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# SERVICE BULLETIN

## SERVICE BULLETIN No. 058 Rev. A

### **Turbocharger - Back Plate Assembly Replacement at Overhaul**

1. This page transmits the revision of Service Bulletin (SB) 058 Rev. New to SB 058 Rev. A, dated June 16, 2021.
  - A. SB 058 Rev. New, dated April 15, 2015
  - B. SB 058 Rev. A, dated June 16, 2021
2. FAA approval has been obtained on technical data in this publication that affects type design.
3. Changes are shown by a change bar in the left or right margin coinciding with the change on the affected page.
4. This revision is issued to change the following:
  - A. Edits
    - (1) Add replacement back plate P/N 490045-0000, para. 1.C.(1);
    - (2) Add "sand casting" para. 1.C.(2);
    - (3) Update WARNING under para. 1.H, add Aeroforce.aero web-link;
    - (4) Update HET turbocharger overhaul manual reference, para. 1.H.(1);
    - (5) Add replacement back plate P/N 490045-0000, para. 2.A;
    - (6) Add replacement V-Band P/N 490042-775 for back plate assembly P/N 490045-0000, para. 2.A.(1);
    - (7) Add Aeroforce.aero web-link to WARNING 2, para. 3;
    - (8) Update figure numbers and add replacement back plate P/N 490045-0000, para. 3.A.(1)(b) & (c);
    - (9) Add replacement back plate P/N 490045-0000, para. 3.B.(2)(b);
    - (10) Add replacement back plate P/N 490045-0000, para. 3.D.(2);
    - (11) Add Figure 3 - P/N 490045-0000 Back Plate Assembly;
    - (12) Update HET Tech Support E-mail, para. 4.A.(3).



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1. Planning Information

A. Effectivity

- (1) All turbocharger part numbers shown in Table 1 that have a P/N 406795-0058 back plate assembly installed are affected by this Service Bulletin.
- (2) Turbocharger serial numbers greater than H-RLR00052 (rebuilt) and H-RLL00074 (new) are not affected by this Service Bulletin.

**WARNING:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN (SB). INFORMATION CONTAINED IN THIS SB MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SB OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE HET WEBSITE FOR THE MOST RECENT REVISION LEVEL OF THIS SB.

Model	HET P/N	Used By	OE P/N
TH08A60	409170-0001	Lycoming	LW-12463
TH08A67	407810-0001	Continental (CMI)	635630
TH08A67	407810-0003	RAM	2060-1
TH08A68	409680-0011	Continental (CMI)	640327-11
TH08A69	465680-0001	Lycoming	LW-13987
TH08A69	465680-0004	Cessna	C295002-0202
TH08A69	465680-0005	Lycoming	LW-18470
TH08A70	465930-0002	Continental (CMI)	641672-2
TH08A70	465930-0003	Continental (CMI)	641672-3

**Table 1 - Turbochargers Using P/N 406795-0058 back plate \***

\* For aid in identifying engine or aircraft model, see Table 2 Reference Guide.

**NOTE:** HET P/N uses -9xxx to denote a rebuilt version of the original part number.

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#### B. Concurrent Requirements

- (1) None

#### C. Reason

- (1) Hartzell Engine Technologies has replaced P/N 406795-0058 back plate assembly with P/N 490006 or 490045-0000 back plate assembly.
- (2) The existing die cast back plate is being replaced by an improved geometrically redesigned back plate made from a more robust billet or sand casting material.
- (3) P/N 406795-0058 back plate assembly is no longer available.
- (4) Regulatory action is not expected.

#### D. Description

- (1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).
- (2) This Service Bulletin requires that all affected turbocharger part numbers replace P/N 406795-0058 back plate assembly with P/N 490006 or 490045-0000 back plate assembly at next overhaul per section 1.E(1) Compliance.
- (3) This Service Bulletin is issued prior to the revision of HET P/N 400600-0000 Turbocharger Maintenance & Overhaul Manual which incorporates the back plate assembly overhaul requirement.

#### E. Compliance

- (1) At next turbocharger overhaul, 2000 hours turbocharger time in service, or twelve (12) calendar years, which ever occurs first, replace P/N 406795-0058 back plate assembly with P/N 490006 or 490045-0000 back plate assembly.
- (2) Compliance with the Accomplishment Instructions is the terminating action for this Service Bulletin.

#### F. Approval

- (1) FAA acceptance has been obtained on technical data in this publication that affects type design.

#### G. Manpower

- (1) No additional labor is required when the back plate assembly is replaced at overhaul.

#### H. References

**WARNING:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS DOCUMENT. REFER TO AEROFORCE.AERO FOR THE LATEST REVISION OF THIS SERVICE BULLETIN.

- (1) HET P/N 400600-0000 *Turbocharger Maintenance & Overhaul Manual*, Rev. B or later FAA approved revision.

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### **Turbocharger - Back Plate Assembly Replacement at Overhaul**

#### I. Other Publications Affected

(1) None

#### J. Weight and Balance

(1) No change

#### 2. Material Required

A. One (1) each, back plate assembly HET P/N 490006 or 490045-0000 per turbocharger assembly.

(1) **Back plate assembly HET P/N 490045-0000 ONLY:** V-Band HET P/N 490042-775.

**NOTE:** If back plate assembly HET P/N 490045-0000 is being installed, V-Band P/N 400720-775 must be replaced with V-Band P/N 490042-775.

#### 3. Accomplishment Instructions

**WARNING 1:** THIS PROCEDURE MUST BE PERFORMED BY COMPETENT AND QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH ENGINE AND AIRFRAME MAINTENANCE THAT IS SPECIFIC TO THE TURBOCHARGING SYSTEM. FAILURE TO DO SO MAY RESULT IN ECONOMIC LOSS, EQUIPMENT DAMAGE, AND/OR PHYSICAL INJURY.

**WARNING 2:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN (SB) AND THE APPLICABLE AIRCRAFT AND/OR ENGINE MAINTENANCE MANUAL. INFORMATION CONTAINED IN THESE MANUALS OR THIS SB MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SB OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND SUBSTANTIAL PROPERTY DAMAGE. REFER TO AEROFORCE.AERO FOR THE LATEST REVISION OF THIS SERVICE BULLETIN.

#### A. Inspection

(1) Determine if a P/N 406795-0058 back plate assembly is installed in an affected turbocharger. (Refer to Table 1)

(a) At overhaul, identify P/N 406795-0058 back plate assembly by visual inspection (no disassembly required). Refer to Fig. 1.

1) If this back plate assembly is installed, proceed to section 3.B(1) Corrective Action.

(b) If the turbocharger has been overhauled or repaired previously, P/N 490006 (Fig. 2) or 490045-0000 (Fig. 3) back plate assembly may already be installed. This may be confirmed by visual inspection. (Refer to Figures 2 & 3)

(c) Installation of P/N 490006 or 490045-0000 back plate assembly is the terminating action for this service bulletin. Proceed to section 3.D Maintenance Record.

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### **Turbocharger - Back Plate Assembly Replacement at Overhaul**

#### B. Corrective Action

**NOTE:** HET requires that turbocharger repair and/or field overhaul activities be accomplished by an FAA certificated repair station (or foreign equivalent) experienced in servicing turbocharger systems utilizing the turbocharger maintenance and overhaul manual, HET P/N 400600-0000 Rev. B or latest revision.

- (1) Remove the turbocharger in accordance with the applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions.
- (2) Refer to the Overhaul & Maintenance manual HET P/N 400600-0000 Rev. B or later FAA approved revision for these instructions.
  - (a) Remove and discard the P/N 406795-0058 back plate assembly.
  - (b) Install a new HET P/N 490006 or 490045-0000 back plate assembly.
    - 1) Installation of P/N 490006 and 490045-0000 back plate assembly is the same as installation of the P/N 406795-0058 back plate assembly.

**NOTE:** If back plate assembly HET P/N 490045-0000 is being installed, V-Band P/N 400720-775 must be replaced with V-Band P/N 490042-775.

- (c) Perform the required tests shown in the turbocharger overhaul manual to complete the repair/overhaul.
- (d) If the overhauled or repaired turbocharger will be installed on the aircraft engine, proceed to section 3.C, Return to Service.
- (e) If the overhauled or repaired turbocharger will be placed in inventory, proceed to section 3.D(2), Maintenance Record.

#### C. Return to Service

- (1) After the turbocharger has been properly installed, the aircraft will be ready for return to service.
- (2) Perform the recommended turbocharger operational tests in accordance with Hartzell Engine Technologies Service Bulletin 23 and applicable aircraft maintenance manual.
- (3) Using the applicable aircraft and engine manufacturer's maintenance manuals of the latest revision, install any portion of the aircraft that was removed to gain access.

#### D. Maintenance Record

- (1) Upon successful completion of this Service Bulletin, make an appropriate log book entry noting compliance with this Service Bulletin as the terminating action.
- (2) If an affected turbocharger is overhauled using P/N 490006 or 490045-0000 back plate assembly and the turbocharger will be placed in inventory, include a copy of this service bulletin with a written and dated statement that indicates compliance with HET SB 058 has been achieved.
  - (a) Place a copy of this service bulletin in the shipping package with the turbocharger prior to customer delivery.

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### **Turbocharger - Back Plate Assembly Replacement at Overhaul**

#### 4. Contact Information

A. Contact HET Product Support for all communications regarding the technical content of this Service Bulletin.

- (1) Phone +1.334.386.5400 (Option 2)
- (2) Fax +1.334.386.5450
- (3) E-mail at techsupport@Hartzell.aero
- (4) Address

Hartzell Engine Technologies LLC  
2900 Selma Highway,  
Montgomery, AL 36108  
USA.

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## **Turbocharger - Back Plate Assembly Replacement at Overhaul**



**Figure 1 - P/N 406795-058 Back Plate Assembly**



**Figure 2 - P/N 490006 Back Plate Assembly (Billet)**



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## **Turbocharger - Back Plate Assembly Replacement at Overhaul**



**Figure 3 - P/N 490045-0000 Back Plate Assembly (Sand Cast)**



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### Turbocharger - Back Plate Assembly Replacement at Overhaul

Turbo Model	Part Number	Engine Model	OE Turbo P/N	Aircraft Model
TH08A60	409170-0001 409170-9001	TIO-540-J2B L/TIO-540-J2BD L/TIO-540-J2B TIO-540-N2BD	LW-12463 (LYC)	Helio Courier H-700 PA31-350 Navajo Chieftain PA31-350 T1020 Cessna 310 (Riley STC)
TH08A67	407810-0001 407810-9001	TSIO-520-K TSIO-520-N & -NB TSIO-520-J TSIO-520-N & -NB TSIO-520-N & -NB	635630 (CMI)	Cessna 340 Cessna 340A Cessna 414 ('70 to '75) Cessna 414 ('76 & '77) Cessna 414A
TH08A67	407810-0003 407810-9003	TSIO-520-N & -NB	2060-1 (RAM)	Cessna T310 (RAM STC) Cessna 320 (RAM STC) Cessna 340A (RAM STC)
TH08A68	409680-0011 409680-9011	TSIO-520-L TSIO-520-WB	640327-1 (CMI)	Beech 58P / 58TC ('76 to '78) Beech 58P / 58TC ('79 & up)
TH08A69	465680-0001 465680-9001 465680-0004 465680-9004 465680-0005 465680-9005	TIO-540-R2AD TSIO-520-P TSIO-520-AF L/TIO-540-V2AD TIO-540-W2A	LW-13897 (LYC)	Twin Commander 700
			C295001-0202	Cessna P210N ('78 to '81) Cessna P210N ('82 & up)
			LW-18470 (LYC)	Piper PA31P-350 Mojave Aero Mercantil Gavilan 358
TH08A70	465930-0002 465930-9002 465930-0003 465930-9003	GTSIO-520-M	641672-2 (CMI)	Cessna 404 ('70 & up)
		GTSIO-520-L GTSIO-520-N	641672-2 (CMI)	Cessna 421C ('76 & up) Cessna 421C ('76 & up)

Table 2 - Aircraft / Engine Reference Guide\*

\* Use for reference purposes only. Aircraft/engines listed are inclusive of but not limited to these models