

Tuned Exhaust

D'Shannon Aviation is pleased to offer a Tuned Exhaust System tailored to fit your Bonanza.

- Increases power with each stroke.
- Reduces back pressure
- Provides a cooler, denser charge
- STCd and PMAAd

{tab=Detailed Description}

Aircraft exhaust systems have been neglected from the standpoint of tuning. Cars and off-road engines have enjoyed the benefits of tuned exhaust headers for years. Because of the narrow RPM range utilized tuning an aircraft engine's exhaust is easier than tuning a car or off-road engine, the stickler is in the space available under the cowl. In most cases, a tuned exhaust header requires longer runs with engineered radii to perform properly.

In order to perform, a tuned exhaust must reduce the pressure at the exhaust port just prior to the valve closing, to below the pressure in the intake manifold. This reduction in pressure must happen during the overlap in which both the exhaust and intake valves are open. The header is formed so that each exhaust pulse creates a wave that pulls the next exhaust pulse along. The exhaust gas is not only pushed out by the piston, it is extracted as well. With a tuned exhaust, a fresh mixture can be drawn into the cylinder while simultaneously spent gasses are removed. The denser charge of fresh cool mixture gas results in greater power output when it is compressed than when the cylinder is partly filled with spent hot gasses. The denser charge creates a greater pressure, and since it is cooler, is less prone to pre-ignition.

D'Shannon Aviation Tuned Exhaust Headers are STCd and PMAAd.

{tab=Eligible Aircraft}

D'Shannon Aviation Tuned Exhaust Headers are for Bonanzas equipped with normally aspirated IO-520 and IO-550 engines

{tab=Performance}

Performance charts coming soon!

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