

SERVICE BULLETIN

SB07-1

Compliance Will Enhance Safety

**Technical Portions FAA
Approved**

**SUBJECT: CONNECTING ROD PISTON PIN BUSHING
INSPECTION**

PURPOSE: To provide instructions for inspection of the connecting rod piston pin bushing installation.

COMPLIANCE At each cylinder removal or anytime piston pin bushing material is identified during routine maintenance procedures.

MODELS

AFFECTED: ALL

GENERAL

Teledyne Continental Motors (TCM) has received reports from the field of piston pin bushing material being found in the sump or the oil filter. Piston pin bushings are manufactured from steel-backed bronze and are curved on a radius of approximately 0.62". (Reference Figure 1)

If piston pin bushing material is recovered from an engine, (Reference Figure 2) all of the cylinders, pistons, and piston pins must be removed to allow access for inspection of the connecting rods piston pin bushings. **In addition, the piston pin bushing must be inspected for condition each time a cylinder is removed for any reason.**

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA'S)

This bulletin contains updates to the manufacturer's Instructions for Continued Airworthiness required under § FAR 43.13(a). A copy of this bulletin must be inserted into the manuals listed in Table 1 of this bulletin until the data is incorporated into the manual by revision or the bulletin is superseded or cancelled.

WARNING

New or updated Instructions for Continued Airworthiness may be contained in TCM Service Documents. Service Documents containing updates to the ICA's that are applicable to the engine or accessories on which work is being performed must be consulted and applicable procedures complied with while performing any installation, maintenance, or overhaul function. Failure in following all published manufacturers ICA's may result in engine damage, failure and personal injury.

INSPECTION

If piston pin issues are suspected:

- 1) Gain access to inspect the piston pin bushings by removing the cylinders and pistons using the instructions contained in the appropriate maintenance or overhaul manual.

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- 2) The piston pin bushing split line (Reference Figure 1) must be positioned within the arc indicated in Figure 3, no closer than 40° to the connecting rod centerline.
- 3) The piston pin bushing must be visually inspected for any signs of cracks emanating from the piston pin bushing split. (Reference Figure 2)
- 4) Inspect the piston pin bushing for wear in accordance with the latest revision of bulletin SB00-3.
- 5) Any piston pin bushing that does not meet the installation criteria in item (2) above or is found cracked per the inspection in item (3) above must be replaced.
- 6) Any piston pin bushing that exhibits excessive wear when inspected IAW the latest revision of SB00-3 must be replaced before further service.

NOTE: Complete connecting rod inspection procedures and piston pin bushing installation procedures are contained in the latest revision of SB00-3.


CAUTION: Connecting rod piston pin bushing replacement requires specialized tools and procedures to perform. Connecting rod piston pin bushing replacement must be performed by a shop properly rated to perform the work and using the proper tools and procedures.

WARRANTY

Warranty for issues found in performance of the inspections contained in this bulletin will only be applied to engines currently covered under the applicable TCM warranty policy.



FIGURE 1
Typical New Piston Pin Bushing

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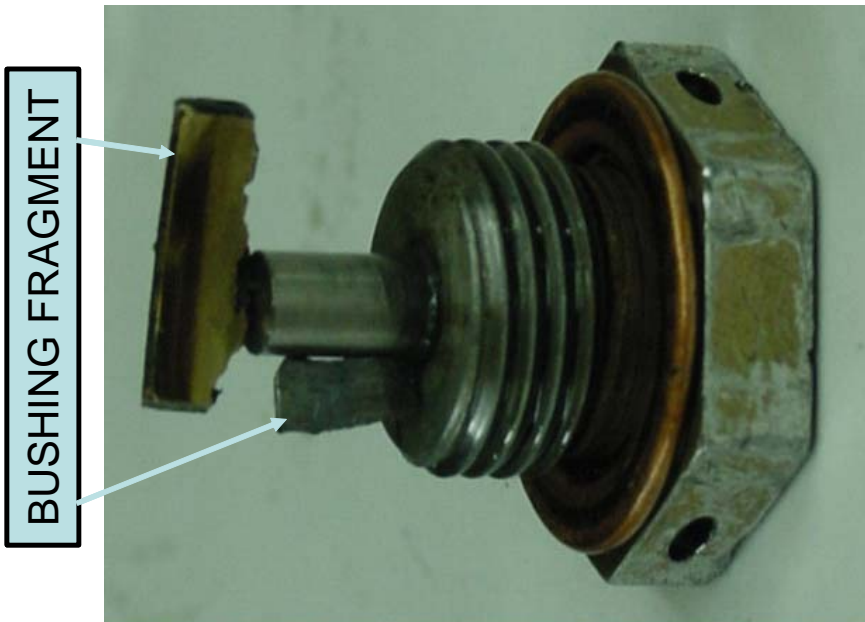
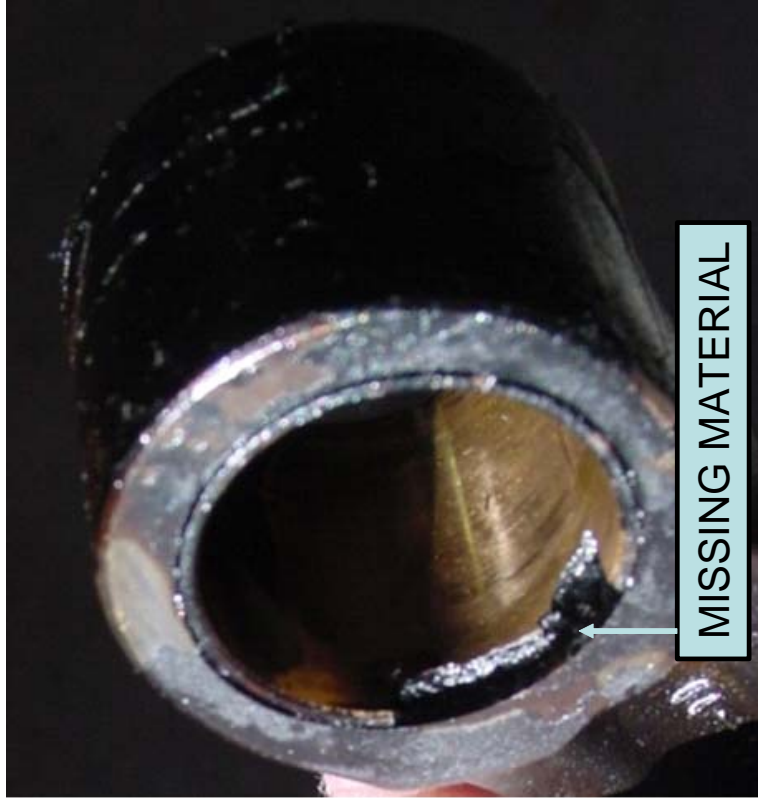



FIGURE 2
TYPICAL INDICATIONS

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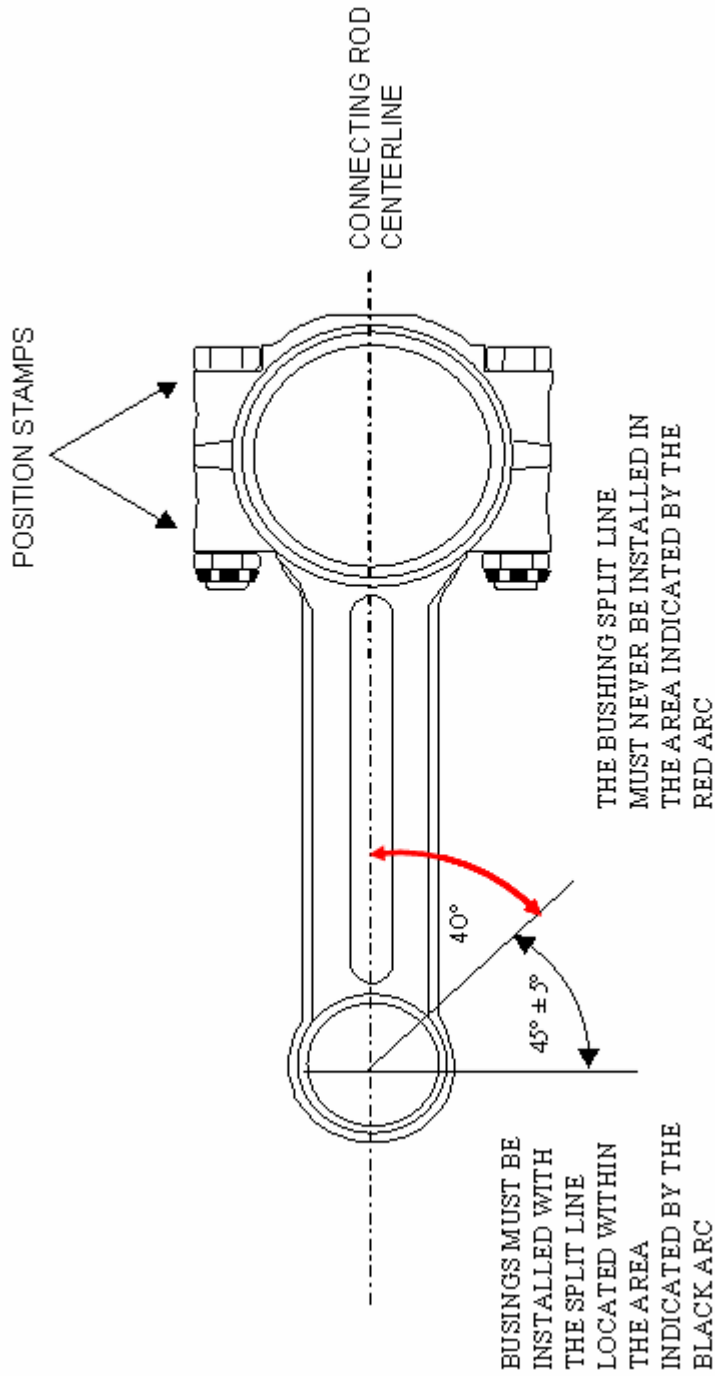




FIGURE 3

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MANUAL NUMBER	MANUAL TYPE	ENGINE MODEL	SECTION	SECTION
X30008	OVERHAUL	A-65	9	
X30010A	OVERHAUL	C-75, C-85, C-90, O-200A,B	XIII	
X30013	OVERHAUL	C-125, C-145, O-300	10	
X30019	OVERHAUL	GO-300	9	
X30016	OVERHAUL	E-165, E-185, E-225	IX	
X30586A	OVERHAUL	O-470	72-20	
X30622A	OVERHAUL	IO-240	22	
X30621A	MAINTENANCE	IO-240	18	
OH-22	OVERHAUL	IOF-240	8	
M-22	MAINTENANCE	IOF-240	10	
X30027	OVERHAUL	IO-346	IX	
X30594A	OVERHAUL	IO-360	72-40	
X30588A	OVERHAUL	IO-470	72-40	
X30039A	OVERHAUL	IO-520	VI	
M-11	MAINTENANCE	IO-520 PERMOLD	19	
X30045A	OVERHAUL	GTSIO-520	IX	
X30568A	OVERHAUL	IO-550 PERMOLD	17	
X30634A	MAINTENANCE	IO-550 PERMOLD	19	
OH-24	OVERHAUL	IOF-550	8	
M-24	MAINTENANCE	IOF-550	8	
X30607A	OVERHAUL	IO-550 SANDCAST	72-40	
X30596A	OVERHAUL	L/TSIO-360 EXC RB	72-40	
X30672A	MAINTENANCE	TSIO-360-MB, SB	20	
X30596AS1	OVERHAUL	L/TSIO-360-RB	18	16
X30645A	MAINTENANCE	L/TSIO-360-RB	20	
X30033	OVERHAUL	TSIO-470	X	VIII
X30574A	OVERHAUL	TSIO-520 PERMOLD	72	
X30575A	OVERHAUL	TSIO-520 SANDCAST	72	
M-18	MAINTENANCE / OVERHAUL	TSIO-550	10	15
X30600A	OVERHAUL	TSIOL-550-A	72-40	
OH-15	OVERHAUL	TSIOL-550-C	18	16
OMI-15	MAINTENANCE	TSIOL-550-C	16	
X30144	OVERHAUL	TIARA	7	

TABLE 1

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