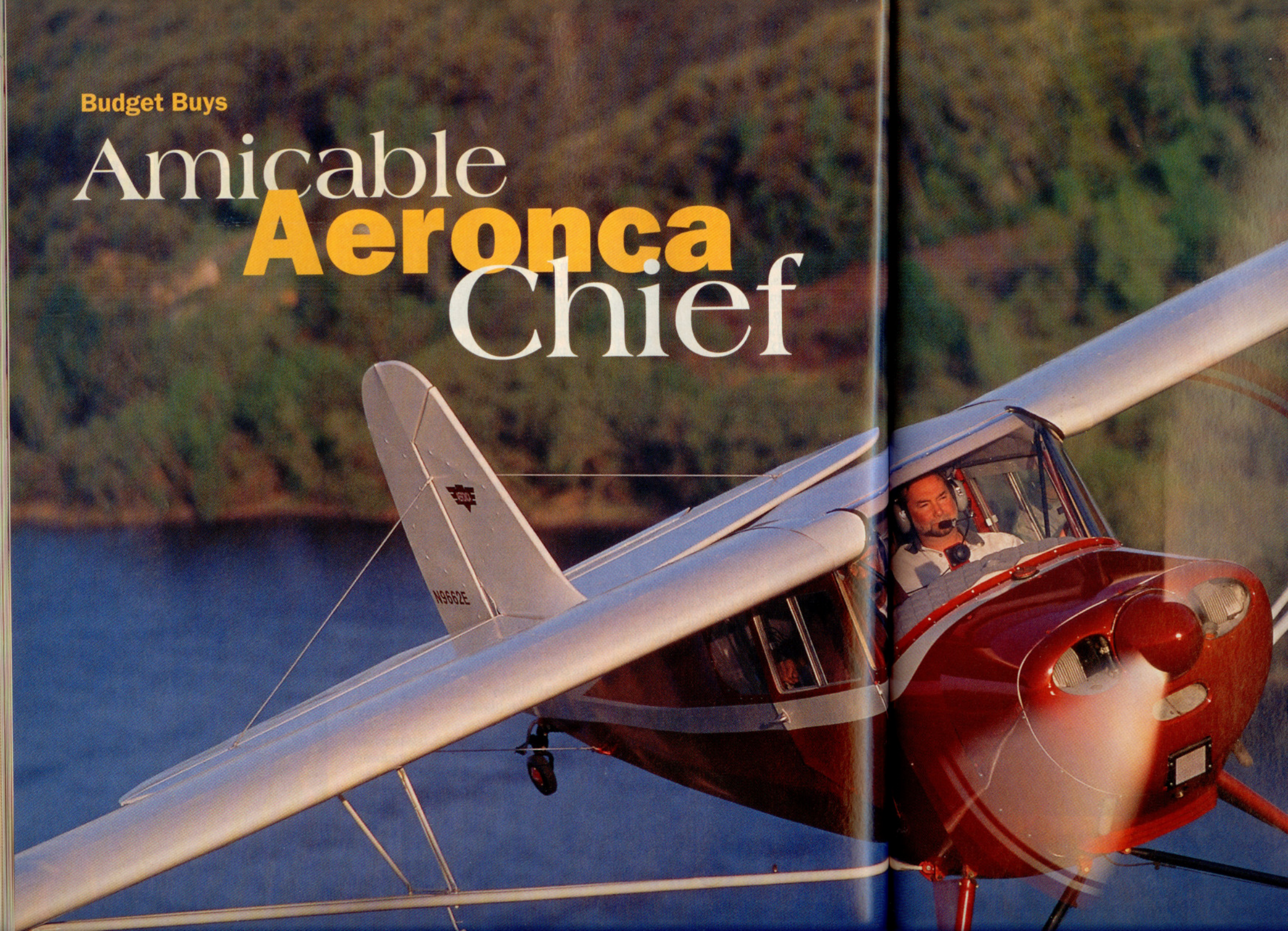
Budget Buys

Amicable Aeronca Chief



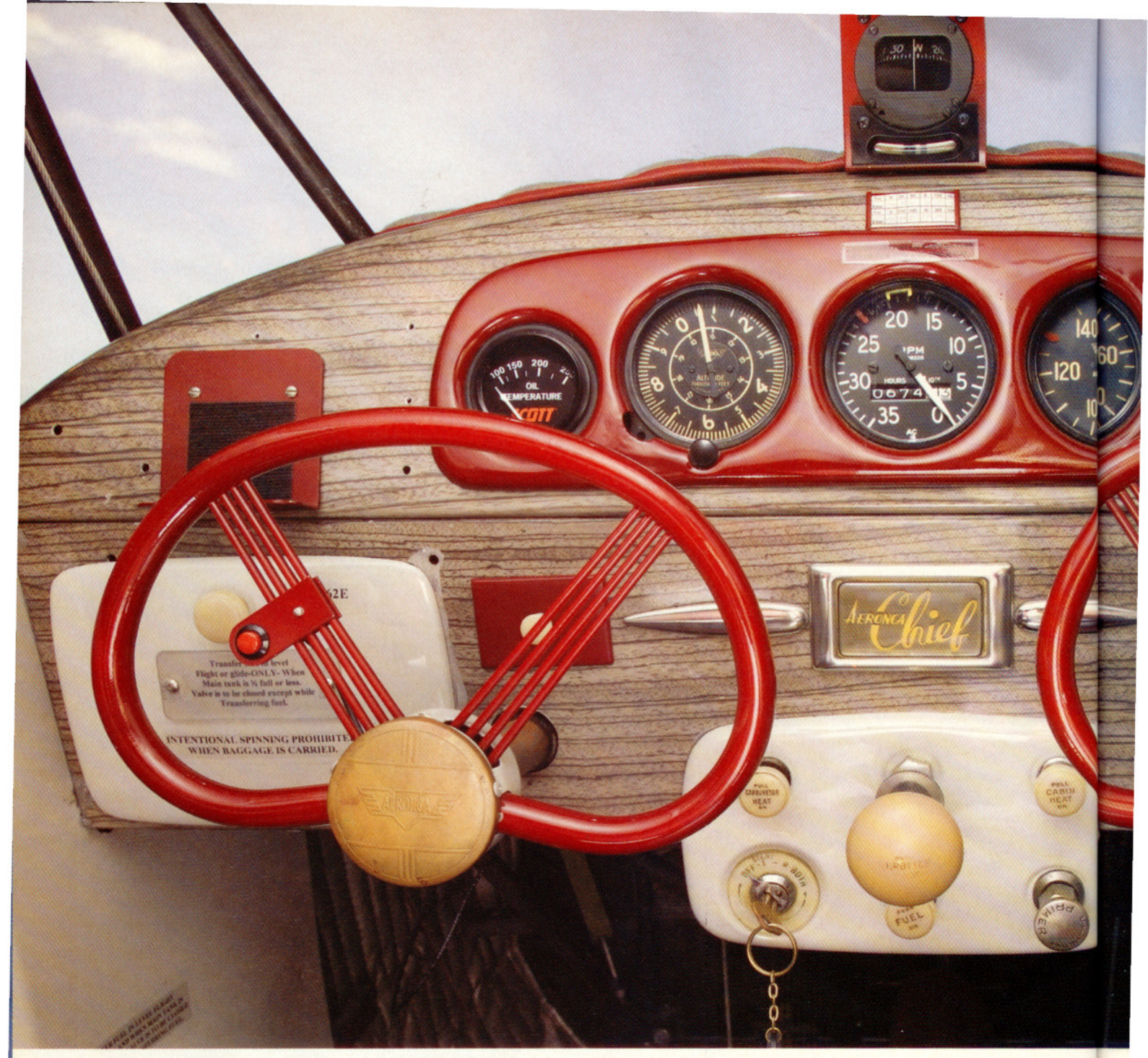
Capability, agility, and fun in a plain, brown wrapper

BY RICK DURDEN

PHOTOGRAPHY BY MARK SCHAIBLE

It is an unpretentious little airplane, never seeming to seek, or gain, aviation's limelight. Those who have been fortunate enough to make the acquaintance of the Aeronca Chief know that wrapped up in a less-than-$20,000 package is an airplane that is forgiving of the transgressions of inexperienced or distracted pilots, yet perfectly capable of responding surely to the touch of the most able. It doesn't have the continuing cachet of a Piper Cub or a reputation for exciting handling as does the Luscombe, and it is not as fast as the Cessna 120 and 140 series, yet the Chief is possessed of impeccable aeronautical manners, allowing it to hold its own in any gathering.

Aeronca emerged from World War II financially healthy and intending to regain the premier position in sales it had held before being eclipsed by Piper and its Cub just prior to the war. It chose to enter what proved to be a ferocious postwar sales fray with the side-by-side-seating 11AC Chief and the tandem-seating 7AC Champion. To compete with the numerous other



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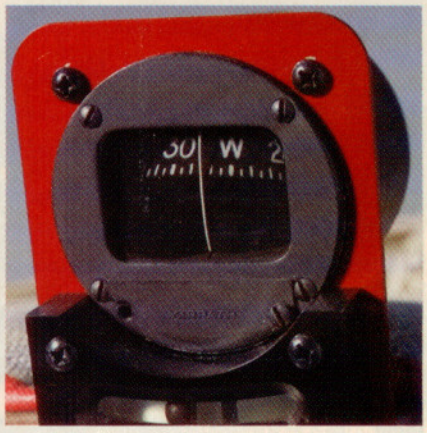
manufacturers it was utterly essential to build each airplane as inexpensively as possible. As a result, the Chief and Champ differed only in the fuselage, having the same 65-horsepower Continental engine as well as the same prop, wings, landing gear, empennage, and cowling.

Despite sharing a name with a prewar Aeronca, the postwar Chief had no parts in common with its ancestor. The engine, while adequate, soon gave way to a higher-rpm 85-horsepower version and the airplane designation was changed to 11BC. (There is an approved procedure to convert the 65-horsepower engine to 85 horsepower.) The final version of the Chief, the Model 11CC, also with 85 horsepower but having toe rather than heel brakes as well as some other improvements, was built until 1950. Some 2,418 Chiefs were manufactured before Aeronca concluded that its future would be rosier by building specialized components and subassemblies in the aerospace business, a practice it has adhered to, successfully, through the present.

Owner Ben Ennenga kept the restoration of his Aeronca Chief nearly true to the original, panel and all.

Over the years, Chiefs have flown, slowly, throughout the world, maintaining their integrity and continually adding to a quiet reputation for capability, pleasant handling, and flexibility. Bush operators have modified



laid out when symmetry of presentation was vitally important.

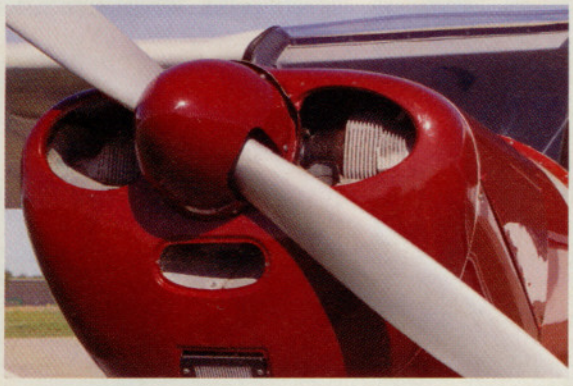
The fuel gauge is atop the glareshield (top). The sliding knob elevator trim responds to small movements (bottom).

them with larger engines, happily discovering that they are quite at home on skis and floats, while not exhausting the exchequer.

A nicely restored 11AC is owned by Ben Ennenga, AOPA 4394361, and is hangared at Grand Haven Memorial Airpark in Michigan. Ennenga advised that there is more than one owners organization for the Chief. An Internet search revealed several individuals and groups that provide guidance and assistance to those who own or like the 11 series.

Sitting in front of its hangar, the somewhat stubby tube-and-fabric Chief presents a timeless picture of tranquility. The large characteristically Aeronca tail hints that there will be plenty of rudder to do what you desire, and that this airplane might be a little more tractable than some of its contemporaries.

Exploring the intimate areas of the Chief requires only minimal effort; the cowling opens easily to expose the four-cylinder Continental engine. Oil quantity is but four quarts. Several types of propellers, both metal and wood, are approved for the Chief. Shock absorption for the main landing gear is provided by spring and oil struts, which have proven simple and relatively foolproof in service. Owners report that parts for the



Sitting in front of its hangar, the somewhat stubby, tube-and-fabric C

quite-adequate, original Goodyear mechanical disk brakes are now hard to find. The wing spars are wood with stamped aluminum ribs and are the subject of a rather extensive airworthiness directive requiring a one-time inspection. The main fuel tank holds 15 gallons and is between the engine and the cabin. Its location and risk of rupture on impact, leading to fire following an accident, are among the few shortcomings of the Chief. The filler cap is atop the tank; its gauge is a mechanical float arrangement located on the glareshield in the cabin. An 8-gallon auxiliary tank that gravity feeds into the main is behind the cabin. Its filler cap is on top of the fuselage. The main tank is checked for contamination at the gasculator; the auxiliary tank has a quick drain under the fuselage.

A fuel burn of about 4.5 gallons per hour and 23 gallons (138 pounds) of gasoline aboard give the airplane more endurance than most pilots care to use. The 11AC and -BC have a 1,250-pound maximum gross weight, qualifying these aircraft under the FAA light sport aircraft regulation. With a 449-pound useful load for Ennenga's Chief, the amount of fuel to be carried, once two adults are aboard, requires consideration. The 11CC has a 1,350-pound gross weight, which makes the loading equation a bit easier (but bumps it above the light sport aircraft maximum weight limit of 1,320 pounds).

Several types of propellers, both metal and wood, are approved for the Chief. The bench seat is adjustable fore and aft.

Getting into the Chief presents a challenge, although once inside, the fact that the bench seat is adjustable fore and aft

Chief presents a timeless picture of tranquility.

means that the cabin has a bit more legroom than a Luscombe or Ercoupe and is slightly more comfortable. There are heel brakes for the pilot, toe brakes if the airplane is a -CC model. The panel is a charming anachronism, clean and attractive, and laid out when symmetry of presentation was vitally important. Human factors? Bah, humbug. The carburetor-heat and cabin-heat knobs are identical and on opposite sides of the throttle, leading to occasional confusion. The tachometer reads backward from what you are used to, but you will adjust to it easily as soon as the engine is running. The side windows may be opened in flight. On Ennenga's airplane, they slide effortlessly; attention to such a small thing is a good indication that the rest of the airplane is equally well maintained.

Aeronca sent Chiefs on their way into the world from its Vandalia, Ohio, factory without an electrical system. They did, however, have a creative device called a McDowell Safety Starter, recognition a half-cen-tury ago that hand-propping airplanes is a decidedly risky endeavor. A long, vertical lever by the pilot's left knee was connected, via cable, to a ratchet device on the crankshaft just below the propeller. Pulling the lever snapped the prop over a quarter turn or so. Sadly, the system proved unreliable to use, and most owners cast them aside, feeling that the weight wasn't worth the benefit.

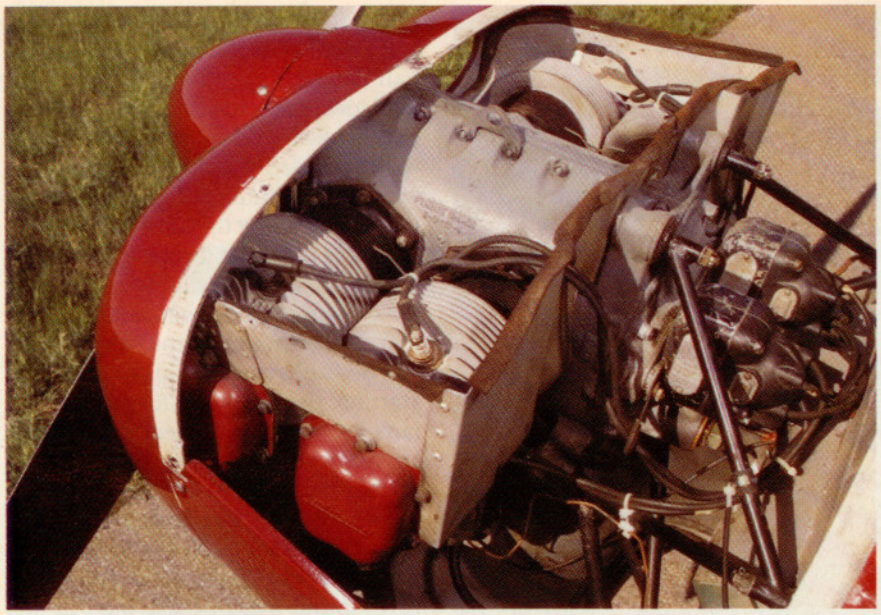
The fuel system is simple: Before starting, the fuel valve for the forward tank is turned on. If there is fuel in the auxiliary tank, the front tank must be burned down about halfway before the valve to the rear tank is opened, whereupon fuel gravity flows to the front one. If that valve is left on after landing, the three-point attitude will lead to fuel flowing from the front tank into the rear, potentially overflowing and draining onto the ground.

Ennenga uses a simple, elegant setup to reduce the chance that the airplane might move during the start. It consists of a single heavy nylon rope with a snap clip on each end. One clip attaches to the tailwheel and the other to a post by his hangar. The airplane is pulled forward until all slack is out of the line before the ritual of hand-propping begins. Once the engine has lit off and is running smoothly at dead idle with the traditional quiet "knock, knock, knock" sound that has caused generations to refer to Aeroncas as "Airknockers," Ennenga walks to the tail, pulls the airplane aft a short way to confirm it will not move on its own, then releases the rope and boards.

Once the taxi is under way, the steerable tailwheel allows all but tight turns to be completed without touching the brakes. Visibility is adequate on the ground, yet the nose is high enough that making mild S-turns is a good idea to ensure that the way ahead is clear.

Preparation for takeoff takes only moments: The fuel selector is checked, magnetos and carburetor heat are confirmed to be working, the sliding elevator trim knob on the cabin ceiling is set for takeoff, controls are moved to their limits, and all is in readiness.

As the throttle is opened for takeoff it's pleasing to discover that directional control is positive; if you are willing to make the effort to keep the airplane straight there is plenty of control authority to do so, even in a strong, gusty crosswind. The tail may be raised



The cowling on the Aeronca Chief opens easily to expose the four-cylinder Continental engine.

whenever it suits you, and the airplane saunters into the air at about 50 mph indicated. Adjusting things for the climb at 60 to 65 mph, it becomes apparent that not much happens rapidly in this airplane, something you soon find to be an acceptable state of affairs unless there are obstructions ahead. While a Chief may break ground in a reasonably short distance, its climb gradient is fairly flat. Ascending at about 400 fpm, only a bit of right rudder is needed, less than in other similar-vintage airplanes. Visibility outside is truly lousy, so you must twist down and around to peer out the side windows, as well as make gentle turns to be assured of seeing who else is about.

Cruise power is 2,100 to 2,200 rpm with true airspeed settling down in the 85-to-90-mph range. Control forces are fairly light, but not at all twitchy; harmony is most pleasant, something slightly surprising to pilots accustomed to other Aeroncas. Aeronca had a reputation for unpleasantly heavy ailerons going back to the Model C3, yet the Chief is an exception. The sliding knob elevator trim is almost too effective; a very small movement gives immediate results.

Steep turns and slow flight are easy to accomplish with a degree of élan. Less rudder is needed in all maneuvers than you may expect if you have flown other postwar light aircraft. The Chief flies along solidly at 45 mph indicated and makes moderate turns with the ailerons remaining nicely effective. Power off, the stall occurs at something on the order of 40 mph, although one may or may not get a true break; the airplane may just gently bob up and down while sinking rapidly. There is only a subtle prestall buffet when power is at idle, occurring about 3 mph before the stall. Buffet is more pronounced at higher power settings. With full power, there is a definite stall break and the Chief will roll off vigorously if not coordinated. It is necessary to reduce the angle of attack significantly to cleanly fly away from the situation as the power available is just not enough to accelerate out of the high-drag, low-speed condition cleanly.

i Links to additional information about Aeronca Chiefs may be found on AOPA Online (www.aopa.org/pilot/links.shtml).

Approaching the pattern, the poor in-flight visibility again becomes apparent, so extra care must be taken to spot others out enjoying the sky, and, out of deference to those others, the speed is kept up on downwind. Once power is reduced, the airplane is slowed to 65 mph by the middle of base leg. Best-glide speed is 67 mph and about now you discover the airplane glides quite well—more than you may expect during the first landing or two. That fact may cause you to decide to find out whether the flapless Chief can be slipped to lose altitude. With the powerful ailerons and rudder, it does so nicely, thank you.

The appropriate speed on final is 60 mph. Either wheel or full-stall (three-point) landings can be made without much effort, as effort is defined in tailwheel airplanes. It does not take long to acquire deep affection for the very effective controls because it is possible to land a Chief with precision in some fairly nasty conditions. As with any tailwheel airplane, you have to be assertive in making it go where you desire; however, the Chief provides you with excellent tools to carry out the task.

After you taxi in, shut down, get out, and look at the airplane again, you can't help but feel that this sort of pudgy-looking machine only appears to be a sheep. There's no wolf inside that clothing; it's more like a smart, old Labrador, agile and capable, that you like to spend time with and that is not likely to turn around and bite unless you do something foolish. AOPA

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SPECSHEET

Aeronca Model 11AC Chief
Vref value: From $14,000

Specifications:

Powerplant	65-hp Continental A-65-8
Propeller	Several models approved
Length	20 ft 5 in
Height (level)	8 ft 8 in
Wingspan	36 ft
Wing loading	7.15 lb/sq ft
Power loading	19.2 lb/hp
Seats	2
Empty weight, as tested	801 lb
Max gross weight	1,250 lb
Useful load	449 lb
Payload with full fuel	311 lb
Fuel capacity	
Main tank	15 gal (90 lb)
Aux tank	8 gal (48 lb)
Baggage capacity	70 lb

Performance:

Takeoff distance, ground roll	583 ft
Rate of climb, sea level	430 fpm
Cruise speed	85-90 mph
Fuel consumption	4.5 gph
Range with 45-min reserve	368 miles

Limiting and Recommended Airspeeds

V_X	50 mph
V_Y	68 mph
V_{NE}	128 mph
V_R (rotation)	50 mph
V_{S1} (stall, clean)	40 mph