



Pilot Flight Check

The Grumman American

Q. What do you call a 180-horsepower Traveler?

A. A good idea.

by DON DOWNIE / AOPA 188441

■ ■ When Grumman American dealers converged on headquarters in Cleveland for the annual round of executive horn-tooting last fall, constant reference was made to the, ahem, Big Surprise everyone already knew was coming. Company officers, all wearing uniform you-ain't-seen-nuthin'-yet smiles, tried to fire suspense in the knowing assembly. Finally, the PLAY button was pushed

on a hidden tape recorder and "Tiger Rag" crescendoed through the hall, spangled curtains parted, and out rolled a rather garish-looking, orange-and-black-striped Traveler.

So went the debut of the Grumman American Tiger, a 180-hp Traveler.

"They're certainly making a big deal out of an engine change," commented one aviation writer amid the din.

Well, yes. But rightly so. The Grumman Tiger is a big deal, even if it is just a beefed-up Traveler. There's not another fixed-gear, 180-hp bird made

that can catch it. It can outrun one 200-hp retractable and almost match performance with two others. And this hot little number comes respectably equipped for \$24,137, making it a very nice buy for the performance you do get and the maintenance problems you don't. (It has a fixed-pitch prop as well as fixed gear.) Grumman can be pardoned for its trumpeting.

Still, there's no argument regarding the Tiger's lineage; it is a Traveler with a 180-hp Lycoming. The Tiger and the 150-hp Traveler even share the same



Tiger

power, with a 45-minute reserve, is quoted as 520 statute miles, the Tiger can cover 650 miles at the same power, with the same reserve. It burns about 10.6 gph.

The Tiger's 2,400-pound gross weight is higher than the Traveler's by 200 pounds, 165 pounds of that increase being added useful load. The most noticeable difference in the Tiger is its tail. The Tiger's horizontal stabilizer is four feet wider than that of the Traveler.

Despite these several variances, should you come across a Grumman four-placer, sparkling on the ramp, and you're still not sure whether 'tis Tiger or Traveler, look at the cowl. Grumman has fixed a galloping Tony the Tiger decal on its newest charge, to eliminate any doubts as to its true identity.

The Tiger tale, however, is not so much a matter of physical alterations as it is one of performance. For years Grumman American—like its predecessor, American Aviation—has been touting the benefits of its aerodynamically clean, rivet-free aircraft. The Tiger and the Traveler are two of its finest arguments.

This year's Traveler has a published cruise speed of 147 mph at 75% power at 9,000 feet. Not bad for a 150-hp airplane. The Tiger cruises at 160 mph, with a 170 mph top speed. Rate of climb for the Traveler is 660 fpm, versus the Tiger's 850 fpm. The Traveler's service ceiling is given as 12,650 feet, and Tiger territory tops out at 14,600 feet.

The Tiger's 61-mph flaps-down stalling speed is 3 mph higher than the Traveler's because of its higher gross weight. Further, the Tiger has an improved center-of-gravity envelope because of its added horizontal tail area and its different cowl design.

Since the Tiger is almost an identical twin of the Traveler, there's little new to report in the way of the niceties that have become trademarks for the entire Grumman American single-engine line.

Like the Trainer, the TR-2 and the Traveler, the Tiger has a sliding canopy that can be left open in flight (up to 130 mph for the latter two).

The Tiger retains Grumman's free-casting, oleo-less nosewheel. Having the front gear pivot 180 degrees takes some getting used to, but once it's mastered, you can make abrupt slow turns and negotiate some pretty tight tiedowns with ease. However, should you be forced to push the bird rearward with a tow bar, the free-swinging nosewheel can prove less than delightful, and the Tiger can become a bear.

Rear seats in both the Traveler and the Tiger can be folded down, providing over seven feet of flat space—room enough for samples or sleeping bags or a quick set of Ping Pong, should the flight prove too dull. With all the seats up, the rear cargo area is still 27½ inches deep and rated for 120 pounds of baggage. There's also a 9½-inch-deep hat shelf behind this baggage space.

The Tiger's four bucket seats are plush and comfortable enough, but

could hardly be called overstuffed. There's plenty of leg room both front and rear, plus 40 inches of shoulder room forward and 37½ inches aft.

The panel is clean and easy to read, but a continual surprise in these Grumman birds is discovering the compass secluded in the upper left corner of the board, instead of high on the windscreen where it's "supposed" to be. This compass placement may be great for IFR hood work, but does put the instrument within range of electrical circuitry and does make one wonder.

The directional gyro and artificial horizon, both primary instruments, are slightly higher in line than their panel mates, giving them a certain added psychological degree of importance.

A most laudable feature in this newest Grumman—but again not unique to it, for the Traveler has the same—is the placement of the fuel selector and gauges. These are positioned directly below the power controls. The fuel selector moves right and left and points directly to the gauge of the tank in use. The display is easy to read, simple to use, and prominently placed.

A couple of gripes include location of the trim tab and the flap switch and indicator on the console between the two front seats. Here they are difficult to see, particularly at night. Also the OAT gauge sticks up from the center of the windshield where the compass might normally be found. So placed,

GRUMMAN AMERICAN TIGER AA-5B

Specifications

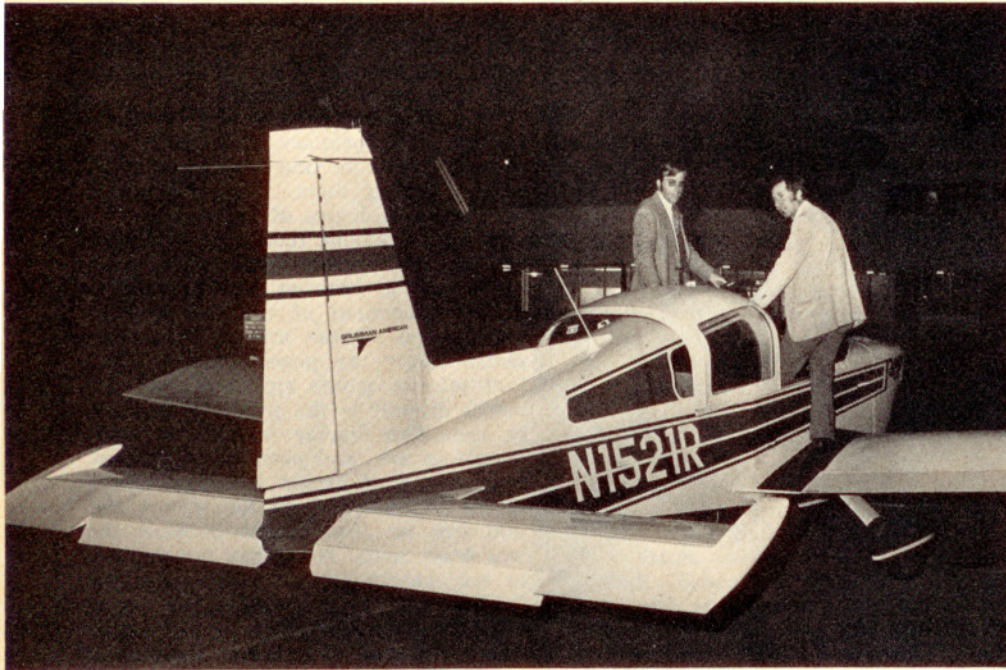
Engine	Lycoming O-360-A4K, 180 bhp
Propeller	McCaughey 73-inch, fixed-pitch
Empty weight	1,285 lb
Useful load	1,115 lb
Gross weight	2,400 lb
Baggage	120 lb
Wingspan	31.5 ft
Wing area	140 sq ft
Length	22 ft
Height	8 ft
Fuel capacity	51 gal usable
Oil capacity	8 qt
Basic price	\$24,137

Performance

Top speed	170 mph
Cruise, 75% power	160 mph
Range, 75% power (45-min reserve)	650 mi
Service ceiling	14,600 ft
Rate of climb	850 fpm
Takeoff distance (over 50-ft obstacle)	1,550 ft
Landing distance (over 50-ft obstacle)	1,100 ft
Stall	
Full flaps	61 mph
No flaps	65 mph

type certificate. The Tiger is an AA-5B, while the Traveler, priced \$4,000 less, is an AA-5. The two aircraft have identical wings, fuselages and panels.

What differences do exist between the two aircraft, however, are anything but cosmetic. Obviously, installation of the Lycoming O-360 is the most significant alteration. Grumman also upped the Tiger's wing tanks to 52 gallons from the Traveler's 38 gallons. This increase in fuel capacity has given the Tiger respectable cross-country legs. Whereas the Traveler's range at 75%



Four feet more of stabilizer is the most visible difference between Grumman's new Tiger and its older stablemate, the Traveler. The biggest difference, however, is under the cowl. Photos by Don Downie.

GRUMMAN AMERICAN TIGER continued

it mars the contours of the trim canopy and might be used—once—as a handhold by an unwitting passenger.

The Tiger's top cowling is hinged in the middle and secured by a pair of fasteners on both port and starboard sides. Just flip the fasteners and you can raise either, or both, cowl halves, exposing half or all of the engine top. Just like a Model A Ford.

My Tiger for a day, provided by William Fouts, Grumman's West Coast manager, and Joe Geiger of Performance Aircraft, Inc., Long Beach, Calif., came ready for cloud work. The Tiger's standard Narco Com 10A/Nav 10 had been replaced with dual Narco Com 11/Nav 11s, plus marker beacon lights, switch panel, Mitchell Century 1 autopilot, wheel fairings (a \$341 extra), Narco AT-50 transponder, EGT, ELT, and a few other options which, all together, raised the sticker price to \$29,780 and hiked our licensed empty weight from the standard 1,285 pounds to 1,395.

That still left us 1,005 pounds of useful load, so we could fill the tanks with gas and the seats with four standard (i.e., 170-pound) people, though one of the riders would have to fly naked if we were to stay under our 2,400-pound gross.

For our Tiger hop we had two fully clothed adults plus some gear and full tanks. We were about 280 pounds under gross. Our departure airport was Big Bear, which rises 6,750 feet above Southern California. Despite a density altitude of 7,500 feet that day, the Tiger was airborne into a light wind after an estimated takeoff run of 1,625 feet.

There's enough elevator available on the Tiger to raise the nosewheel as the airspeed is passing through 55 mph and to have the ship fly off in ground effect below 65 mph. The aircraft accelerated rapidly through its best-angle-of-climb speed, 81 mph, to its best-rate-of-climb speed, 104 mph.

Visibility on the Tiger (Traveler, too) is excellent. The cabin sides are so low you feel more as though you're sitting *on* an airplane than *in* one. I thought the extensive use of canopy plexiglass would cost dearly in increased cabin noise, but that really wasn't the case. The Tiger seemed no more noisy than other aircraft in its category.

Airborne, I found the Tiger's entire spectrum of control pressures to be refreshingly light. If you exert anything more than fingertip pressure, except in a full-stall landing, you're working too hard. The aircraft trimmed out nicely in a 500-fpm descent, at idle power, with full flaps and trim tab rolled all the way back—a nice configuration to

remember if you're VFR, low on fuel, and caught above a solid sheet of gray.

The electric flaps take eight seconds to cycle to their full 45 degrees of travel, but they aren't very effective, no doubt due to their relatively small (12 square feet total) area.

Clean stalls proved docile and came at 65 mph, but with flaps down the break came at 61 mph and was predictably sharper. With the wheel held all the way back, low-wing recovery can be made without the use of ailerons.

Actually, the Grumman configuration utilizes a minimum of rudder. When attempting slips, you run out of rudder long before you hit the aileron stops. However, that's what the flaps were installed to handle.

Our cruise-speed calculations came pretty close to matching those of Grumman's. Straight and level at 10,500 feet, with a density altitude of 11,500, our true airspeed worked out to 155 mph, according to instrumentation of the plane. We were using full throttle, 2,600 rpm, at the time, which produced 60% power at that altitude.

After an intermediate landing at Ontario International, we headed north. During this portion of the flight, we passed over the Burbank Rapcon at 2,500 feet, indicating 140 mph with power set at 2,500 rpm. Burbank's radar has ground speed readout capability and called us at 130 knots (150 mph) at this low altitude, so calibration on the new Tiger was very close in our near no-wind condition.

The last leg of our checkride was a short nighttime hop from San Jose's Reid-Hillview to Municipal Airport a couple of cross-town bus stops away. Although this flight was very brief, at least it gave us a chance to use the cabin lighting, which proved to be excellent, with its variable intensity lights. The nose-mounted landing light, an option, was powerful enough so that reference to the VASI or appearance of runway lights wasn't necessary in the final 200 feet of our 75-mph approach to Municipal's 12R. Touchdown came at just under 60 mph but that big elevator held the nosewheel off long after that.

The Tiger is an impressive performer, especially when you consider it lacks the constant-speed prop so common in its power class. Grumman is studying the benefits and drawbacks to offering such a blade as an option for the Tiger, but apparently no decision will be forthcoming soon. Such an option might add \$1,000–\$2,000 to the Tiger's sticker, and the performance advantage might not warrant that price increase.

Besides, the Tiger's doing very nicely just the way it is. Grumman had hoped to turn out about 200 Tigers during this, its first, year on the market. The company says that target will be met, and easily. Said one Grumman official, "Every last serial number is spoken for."

Apparently there are a lot of people who agree that Grumman did indeed make a big deal out of an engine change.

A 180-hp Traveler is a Tiger. □