232FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO.

Cirrus SR-22
TYPE AIRCRAFT

adNote

84-26-2 R
AD NUMBER

Induction Air Filters

If multi-engine: ☐ Left ☐ Right ☐ Front ☐ Rear

DATE	TOTAL TIME AT COMPL.	TACH OR RECORDING METER TIME AT COMPL.	METHOD OF COMPLIANCE	NEXT COMPL TOTAL TIME	DUE AT DATE, TACH, OR RECORDING METER TIME	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		N/A by Equip			D Daley A+P 525256921

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Amendment 39-4966. Applies to all paper induction air filters used in small airplanes.

Compliance: Required as indicated, unless already accomplished.

To prevent possible engine power loss or stoppage caused by engine ingestion of fragments of a deteriorated induction air filter, accomplish the following:

Within the next one hundred hours time-in-service after the effective date of this AD or prior to the accumulation of 500 hours time-in-service on the filter, whichever occurs later, and thereafter at intervals not exceeding 500 hours time-in-service on the filter:

(a) Replace the air filter with a new filter that is FAA approved for the airplane installation.

(b) Within 100 hours time-in-service replace any filter on which the time-in-service cannot be determined utilizing the airplane maintenance records for this determination.

NOTE: This AD does not alter current maintenance procedures which require inspection of paper induction air filters at 100 hours time-in-service and annual inspections and replacement as necessary based on filter condition.

This amendment becomes effective January 29, 1985.

232FJ
AIRCRAFT REGISTRATION NO

338
AIRCRAFT SERIAL NO

Cirrus SR-22
TYPE AIRCRAFT

adNote

93-5-6 R
AD NUMBER

Ignition Switch

DATE	TOTAL TIME AT COMPL.	TACH OR RECORDING METER TIME AT COMPL.	METHOD OF COMPLIANCE	NEXT COMPL DUE AT TOTAL TIME	NEXT COMPL DUE AT DATE, TACH, OR RECORDING METER TIME	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		N/A By Equip			D Ilby A+P 52525 6921

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Amendment 39-8511. Docket 92-NM-165-AD.

Applicability: ACS and Gerdes ignition switches; as installed in, but not limited to, Piper Model PA-38-112 series airplanes, Schweizer Model G-164 series (including Model G-164A, G-164B, and G-164C) airplanes, Schweizer Model 2-37 and 2-37A series airplanes, and the following Cessna airplanes; certificated in any category:

Cessna Model	Serial Numbers		
150	15074428	through	15079405
A150	A1500389	through	A1500734
F150	F15001024	through	F15001428
FRA150	FRA1500212	through	FRA1500336
152	15279406	through	15286033
A152	A1520735	through	A1521049
F152	F15201429	through	F15201980
FA152	FA1520337	through	FA1520425
172	17261486	through	17276673
R172	R1722000	through	R1723454
172RG	172RG0001	through	172RG1191
F172	F17201045	through	F17202254
FR172	FR17200441	through	FR17200675
177	17701890	through	17702752
177RG	177RG0342	through	177RG1366
F177RG	F177RG0093	through	F177RG0177
180	18052317	through	18053203
182	18261786	through	18268615
R182	R18200001	through	R18202041
A182	A182-0137	through	A182-0148
F182	F18200001	through	F18200169
FR182	FR18200001	through	FR18200070
185	18502154	through	18504448
U206	U20601980	through	U20607020
207	20700222	through	20700788
210	21059893	through	21065009
P210	P21000001	through	P21000874

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of ignition switches, accomplish the following:

(a) Within 100 flight hours after the effective date of this AD, or at the next annual inspection, whichever occurs first, perform an inspection of the ignition switch to detect wear and corrosion, and lubricate the switch, in accordance with ACS Service Bulletin SB92-01, dated August 15, 1992; or Cessna Service Bulletin SEB91-5, Revision 1, June 14, 1991. If wear or corrosion is detected, prior to further flight, replace the switch in accordance with the service bulletin. Repeat this inspection and lubricate the ignition switch in accordance with the service bulletin, thereafter, at intervals not to exceed 2,000 flight hours.

NOTE: ACS ignition switches that do not have a "start" position (models A-510-1 and A-510-5) or were manufactured on or after February 20, 1989, and have not accumulated 2,000 flight hours, need not be lubricated. The manufacture date is stamped on the switch body. These switches are identifiable by red paint in the screw heads on the back of the switch. However, manufacturer lubricated switches that have a "start" position, but do not have a starter solenoid diode, must be inspected and modified.

(b) Within 100 flight hours after the effective date of this AD, or at the next annual inspection, whichever occurs first, inspect the ignition switch installation to determine if a diode or other surge suppresser is installed on the starter solenoid. If one is not installed, prior to further flight, install a starter solenoid diode in accordance with ACS Service Bulletin SB92-01, dated August 15, 1992; or Cessna Service Bulletin SEB91-5, Revision 1, dated June 14, 1991.

NOTE: For operators using the Cessna service bulletin to install the diode in the starter solenoid: The procedures for installation are contained in Attachment to Service Bulletin SEB91-5R1, Revision 1, dated June 14, 1991.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

(d) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) The inspection, lubrication, replacement, and modification shall be done in accordance with ACS Service Bulletin SB92-01, dated August 15, 1992; or Cessna Service Bulletin SEB91-5, Revision 1, dated June 14, 1991, which includes Attachment to Service Bulletin SEB91-5R1, Revision 1, dated June 14, 1991. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from ACS Products Company, P.O. Box 152, 1585 Copper Drive, Lake Havasu City, Arizona 86403-0008; or Cessna Aircraft Company, Customer Services, P.O. Box 7704, Wichita, Kansas 67277. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Los Angeles Aircraft Certification Office, 3229 East Spring Street, Long Beach, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on April 29, 1993

232FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO

Cirrus SR-22
TYPE AIRCRAFT

adNote

96-12-22 R
AD NUMBER

Oil Filter Adapters

If Multi-engine: ☐Left ☐ Right ☐ Front ☐Rear Engine Model/Serial No: IO550N7 / 686652

DATE	TOTAL TIME AT COMPL	TACH OR RECORDING METER TIME AT COMPL	METHOD OF COMPLIANCE	NEXT COMPL TOTAL TIME	DUE AT DATE, TACH, OR RECORDING METER TIME	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		N/A by Equip			D Ilday A+P 525256921

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Amendment 39-9665; Docket No. 93-CE-54-AD

Applicability: Cessna Engine Oil Filter Adapters Assemblies, part numbers 0450404-(all dash numbers), 0556004-(all dash numbers), 0556010-(all dash numbers), 0756023-(all dash numbers), 0756024-(all dash numbers), 1250403-(all dash numbers), 1250417-(all dash numbers), 1250418-(all dash numbers), 1250921-(all dash numbers), and 1250922-(all dash numbers), installed on, but not limited to, the following:

(1) Cessna Models 100, 200, 300, and 400 Series airplanes (all serial numbers), certificated in any category, that are equipped with at least one Teledyne Continental Motors (TCM) engine.

(2) Airplanes that have an affected full flow engine oil adapter installed by field approval, including, but not limited to, the following model or series airplanes, certificated in any category:

Manufacturer	Series/Models
Rockwell/Aero Commander/Meyers	200 Series
Twin Commander	Models 500A and 685
Beech	33, 35, 36, and 55 Series
Piper	PA46 Series
Navion	Rangemaster 17 Series
Wren	Model 460
Bellanca	260 and 300 Series

(3) Airplanes equipped with any of the following Teledyne Continental Motors model or model series engines:

O-200	O-470	IO-470
TSIO-470	O-520	IO-520
TSIO-520	GTSIO-520	IO-550
TSIO-550		

NOTE 1. This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

NOTE 2: This AD does not apply to engine oil filter adapter assemblies manufactured by Teledyne Continental Motors (See Figure 1 of this AD).

Compliance: Required initially as specified in both of the following, and thereafter as indicated in the body of this AD:

1. Within the next 100 hours time-in-service (TIS) after the effective date of this AD or when the engine oil filter is removed, whichever occurs first; and

2. Every time the engine oil filter is removed.

To prevent loss of engine oil caused by loose or separated oil filter adapters, which could result in engine stoppage while in flight and loss of control of the airplane, accomplish the following:

(a) For airplanes with engine oil filter adapter assemblies that do not have torque putty between the engine filter adapter assembly, nut, and oil pump housing, accomplish the following:

(1) Inspect the adapter locking nut installation for evidence of oil leakage.

(2) Check the torque of the adapter nut installation and ensure that the torque value is within the limits of 50 through 60 foot pounds.

(3) If evidence of oil leakage is found or the torque is not within the 50 through 60-foot pound limit, prior to further flight, remove the adapter and filter assembly, and:

(i) Inspect the threads of the adapter assembly and engine for signs of damaged or cracked threads; and

(ii) Replace any adapter assembly and engine oil pump housing (if necessary) that have evidence of thread damage or cracks.

(4) Apply torque putty between the engine filter adapter assembly, nut, and oil pump housing as specified in Figure 1 of this AD.

(5) Reassemble the engine oil filter assembly.

(b) For airplanes with torque putty between the engine filter adapter assembly, nut, and oil pump housing, inspect the torque putty for misalignment, evidence of oil leakage, or cracks:

(1) If any misalignment, evidence of oil leakage, or torque putty cracks are found, prior to further flight, accomplish the requirements specified in paragraph (a) of this AD, including all subparagraphs.

(2) If no misalignment, evidence of oil leakage, or torque putty cracks are found, reinspect at intervals not to exceed 100 hours TIS until the engine oil filter is removed.

(c) Replacing the engine oil filter adapter assembly does not eliminate the repetitive inspection requirement of this AD.

(d) The repetitive inspections of the torque putty as required by this AD may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.11 of the Federal Aviation Regulations (14 CFR 43.11).

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(f) An alternative method of compliance or adjustment of the initial or repetitive compliance time that provides an equivalent level of safety may be approved by the Manager, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

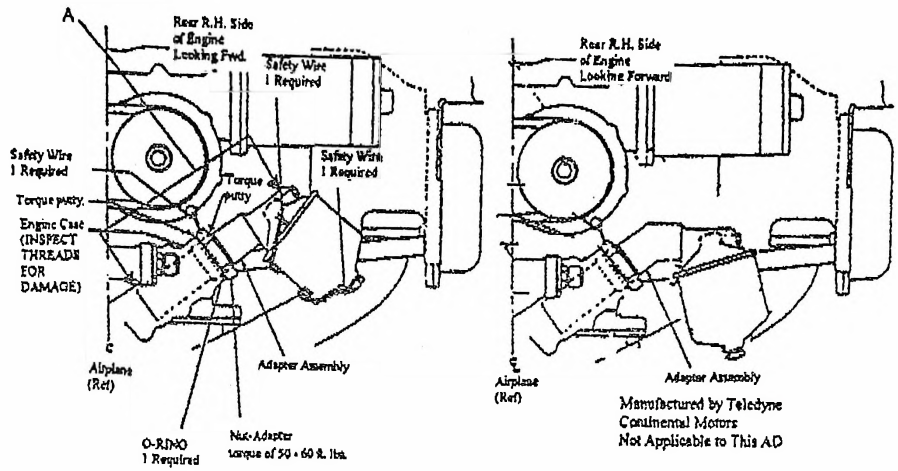
NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

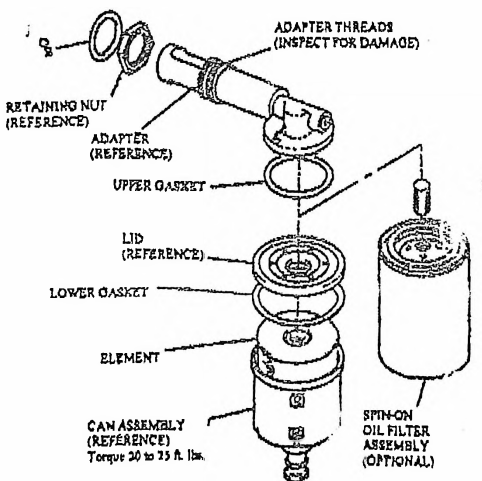
(g) Information related to this AD may be examined at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(h) This amendment becomes effective on July 31, 1996.

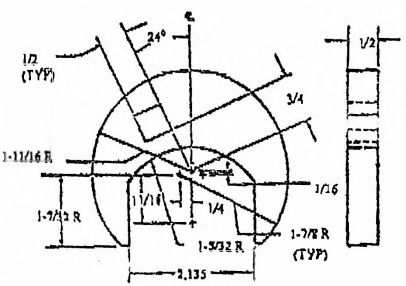
FOR FURTHER INFORMATION CONTACT: Mr. Paul O. Pendleton, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4143; facsimile (316) 946-4407.

FOR A COPY OF FIGURE 1, CALL AFS-610 AT (405) 954-4103.





DETAIL A



ALL DIMENSIONS ARE INCHES

MATERIAL: 4130 (Rc. 35-38)

TOOL NUMBER SE709 IS AVALIABLE FROM THE CESSNA SERVICE PARTS CENTER

Snap-On crows foot P/N AN8508-34A.

have ground down the ends for clearance.

Figure 1. Oil Filter Adapter Installation

AD 96-12-22

232 FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO.

Cirrus SR-22
TYPE AIRCRAFT

adNote

2002-9-8 N/M
AD NUMBER

Hartzell Propeller

If multi-engine: ☐ Left ☐ Right ☐ Front ☐ Rear

Propeller Model/Serial PHC-J3YF-1RF

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		n/A by S/N	FP1928B D Riley A&P 525256921

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Amendment 39-12741. Docket No. 2000-NE-08-AD. Supersedes **AD 77-12-06R2**, Amendment 39-3097.

Applicability

This airworthiness directive (AD) is applicable to Hartzell Propellers, Inc. Models ( )HC-( )( )Y( )-( )( )( ) compact series constant speed or feathering propellers with Hartzell manufactured "Y" shank blades. These propellers are used on but not limited to the following airplanes:

Aermacchi S.pA. (formerly Siai-Marchetti) S-208
Aero Commander 200B and 200D
Aerostar 600 Beech 24, 35, 36, 45, 55, 56TC, 58, 60, and 95
Bellanca 14 and 17 series
Cessna 182 and 188
Embraer EMB-200A
Maule M5
Mooney M20 and M22
Pilatus Britten Norman, or Britten Norman BN-2, BN-2A, and BN-2A-6
Piper PA-23, PA-24, PA-28, PA-30, PA-31, PA-32, PA-34, PA-36, and PA-39
Pitts S-1T and S-2A
Rockwell 112, 114, 200, 500, and 685 series

Note 1: This AD applies to each propeller identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For propellers that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required as indicated, unless already done. Propeller maintenance records showing compliance with AD 77-12-06R2 is an indication that compliance was previously done.

To prevent failure of the propeller blade from fatigue cracks in the blade shank radius, which can result in damage to the airplane and loss of airplane control, do the following:

(a) Propellers are considered in compliance with the one-time inspection and rework requirements only, of this AD if:

(1) All blades are serial number D47534 and above, or

(2) All blades are identified with the letters "PR" or "R" or "SP-P" ink-stamped on the camber side, or the letters "SP", "RD" or "SP-P" metal-stamped on the blade butt.

Models ( )HC-( )( )Y( ) Compact Series "Y" Shank Propellers

(b) If propellers models ( )HC-( )( )Y( ) have not been inspected and reworked in accordance with AD 77-12-06R2, then before further flight, do a one-time action to remove, inspect, rework or replace blades if necessary in accordance with Hartzell Service Bulletin (SB) No.118A, dated February 15, 1977.

Note 2: One requirement in SB No. 118A is the cold rolling of the propeller blade shank. This is a critical requirement in the prevention of cracks in the blade. Propeller repair shops must obtain and maintain proper certification to perform the cold rolling procedure. For a current list of propeller overhaul facilities approved to perform the blade shank cold rolling procedure, contact Hartzell Product Support, telephone: (937) 778-4200. Not all propeller repair facilities have the equipment to properly perform a cold roll of the blade shanks. In addition, any rework in the blade shank area will also necessitate the cold rolling of the blade shank area, apart from the one-time cold rolling requirement of this AD.

Instrument Panel Modifications

(c) If airplanes with propeller models ( )HC-C2YK-( )( )( ) / ( )( )7666A-( ), installed on (undampered) 200 horsepower Lycoming IO-360 series engines, have not been modified in accordance with AD 77-12-06R2, then modify the airplane instrument panel according to the following subparagraphs before further flight. Airplanes include, but are not limited to, Mooney M20E and M20F (normal category), Piper PA-28R-200 (normal category), and Pitts S-1T and S-2A (acrobatic category).

(Over)

232 FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO.

Cirrus SR-22
TYPE AIRCRAFT

adNote™

2004-8-10 N/M
AD NUMBER

ECI Cylinders

If multi-engine: ☐ Left ☐ Right ☐ Front ☐ Rear

Engine Model/Serial No: IO550 N7 / 686652

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		N/A by Equip	D. Finley A+P 525256921

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Amendment 39-13579. Docket No. 2004-NE-07-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 5, 2004.

Affected Ads

(b) None.

Applicability

(c) This AD applies to Teledyne Continental Motors (TCM) TSIO- 520-NB, -VB, and -WB engines that are modified by supplemental type certificate (STC) SE4327SW, STC SE09104SC, or STC SE09261SC for operation at 325 HP or greater, (the so-called RAM TSIO-520-NB, -VB, or -WB Series III, IV, and VII reciprocating engines; and Teledyne Continental Motors (TCM) model 520 and 550 series reciprocating engines with certain ECi reciprocating engine cylinders, part number (P/N) AEC631397, installed. These engines are installed on, but not limited to the airplanes listed in the following Table I:

Table 1.–List of Airplanes That Use the Affected Engines

Airplane manufacturer and model	Engine model
AERFER/AERMECCHI AM. 3	GTSIO-520-C
AERO COMMANDER:	
200D	IO-520-A
500A COLEMILL CONVERSION	IO-520-E
685	GTSIO-520-K
AISA: F20 PEGASO	IO-520-K
AMBROSIN MF-151	IO-520-F
AVIONES PIHAO	IO-520-D
BEAGLE (U K) B206S	GTSIO-520-C
BEECHCRAFT BARON:	
C55	IO-520-CB, -C
D55	IO-520-CB, -C
E55	IO-520-CB, -C
58	IO-520-CB
58P	TSIO-520-LB
58P	TSIO-520-L
58P	TSIO-520-WB
58TC	TSIO-520-LB
58TC	TSIO-520-L
58TC	TSIO-520-WB
BEECHCRAFT BONANZA:	
A36	IO-550-B
E33A	IO-520-BA
E33A	IO-520-BB
E33B	IO-520-B
F33	IO-520-BB
F33A	IO-520-B
F33A	IO-520-BA
F33A	IO-520-BB
S35	IO-520-B
ST35	TSIO-520-D
V35	IO-520-BB
V35A	IO-520-B
V35A-TC	TSIO-520-D
V35B	IO-520-B
V35B	IO-520-BA
V35B	IO-520-BB
A36	IO-520-B
A36	IO-520-BA
A36	IO-520-BB
A36-TC	TSIO-520-UB
BEECHCRAFT DEBONAIR C33A	IO-520-B
VIKING 300	IO-520-A
	IO-520-D
	IO-520-K
BONNAIRE 185	IO-520-D
BONNAIRE 188 CONVERSION	IO-520-D
BURNS BA42	IO-520-D
CESSNA:	
SUPER SKYLANE A, B, C, D, E	IO-520-A
TURBO SUPER SKYLANE	TSIO-520-C
SKYWAGON A185 E, F	IO-520-D
SKYWAGON A185FII	IO-520-D
AG SPRAYER 188-300	IO-520-D
A188-230	IO-520-D
AG TRUCK (A 188B) -300	IO-520-D
AG HUSKEY (A 188C) -310	TSIO-520-T
AG WAGON (A 188B)	IO-520-D
SUPER SKYWAGON U206, A	IO-520-A
U206B, C, D, E, F	IO-520-F
TURBO SKYWAGON TU206 A	IO-520-C
TU206B, C, D, E, F	TSIO-520-C
STATIONAIR U206	IO-520-F
TU206	TIOS-520-C
U206FII-300	IO-520-F
U206G-300	IO-520-F
U206GII-300	IO-520-L
TU206G-310	TSIO-520-M
SUPER SKYLANE P206A	IO-520-A
P206B, C, D, E	IO-520-A
TURBO P 206 A, B, C, D, E	TSIO-520-G
SKYWAGON 207	IO-520-F
TURBO 207	TSIO-520-G
STATIONAIR 207A, 207AII	IO-520-F
STATIONAIR 8, 811	IO-520-F
T-STATIONAIR 811	TSIO-520-M
210 CENTURION D, E, F, G, H	IO-520-A
210 CENTURION J	IO-520-J
210 CENTURION K, L, M, N, R	IO-520-L
210 CENTURION TURBO	TSIO-520-C
210 CENTURION TURBO	TSIO-520-H
210 CENTURION TURBO K, L	TSIO-520-H
TURBO 210 J, K, L	TSIO-520-H
TURBO 210 MII, NII	TSIO-520-R
TURBO 210R	TSIO-520-R
PRESSURIZED CENTURION P210N	TSIO-520-P
PRESSURIZED CENTURION P210NII	TSIO-520-AF
PRESSURIZED CENTURION P210R	TSIO-520-CE
T303 CRUSADER	TSIO-520-AE
T303 CRUSADER	LTSIO-520-AE
310R	IO-520-MB
310R	IO-520-M
TURBO 310 P, Q	TSIO-520-B
TURBO 310 R	TSIO-520-BB
TURBO 310 R	TSIO-520-B
EXECUTIVE SKYNIGHT D, E, F	TSIO-520-B
335	TSIO-520-EB
340	TSIO-520-K
340A	TSIO-520-NB, -N
401 A, 401 B	TSIO-520-E
402 A, 402 B	TSIO-520-E
402C	TSIO-520-VB
404 TITAN	GTSIO-520-M
411, 411A	GTSIO-520-C
414	TSIO-520-J
414, 414 A	TSIO-520-NB, -N
421A	GTSIO-520-D
421B	GTSIO-520-H
421C	GTSIO-520-L
421C	GTSIO-520-N
JANOX JAVILON	IO-520-B
NAVION	
RANGEMASTER MODEL H	IO-520-B
RANGEMASTER MODEL H	IO-520-BA
PIPER: MALIBU	TSIO-520-BE
PRINAIR:	IO-520-E
DE HAVILLAND HERON	IO-520-C
WINDECKER EAGLE	

(Over)

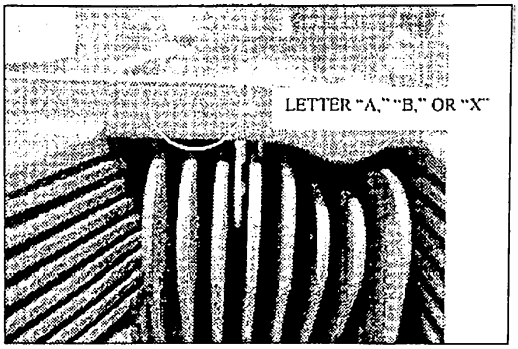


Figure 4. ⇑

(iii) If there is no letter "A," "B," or "X" stamped on the flange of the rocker box, replace the cylinder before further flight.

Alternative Methods of Compliance

(g) The Manager, Special Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Material Incorporated by Reference

(h) None.

Related Information

(i) ECi Mandatory Service Bulletin S.I. No. 04-1, revision 1, dated March 11, 2004, also pertains to this subject of this AD.

Issued in Burlington, Massachusetts, on April 9, 2004. Francis A. Favara, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

232FS
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO.

Cirrus SR-22
TYPE AIRCRAFT

adNote™

2005-14-11 N/M
AD NUMBER

Southern California Propeller Service

If multi-engine: ☐ Left ☐ Right ☐ Front ☐ Rear Propeller Model: PHC-J3YF-1RF Serial No.: FP19288

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
12-1-05	267.1		N/A	D. Delany A&P 525 25 6921

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Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. Propellers: Amendment 39-14188. Docket No. 2003-NE-53-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective August 17, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. propeller models last returned to service by Southern California Propeller Service of Inglewood, CA., listed in the following Table 1:

Table 1.--Applicable Propeller Models

Hartzell Propeller, Inc.
()HC-()(2,3,4)Y()-()
()HC-()(2,3,4)(X,V,MV,W,Z,P,R) (F,G,L,K,R,20,30,31)-().
()HA-()-().
HC-B(3,4)(M,P,R,T)(A,N,P)-().
HC-(D,E)(4,5)(A,B,N,P)-().
McCauley Propeller Systems
()2()()3()C()()()-(): All constant speed two-bladed propeller models.
()3()()3()C()()()-(): All constant speed three-bladed propeller models.
1()()()()/(): All metal propeller models.
Sensenich Propeller Manufacturing Company, Inc.
All metal propeller models.

(d) These actions are against propeller models returned to service by Southern California Propeller Service. Southern California Propeller Service is not to be confused with propeller repair stations known as California Propeller or as Propeller Service of California. Southern California Propeller Service was issued Air Agency Certificate number of VXSR617L in 1992, which was revoked in June of 1998.

(e) For Hartzell and McCauley propeller models listed in Table 1 of this AD, any letter or number (or lack of a letter or number) could appear where open parentheses are shown in the model number. Model numbers could show any combination of letters or numbers where the model number shows parentheses with a series of numbers or letters.

(f) For propeller models listed in Table 1 of this AD, that have been overhauled since being returned to service by Southern California Propeller Service by an authorized repair station other than Southern California Propeller Service, no further action is required.

Unsafe Condition

(g) This AD results from the investigation of a failed propeller blade and subsequent inspections of various propeller models returned to service by Southern California Propeller Service, of Inglewood, CA. We are issuing this AD to prevent blade failure that could result in separation of a propeller blade and loss of control of the airplane.

Compliance

(h) You are responsible for having the actions required by this AD performed within 10 hours time-in-service after the effective date of this AD.

Required Actions

(i) Perform the actions specified in paragraph (j) of this AD on propeller models listed in Table 1 of this AD. You can find information on performing the actions in the applicable propeller manufacturer's service documentation.

(j) Perform the following actions:

(1) Disassemble,

(2) Clean,

(3) Inspect for the following:

(i) Cracks,

(ii) Corrosion or pits,

(iii) Nicks,

(iv) Scratches,

(v) Blade minimum dimensions,

(vi) Unapproved localized heating of blade,

(vii) Unapproved use of helicoil inserts in actuating pin holes,

(viii) Improperly drilled actuating pin holes,

(ix) Chemical conversion coat or paint or both applied over corrosion,

(x) Lack of chemical conversion coating,

(xi) Lack of paint on internal surfaces,

(xii) Bolts incorrectly torqued,

(xiii) Incorrect parts,

(xiv) Incorrect installation of parts,

(xv) Reinstallation of parts intended for one-time use, and

(xvi) Lack of proper shot peening.

(4) Repair and replace with serviceable parts, as necessary,

(5) Reassemble and test.

Alternative Methods of Compliance

(k) The Manager, Chicago Aircraft Certification Office, has the authority to approve alternative methods of compliance (AMOCs) for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

(l) Under 14 CFR 39.23, we are limiting the special flight permits for this AD by not allowing any flights with apparent cracks in propellers.

Related Information

(m) Special Airworthiness Information Bulletin No. NE-01-19, dated March 20, 2001, pertains to the subject of this AD.

Issued in Burlington, Massachusetts, on July 5, 2005.

Francis A. Favara, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

232FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO.

Cirrus SR-22
TYPE AIRCRAFT

adNote™

2005-17-19 N/M
AD NUMBER

Crew Seats

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
6/14/06	4104.0	4041.0	Inspection	D Mfg A&P 525256921

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Cirrus Design Corporation: Amendment 39-14240; Docket No. FAA-2004-19694; Directorate Identifier 2004-CE-41-AD.

When Does This AD Become Effective?

(a) This AD becomes effective on October 13, 2005.

What Other ADs Are Affected by This Action?

(b) None.

What Airplanes Are Affected by This AD?

(c) This AD affects the following airplane models and serial numbers that are certificated in any category:

Model	Serial Nos.
(1) SR20	1005 through 1455
(2) SR22	0002 through 1044.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of discovering that the crew seats, under emergency landing dynamic loads, may fold forward at less than 26 g required by the regulations, 14 Code of Federal Regulations (CFR) Section 23.562(b)(2). The actions specified in this AD are intended to prevent the crew seats from folding forward during emergency landing dynamic loads with consequent occupant injury.

What Must I Do To Address This Problem?

(e) To address this problem, you must do the following:

Actions	Compliance	Procedures
(1) For Models SR20, serial numbers 1005 through 1423, and SR22, serial numbers 0002 through 0972, do the following actions:	Within 50 hours time-in-service (TIS) or within 180 days, whichever occurs first after October 13, 2005 (the effective date of this AD).	Follow Cirrus Design Corporation Alert Service Bulletin SB A2X–25–08, dated June 22, 2004.
(i) Move the lower portion of the crew seat upholstery upward to expose the seat frame and locking mechanism. Measure the clearance between the break-over bolt and the seat frame for a clearance that meets the requirements in the service bulletin.		
(ii) If the clearance does not meet that specified in the service bulletin, do the crew seat break-over bolt adjustment and re-cover the crew seat frame and locking mechanism with the upholstery.		
(iii) If the clearance does meet that specified in the service bulletin, re-cover the crew seat frame and locking mechanism. Repeat the above actions for the opposite crew seat		
(2) For Models SR20, serial numbers 1005 through 1455, and SR22, serial numbers 0002 through 1044, do the following actions:	Within 50 hours TIS or within 180 days, whichever occurs first after October 13, 2005 (the effective date of this AD).	Follow Cirrus Design Corporation Service Bulletin SB 2X–25–06 R4, revised May 5, 2005.
(i) Identify whether the recline lock is secured with two bolts or three bolts.		
(ii) If the recline locks are secured with two bolts, remove the existing recline locks and replace with the new recline locks kit, kit number 70084–001.		
(iii) If the recline locks are secured with three bolts, remove existing recline locks and replace with the new recline locks kit, kit number 70084–002.		
(iv) Check break-over pin alignment and adjust as necessary.		
(v) Check that the locks engage with the break-over bolts with the seat in the full recline position. If full seat recline is not possible or difficult to engage, grinding of the lower aft seat frame is necessary		
(vi) Repeat the above actions for the opposite crew seat		

(Over)☞

232 FJ
AIRCRAFT REGISTRATION NO.

338
AIRCRAFT SERIAL NO

CPC SR22
TYPE AIRCRAFT

adNote™

2006-21-3 N/M
AD NUMBER

Brake Overheat

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
Nov 1, 06	493.1	493.1	SB 2X-32-14 R1	Dave Doty A+P 525256921

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Amendment 39-14787; Docket No. Docket No. FAA-2006-24010; Directorate Identifier 2006-CE-14-AD.

Effective Date

(a) This AD becomes effective on November 17, 2006.

Affected Ads

(b) None.

Applicability

(c) This AD applies to the following airplane models and serial numbers (S/N) that are certificated in any category:

(1) Group 1: Model SR20 Airplanes, S/N 1005 through 1600.

(2) Group 2: Model SR22 Airplanes, S/N 0002 through 1739.

(3) Group 3: Model SR20 Airplanes, S/N 1005 through 1592.

(4) Group 4: Model SR22 Airplanes, S/N 0002 through 1727.

Unsafe Condition

(d) This AD results from several reports of airplanes that experienced brake fires and two airplanes that lost directional control. The actions specified in this AD are intended to detect, correct, and prevent overheating damage to the brake caliper piston O-ring seals, which could result in leakage of brake hydraulic fluid. Consequently, this could lead to the loss of braking with loss of airplane directional control or brake fire.

Compliance

(e) To address this problem, you must do the following:

Table 1.--Actions/Compliance/Procedures

Actions	Compliance	Procedures
(1) *For Group 1 and Group 2 airplanes:* Check the maintenance records to determine whether the brake caliper piston O-ring seals were replaced at the last annual or 100-hour inspection.	Within 50 hours time-in-service (TIS) after November 17, 2006 (the effective date of this AD), unless already done.	No special procedures necessary to check the maintenance records. The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may make this check. You must make an entry into the airplane records that shows compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).
(2) *For Group 1 and Group 2 airplanes:* If you find as a result of the check required by paragraph (e)(1) of this AD that there is no record of the replacement of brake caliper piston O-ring seals at the last annual or 100-hour inspection, then do the following: (i) Replace the O-ring seals with new O-ring seals or (ii) Replace old brake calipers with new brake calipers.	Before further flight after the check required by paragraph (e)(1) of this AD.	For the replacement, follow the brake maintenance procedures in Section 32–42 of the SR20 or SR22 Aircraft Maintenance Manual. For the replacement of the new brake calipers, follow Cirrus Design Corporation Service Bulletin SB 2X–32–13 R1, Issued: December 15, 2005, Revised May 16, 2006.
(3) *For Group 3 and Group 4 airplanes:* (i) Modify the main landing gear (MLG) wheel fairings to add temperature indicator sticker inspection holes and trim the wheel fairings to prevent them from holding fluids; and (ii) Install a temperature indicator sticker on the brake calipers.	Do the modification within 50 hours TIS after November 17, 2006 (the effective date of this AD), unless already done Do the temperature indicator sticker installation within 50 hours TIS after November 17, 2006 (the effective date of this AD), unless already done, and thereafter before further flight anytime you have the O-ring seals replaced due to overheating of the brake assembly (temperature indicator sticker turned black).	Follow Cirrus Design Corporation Service Bulletin SB 2X–32–14 R1, Issued: January 18, 2006, Revised: February 17, 2006.
(4) *For all airplanes:* Insert the appropriate Revision A6 part number (P/N) into the Pilot's Operating Handbook (POH), as presented in TABLE 2.—REVISION A6 TO THE PILOT'S OPERATING HANDBOOK, in paragraph (f) of this AD.	Within 50 hours TIS after November 17, 2006 (the effective date of this AD), unless already done.	The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may insert the information into the POH as specified in paragraph (e)(4) of this AD. Make an entry into the airplane maintenance records showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).
(5) *For Group 3 and Group 4 airplanes:* (i) Do not install any MLG fairings without also doing the modifications required by paragraph (e)(3)(i) of this AD; and (ii) Do not replace any brake calipers without also installing the temperature indicator sticker required by paragraph (e)(3)(ii) of this AD.	As of November 17, 2006 (the effective date of this AD).	Follow Cirrus Design Corporation Service Bulletin SB 2X–32–14 R1, Issued: January 18, 2006, Revised: February 17, 2006.

(Over)

N232FJ
AIRCRAFT REGISTRATION NO.

0338
AIRCRAFT SERIAL NO.

SR22
TYPE AIRCRAFT

adNote™

2008-3-16 N/M
AD NUMBER

Control Rigging

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER
06/05/2008	741.9	741.9	SB 2X-27-14 R3	Kenneth D. Terry A&P 453909832

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Amendment 39-15367; Docket No. FAA-2007-28246; Directorate Identifier 2007-CE-048-AD.

Effective Date

(a) This AD becomes effective on March 11, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Model SR20 airplanes, serial numbers (SN) 1005 through 1861, and Model SR22 airplanes, SN 0002 through 2333, SN 2335 through 2419, and SN 2421 through 2437, that are certificated in any category.

Unsafe Condition

(d) This AD results from an incident of jamming of the aileron and rudder controls on a Model SR20 airplane and the possibility of the occurrence on other airplanes. In addition, other Models SR20 and SR22 airplanes have been found with misrigging of the flight controls that could lead to jamming. We are issuing this AD to prevent the possibility of jamming of the rudder-aileron interconnect system, which may result in loss of rudder and aileron flight controls.

Compliance

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Inspect the rudder, aileron, and rudder-aileron interconnect rigging; correct any out-of-rig condition; and replace the attaching hardware for the rudder-aileron interconnect arm.	At whichever occurs first: (i) Within the next 25 hours time-in-service (TIS) after March 11, 2008 (the effective date of this AD); or (ii) Within the next 3 months after March 11, 2008 (the effective date of this AD).	Follow Cirrus Service Bulletin No. SB 2X-27-14 R3, Revised: October 10, 2007.
(2) Only if you find an out-of-rig condition: Report to the FAA any out-of-rig conditions discovered as a result of the inspection required by paragraph (e)(1) of this AD on the form in Figure 1 of this AD. The Office of Management and Budget (OMB) approved the information contained in this regulation under the provisions of the Paperwork Reduction Act and assigned OMB Control Number 2120-0056.	At whichever occurs later: (i) Within 10 days after the inspection required in paragraph (e)(1) of this AD; or (ii) Within 10 days after March 11, 2008 (the effective date of this AD).	Send the form (Figure 1 of this AD) to FAA, Manufacturing Inspection District Office, 6020 28th Avenue South, Room 103, Minneapolis, Minnesota, 55450-2700; telephone (612) 713-4366; facsimile (612) 713-4365.

Note: Temporary revisions to the airplane maintenance manuals (AMM), SR20 AMM Temporary Revision No. 27-1 and SR22 AMM Temporary Revision No. 27-1, both dated October 10, 2007, contain information pertaining to this subject.

** **Aerotech Note:** The inspection report that was at this location of the FAA version of this Airworthiness Directive (AD) has been moved to the reverse side to facilitate compilation of this **adNote™**.

Alternative Methods of Compliance (AMOCs)

(f) The Manager, Chicago Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Wess Rouse, Aerospace Engineer, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: (847) 294-8113; fax: (847) 294-7834. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Material Incorporated by Reference

(g) You must use Cirrus Service Bulletin No. SB 2X-27-14 R3, Revised: October 10, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Cirrus Design Corporation, 4515 Taylor Circle, Duluth, Minnesota 55811; telephone: (218) 727-2737; internet address: http://www.cirrusdesign.com.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html .

Issued in Kansas City, Missouri, on January 29, 2008.

John Colomy, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

(Over)➔

The preamble information for this AD is available at the above FAA website.

2008-03-16 Cirrus Design Corporation: Amendment 39-15367; Docket No. FAA-2007-28246; Directorate Identifier 2007-CE-048-AD.

Effective Date

(a) This AD becomes effective on March 11, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Model SR20 airplanes, serial numbers (SN) 1005 through 1861, and Model SR22 airplanes, SN 0002 through 2333, SN 2335 through 2419, and SN 2421 through 2437, that are certificated in any category.

Unsafe Condition

(d) This AD results from an incident of jamming of the aileron and rudder controls on a Model SR20 airplane and the possibility of the occurrence on other airplanes. In addition, other Models SR20 and SR22 airplanes have been found with misrigging of the flight controls that could lead to jamming. We are issuing this AD to prevent the possibility of jamming of the rudder-aileron interconnect system, which may result in loss of rudder and aileron flight controls.

Compliance

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Inspect the rudder, aileron, and rudder-aileron interconnect rigging; correct any out-of-rig condition; and replace the attaching hardware for the rudder-aileron interconnect arm.	At whichever occurs first: (i) Within the next 25 hours time-in-service (TIS) after March 11, 2008 (the effective date of this AD); or (ii) Within the next 3 months after March 11, 2008 (the effective date of this AD).	Follow Cirrus Service Bulletin No. SB 2X-27-14 R3, Revised: October 10, 2007.

AIRCRAFT REGISTRATION NO.

AIRCRAFT SERIAL NO.

TYPE AIRCRAFT

adNote™

2008-14-13 N

AD NUMBER

Cabin Door Separation

COMPLIANCE DATE	TOTAL TIME AT COMPLIANCE	TACH OR RECORDING METER TIME AT COMPLIANCE	METHOD OF COMPLIANCE	AUTHORIZED SIGNATURE & NUMBER

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Amendment 39-15608; Docket No. FAA-2007-28245; Directorate Identifier 2007-CE-047-AD.

Effective Date

(a) This AD becomes effective on August 14, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

Models	Serial Numbers
SR20	1423 through 1906
SR22	0795 and 0820 through 2912

Unsafe Condition

(d) This AD results from two known occurrences of in-flight cabin door separation (one total separation and one retained by the door strut). We are issuing this AD to prevent in-flight failure of the cabin door, which could result in door separation from the airplane.

Compliance

(e) Unless already done, within the next 50 hours time-in- service (TIS) after August 14, 2008 (the effective date of this AD) or within 180 days after August 14, 2008 (the effective date of this AD), whichever occurs first, following Cirrus Design Corporation Service Bulletin SB 2X-52-07 R4, dated January 24, 2008, do one of the following:

(1) If threaded sleeve is installed at the cabin door rod end, install cabin door rod end Kit 70186-004.

(2) If threaded sleeve is not installed at the cabin door rod end, install cabin door rod end Kit 70186-005.

Alternative Methods of Compliance (AMOCs)

(f) The Manager, Chicago Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Wess Rouse, Aerospace Engineer, Chicago ACO, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: (847) 294- 8113; fax: (847) 294-7834. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Related Information

(g) To get copies of the service information referenced in this AD, contact Cirrus Design Corporation, 4515 Taylor Circle, Duluth, Minnesota 55811, telephone: (218) 788-3000. To view the AD docket, go to the U.S. Department of Transportation, Docket Operations, M- 30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590 or on the Internet at http:// dms.dot.gov. The docket number is Docket No. FAA-2007-28245; Directorate Identifier 2007-CE-047-AD.

Material Incorporated by Reference

(h) You must use Cirrus Design Corporation Service Bulletin SB 2X-52-07 R4, dated January 24, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Cirrus Design Corporation, 4515 Taylor Circle, Duluth, Minnesota 55811; telephone: (218) 727-2737; Internet address: www.cirrusdesign.com.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202- 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on July 1, 2008.

John Colomy, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

OMB No 2120-0020 Exp. 8/31/2014 | Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft

Nationality and Registration Mark	Serial No.	
N232FJ	0338	
Make	**Model**	**Series**
CIRRUS	RS22	

2. Owner

Name *(As shown on registration certificate)*	Address *(As shown on registration certificate)*
LAKESHORE FOUR LLC	Address 5635 OSAGE BEACH PKWY
	City OSAGE BEACH State MO
	Zip 65065 Country USA

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	———	*(As described in Item 1 above)*	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address

Name Higginsville Avionics LLC
Address 11671 Airport Rd
City Higginsville State MO
Zip 64037 Country USA

B. Kind of Agency

	U. S. Certificated Mechanic	Manufacturer
	Foreign Certificated Mechanic	C. Certificate No.
X	Certificated Repair Station	sk2r164l
	Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual
6/11/2018 [signature] 2584737

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY								
	FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
	FAA Designee	X	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No. sk2r164l

Signature/Date of Authorized Individual
6/11/2018 [signature] 2584737

WORK ORDER

29866

Higginsville Avionics LLC

11671 Airport Road • Higginsville MO 64037-0187

660-584-3222

e-mail - avionics@ctcis.net

Certificated Repair Station Number SK2R164L

This work order contains information concerning repair or modification to an airframe or accessory and should be retained in the permanent aircraft record.

Work to be performed for:

Name Jim Nugent Lakeshore Four LLC Date 6-4-18

Address 5635 Osage Beach Pkwy

City Osage Beach State MO Zip 65065

Notify by: ☐ E-Mail ☐ Phone ☐ Will pick up

Telephone No. 573.346-6820 Day

E-Mail

Aircraft Type Cirrus SR22 N 232FJ

Tach / Hobbs 2019.9

This Labor and Material is ordered by me, for which I have authority to order, to be listed at your regular prices. I agree to pay cash when the work is completed, or on satisfactory terms to you; and until paid in full, it shall constitute a lien on this airplane or accessory. If collection is made or otherwise, I agree to pay interest until paid, also collection costs including a reasonable attorney's fee and waive all rights to claim exemption under State Laws. I further agree that you will not be held responsible for plane or articles left in plane in case of loss by fire, theft, accident or other causes beyond your control. Full permission is given to take plane for test flight by a certificated pilot if you consider it necessary. My plane is flown by your pilot at my own risk.

Authorized by

Problem Reported: GNS430 WAAS upgrade, Sandel software update

No. 1 Unit GNS430 S/n 97112072

No. 2 Unit SN3308 S/n 1944

No. 3 Unit GTX327 S/n 83711030

No. 4 Unit ALT 5934D-3 S/n 428246

Description of work accomplished: Hidden Damage Sm Preliminary Inspection Sm In Progress Sm

Validated previous install of GNS430. NO.5 UNIT-SSD120-XXA S/N A 68262

Removed GNS430 & GA56 Antenna and installed upgraded GNS430W & GA 35 GPS Antenna & all necessary equipment & accessories. Updated software for Sandel SN3308 to Version 2.3. Weight change negligible. Certified transponder per FAR 91.413. Check accuracy for altimeter & encoder to 20,000 ft. Final checked per FAR 91.411.

I certify that I have performed the final inspection of the work accomplished and that the above aircraft or component is airworthy.

For HA LLC 2584737

PARTS RECORD

PN	SN	PN	SN
GARMIN GPS ANT. 013-00225-00	150981		

Log Entry ☒ FMS ☐ 337 ☒ W&B ☐ Invoice # 546

1. Approving Civil Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/United States	**AUTHORIZED RELEASE CERTIFICATE** FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	142377392-2

4. Organization Name and Address:	5. Work Order/Contract/Invoice Number:
GARMIN International 1200 E. 151st St. Olathe, KS 66062 Certificate Number PT3742CE	142377392

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	Data Card,WAAS,IFR,Americas	010-10546-01	1	N/A	New

12. Remarks:
Airworthiness Approval
TSO C146a

13a. Certifies the items identified above were manufactured in conformity to:

- ☒ Approved design data and are in a condition for safe operation.
- ☐ Non-approved design data specified in Block 12.

14a. ☐ **14 CFR 43.9 Return to Service** ☐ **Other regulation specified in Block 12**

Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature:	13c. Approval/Authorization No.:	14b. Authorized Signature:	14c. Approval/Certificate No.:
Eric G. Austria	ODA-240087-CE		
13d. Name (Typed or Printed):	**13e. Date (dd/mmm/yyyy):**	**14d. Name (Typed or Printed):**	**14e. Date (dd/mmm/yyyy):**
Eric G. Austria	30/May/2018		

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

1. Approving Civil Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/United States	**AUTHORIZED RELEASE CERTIFICATE** FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	142377392-1

4. Organization Name and Address:	5. Work Order/Contract/Invoice Number:
GARMIN International 1200 E. 151st St. Olathe, KS 66062 Certificate Number PQ3742CE	142377392

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	WAAS Antenna,GA35,White	013-00235-00	1	150981	New

12. Remarks:
Airworthiness Approval
This PMA part is not a critical component

13a. Certifies the items identified above were manufactured in conformity to:

- ☒ Approved design data and are in a condition for safe operation.
- ☐ Non-approved design data specified in Block 12.

14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12

Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature:	13c. Approval/Authorization No.:	14b. Authorized Signature:	14c. Approval/Certificate No.:
Eric G. Austria	ODA-240087-CE		
13d. Name (Typed or Printed):	**13e. Date (dd/mmm/yyyy):**	**14d. Name (Typed or Printed):**	**14e. Date (dd/mmm/yyyy):**
Eric G. Austria	30/May/2018		

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

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GARMIN

FAA UNIT SERVICE REPORT

RMA NUMBER	UNIT NAME	SERIAL NUMBER	UNIT NUMBER
102872363	GNS430W,Blk,Upgd	97112072	011-01060-40

SERVICE START DATE	SERVICE COMPLETION DATE	RETURNED TO SERVICE BY	Service Request Number
5/25/2018	5/29/2018	382	

UNIT DISCREPANCY

WAAS Upgrade

REPAIR SUMMARY

Upgraded unit to include WAAS capability. Replaced fan for spinning for unnrelated issue found during testing. Confirmed all applicable hardware modifications are installed. Aligned unit for optimum performance. Master cleared unit. Unit passes all tests and is operating within normal limits. Unit acquired satellites. OK to return to Service.

The Main and GPS Softwares are at the latest revision. This unit complies with these Service Bulletins 1317, 1766, It is the responsibility of the Installer to verify that the installation complies with the previous listed Service Bulletins.

This unit complies with MOD 1 per Garmin's Service Bulletin No. 0019.
This unit complies with MOD 2 per Garmin's Service Bulletin No. 0101.
This unit complies with MOD 3 per Garmin's Service Bulletin No. 0203B.
This unit complies with MOD 4 per Garmin's Service Bulletin No. 0207.
This unit complies with MOD 5 per Garmin's Service Bulletin No. 0211.

The work that was performed on this unit was done to meet the requirements of all sections of the maintenance manual part number 190-00364-00 Rev- AT, Revision Date 3/12/2018.

Thank You for Choosing Garmin! If you have any questions or concerns please do not hesitate to contact our customer service department at 1-800-800-1020. Please view Garmin's web site at www.garmin.com for any update or product information.

FAA Approved Product

This appliance has been repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service. The details of the repairs to this appliance are on file at this repair station under the above listed RMA Number

Tu Nguyen	5/29/2018	3155853
FAA Certified Repairman	Date	Certificate Number

FAA Repair Station Number
G6XR582Y

Warranty Information

1. Approving Civil Aviation Authority/Country: FAA/UNITED STATES	2.	3. Form Tracking Number: RMA 102872363
4. Organization Name and Address: GARMIN International 1200 E 151st Olathe, KS 66062 Certificate No. G6XR582Y		5. Work Order/Contract/Invoice Number: RMA 102872363

AUTHORIZED RELEASE CERTIFICATE

FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1.	GNS430W,Blk,Upgd	011-01060-40	1	97112072	REPAIRED

12. REMARKS: Upgraded unit to include WAAS capability. Replaced fan for spinning for unrelated issue found during testing. Confirmed all applicable hardware modifications are installed. Aligned unit for optimum performance. Master cleared unit. Unit passes all tests and is operating within normal limits. Unit acquired satellites. OK to return to Service.

The Main and GPS Softwares are at the latest revision. This unit complies with these Service Bulletins 1317, 1766, It is the responsibility of the Installer to verify that the installation complies with the previous listed Service Bulletins.

This unit complies with MOD 1 per Garmin's Service Bulletin No. 0019.
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This unit complies with MOD 4 per Garmin's Service Bulletin No. 0207
This unit complies with MOD 5 per Garmin's Service Bulletin No. 0211

The work that was performed on this unit was done to meet the requirements of all sections of the maintenance manual part number 190-00364-00 Rev- AT, Revision Date 3/12/2018

Thank You for Choosing Garmin! If you have any questions or concerns please do not hesitate to contact our customer service department at 1-800-800-1020. Please view Garmin's web site at www.garmin.com for any update or product information

13a. Certifies the items identified above were manufactured in conformity to:

☐ Approved design data and are in condition for safe operation

☐ Non-approved design data specified in block 12 N / A

14a. ☒ 14 CFR 43.9 Return to Service ☐ Other regulations specified in Block 12

Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature	13c Approval/Authorization No.:	14b Authorized Signature:	14c Approval/Certificate No.:
N / A	N / A		G6XR582Y
13d Name (Typed or Printed	**13e. Date (dd/mmm/yyyy)**	**14d Name (Typed or Printed)**	**14e Date (dd/mmm/yyyy)**
N / A	N / A	Tu Nguyen	29 May 2018

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the Airworthiness Authority of the country specified in block 1.

Statements in Block 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

* Installer must cross-check eligibility with applicable technical data.

400W Series

Instructions for Continued Airworthiness

Document Number 190-00356-65 Rev. D

Garmin International, Inc.
1200 E. 151st Street
Olathe, Kansas 66062 USA

Record of Revision

Rev.	Date	Description of Change
1	10-19-06	Initial Release
A	11-03-06	Revision for STC Issuance
B	07-30-09	Add the "-D" to STC number when reissued under ODA
C	02-28-13	Revise to support software version 5.02. Clarify inspections. Add electrical bonding check.
D	11-20-14	Revise to support software version 5.20 with Flight Stream 210.

N232FJ SR22G2-0338
Service Bulletin Record
WSD

Bulletin#	Date	A/C HM	Description	Status
2X-05-01	11/02/09	1051.8	Brake O-ring replacement and Temp indic.	
22-52-01	3/20/03	48.9	Drain holes cabin/baggage doors	
22-55-05	3/20/03	48.9	Drain holes empanage enlargement	
2X-11-03	9/25/03	87.10	Placard	
2X-24-03	9/02/03	13.8	MCU sealing	
2X-24-02R1	9/25/03	87.10	Route alt. cable	
2X-25-05	9/25/03	87.10	Seat belt kits	
2X-25-05R1	11/15/04	157.4	Installed plugs	
2X-25-06R1	11/15/04	157.4	Crew seat recline lock	
2X-25-07R3	10/3/05	196.8	Dual interial real upgrade	
2X-25-08	9/2/04	156.1	Found to c/w insp. criteria	
A2X-25-08	6/14/06	404.0	Crew seat break-over bolt adj.	
2X-25-17R1	2/1/06	493.1	Crew seat break-over pin replace	
2X-27-08	9/2/04	138.0	Trim cartridge lube & mod	
2X-27-14R3	6-5-08	741.9	Aileron/Rudder Interconnect	
2X-28-03	11/15/04	157.4	Fuel select valve ext. shaft sleeve	
2X-28-04R1	6-14-06	404.0	Fuel Line chaffing	
2X-32-06	3/20/03	48.9	Nose wheel fairing washers	
2X-32-08	9/2/04	138.0	Brake line insp/antichaff spacer	
2X-32-14R1	2/1/06	493.1	MLG fairing mod	
2X-32-19	11/02/2009	1051.8	Visual Inspection of nose landing gear.	
2X-34-05	9/25/03	87.10	Ground plane ring	
2X-34-08	9/2/04	138.0	Flt. Env. Data/pitot static OAT probe ground wire	
2X-34-12	4/24/05	164.2	CMAX	
2X-52-04R2	10-3-07	644.2	Cabin door strut mod.	
2X-55-10	9/2/04	138.0	H stab. Insp. Hole closeout	
2X-57-03R1	9/25/03	87.10	Shear pin engagement	
2X-57-04	9/25/03	87.10		
2X-57-05	4/24/05	164.2	Aileron hinge bearing/gap insp.	
2X-57-06	10/3/05	196.8	Flap hinge fairing repl.	
2X-71-05R1	9/25/03	87.10	Induction support bracket	
2X-95-07	3/11/04	95.9	Placard	
2X-95-08	11/15/04	157.4	Replacement date for feefing line cutters correction date	
2X-95-09R1	10-3-07	644.2	Caps Sheath	
A2X-95-10R2	10/3/07	644.2	Installed new pick-up collar	

11/02/2009
Autopilots Central, Inc.
Steve Collins
ORS: CMC2R747K

N232FJ SR22G2-0338
Service Bulletin Record
WSD

Bulletin#	Date	A/C HM	Description	Status
22-52-01	3/20/03	48.9	Drain holes	
22-55-05	3/20/03	48.9	Drain holes empanage enlargement	
2X-11-03	9/25/03	87.10	Placard	
2X-24-03	9/02/03	13.8	MCU sealing	
2X-24-02R1	9/25/03	87.10	Route alt. cable	
2X-25-05	9/25/03	87.10	Seat belt kits	
2X-25-05R1	11/15/04	157.4	Installed plugs	
2X-25-06R1	11/15/04	157.4	Crew seat recline lock	
2X-25-07R3	10/3/05	196.8	Dual interial real upgrade	
2X-25-08	9/2/04	156.1	Found to c/w insp. criteria	
A2X-25-08	6/14/06	404.0	Crew seat break-over bolt adj.	
2X-25-17R1	2/1/06	493.1	Crew seat break-over pin replace	
2X-27-08	9/2/04	138.0	Trim cartridge lube & mod	
2X-28-03	11/15/04	157.4	Fuel select valve ext. shaft sleeve	
2X-32-06	3/20/03	48.9	Nose wheel fairing washers	
2X-32-08	9/2/04	138.0	Brake line insp/antichaff spacer	
2X-32-14R1	2/1/06	493.1	MLG fairing mod	
2X-34-05	9/25/03	87.10	Ground plane ring	
2X-34-08	9/2/04	138.0	Flt. Env. Data/pitot static OAT probe ground wire	
2X-34-12	4/24/05	164.2	CMAX	
2X-55-10	9/2/04	138.0	H stab. Insp. Hole closeout	
2X-57-03R1	9/25/03	87.10	Shear pin engagement	
2X-57-04	9/25/03	87.10		
2X-57-05	4/24/05	164.2	Aileron hinge bearing/gap insp.	
2X-57-06	10/3/05	196.8	Flap hinge fairing repl.	
2X-71-05R1	9/25/03	87.10	Induction support bracket	
2X-95-07	3/11/04	95.9	Placard	
2X-95-08	11/15/04	157.4	Replacement date for feefing line cutters correction date	
2X-27-14R3	10/10/07	741.9	RUDDER- AILERON INTERCONNECT MOD	

