



PUSHROD TUBE SEAL KIT FOR CONTINENTAL A-65 to GO-300 CYLINDERS

THE PURPOSE OF THIS KIT IS TO REPLACE THE ORIGINAL OEM PUSHROD TUBES WITHOUT CYLINDER REMOVAL OR MODIFICATION. THIS KIT CONVERTS THE ENGINE TO A SPRING LOADED TUBE SYSTEM, SIMILAR TO CONTINENTAL O/10-470, 10-520 ENGINES AND UTILIZES REAL GASKETS FAA-PMA SEALS AS APPROVED FOR THE CONTINENTAL O/10-470, 520, 550 & GTS10-520 ENGINES.

ASSEMBLY INSTRUCTIONS

IF THERE ARE ANY QUESTIONS *BEFORE, DURING OR AFTER ASSEMBLY*, PLEASE CALL: 1-423-543-6194

1. REMOVE BOTTOM SPARK PLUGS, VALVE COVERS, ROCKER ARMS AND PUSHRODS, KEEPING THEM IN PROPER ORDER FOR RE-ASSEMBLY. IN SOME CASES, IT ALSO MAY BE NECESSARY TO REMOVE INTAKE AND EXHAUST TUBES.
2. USING A DISC GRINDER OR HACKSAW, CUT THE PUSHROD TUBE ABOUT 3 INCHES DOWN FROM THE CYLINDER HEAD END.
3. REMOVE THE PIECE LEFT IN THE LIFTER COVER & THEN REMOVE THE OTHER PIECE IN THE CYLINDER HEAD END BY CAREFULLY WIGGLING AND PULLING TOWARDS THE CRANKCASE.
4. REMOVE THE LIFTER COVER AND ON A FLAT SURFACE, USING 320 OR 400 GRIT WET OR DRY SANDPAPER, LIGHTLY POLISH THE COVER TO CASE MATING SURFACES WHICH WILL COME IN CONTACT WITH THE RG-530928 LIFTER COVER GASKET. ALSO, IF YOU SEE TWO STOP PADS CAST INTO THE BORE OF THE LIFTER COVER, REMOVE THEM AT THIS TIME. EXAMINE THIS AREA CAREFULLY. IT MUST BE FREE OF NICKS & SCRATCHES.
5. REMOVE THE HYDRAULIC PLUNGERS. DISASSEMBLE, FLUSH & RE-ASSEMBLE THEM DRY. INSTALL PLUNGERS INTO THE SAME POSITION AS REMOVED. CLEAN AND DRY THE LIFTER COVER AND CRANKCASE SEAL AREA.
6. INSTALL THE RG-530928 GASKET & LIFTER COVER. START, BUT DO NOT TIGHTEN THE NUTS YET AS THE LIFTER COVER MUST REMAIN LOOSE TO INSTALL TUBES. THE RG-200SLV SEAL ADAPTOR SLEEVE MUST INSTALL ON THE LIFTER COVER WITHOUT FORCE, AS THAT AREA ON THE LIFTER COVER HAS A SLIGHT TAPER.
THIS NEXT STEP IS MOST IMPORTANT:
7. WITHOUT THE BOTTOM OR TOP SEAL INSTALLED, INSERT THE RG-200TB TUBE INTO THE LIFTER COVER & LIFT THE TUBE INTO THE CYLINDER HOLE TO SEE IF THE TUBE WILL FIT. IT MUST SLIP IN WITH NO MORE THAN SLIGHT HAND PRESSURE. IF THE TUBE TO THE CYLINDER HOLE FIT IS TOO TIGHT, REMOVE THE TUBE AND LIGHTLY SAND OR FILE AT THAT END OF THE TUBE TO ATTAIN PROPER FIT. **DO NOT ENLARGE HOLE IN THE CYLINDER.**
8. INSTALL THE **WASHER** (30° BEVEL-P/N RG30) & ORANGE SEAL (P/N RG-58116), ONTO THE CYLINDER END OF THE PUSHROD TUBE. PUSH THE SEAL FIRMLY INTO THE 30° WASHER. USE PERMATEX ULTRA COPPER #101 RTV SILICONE, AS PER THE INSTRUCTIONS ON THE TUBE, TO FORM A 360° SEAL AROUND THE TUBE BETWEEN THE SEAL AND CYLINDER. USE THE PERMATEX SPARINGLY. THIS SHOULD BE DONE ONLY AT NORMAL ROOM TEMPERATURE AND AT LEAST 15 MINUTES PRIOR TO THE INSTALLATION OF THE TUBES.
9. USE THE REAL GASKETS SPRING COMPRESSOR TOOL (P/N VSC-1) TO COMPRESS THE PUSHROD TUBE SPRING (P/N RG-632317-30). DO NOT USE SAFETY WIRE TO COLLAPSE THE TUBE SPRING. LUBRICATE THE CRANKCASE END OF THE PUSHROD TUBE, THE INSIDE OF RG-534610 SEAL & THE CUP SIDE OF RG-534609 10° WASHER WITH ENGINE OIL. INSTALL RG-534610 SEAL INTO THE ADAPTOR SLEEVE.
10. TAKE SPRING (RG-632317-30) AND INSERT ONTO VSC-1 TOOL, PUT THE TUBE IN THE SPRING & THEN COLLAPSE THE SPRING. INSTALL **WASHER** (10° - P/N RG-534609), THE BLACK SEAL (P/N RG-534610) & RG-200 SLV ADAPTOR SLEEVE ONTO THE PUSHROD TUBE AND PUSH THE WHOLE ASSEMBLY UP THE PUSHROD TUBE TO CONTACT WITH THE SPRING. INSTALL THE PUSHROD TUBE INTO THE LIFTER COVER, PUSH THE TUBE INTO THE LIFTER COVER FAR ENOUGH TO INSERT THE OTHER END OF THE PUSHROD TUBE INTO THE CYLINDER HOLE. WHILE HOLDING RG-534610 SEAL & RG-534609 WASHER FIRMLY IN THE ADAPTOR SLEEVE, PUSH THE PUSHROD TUBE FIRMLY UP INTO THE CYLINDER HOLE TO SEAT THE RG-58116 SEAL & RG-30 WASHER. AFTER INSERTING THE TUBE INTO THE CYLINDER, BACK THE VSC-1 TO THE NEUTRAL POSITION, THEN OPEN IT TO THE + SIDE SLIGHTLY TO SEAT THE SEALS. THEN TURN THE VSC-1 BACK TO NEUTRAL TO REMOVE THE TOOL AND RELEASE THE SPRING. DO THIS ON BOTH TUBES.
CAREFULLY TIGHTEN THE 3 LOCKNUTS ON THE LIFTER COVERS TO 20 / 25 INCH POUNDS TORQUE. **DO NOT OVERTIGHTEN THESE NUTS** AS THE COVER EARS WILL BREAK OFF. THE SPRING TENSION ALONE IS ENOUGH TO SET THE SEAL. ALLOW TIME FOR THE PERMATEX TO CURE AS INSTRUCTED ON THE ULTRA COPPER RTV TUBE BEFORE OPERATING THE ENGINE.

TEST RUN ENGINE TO TEMPERATURE AND INSPECT FOR LEAKAGE BEFORE RE-COWLING AND NEXT FLIGHT.

AGAIN, IF YOU HAVE ANY QUESTIONS ON THE ABOVE,
PLEASE CALL 1-800-635-7325 FOR CLARIFICATION.

NOTE: OUR RG-200PR PUSHROD TUBE KIT IS NOT WARRANTED WHEN INSTALLED USING SAFETY WIRE.



REAL GASKETS TENNESSEE
 2506 STATELINE ROAD
 ELIZABETHTON, TN 37643
 Ph: 800-635-7325 Ph: 423-543-6194
 Fax: 423-543-9772
 e-mail: parts-sales@realgaskets.com www.realgaskets.com

DRAWING 9807
RG-200PR PUSHROD TUBE SEAL KIT
FOR CONTINENTAL A-65 to GO-300 CYLINDERS

PARTS LIST

- | | | |
|------------------|---------------------------------------------------|----------|
| 1. INSTRUCTIONS: | PAGE - 1 ASSEMBLY INSTRUCTIONS | |
| | PAGE - 2 PARTS LIST | |
| | PAGE - 3 ASSEMBLY PICTURE | |
| | PAGE - 4 INSTRUCTIONS FOR CONTINUED AIRWORTHINESS | |
| 2. RG200LTB | TUBE | (2) Each |
| 3. RG200SLV | SLEEVE | (2) Each |
| 4. RG30 | WASHER (30°) | (2) Each |
| 5. RG-58116 | SEAL | (2) Each |
| 6. RG-534609 | WASHER (10°) | (2) Each |
| 7. RG-534610 | SEAL | (2) Each |
| 8. RG-632317-30 | SPRING | (2) Each |
| 9. RG-530928 | GASKET | (1) Each |

Note: OTHER ITEMS REQUIRED THAT ARE NOT SUPPLIED WITH KIT ARE:

- VSC-1 SPRING COMPRESSOR TOOL
- PERMATEX ULTRA COPPER # 101 R.T.V. SILICONE,
- 320 OR 400 GRIT WET OR DRY SANDPAPER
- MINERAL SPIRITS.

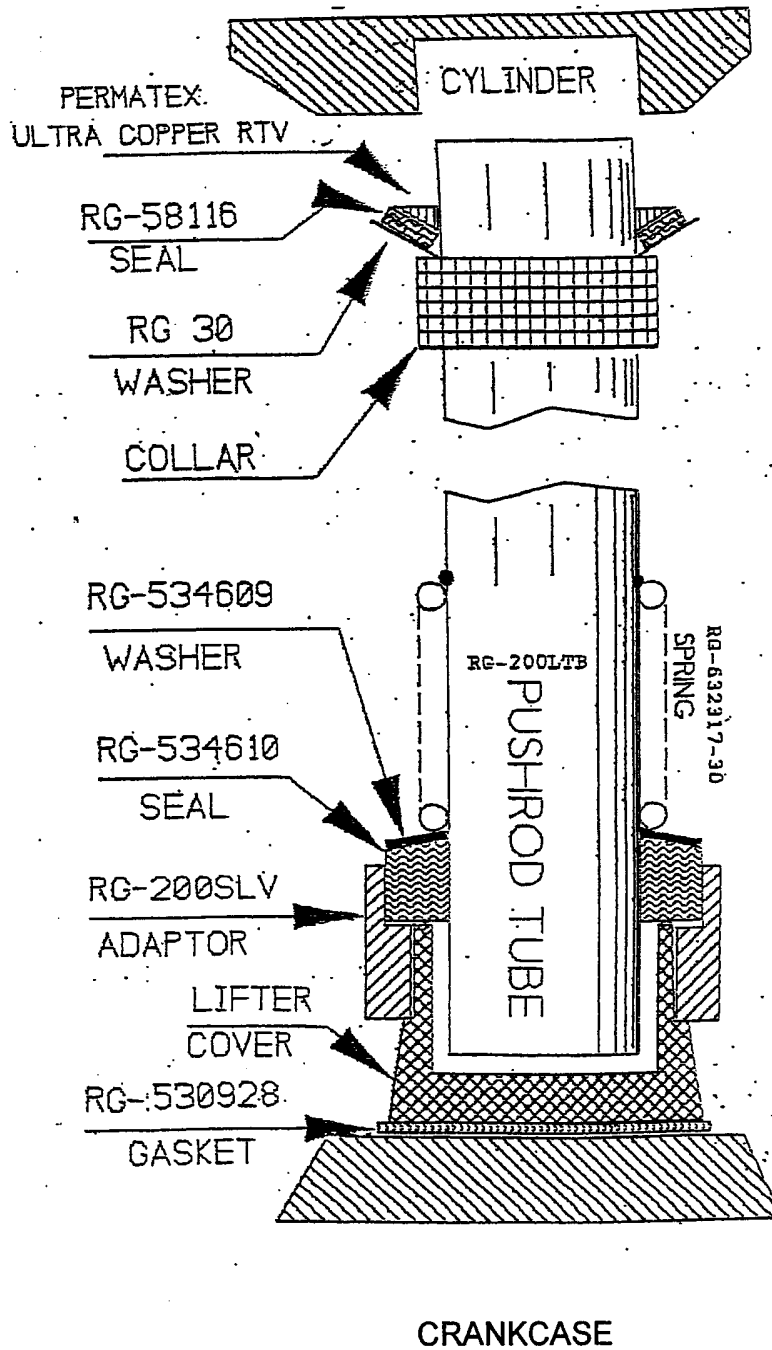
INTAKE & EXHAUST GASKETS MIGHT NEED REPLACING

WEIGHT & BALANCE NET CHANGE
 4 CYL . ENG. = + 8 OUNCES
 6 CYL . ENG. = + 12 OUNCES

NOTE: PROPER TORQUE VALUES MUST BE ADHEARED TO DURING INSTALLATION

TORQUE LIFTER COVER NUTS TO 20 /25 INCH POUNDS ONLY.

DRAWING 9807





P.O. Box 2048
Corvallis, OR 97339
1- (800) 635-7325
503-754-3622

DRAWING 9807 PAGE 4

REAL GASKET CONTINENTAL ENGINE PUSHROD TUBE MODIFICATION

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS. REV. 7-2-98

IN ADDITION TO ENGINE RUN UP CHECK AND RE-COWLING PRIOR TO NEXT FLIGHT AS INSTRUCTED ON DRAWING 9807 PAGE 1: , During Annual and/or 100 hour inspections, perform the following:

1. Inspect visually for any oil leaks around all pushrod tube end seals.
2. If no leaks are found, no further action is required until next inspection.
3. If leaks are found, contact the manufacturer and remove/replace parts as required and reinstall per the FAA-approved installation instructions.

Note: If leaks are found, verify the leak originates from the pushrod tube area prior to removing and reinstalling the pushrod tubes.