

Press Release: for Immediate Release

FAA Approves Gross Weight Increase for Turbonormalized Bonanzas

Tornado Alley Turbo Obtains Significant Gross Weight Increases for Bonanza Models A36, A36TC, B36TC, 36, F33A, E33A, 35-C33A, G33

Ada, OK, Tornado Alley Turbo (TAT) announced it had received FAA approval and amendment of their Supplemental Type Certificate (STC) to provide for significant Gross Weight Increases applicable to their series of turbonormalized IO-550B powered Bonanza airplanes. Aircraft modified in accordance with the latest configuration or "Whirlwind System II" are eligible for increased maximum gross takeoff weights ranging from 192 to 489 lbs. depending on model. Late model A36s are approved for a 350 lbs. increase.

Following extensive FAA certification testing, the "Whirlwind System II" modified aircraft (with the 300HP, turbonormalized IO-550B engine) were approved for similar takeoff and landing weight increases, for ease of operation at the higher weights. The TAT package makes extensive modifications to these venerable Beechcraft airframes resulting in 25-30 kt. increase in airspeed, improved climb performance, and high altitude performance. Among the changes:

- Addition of turbonormalizing system with new exhaust system, intercooler and baffling
- In the B36TC, replacing the troublesome Teledyne Continental Motors TSIO-520U/UB engine with a new, more powerful (TN) IO-550 engine.
- IO-520 (285 HP) to IO-550 (300 HP) Engine Upgrades
- Improved engine cooling and control of CHTs
- Built-in Oxygen Systems (non A36TC, B36TC models)
- High power, efficient engine operation resulting in extended range

The "Whirlwind System II" turbonormalizing systems are certified for all "S" model Bonanzas and later years including "V" tails and conventional tails like the F33A and the A36. Only the conventional tail aircraft with IO-550B engines are eligible for the GWI at this time. George Braly, Chief of Engineering of GAMI and TAT reports that 'the certification effort was limited to the conventional tail aircraft to ease the substantial certification task for the various models covered within the scope of this STC. We hope to include the "V" tails in a later GWI project in the near future.'

TAT specializes in performance modifications to Beechcraft Bonanzas and other airplanes. In conjunction with R and D provided by General Aviation Modifications, Inc. (GAMI), TAT has reengineered this turbonormalizing system with improvements in performance, reliability and maintainability. A few such improvements include a larger, intercooler with better airflow designed as an integral part of the turbo system, attention to baffling details for lower CHTs, operational techniques which are easier to use and easier on the engine. The result is an attractive, finished product that will readily outperform any other certified Bonanza modification package available. In addition to installation on existing TCM IO-520 and IO-550 airframes, TAT offers engine replacements and upgrades with GAMISPEC™ engines featuring Superior Millennium® cylinders for more horsepower and improved durability. Features and other information is available on the www.taturbo.com web site.

Installations of "Whirlwind System II" turbonormalizing systems are performed at the TAT facility in Ada, OK as well as several regionally located Authorized Installation Centers (AICs). These AICs are trained in the installation and maintenance of these systems as well as provide flight instruction in the proper use of the system following the installation. Contact TAT toll free @ 888-359-4264 for the AIC nearest you.

TAT's Chief of Engineering, George Braly, said that the company takes considerable pride in this latest

milestone in the company's continuing development of turbonormalizing technology for the Beechcraft world. "No other turbo system available in any airframe has been developed to this same high level of performance and ease of operation. Our Whirlwind System II" modified airplanes can climb directly to their most efficient and fastest cruising altitude without pilots worrying about cooling issues," he added.

It is recognized that the later model Bonanzas have grown in empty weight over the years, outpacing the factory certified maximum takeoff weights. Many later model Bonanza owners suffer from insufficient useful loads to offer practical use of the aircraft. "Now, most of these airplanes can operate with useful loads in the 1,350 lb.-range," according to Braly, "depending on their original weights". This means that four people can get in the airplane and actually make a 1,000 nautical-mile cross-country trip with appropriate fuel reserves."

This TAT modification joins a long string of high-technology products designed and produced by TAT and its "sister" company, General Aviation Modifications, Inc. (GAMI), to improve the efficiency and utility of tens of thousands of piston-powered airplanes throughout the world.

"This latest FAA-approved modification for the Beechcraft Bonanza line of single-engine airplanes is another example of GAMI and Tornado Alley Turbo's continuing commitment to industry-leading research and development for general aviation," said Tim Roehl, TAT president. "We will continue to develop products to keep these great airplanes flying as the best examples of truly useful personal transportation in the fleet," he added. "Of course, we have still further exciting certification efforts underway for these aircraft," Roehl concluded.



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