



Service Bulletin

TAT SB07-01

Issued: 15 January, 2007

Model SR22 w/ Turbonormalizer

COMPLIANCE

Mandatory: Tornado Alley Turbo considers this Service Bulletin to be MANDATORY. Accomplish this Service Bulletin at the next scheduled service or within 25 hours, whichever comes first. Compliance time begins upon receipt of this Service Bulletin.

EFFECTIVITY

Cirrus Design SR22, the following serial numbers that incorporate the Tornado Alley Turbo, Inc. Turbonormalizing System:

2022	2037	2056	2088	2092	2104	2108	2110	2112	2116
2121	2125	2135	2137	2142	2146	2159	2162	2166	2170
2172	2175	2176	2178	2183	2190	2193	2194	2205	2207
2208	2211	2213	2216	2219	2222	2228	2231	2237	2240
2243	2246	2247	2269	2274	2281	2285	2289	2293	2300
2303	2305	2306	2308	2312	2316	2323	2327	2331	2335
2336	2339	2342	2343	2344	2346	2349	2352	2355	2358
2360	2365	2368	2369						

APPROVAL

Engine Technologies, Inc., the Turbonormalizing System STC holder, has approved all technical data in this Service Bulletin that affects the type design.

PURPOSE

The purpose of this Service Bulletin is to inform affected owners and operators of a product improvement to the Turbonormalizing System that requires the installation of a support bracket for the wastegate control linkage and possible replacement of attaching clevis pins.

DESCRIPTION

This Service Bulletin contains procedures to install a wastegate linkage support bracket assembly, inspect, and if necessary, replace the 2 clevis pins that attach the wastegate linkage to the left and right wastegate assemblies.

WARRANTY INFORMATION

Parts and labor cost for this Service Bulletin will be covered by the STC holder. Approval for the required maintenance must be obtained in advance. The stated manhours are covered under this warranty. Only Authorized Cirrus Service Centers are eligible for warranty consideration.

MANPOWER REQUIREMENTS

Installation of the wastegate linkage support bracket assembly: 1.5 manhours.
Installation of 2 replacement wastegate clevis pins: 1.5 manhours.

OTHER PUBLICATION AFFECTED

N/A

WEIGHT AND BALANCE

Weight change is considered negligible.

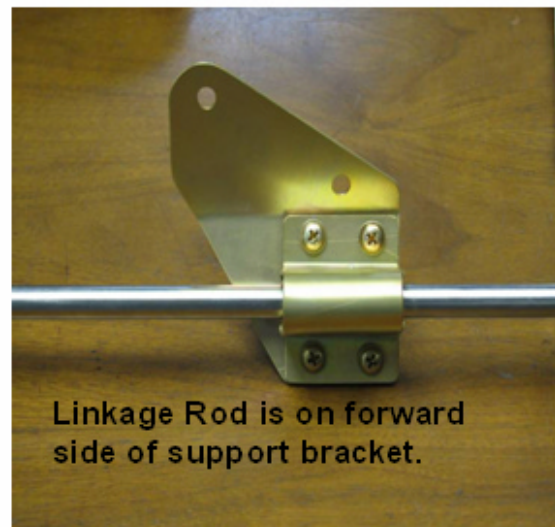
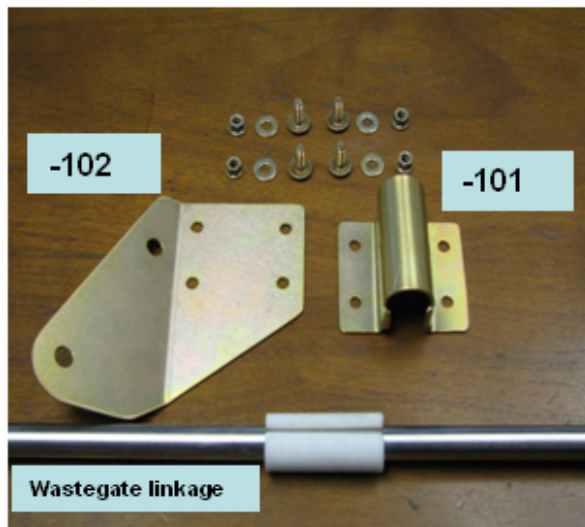
MATERIAL INFORMATION

Wastegate linkage support bracket assembly	ETI-G2-112-1	1 ea
Clevis pin	MS20392-1C19	2 ea
Cotter pin (split pin)	MS24665-134	2 ea
Pre-addressed envelope	TATI-001	1 ea

ACCOMPLISHMENT INSTRUCTIONS

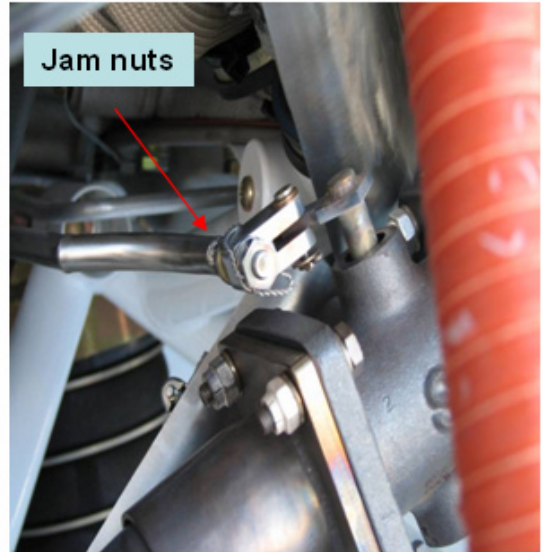
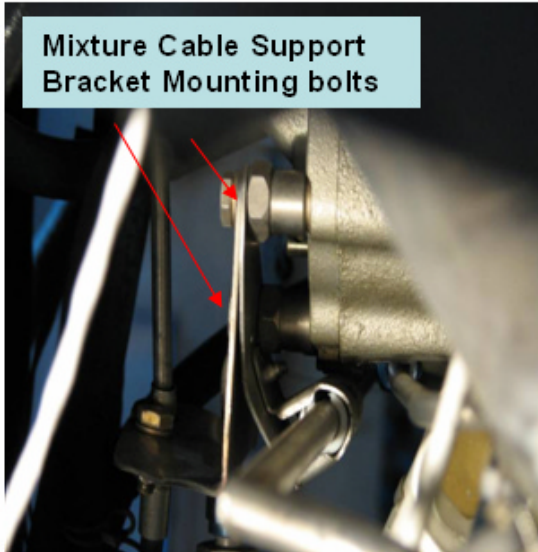
1. Within the next 25 hours, or at the next regularly scheduled service, whichever comes first, install the wastegate linkage support assembly as follows:

Installation of Wastegate Linkage Support Bracket

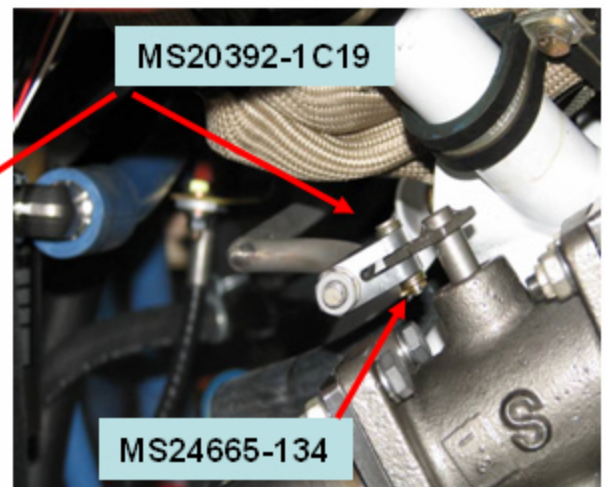
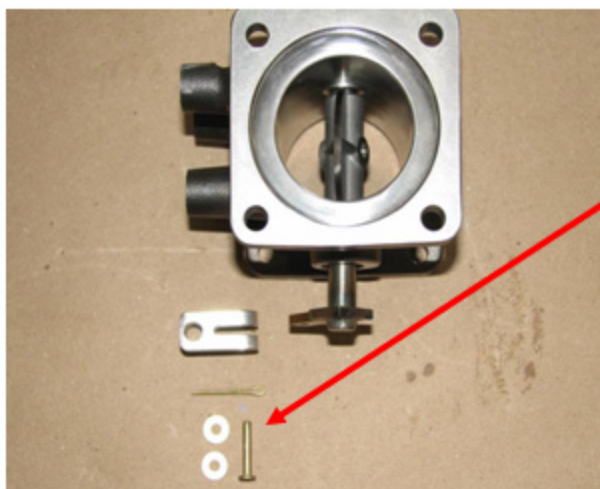


- Snap Teflon® bushing FS-895 over the long run portion of the wastegate linkage ETI-SR22-111-1. This can be done with the linkage arm installed on the aircraft and without removing the linkage or disassembly of the linkage.
- Place retainer cap ETI-G2-112-101 around bushing.
- Place mount plate ETI-G2-112-102 to aft side of retainer cap with bent angle towards retainer cap.
- Install 4 screws AN525-832R6 through forward side of retainer cap towards the mount plate.
- Install 4 washers NAS1149FN832P and 4 nuts MS21042-08 from aft side of plate and tighten to 35 inch lbs (3.9 Nm).
- Slide assembly along linkage and move fore and aft to ensure the linkage can articulate left and right and with fore and aft movement with no binding of the mechanism.

- Gain Access to the mixture cable support bracket and locate two (2) bolts identified below.



- Remove the 2 bolts that secure the mixture control cable bracket to the starter drive adapter.
 - Place wastegate linkage support bracket between the mixture bracket and starter drive adapter and reinstall bolts.
 - Torque bolts **50 to 70 inch lbs (5.6 to 7.9 Nm)**.
 - Hand actuate the linkage to ensure freedom of movement.
 - If the linkage rod is not closely aligned with the support bracket and movement of the linkage is not free, loosen the jam nuts on each end of the linkage to allow the linkage to rest neutrally within the support bracket and retighten the nuts and secure with safety wire.
 - Ensure that the two wastegate butterfly positions are not changed in relation to one another.
2. If the aircraft **has less than 60 hours time in service**, no further action is required. Go to step 4, below to complete airplane records by noting compliance with Service Bulletin TAT SB-07-01 in aircraft logbook.
 3. If the aircraft **has more than 60 hours time in service**, also perform the following:
 - If the aircraft has more than 60 hours time in service since installation of the Turbonormalizing System, then prior to installing the new wastegate linkage support bracket ETI-G2-112-1, inspect for possible wear to the clevis pins MS20392-1C19 caused by linkage flapping, as follows:



- Inspect the pins at both wastegates by removing cotter pin and sliding pin out. Be sure to retrieve the washers.
 - Replace the pin with new, regardless of condition.
 - Note the condition of the clevis hole and wastegate arm. Some wear is normal and is acceptable.
 - Install new clevis pin with 2 washers, and new cotter pin MS24665-134.
 - After installation, the wastegate linkage should be relatively free from movement other than normal left and right translation aligned with wastegate actuation.
 - If any excessive wear is noted, contact Tornado Alley Turbo for further instructions.
 - Place old clevis pins in the envelope included for mailing to TAT, and include information as to the aircraft registration number, date, & time in service in the place provided on the back of the envelope.
4. After performing steps 1, 2, & 3, complete the airplane records by noting compliance with Service Bulletin TAT SB07-01 in the aircraft logbook. Remember to mail the envelope with the old clevis pins if they were removed pursuant to step 3, above.