



Pilot Flight Check

Piper's 300 Horsepower Freighter

by BERL BRECHNER / AOPA 466558

The Cherokee Six has undergone refinements toward making it

■ ■ Piper's Cherokee airplanes ought to be placed on the endangered species list. For if you count as a Cherokee those low-wing singles that have the "fat wing" and the fuselage shape that became the norm for Piper of the 1960s, they're disappearing at an almost alarming rate.

Maybe disappearing is too harsh. Evolution has caused most Cherokees to sprout more adaptive wings, tails and engines—or fold-up feet. Other Cherokees didn't survive the cold realities of the marketplace and have already died.

What remains is one "original" Cherokee available in a 260- or 300-hp version. It's widely known as the Cherokee Six, a plane that



more of a business and family plane, but for many it's still a workhorse

is a bit over a decade old. Its basic configuration really hasn't changed much over the years. And even Piper spokesmen are hard-pressed to point out changes other than paint and interiors.

This year, however, their job was easier due to a cleanup of the wheel pants and fairings, a variation that gives the aircraft more zip, extra knots that total several dozen in the range department.

The PILOT spent a day with a 300-hp Cherokee Six recently, and found it to be a docile and hardworking craft, like its forebears, but with an uncharacteristic amount of style on its insides. For the seats are of currently-in-vogue crushed velour, and the rear four seats were set in facing pairs, "club seating" that Piper introduced



The craft's long snout comes high on landings. Redesigned wheel and strut fairings are apparent. Photos by Roger Rozelle.



By opening rear cabin and baggage doors together, a large entryway is created. Club seating arrangement calls for intertwining legs of front- and rear-facing passengers.



The Six's panel comes from the same mold as that of other Cherokees. However, five rocker switches have been moved from in front of the throttle to the left sidewall.

PIPER CHEROKEE SIX continued

to its big Cherokees last year. The seating arrangement and several other interior niceties—like a cooler between the middle seats, extra chart storage space, an armrest for seats five and six, “deluxe” fabrics, and “plush” carpet—made for an optional touch of class to the tune of \$1,630.

The three other big options for this machine were a Collins Radio package (\$13,560); Narco's DME-195 (\$3,615); and an “executive group” of almost 80 pounds of necessities like interior and exterior lighting, rotating beacon, vacuum system and gyros, exhaust gas temperature, heated pitot, vertically adjusting pilot seat, and more (\$4,955). As equipped, the flight check aircraft's list price totaled \$75,240. Oh, yes, and that price includes a “fuel charge” of \$75—since no manufacturer would want to give away some gasoline in exchange for goodwill from the purchasers of a mega-buck airplane.

An airplane does need fuel to fly, however, and once airborne the Cherokee Six proved itself to be courteous and unruffled. But, with 300 horses, wouldn't one expect some surge, some feel of power, some excitement? Well, okay, there's a little of that. But it's like beefing up a Ford Granada. In a Cherokee, 300 horses allow it to do more than it might otherwise, but the extra power does not translate into instant excitement.

The power is felt most during the airplane's takeoff run and climbout. On the roll, torque forces are hefty, and when combined with P-factor in the climb a heavy right boot is called for.

In flight though, the Six is (forgive a cliché) pure Cherokee. What do you say about an airplane that is not especially responsive, yet easily controlled; that stalls like a marshmallow; is stable as a rock; and that lands as easily as driving a car into a garage?

A distributor for Piper said it best: “This is the kind of plane a guy likes to get in, sit back, turn on the autopilot and drive to

PIPER PA 32-300

Basic price \$47,910

Specifications

Engine	Lycoming 10-540-K165D 300 hp, 2,700 rpm
Propeller	Hartzell 2-blade constant-speed, 80-in dia
Wing span	32 ft 10 in
Length	27 ft 8 in
Height	8 ft 2 in
Wing area	174 sq ft
Wing loading	11.3 lb/sq ft
Passengers and crew	6-7
Cabin length	10 ft 5 in
Cabin width	4 ft 1 in
Cabin height	4 ft 1 in
Empty weight	1,846 lb
Useful load	1,554 lb
Gross weight	3,400 lb
Power loading	11.3 lb/hp
Fuel capacity (standard)	84 gal (83.6 usable)
Oil capacity	12 qt
Baggage capacity	200 lb (25.3 cu ft)

Performance

Takeoff distance (ground roll)	900 ft
Takeoff over 50 ft	1,350 ft
Rate of climb	1,050 fpm
Maximum level speed	156 kt
Normal cruise speed (75% power)	152 kt
Economy cruise speed (55% power)	134 kt
Range at normal cruise (with 45-min reserve)	652 nm
Range at economy cruise (with 45-min reserve)	730 nm
Service ceiling	16,250 ft
Stall speed—C.A.S. (clean)	62 kt
Stall speed—C.A.S. (flaps down)	55 kt
Landing distance (ground roll)	630 ft
Landing over 50 ft	1,000 ft

Florida. And let his kids run up and down the aisle."

As practical as this airplane may be, it has been overshadowed in the past two years, first by introduction of the Lance (a retractable version of the Cherokee Six), then by the new T-tailed Lance.

Yet the old standby holds its own against the folding-wheel, T-tail stablemate. For according to Piper specifications, the Lance II has only a 6-knot speed edge (at 75% power) over a Cherokee Six-300, yet costs over \$11,000 more. And the Cherokee Six surpasses the Lance II's performance in takeoff, rate of climb, service ceiling, and landing distance; and claims only 35 pounds shy of a Lance's useful load.

Speed checks on N2048M were made at 4,000 feet. Higher altitudes were unavailable on the wintry day of this flight due to clouds and icing above. However, at that

altitude in temperatures hovering around 35°F, power controls were set at full, 75%, and 55% for airspeeds of 160 knots (167 true), 145 knots (152 true), and 129 knots (135 true).

The plane was lightly loaded with three people aboard and only 55 of a potential 84 gallons of fuel. With this loading the Six was almost 600 pounds under its maximum gross weight of 3,400 pounds.

The speeds that the airplane showed came out about 10 knots faster than book speeds for the Cherokee. The discrepancy was due partially to the light loading, and could have also been abetted by an overly optimistic airspeed indicator. Nonetheless, given the freighter-like nature of this long-snouted Piper, speeds above 150 knots (or 170 mph) are a bit of a marvel—particularly in view of the craft's "fat" wing and genial handling.

These high cruise speeds nudge the caution range on the airspeed indicator, which begins at 149 knots. Flap extension speed of 109 knots is slow for an airplane of this one's capabilities, and lowering flaps at this speed results in a substantial pitch upward. At 75% power, specifications for the 300-hp Six indicate it can be expected to consume fuel at 18 gallons per hour.

Piper reports that alterations to the Six's wheel and strut fairings offer 6 knots better cruise speeds as compared to last year's models. The extra speed also adds 5% to its range which is said to be 730 nautical miles, with reserves. The new fairings allow easier access to tires and wheels for service and maintenance, Piper reports.

As equipped, with a Collins Micro Line radio package, autopilot, and DME, N2048M weighed in at 2,073 pounds. Full fuel and five 170-pound people would have brought this airplane about 27 pounds over its allowable maximum gross weight. Center-of-gravity limits are liberal, however, and even with full fuel and two people in front, a nose baggage locker (a space between cabin and engine compartment) can be loaded to its 100-pound limit. With the aircraft, a very handy weight and loading plotter is provided for quick and graphic depictions of weight and load configurations.

Another plus in the loading department is the combination of entry and baggage door on the left fuselage side, just behind the wing. Either door may be opened separately, and they can be opened together to create a 4-foot, 5-inch gap in the side of the plane. New are small gutters above the doors to dissuade rain from entering unwanted into the cabin.

The most noticeable characteristic of this Cherokee is its long nose. It sits tail low, nose pointed upward. During taxi a pilot of shorter persuasion may have difficulty viewing the foreground, and find himself peeking forward past the left side, as if he were rumbling along in a taildragger.

On takeoff the nose blocks even more of a view, a condition especially pronounced

if no flaps are used (10-degree flaps are recommended for all takeoffs). A speed of 100 knots during climbout, with power set at 25 inches manifold pressure and 2,500 rpm, returned the nose to the horizon, and still allowed for a climb of about 800 fpm. Initial rates of climb at the steeper pitch and full power had been 1,400 fpm.

After leveling, the view out the front was good. Piper says the seats of this craft have been raised an inch or so, as compared to earlier models. Also, they have an optional vertical adjustment capability. In steep banks the view out the wing-low side seemed particularly open as well, with little blockage from the cabin roof above the side windows.

Noise levels were generally low, though this aircraft was equipped with the \$220 optional "super soundproofing." The plane's gyros were unusually noisy, and could be heard above the engine noise at traffic-pattern power settings.

From a pilot's point of view, he will see a few changes in the panel of this new Six, as compared to models several years old. The row of switches that used to be above the power quadrant (master, fuel pump, strobes, landing light, and pitot heat) have been moved to what is called a "waterfall switch panel" on the left sidewall beside the pilot.

Fuel selection is made with a handle at the panel pedestal base that is moved to draw fuel from any of the four tanks, or to the "off" position. Fuel drains for each tank are under the wings. As in earlier models of this craft, fuel system draining is done by pushing a lever found at the rear seat base. The lever must be pushed while the selector is moved among its positions. The procedure is—at best—awkward. And while you're in the cockpit, draining, the fuel is running (for a total of 34 seconds, if book procedures are observed) out the bottom of the aircraft. A pan of some sort is therefore necessary equipment for a fuel check as outlined in the Six's operating handbook.

Takeoff and landing performance was surprisingly good for a plane of this size. Takeoff roll from a 540-foot elevation strip north of Washington, D.C., took about 800 feet on a 42°F day with light quartering crosswinds. A short-field landing holding 62 knots down to flare required not much more than 500 feet of pavement.

Piper's Michael Murrell, who was along for this flight, said that because the company has stressed interior comfort and fanciness of the new Six, the real use of the plane is overshadowed. He suggested that the plane's "utility popularity" is its drawing card, and referred to it as the "freighter" of Piper's single-engine fleet.

Piper built 119 of the higher-horse-powered Cherokee Sixes during its last fiscal year, as compared to 24 of the 260-hp models. Production of these airplanes may not surge, but they will likely continue to sell in a predictable and stable fashion—about the same as they fly. □