

# MANDATORY

# SERVICE BULLETIN

DATE: July 20, 2007

Service Bulletin No. 574A  
(Supersedes Service Bulletin No. 574)  
Engineering Aspects are  
FAA Approved

SUBJECT: Cylinder Stud Hole Cross-Threaded

MODELS AFFECTED: Any Lycoming engine model listed in Table 1 that was manufactured, rebuilt, or overhauled between September 7, 2006 and October 18, 2006.

Any cylinder kit listed in Table 2 that was received between September 7, 2006 and October 18, 2006.

TIME OF COMPLIANCE: At the next maintenance event or within 50 hours of engine operation, whichever occurs first.

Certain cylinders either installed in an engine or received in a cylinder kit listed in Tables 1 and 2 between September 7, 2006 and October 18, 2006 may have a cross-threaded cylinder stud hole. This stud holds the shroud tube retaining components. If the stud is loose due to the cross-threading, the shroud tubes will also become loose and subsequent damage to the engine may occur due to the loss of engine oil.

## INSTRUCTIONS FOR COMPLIANCE:

1. Review Tables 1 and 2 for applicability. If the engine model and serial number, or cylinder kit number, is not shown in either Table 1 or Table 2, then no additional action is required.
2. If either the engine model and serial number or cylinder kit number is listed in Table 1 or 2 then each individual cylinder must be inspected for visible damage, the manufacturing lot code and the Lycoming part number.
3. The manufacturing lot code and Lycoming part number can be found on the bottom of the cylinder near the cylinder valve cover, as viewed mounted on the engine. See Figures 1 and 3. If the engine is mounted in an aircraft, depending on the model, removal of the baffling and other associated parts may be necessary.
  - a. Note: The cylinders shown in Figures 1, 2, and 3 are from different cylinders and are for illustrative purposes only.
4. The format of the manufacturing lot code is six digits, starting with the number zero (ex. 075939). The format of the Lycoming part number may be either
  - a. The letters "LW" followed by a dash, then by five digits.
  - b. The digits "16" followed by the letter "A", then by five digits.
5. If the manufacturing lot code and Lycoming part number is not listed in Table 3 then proceed with Step 8.

6. If the manufacturing lot code and Lycoming part number is listed in Table 3 then proceed with Step 7.
7. Figure 1 illustrates the rocker flange area of the cylinder. Where the cylinder stud hole is located, inspect the cylinder exterior surface and threaded stud hole area. A flashlight and a small mirror may be needed to conduct the inspection. Also, depending on the aircraft model, removal of the valve covers should not be necessary but removal of the baffling and other associated parts may be necessary.
  - a. If there is visible damage such as shown in Figure 2, contact Lycoming Customer Service at 570-323-6181 for further instructions regarding warranty replacement. Visible damage is defined as a cross-thread, stripped thread, cracked boss, or other similar damage that would not allow the cylinder stud to seat squarely and securely in the hole.
  - b. If there is no visible damage then proceed with Step 8.
8. Either stamp, or use an electric vibrator to permanently etch the letter "T" on the exterior surface of the cylinder stud boss to indicate compliance with this Service Bulletin. Locate the letter "T" in the cross-hatched area as shown in Figure 2 so that it is both near the stud hole and is easily accessible. Make an appropriate logbook entry of compliance.

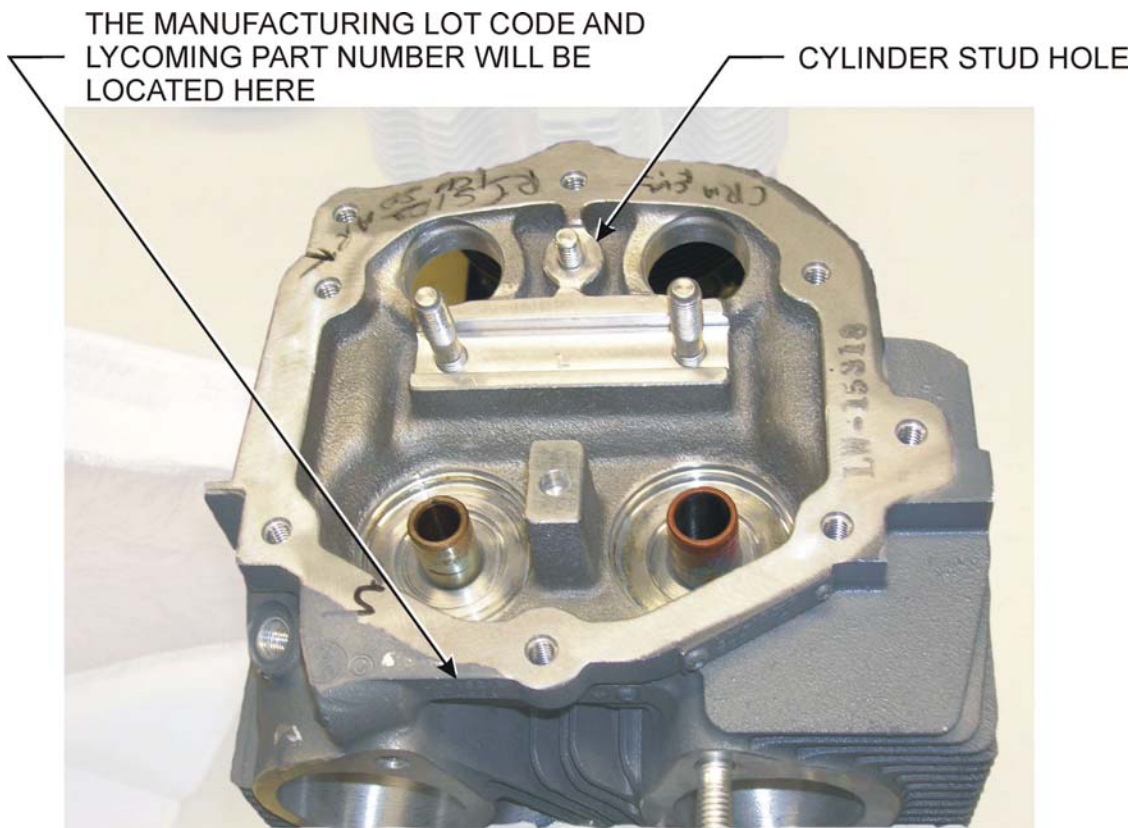
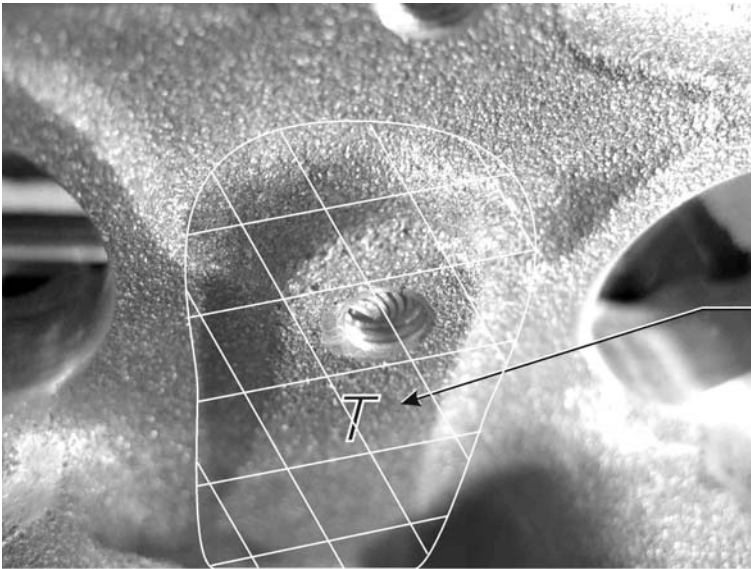


Figure 1. Interior View of the Cylinder.  
Inspect the exterior surface and threaded hole area.



Step 8. Either stamp or use an electric vibrator to permanently etch the letter "T" on the boss to indicate compliance with this Service Bulletin. Locate the letter "T" in the cross-hatched area so that it is both near the stud hole and is easily accessible.

Figure 2. Cross-Threaded Stud Hole as Viewed on the Side Opposite of the Cylinder Stud Called Out in Figure 1.

THE AFFECTED LYCOMING PART NUMBERS ARE LW-12427, LW-15318, AND 16A22130

THE MANUFACTURING LOT CODE FORMAT IS SIX DIGITS (EX. 075939)



Figure 3

TABLE 1

Engine Model	Engine S/N	Engine Model	Engine S/N	Engine Model	Engine S/N
O-320-H2AD	L-3134-76T	IO-360-L2A	L-33106-51E	IO-360-L2A	L-33172-51E
O-320-H2AD	L-4147-76T	IO-360-L2A	L-33109-51E	IO-360-L2A	L-33173-51E
O-320-H2AD	L-4571-76T	IO-360-L2A	L-33110-51E	IO-360-L2A	L-33176-51E
O-320-H2AD	L-7480-76T	IO-360-L2A	L-33111-51E	IO-360-L2A	L-33177-51E
O-320-H2AD	L-8345-76T	IO-360-L2A	L-33112-51E	IO-360-L2A	L-33178-51E
O-320-H2AD	RL-6647-76T	IO-360-L2A	L-33113-51E	IO-360-L2A	L-33179-51E
AEIO-360-B2F	RL-26264-51A	IO-360-L2A	L-33114-51E	IO-360-L2A	L-33180-51E
AEIO-360-B2F	RL-26785-51A	IO-360-L2A	L-33115-51E	IO-360-L2A	L-33181-51E
HIO-360-G1A	L-33088-51A	IO-360-L2A	L-33116-51E	IO-360-L2A	L-33182-51E
HIO-360-G1A	L-33091-51A	IO-360-L2A	L-33117-51E	IO-360-L2A	L-33183-51E
HIO-360-G1A	L-33092-51A	IO-360-L2A	L-33118-51E	IO-360-L2A	L-33184-51E
HIO-360-G1A	L-33107-51A	IO-360-L2A	L-33119-51E	IO-360-L2A	L-33185-51E
HIO-360-G1A	L-33108-51A	IO-360-L2A	L-33120-51E	IO-360-L2A	L-33187-51E
HIO-360-G1A	L-33123-51A	IO-360-L2A	L-33121-51E	IO-360-L2A	L-33193-51E
HIO-360-G1A	L-33132-51A	IO-360-L2A	L-33124-51E	IO-360-L2A	L-33194-51E
HIO-360-G1A	L-33149-51A	IO-360-L2A	L-33129-51E	IO-360-L2A	L-33195-51E
HIO-360-G1A	L-33150-51A	IO-360-L2A	L-33130-51E	IO-360-L2A	L-33197-51E
HIO-360-G1A	L-33162-51A	IO-360-L2A	L-33131-51E	IO-360-L2A	L-33198-51E
HIO-360-G1A	L-33175-51A	IO-360-L2A	L-33135-51E	IO-360-L2A	L-33200-51E
HIO-360-G1A	L-33190-51A	IO-360-L2A	L-33136-51E	IO-360-L2A	L-33201-51E
HIO-360-G1A	L-33204-51A	IO-360-L2A	L-33137-51E	IO-360-L2A	L-33205-51E
HIO-360-G1A	L-33210-51A	IO-360-L2A	L-33138-51E	IO-360-L2A	L-33206-51E
HIO-360-G1A	RL-25409-51A	IO-360-L2A	L-33139-51E	IO-360-L2A	L-33208-51E
HO-360-C1A	L-35900-36A	IO-360-L2A	L-33141-51E	IO-360-L2A	L-33209-51E
HO-360-C1A	L-4010-36A	IO-360-L2A	L-33142-51E	IO-360-L2A	L-33211-51E
IO-360-L2A	L-11010-51A	IO-360-L2A	L-33143-51E	IO-360-L2A	L-33212-51E
IO-360-L2A	L-11486-51E	IO-360-L2A	L-33144-51E	IO-360-L2A	L-33213-51E
IO-360-L2A	L-27476-51E	IO-360-L2A	L-33146-51E	IO-360-L2A	L-33214-51E
IO-360-L2A	L-27732-51E	IO-360-L2A	L-33147-51E	IO-360-L2A	RL-19947-51E
IO-360-L2A	L-27786-51E	IO-360-L2A	L-33148-51E	IO-360-M1A	L-33095-51A
IO-360-L2A	L-33089-51E	IO-360-L2A	L-33153-51E	IO-360-M1A	L-33100-51A
IO-360-L2A	L-33090-51E	IO-360-L2A	L-33154-51E	IO-360-M1A	L-33101-51A
IO-360-L2A	L-33093-51E	IO-360-L2A	L-33155-51E	IO-360-M1A	L-33122-51A
IO-360-L2A	L-33094-51E	IO-360-L2A	L-33156-51E	IO-360-M1A	L-33125-51A
IO-360-L2A	L-33096-51E	IO-360-L2A	L-33157-51E	IO-360-M1A	L-33126-51A
IO-360-L2A	L-33097-51E	IO-360-L2A	L-33158-51E	IO-360-M1A	L-33133-51A
IO-360-L2A	L-33098-51E	IO-360-L2A	L-33159-51E	IO-360-M1A	L-33134-51A
IO-360-L2A	L-33099-51E	IO-360-L2A	L-33160-51E	IO-360-M1A	L-33140-51A
IO-360-L2A	L-33102-51E	IO-360-L2A	L-33166-51E	IO-360-M1A	L-33145-51A
IO-360-L2A	L-33103-51E	IO-360-L2A	L-33167-51E	IO-360-M1A	L-33151-51A
IO-360-L2A	L-33104-51E	IO-360-L2A	L-33170-51E	IO-360-M1A	L-33152-51A
IO-360-L2A	L-33105-51E			IO-360-M1A	L-33168-51A

TABLE 1 (CONT.)

Engine Model	Engine S/N	Engine Model	Engine S/N	Engine Model	Engine S/N
IO-360-M1A	L-33169-51A	O-360-A3A	L-10420-36A	O-540-E4C5	L-23049-40E
IO-360-M1A	L-33174-51A	O-360-A4A	RL-25095-36E	O-540-E4C5	RL-15753-40E
IO-360-M1A	L-33189-51A	O-360-A4M	L-10470-36E	TIO-540-AK1A	L-12030-61A
IO-360-M1A	L-33191-51A	O-360-A4M	L-11110-36E	TIO-540-AK1A	L-12057-61A
IO-360-M1A	L-33192-51A	O-360-A4M	L-21116-36E	TIO-540-AK1A	L-12097-61A
IO-360-M1A	L-33199-51A	O-360-A4M	L-21591-36E	TIO-540-AK1A	L-12114-61A
IO-360-M1A	L-33202-51A	O-360-A4M	L-35784-36E	TIO-540-AK1A	L-12133-61A
IO-360-M1A	L-33203-51A	O-360-A4M	L-40691-36E	TIO-540-AK1A	L-12266-61A
IO-360-M1A	L-33207-51A	O-360-A4M	L-40692-36E	TIO-540-AK1A	L-12364-61A
IO-360-M1B	L-33186-51E	O-360-A4M	L-40693-36E	TIO-540-AK1A	L-12447-61A
IO-360-M1B	L-33189-51E	O-360-A4M	L-40698-36E	TIO-540-AK1A	L-12448-61A
LO-360-A1G6D	L-37122-36E	O-360-A4M	L-40700-36E	TIO-540-AK1A	L-12468-61A
LO-360-A1H6	L-657-71E	O-360-A4M	L-40701-36E	TIO-540-AK1A	L-12475-61A
LO-360-A1H6	L-728-71E	O-360-A4M	L-40702-36E	TIO-540-AK1A	L-12498-61A
LO-360-A1H6	L-762-71E	O-360-A4M	L-40709-36E	TIO-540-AK1A	L-12504-61A
LO-360-A1H6	L-858-71E	O-360-A4M	L-40717-36E	TIO-540-AK1A	L-12521-61A
LO-360-A1H6	L-859-71E	O-360-A4M	L-40718-36E	TIO-540-AK1A	L-12522-61A
LO-360-A1H6	L-860-71E	O-360-A4M	L-40719-36E	TIO-540-AK1A	L-12523-61A
LO-360-A1H6	L-861-71E	O-360-C1F	L-33141-36A	TIO-540-AK1A	L-12524-61A
LO-360-A1H6	L-862-71E	O-360-C1F	L-40688-36E	TIO-540-AK1A	L-12527-61A
LO-360-A1H6	RL-603-71E	O-360-C1F	L-40689-36E	TIO-540-AK1A	L-12531-61A
O-360-A1A	L-40712-36E	O-360-C1F	L-40690-36E	TIO-540-AK1A	L-12532-61A
O-360-A1A	L-40716-36A	O-360-C1F	L-40707-36E	TIO-540-AK1A	L-12533-61A
O-360-A1D	RL-21712-36A	O-360-C1F	L-40711-36E	TIO-540-AK1A	L-12562-61A
O-360-A1G6D	L-16547-36E	O-360-C1F	RL-29469-36A	TIO-540-AK1A	L-12563-61A
O-360-A1G6D	L-23446-36E	O-360-C1G	L-40705-36E	TIO-540-AK1A	L-12569-61A
O-360-A1G6D	L-28587-36E	O-360-C4F	L-35347-36A	TIO-540-AK1A	L-12574-61A
O-360-A1H6	L-18861-36E	O-360-C4P	RL-33713-36A	TIO-540-AK1A	L-12577-61A
O-360-A1H6	L-23409-36E	O-360-F1A6	RL-28613-36A	TIO-540-AK1A	L-12578-61A
O-360-A1H6	L-26516-36E	AEIO-540-D4A5	L-31796-48A	TIO-540-AK1A	L-12586-61A
O-360-A1H6	L-31911-36E	AEIO-540-D4A5	RL-25355-48E	TIO-540-AK1A	L-12587-61A
O-360-A1H6	L-40699-36E	AEIO-540-D4A5	RL-23946-48A	TIO-540-AK1A	L-12589-61A
O-360-A1H6	L-40704-36E	IO-540-V4A5	L-27460-48A	TIO-540-AK1A	L-12592-61A
O-360-A1H6	L-40708-36E	O-540-A1D5	RL-23393-40A	TIO-540-AK1A	L-12595-61A
O-360-A1H6	L-40715-36E	O-540-E4A5	RL-13621-40	TIO-540-AK1A	L-12598-61A
O-360-A1H6	RL-24085-36A	O-540-E4A5	RL-20425-40A	TIO-540-AK1A	L-12599-61A
O-360-A1H6	RL-33577-36A	O-540-E4A5	RL-24562-40A	TIO-540-AK1A	L-12602-61A
O-360-A1P	L-40694-36A	O-540-E4B5	L-20509-40A	TIO-540-AK1A	L-12603-61A
O-360-A1P	L-40697-36A	O-540-E4B5	RL-23169-40E	TIO-540-AK1A	L-12607-61A
O-360-A1P	L-40706-36A	O-540-E4C5	L-17773-40E	TIO-540-AK1A	L-12610-61A
		O-540-E4C5	L-21923-40A		

**TABLE 2**

<b>Kit No.</b>
05K22128
05K21104
05K21192
05K21119

**TABLE 3**

<b>Lycoming P/N</b>	<b>Mfg. Lot Code</b>
LW-12427	075939
LW-12427	076098
LW-12427	076183
LW-12427	076320
LW-15318	074862
16A22130	075785