



LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

Motor TELEDYNE
CONTINENTAL
LVD Nr 2088A
Upphäver
LVD Nr 2088

Sektion 2. Utlandstillverkad flygmateriel

TITEL: Sprickundersökning/täthetskontroll av cylindrar

GÄLLER: Teledyne Continental motor modell GTS10-, TSI10- och 10-520- samt 10-550- med cylinder P/N 643985, 646100, 646101, 646652, 646652CP, 646657, 646657CP, 649162, 649162CP, 649169, 649169CP, tillverkade efter 1985-01-01. (Fullständig förteckning se SB M 86-7, rev 5, som bifogas detta LVD.)

ÅTGÄRD: Utför sprickundersökning och täthetskontroll av berörda motorer/cylindrar enligt anvisningarna i angivet underlag

**TID FÖR
ÅTGÄRD:** Motorer med mindre än 450 flygtimmar: Inom 5 flygtimmar, räknat från LVD utgivningsdatum. Därefter var 50:nde flygtimme till dess en total flygtid av 450 h uppnåtts.

ANMÄRKNING: Inspektion rekommenderas var 100:de h för motorer som har mer än 450 h

UNDERLAG: Teledyne Continental SB M 86-7 rev 5

REFERENS: FAA AD 86-13-04, R 3, daterad 10 november 1987

**UTGIVNINGS-
DATUM:** 1987-12-23

LFS: 1987:37

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende flygmateriels luftvärdighet. Referens BCL M 1.11. Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

L 1563-1	Postadress	Gatuadress	Telefon nr	Telegram	Telex
			Nat 011 - 19 20 00	Civilair	
	601 79 NORRKÖPING	Vikboplan 11	Int + 46 11 - 19 20 00	Norrköping	64250

TELEDYNE CONTINENTAL[®] AIRCRAFT ENGINE

MANDATORY service bulletin

M86-7 Rev 5
Supersedes M86-7 Rev 4

Technical Portions Are
FAA Approved

15 November 1986

SUBJECT: CYLINDER BARREL CRACKING

MODELS

AFFECTED: Part I

New Engines:

GTSIO520H	607068 thru 607070
K	605164
L	608669 thru 608673
M	606979 thru 606997
N	610450 thru 610462
IO520BB	578073, 578084 thru 578151, 578155, 578156, 578166
CB	576237 thru 576272
D	575717, 575747 thru 575806
E	556594 thru 556603
F	574844 thru 574988
K	557516 thru 557518
L	577121 thru 577147, 577149 thru 577153
MB	575043 thru 575046
IO550B	675125 thru 675237, 675239 thru 675244, 675246 thru 675256, 675258 thru 675266, 675273, 675274, 675277, 675278
C	676156 thru 676231, 676233 thru 676248, 676250 thru 676271
TSIO520BE	528133 thru 528242, 528244 thru 528246, 528252 thru 528256, 528259, 528260, 528263, 528270
CE	530045 thru 530127, 530131, 530132
C	501603 thru 501610
EB	510802 thru 510809
G	507066
H	506883 thru 506885
M	520742 thru 520824, 520829 thru 520835, 520837, 520838
NB	521585 thru 521615
P	513908 thru 513910
R	522588 thru 522602, 522604, 522605
UB	527063 thru 527080
VB	529014 thru 529060
WB	518895 thru 518906

Rebuilt Engines:

GTSIO520C	155546 thru 155550
D	219429 thru 219435

H	235236 thru 235290, 235293 thru 235298, 267000 thru 267003
K	226106 thru 226110
L	245882 thru 245990, 245992 thru 246008, 246011 thru 246014, 246016 thru 246021, 246023, 246024
M	243217 thru 243364, 243366, 243367, 243369 thru 243381
N	241300, 265000 thru 265039, 265041
IO520A	112547 thru 112569
BA	241763 thru 241800, 249251 thru 249425, 249427 thru 249429, 249433 thru 249443, 249445, 249446, 249448 thru 249453, 249457
BB	236000, 236789, 248500 thru 248568, 248572, 248573, 248575
B	234758
CB	244047, 244067 thru 244110, 244112 thru 244123, 244126, 244127, 244130, 244131
C	243728, 243766 thru 243999, 267500, 267505 thru 267510, 267513 thru 267516, 267527
D	175381 thru 175531, 175534 thru 175536, 175540 thru 175556, 175559, 175560, 175563, 175565 thru 175567
E	215674 thru 215690
F	247574, 247577, 247607 thru 247727, 247731 thru 247742, 247744, 247746 thru 247750, 247752 thru 247756, 247762, 247766, 247767
J	216515
K	224045, 224046
L	242834 thru 242896, 242899
MB	236383 thru 236400, 266000 thru 266017, 266019
M	235728 thru 235787, 235789 thru 235793
IO550B	249104 thru 249122
TSIO520AF	245205
BB	236937 thru 236951
B	176485 thru 176522
C	178289 thru 178297
EB	242964 thru 242999
E	183816 thru 183939, 183941 thru 183943, 183947
G	216022 thru 216025
H	217173 thru 217187
J	218907 thru 218924
K	224563, 224584
LB	237237 thru 237241, 237245, 237246
L	241883 thru 241900
M	230223, 230225, 248601 thru 248628,

	248632 thru 248638 248642
NB	244933 thru 244999 266500 266501. 266503 thru 266511. 266513 thru 266517. 266521. 266525
N	228481 thru 228505. 228509 thru 228516
P	236453 thru 236467
R	245645 thru 245696
T	239316 thru 239321
UB	24098 thru 241000. 248851 thru 248854. 248858
VB	248288 thru 248499. 266600 thru 266661. 266683 thru 266685. 266687. 266689. 266691. 266699 thru 266702
WB	248160 thru 248203. 248205 thru 248217

Part II

Cylinder P/N.

643985. 646100. 646101. 646652. 646652CP. 646657. 646657CP.

649162. 649162CP. 649169. 649169CP.

and all A dash numbers

COMPLIANCE. Within the next 5 hours of operation and then as stated below.

Some Teledyne Continental Motors' new and rebuilt engines have experienced unexplained cylinder barrel cracking which has resulted in some cases of head to barrel separation. This condition could lead to engine failure and/or engine compartment fire.

All engines listed in Part I above are affected by this bulletin. The inspection required by this bulletin must be complied with within the next 5 hours of operation. After completion of the first inspection, the inspection must be repeated at 50 hour intervals until the engine reaches 450 hours of operation. Upon reaching 450 hours of operation, the 50 hour inspection is no longer required but it is recommended the inspection be continued at 100 hour or annual inspection.

The inspection requirements for engines listed in Part I or cylinders listed in Part II and identified per Part II, Paragraph A of this bulletin is eliminated by the installation of cylinders P/N 649315, 649316, 649317, 649318, 649329, 649357, 649358 and all A dash numbers appropriate for that model engine.

Part I

A. Visually inspect all cylinders for oil stains or leakage between the first and second barrel fins from the bottom of the head casting. The area of concern on direct drive engines is at the 12 o'clock position on the 1-3-5 cylinder side and the 6 o'clock position on the 2-4-6 side. On the GTSIO series engine, the area of concern is at the 6 o'clock position on the 1-3-5 cylinder side and the 12 o'clock position on the 2-4-6 cylinder side.

B. Pressure check all cylinders using a differential compression tester. The piston should be as close to **BDC (Bottom Dead Center)** as possible while still keeping both valves closed and maintaining pressure in the cylinder.

NOTE: The pressure is checked at **BDC** to assure the piston and rings are below the inspection area specified in Paragraph A.

With 80 PSIG (Pounds Per Square Inch Gauge) air pressure in the cylinder, check the area specified in Paragraph A with a soap/water solution and inspect for any leakage.

C. If any leakage is noted from the above inspection, the cylinder must be changed.

WARNING: Use extreme caution in the area of the propeller while performing this inspection.

Part II

A. Any cylinder of the above listed part numbers that were purchased from TCM on January 1, 1985, or later are affected by this bulletin.

1. If the cylinder has been installed on an engine, remove the rocker cover and verify the manufacture date stamped in the face of the rocker shaft boss, i.e., 5-85 is May, 1985. Any cylinder with a 1-85 (January, 1985) or subsequent date must be inspected per Part I above.

2. If the cylinder has not been installed on an engine and is identified as having a manufacture date stamp of January 1, 1985, or subsequent, as described in Part II, Paragraph 1, notify TCM for disposition.

WARRANTY: If, as a result of this inspection, a cylinder must be changed, it will be covered by the TCM Gold Medallion Warranty, subject to its terms and conditions. Warranty claims may be filed through any TCM distributor. One hour labor will be allowed at posted shop rates for each inspection performed through the required inspection period.

Make appropriate Engine Log Book entry upon completion of each inspection.