

Airworthiness Directive Amendment 39-3426; AD 79-05-09

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3426; AD 79-05-09

TELEDYNE CONTINENTAL MOTORS Model O-470R, O-470S, O-470U, IO-470F, IO-470L, IO-470N, IO-520BA & BB, IO-520C & CB, IO-520D, IO-520E, IO-520F, IO-520K, IO-520L, IO-520M & MB, TSIO-520B &

BB, TSIO-520C, TSIO-520D & DB, TSIO-520E & EB, TSIO-520H, TSIO-520J & JB, TSIO-520K & KB, TSIO-520L

& LB, TSIO-520M, TSIO-520N & NB, TSIO-520P, TSIO-520R, TSIO-520T, TSIO-520U, TSIO-520VB, GTSIO-

520C, GTSIO-520H, GTSIO-520K, GTSIO-520L, GTSIO-520M, IO-346A, 6-285CA, O-470G, O-470J, O-470K, O-470L, O-470M, IO-470C, IO-470D, IO-470E, IO-470H, IO-470J, IO-470K, IO-470S, IO-470U, IO-470V, IO-

520A, TSIO-520G, GTSIO-520D Engines

Preamble Information

DATES: Effective March 12, 1979.

Regulatory Information

79-05-09 TELEDYNE CONTINENTAL MOTORS:

Amendment 39-3426. Applies to:

NEW ENGINES

Model Serial Numbers

O-470R 466555, 466556, 466561, 466562, 466566 thru 466574

O-470S 464570

O-470U 467230 thru 467237, 467240 thru 467261, 467263 thru 467271, 467273 thru 467313, 467315 thru 467373, 467375, 467377 thru 467397, 467399 thru 467406, 467408 thru 467417, 467419 thru 467448, 467450, 467451, 467453 thru 467464, 467466 thru 467487, 467489 thru 467520, 467523, 467524, 467526 thru 467531, 467533 thru 467539, 467541, 467544 thru 467547, 467550 thru 467558

IO-470N 453049, 453050

IO-470L 465350 thru 465352, 465354, 465355, 465357 thru 465359, 465361 thru 465363, 465370 thru

465378, 465380, 465382, 465385, 465388, 465392, 465393, 465395 thru 465399, 465402, 465406, 465408, 465412, 465414, 465415, 465418 thru 465420, 465431 thru 465433, 465437, 465438, 465440,

465441, 465446, 465449 thru 465459

IO-470N 458085, 458087 thru 458125, 458127

IO-520BA & BB 569432, 569447, 569448, 569451 thru 569456, 569458, 569461, 569463 thru 569468, 569485, 569507, 569512, 569527, 569566 thru 569593, 569609, 569612, 569619, 569622, 569629, 569637 thru 569659, 569675, 569691, 569713, 569720, 569721, 569723, 569724, 569725 thru 569731, 569734

IO-520C & CB 561981, 561990, 561991, 561993, 561998, 571001, 571011, 571015, 571016, 571018, 571025, 571027, 571031, 571033, 571034, 571037, 571041, 571043 thru 571047, 571052, 571065, 571067, 571070, 571071, 710001 thru 571077, 571082, 571089 thru 571093, 571112, 571114, 571123, 571125, 571127 thru 571129, 571133, 571137, 571139 thru 571143, 571149, 571166 thru 571172, 571178, 571180, 571181, 571184, 571185, 571187, 571223 thru 571228

IO-520D 566791 thru 566794, 566796, 566812 thru 566819, 566821, 566840, 566852, 566856, 566869, 566873 thru 566877, 566880 thru 566884, 566886 thru 566893, 566895 thru 566899, 566900 thru 566929, 566931, 566933, 566934, 566937, 566939, 566941, 566943 thru 566948, 566952 thru 566958, 566962 thru 566965, 566982 thru 566989, 566991 thru 566999, 572001 thru 572003, 572005 thru 572019, 572022 thru 572024, 572026 thru 572032, 572035 thru 572041, 572043 thru 572055, 572057 thru 572062, 572070, 572077

IO-520E 556389, 556391, 556395, 556396, 556397, 556407 thru 556441

IO-520F 570043 thru 570046, 570066 thru 570266, 570268 thru 570275, 570277 thru 570281, 570284, 570285, 570290 thru 570292, 570300 thru 570312

IO-520K 557360 thru 557367, 557369, 557371, 557373 thru 557405

IO-520L 567255, 567256, 567264, 567266, 567270 thru 567280, 567282 thru 567293, 567295, 567296, 567299 thru 567312, 567314 thru 567316, 567318, 567320 thru 567325, 567327 thru 567336, 567338, 567339, 567342 thru 567350, 567352 thru 567355, 567359 thru 567363

IO-520M & MB 565506 thru 565509, 565511, 565512, 565514 thru 565529, 565532 thru 565546, 565548 thru 565552, 565554, 565557, 565560 thru 565563, 565565 thru 565587, 565589, 565592, 565593, 565596, 565598 thru 565600, 565602, 565603, 565607 thru 565627, 565629, 565631, 565632,

565634, 565635, 565636 thru 565641, 565649,
565651 thru 565653, 565657, 565658, 565662,
565667,
565668, 565671, 565672, 565678, 565692, 565698
TSIO-520B & BB 500639, 500644, 500650, 500651
thru 500654, 500660 thru 500665, 500667 thru
500672, 500674, 500675, 500679, 500680, 500682
thru 500700, 500703, 500704, 500707 thru 500721,
500723 thru 500726, 500728, 500729, 500733 thru
500738, 500740, 500742, 500744, 500747, 500749,
500751, 500752, 500755, 500758 thru 500760,
500771, 500772, 500775, 500776, 500790, 500792,
500794
TSIO-520C 501540, 501541, 501543 thru 501545
TSIO-520D & DB 505009
TSIO-520E & EB 501408 thru 501413, 501421 thru
501427, 501430 thru 501470
TSIO-520H 506865 thru 506868
TSIO-520J & JB 503605, 503607 thru 503611
TSIO-520K & KB 504314
TSIO-520L & LB 508546, 508549, 508551 thru
508553, 508557, 508559 thru 508573, 508576,
508579,
508580, 508583 thru 508601, 508603 thru 508607,
508609, 508611 thru 508614, 508618 thru 508626,
508628 thru 508630, 508633, 508681 thru 508693,
508695 thru 508697, 508706
TSIO-520M 511379 thru 511408, 511410 thru
511420, 511423 thru 511425, 511426 thru 511438,
511440 thru 511448, 511451 thru 511459, 511461
thru 511463, 511465 thru 511474, 511476 thru
511480, 511482 thru 511484, 511486 thru 511491,
511493, 511495 thru 511497, 511499, 511503 thru
511505, 511507 thru 511521, 511523 thru 511532,
511535, 511537 thru 511554, 511589
TSIO-520N & NB 514303, 514313, 514315 thru
514318, 514327, 514330 thru 514332, 514334 thru
514407, 514409 thru 514412, 514414 thru 514418,
514420 thru 514433, 514436 thru 514440, 514442
thru 514464, 514467 thru 514491, 514495 thru
514497, 514499, 514501, 514503 thru 514525,
514529
thru 514531, 514534 thru 514537, 514541 thru
514543, 514547 thru 514550, 514552, 514553,
514555
thru 514558, 514560 thru 514571, 514575 thru
514582, 514584 thru 514591, 514593, 514595,
514597,
514598, 514601 thru 514604, 514606 thru 514609,
514618 thru 514623, 514630 thru 514634, 514640,
514642, 514645, 514650, 514651, 514657, 514658,
514662, 514664, 514665, 514671, 514679, 514681,

514691, 514698, 514701, 514728, 514763, 514766
thru 514768, 514771, 514792 thru 514794, 514797,
514815
TSIO-520P 513028, 513031, 513048 thru 513081,
513083 thru 513125, 513127 thru 513129, 513133
thru 513140, 513142, 513143, 513146, 513150 thru
513161, 513164, 513166, 513168 thru 513177,
513181, 513185, 513190, 513191, 513193 thru
513195
TSIO-520R 512759, 512779, 512790 thru 512811,
512813 thru 512833, 512835 thru 512842, 512844
thru 512909, 512911 thru 512970, 512978 thru
512986, 512988 thru 512991, 512993 thru 512995,
512997, 512998, 517000 thru 517030, 517032 thru
517035, 517037 thru 517043, 517045 thru 517054,
517056 thru 517065, 517067 thru 517074, 517077,
517078, 517080 thru 517083, 517084 thru 517086,
517088 thru 517102, 517104, 517107, 517108,
517109, 517111
TSIO-520S 515008, 515009, 515014, 515016,
515017, 515021, 515023, 515026, 515027, 515030
thru
515032, 515039 thru 515044, 515046, 515047,
515051, 515053, 515055, 515056
TSIO-520U 515501 thru 515506
TSIO-520VB 516001 thru 516024, 516026 thru
516030, 516033, 516035, 516037, 516039, 516041,
516043 thru 516045, 516050, 516053, 516057,
516060 thru 516064, 516080 thru 516083, 516091,
516114 thru 516117
GTSIO-520C 602228
GTSIO-520H 600993, 600995, 607000, 607002,
607003
GTSIO-520K 605149, 605150, 605152 thru 605154
GTSIO-520L 604797, 604932, 604937, 604938,
604942 thru 604953, 604955 thru 604966, 604968
thru
604975, 604978, 604981 thru 604983, 604985,
604986, 604988, 604989, 604991 thru 604994,
604996
thru 604999, 608000 thru 608002, 608004 thru
608011, 608014, 608018, 608020, 608023 thru
608029,
608034, 608040, 608043 thru 608048, 608050 thru
608053, 608064, 608066
GTSIO-520M 606363, 606366, 606400 thru 606439,
606441, 606443, 606444, 606452 thru 606454,
606456, 606459, 606460, 606475
REBUILT ENGINE
Model Serial Numbers
IO-346A 230102R, 230103R
6-285CA 227150R thru 227152R, 227154R thru
227162R, 227173R, 227175R, 227176R

O-470G 70671R thru 70673R
O-470J 202093R, 202094R, 202096R thru 202102R
O-470K 49345R thru 49350R
O-470L 69571R, 69572R, 69575R thru 69584R,
69586R thru 69588R
O-470M 54081R thru 54085R, 54088R thru 54100R
O-470R 226839R, 226858R, 226863R, 226865R,
226868R thru 226907R, 226909R thru 226914R,
226916R thru 226944R, 226946R, 226949R thru
226954R, 226956R, 226958R, 226962R
O-470S 226259R, 226261R thru 226270R, 226272R
thru 226281R
O-470U 230351R, 230352R, 230354R
IO-470C 227245R thru 227264R
IO-470D 105517R thru 105523R, 105525R thru
105527R, 105529R
IO-470E 88716R thru 88719R
IO-470F 89762R thru 89766R
IO-470H 87327R
IO-470J 89100R thru 89102R
IO-470K 92767R thru 92779R
IO-470L 230033R, 230035R, 230038R thru 230069R,
230071R thru 230077R, 230079R thru 230082R,
230084R, 230085R, 230088R, 230089R, 230094R,
230095R
IO-470N 96343R thru 96350R, 96352R, 96358R
IO-470S 109282R thru 109287R
IO-470U 118389R thru 118390R
IO-470V 170628R thru 170652R, 170654R THRU
170665R, 170670R, 170671R
IO-520A 112401R thru 112427R, 112429R thru
112431R
IO-520BA 122813R, 122819R, 122855R thru
122841R, 122843R thru 122858R, 122860R thru
122872R,
122926R, 122931R thru 122934R, 122937R thru
122942R, 122944R thru 122953R, 122956R thru
122958R, 122960R, 122962R, 122964R thru
122966R, 122969R, 122973R thru 122975R,
122978R
IO-520C 173250R, 173259R, 173277R, 173282R,
173284R thru 173289R, 173294R, 173297R thru
173348R, 173356R thru 173376R, 173379R thru
173398R, 173398R, 173399R, 231553R thru
231601R,
231604R, 231606R, 231609R, 231610R, 231612R,
231615R, 231620R
IO-520D 179564R, 179571R, 179577R thru 179583R,
179585R thru 179613R, 179615R thru 179628R,
179630R thru 179644R, 179646R, 179647R,
179651R, 179654R thru 179658R, 179660R,
179664R
IO-520E 215537R

IO-520F 195764R, 195767R, 195768R, 195771R,
195774R, 195779R thru 195797R, 195799R,
195801R,
195802R, 195804R thru 195810R, 195812R thru
195814R, 195818R thru 195829R
IO-520K 224010R, 224011R, 224013R
IO-520L 220560R thru 220580R
IO-520M 227369R thru 227396R, 227398R thru
227404R
TSIO-520B 176277R, 176281R thru 176283R,
176285R thru 176301R, 176303R
TSIO-520C 178168R thru 178175R, 178188R
TSIO-520E 182930R, 182932R, 182934R thru
182942R, 182944R thru 182948R, 183000R thru
183017R,
183020R thru 183024R, 183026R thru 183051R,
183054R, 183056R, 183057R
TSIO-520G 217008R
TSIO-520H 217055R thru 217067R
TSIO-520J 218773R thru 218759R, 218761R,
218762R, 218768R thru 218770R
TSIO-520K 224545R
IO-520L 227621R, 227622R, 227624R thru
227636R, 227629R
TSIO-520M 230128R, 230129R
TSIO-520N 228091R thru 228114R, 228117R thru
228120R, 228122R
TSIO-520R 230228R, 230230R thru 230233R
GTSIO-520C 155451R thru 155473R, 155479R
GTSIO-520D 219302R thru 219312R, 219314R,
219315R, 219318R
GTSIO-520H 218429R, 218431R thru 218448R,
182450R thru 218465R, 218467R thru 218493R,
218500R, 231351R thru 231386R, 231388R,
231389R, 231397R
GTSIO-520K 226041R thru 226052R
GTSIO-520L 227825R thru 227829R, 227831R thru
227833R, 227858R, 227860R thru 227862R
GTSIO-520M 227914R, 227915R, 227917R thru
227922R, 227924R thru 227929R, 227931R thru
227937R, 227939R, 227940R
In addition, all Teledyne Continental Motors
engines of the above listed models, regardless of
serial
number, which have had the oil pump assembly or
oil pressure relief valve screw and/or plunger
changed in service during the period April 1, 1978
through January 5, 1979, must comply with this AD.
Compliance is required within the next 50 hours'
time in service after the effective date of this AD,
unless already accomplished.
To prevent the possible loss of oil pressure
indication, accomplish the following:

(1) Inspect the oil pressure relief valve housing. If a yellow paint dot is evident, no further action is required. If the paint dot is not evident, remove the relief valve assembly, inspect the screw and plunger

and compare their dimensions to the illustrations in paragraph (3).

(2) Those screws and plungers which conform dimensionally to Figure 2, "Intermediate Design," must be

replaced with components conforming to Figure 3, "Current Design." The "Current Design" is contained

in TCM Kit 642335KA1. Screws and plungers conforming to Figure 1, "Original Design," may be continued in service.

(3)

(4) Identify the oil pressure relief valve housing with a yellow dot on those valves with plungers installed

in accordance with Figures 1 and 3.

(5) An alternate method of compliance may be approved by the Chief, Engineering and Manufacturing

Branch, Federal Aviation Administration, Southern Region.

NOTE: Teledyne Continental Motors (TCM) Service Bulletin M79-2, Rev. 1, dated February 15, 1979, also

pertains to this subject.

This amendment becomes effective March 15, 1979.

Not Required per Model Number