



KELOWNA **Flightcraft** LTD.

#1 - 5655 Kelowna Airport, Kelowna, B.C., Canada, V1V 1
Ph. 250-491-5568 fax 250-491-5518 E-Mail @ flightcraft . ca

CONVAIR® DIVISION

SERVICE ENGINEERING ALERT NOTICE

SEAN-001-2001

Date:

AIRCRAFT AFFECTED: CV240 SERIES AIRCRAFT NOT IN COMPLIANCE WITH CONVAIR SERVICE BULLETIN 240-456A

SUBJECT: FAILURE OF MAIN LANDING GEAR PIVOT SHAFT P/N 240-5150129 (4340steel)

PURPOSE: The purpose of this Service Engineering Alert Notice is to inform registered owners/operators of CV240 Series aircraft of the failure of a main landing gear pivot shaft, Part Number (P/N) 240-5150129(4340).

BACKGROUND:

- a) An operator of the Convair model CV240 aircraft had an unsafe gear light after being unable to retract the gear after take-off. Inspection of the aircraft after a safe landing revealed that the left hand main landing gear pivot shaft had failed. Failure occurred at a through bolt hole of the pivot shaft.
 - b) Failure of the pivot shaft could result in jamming of the gear upon retraction and possible collapse of the main landing gear.
 - c) Convair replaced the P/N 240-5150129 basic made from 4340 steel with the 240-5150129-7 made from HY-TUF alloy steel.
 - d) Convair issued Service Bulletin 240-456A on May 8, 1957, to recommend the replacement of the main landing gear pivot shaft with a larger diameter shaft P/N 240-5151123 for increased service life.
 - e) After the occurrence the operator of the event aircraft also inspected six other main landing gear pivot shafts and found four of the six shafts cracked. The operator used magnetic particle inspections to find the cracks.
 - f) The event aircraft, originally a U.S. Military T29B, was converted some time in the past to the civil model CV240 configuration and operated in the U.S. civil fleet. Service Difficulty records show time since overhaul of the main landing gear was 13214:8 hrs., this is also likely the time in service for the failed pivot shaft.
- Note: There is no evidence that indicates an inspection time on the shaft other than the possibility that it has been attached to the main landing gear overhaul period.

Recommendation:

Based on the above event Kelowna Flightcraft Convair® Division is recommending that owners/operators of Convair CV240 series airplanes accomplish the following as soon as possible, but no later than 60 days after receipt of this SEAN:

- a) Perform an inspection of the right and left-hand main landing gear pivot shaft, after removal from the aircraft. Fluorescent Magnetic Inspection is recommended.
- b) Replace cracked parts with airworthy parts such as P/N 240-5150129 (4340 steel) or P/N 240-5150129-7 (“HY-TUF steel”) or carry out Convair S.B.240-456A and install the larger diameter shaft P/N 240-5151123 with collar and associated changes.
- c) Provide for re-inspection in the operator’s Approved Aircraft Inspection Program (AAIP) at 6500 hour intervals or every three years which ever occurs first..
Note: FAA Advisory Circular 121-1A shows recommended gear overhaul time of 12,000 hours.
- d) Please use the attached reporting sheet (make copies for additional aircraft) to report all findings whether positive or negative and return to the current CV240-340/440 Convair T.C. holder which is :

Kelowna Flightcraft Convair® Division,
#1 – 5655 Kelowna Airport,
Kelowna B.C. Canada, V1V 1S1
Ph. 250-491 5568, Fax 250 491 5518, E-M billd@flightcraft.ca

Bill De Meester
Manager;
Convair® Division



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#1 -

CONVAIR® DIVISION

SERVICE ENGINEERING ALERT NOTICE REPORTING FORM

SEAN – 001 - 2001

Please complete the following reporting form and return to the above address.

<u>DATE</u>	<u>OWNER</u>	<u>ADDRESS</u>	<u>PH.</u> <u>FAX</u> <u>E-m</u>	
<u>NO. OF AC OPERATED</u>	<u>MAKE /MODEL</u>	<u>REGISTRATION</u>	<u>SERIAL NO.</u>	<u>A/F HOURS</u>
<u>A/F CYCLES</u>	<u>PIVOT SHAFT HOURS</u>	<u>PIVOT SHAFT CYCLES</u>	<u>PIVOT SHAFT LOCATION</u> L/H __ R/H__	<u>PIVOT SHAFT PART NO.</u>

DESCRIPTION OF FINDINGS:

TYPE OF INSPECTION USED: