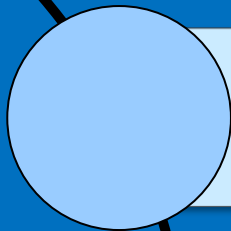


超輕型載具初始檢驗審查實務

民航局
飛航標準組
初始適航科
112年11月25日

簡報大綱



超輕法規說明



申請文件說明



常見檢查缺失


超輕法規說明



民用航空法「超輕型載具」定義

指具動力可載人，並符合下列條件之固定翼載具、動力滑翔機、陀螺機、動力飛行傘及動力三角翼等航空器：

- (一)單一往復式發動機。
- (二)最大起飛重量不逾六百公斤。(1320 lbs)
- (三)含操作人之總座位數不逾二個。
- (四)海平面高度、標準大氣及最大持續動力之條件下，最大平飛速度每小時不逾二百二十二公里。
(V_H - 120 knots)
- (五)最大起飛重量下，不使用高升力裝置之最大失速速度每小時不逾八十三公里。(45 knots)

 U.S. Department of Transportation Federal Aviation Administration		Light-Sport Aircraft Statement of Compliance		INSTRUCTIONS – Print or type. Present original to an authorized FAA Representative. If additional space is required, us an attachment.	
1. Aircraft Identification	1. Manufacturer Name REMOS Aircraft GmbH Flugzeugbau		2. Manufacturer Address (street, city, zip) Franzfelde 31, Pasewalk, D-17309		
	3. Aircraft Serial No. 364	4. Date of Manufacture (mm, dd, yy) 15/03/2010	5. Aircraft Make REMOS	6. Aircraft Model GX	
	7. Maximum Take-off Weight 600 kg	8. Maximum Number Occupants 2	9. V _H 119 knots	10. V _{S1} 45 knots	
	Class of light-sport aircraft: (Check all applicable items)				
	<input checked="" type="checkbox"/> Airplane <input type="checkbox"/> Powered Parachute <input type="checkbox"/> Weight-Shift Control <input type="checkbox"/> Glider <input type="checkbox"/> Operation on Water <input type="checkbox"/> Lighter Than Air				
11. Details	Consensus Standard(s) (list below or use attachment)			Revision	Valid Until
	ASTM Standard F2245 (design and performance)			-09	N/A
	ASTM Standard F2279 (quality assurance)			-06	N/A
	ASTM Standard F2295 (continued airworthiness)			-06	N/A
	ASTM Standard F2483 (maintenance and inspection procedures)			-05	N/A

$V_H = 119 \text{ Knots} = 220 \text{ km/h} < 222 \text{ km/h}$

V_H = maximum speed in level flight with maximum continuous power

1.1 Airspeeds:

Never-exceed speed:

C42

C42B / C42C / C42E

Speed in turbulent air

Maximum manoeuver speed:

	V_{NE}	=	97 kts	(180 km/h)
	V_{NE}	=	116 kts	(216 km/h)
:	V_B	=	97 kts	(180 km/h)
	V_A	=	80 kts	(148 km/h)

V_{NE} = Never Exceed Speed

Vs = Stall Speed (without flap)

	Airspeed	km/h IAS *	Warning
Vne	Never exceed speed	270	Do not exceed this speed in any circumstance!
Vno	Maximum cruising speed	240	This speed can be exceeded only in smooth air, use max. 1/3 of full deflections of the controls.
Vb	Maximum speed in turbulence	216	Maximum speed for the flights in turbulence and wind gusts
Va	Maximum maneuvering speed	156	Do not use full deflections of flight controls, the airplane could be overstressed.
Vfe	Maximum flap extended speed	120	Do not exceed this speed with the flaps extended
Vs	Stall speed / clean	78	Minimum speed with the flaps retracted
Vso	Stall speed / landing configuration	65	Minimum speed with the flaps full extended

Performance		
Top speed	120 KIAS (SL)	
Cruise speed (5300 RPM)	100 KIAS (SL)	
Endurance at cruise speed	3h + 30' reserve	
Best climb	76 KIAS (V_y)	1220 ft/min
Best angle climb	58 KIAS (V_x)	
Stall speed full flap (+2)	37 KIAS	
Stall speed clean (0)	43 KIAS	

民用航空法「超輕型載具」定義(續)

- (六)螺旋槳之槳距應為**固定式**或**僅能於地面調整**。但動力滑翔機之螺旋槳之槳距應為固定式或自動順槳式。
- (七)陀螺機之旋翼系統應為**雙葉**、固定槳距、半關節及撬式。
- (八)設有機艙者，機艙應為不可加壓式。
- (九)設有起落架者，**起落架應為固定裝置**。但動力滑翔機，不在此限。

申請文件說明



07-03A超輕型載具管理辦法

第八條 超輕型載具應由其所有人檢附下列文件並繳納審查費，經其所屬活動團體向民航局或受該局委託之活動團體或專業機構申請檢驗：

一、飛航手冊。

二、組裝或維護手冊及維護計畫。

三、原製造廠之符合性證明文件或原製造廠所在國民航主管機關之證明文件。但符合下列條件之一者，得免附：

(一)原製造廠網站已列有符合性證明資料。

(二)原製造廠所在國民航主管機關網站已列有符合性證明資料。

(三)同機型業經民航局發給檢驗合格證。

民航通告AC ULV-002超輕型載具檢驗作業申請指南

- (a) 超輕型載具原製造廠之符合性證明文件或製造廠所在國民航主管機關之證明文件。(符合下列條件之一者，得免附：
(1)原製造廠網站已列有符合性證明資料。(2)原製造廠所在國民航主管機關網站已列有符合性證明資料。(3)同機型業經民航局發給檢驗合格證。)
- (b) 原製造廠超輕型載具規範。
- (c) 原製造廠飛航手冊。
- (d) 原製造廠組裝或維護手冊。
- (e) 「超輕型載具組裝後合格聲明」。(附件八)
- (f) AD 及 SB 執行符合聲明及清冊。
- (g) 保險證明。
- (h) 原製造廠聯絡方式。
- (i) 「超輕型載具檢驗符合表」。(附件三)
- (j) 維護檢查程序及紀錄(如為屆期換證或損壞更換機身、引擎)。
- (k) 本局同意引進函影本或航空器進口同意書影本。



☒ 程序二：

申請檢驗(民航局審查費)

- ✓ 1. 進口同意文件
- ✓ 2. 載具公共意外責任保險單影本
- ✓ 3. 載具註冊號碼照片
- ✓ 4. 超輕型載具組裝後合格聲明(制式表格)
- ✓ 5. 檢驗合格證申請書(制式表格)
- ✓ 6. 超輕型載具檢驗符合表(制式表格)
- ✓ 7. 適航指令與公告，協會證明書(制式表格)
- ✓ 8. 維護紀錄簿影本(制式表格)
- ✓ 9. 原製造廠飛航手冊 (電子信箱)
- ✓ 10. 原製造廠組裝或維護手冊 (電子信箱)

進口同意文件

交通部民用航空局 函

機關地址：10548 臺北市敦化北路340號

傳 真：

聯 絡 人：

聯絡電話：

電子郵件：

受文者：

發文日期：中華民國 112年5月9日

發文字號：標準四字第 1125011163 號

速別：普通件

密等及解密條件或保密期限：

附件：

主旨：有關貴協會申請引進

型超輕型載具1架一案，復如說明，請查照。

說明：

一、復貴協會112年4月6日

二、依據「超輕型載具管理辦法」第4條規定，本局原則同意辦理旨揭載具進口文件審查作業。

三、進口旨揭超輕型載具前，請於本局「航空器暨航空器材進口簽審管理系統」(網址：<https://aiv.caa.gov.tw/>)中申請航空器進口所需之文件，以憑辦理通關事宜。

飛航手冊

QUICKSILVER®
THE ORIGINAL

MAX III

Owner's Manual

—————

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維護計畫

MAINTENANCE

AIRFRAME SCHEDULE

[illegible]

超輕型載具檢驗合格證申請書	
Application for Ultra-Light Vehicle Inspection	
1.申請人(Applicant):	
2.申請人地址(Address):	
3.管制號碼(Control No.)	
4.所屬活動團體(Association):	
5.電話(Tel): 093:	E-mail: @yahoo.com.tw
6.本申請表用於申請 Application for <input checked="" type="checkbox"/> 新申請 New <input type="checkbox"/> 屆期換證 Renew <input type="checkbox"/> 臨時檢驗 Temporary	
7.申請超輕型載具種類 Category <input checked="" type="checkbox"/> 定翼機 Fix Wing <input type="checkbox"/> 直昇機 Helicopter <input type="checkbox"/> 陀螺機 Gyroplanes <input type="checkbox"/> 動力飛行傘 Powered parachutes <input type="checkbox"/> 動力滑翔翼 Weight-shift-control aircraft	

8.超輕型載具基本資料

- a.原管制號碼 Control No.
- b.產品機型 Type
- c. 最大起飛重量 Max. Takeoff Weight
- d. 最大重量最大起飛速度 MTOW Max. Takeoff Speed
或失速速度 Stall Speed
- e.乘載數目(包括駕駛)Capacity
- f. 引擎型式及序號 Engine Type and Serial No.

(另附：超輕型載具規範 Specification、飛行手冊 Flight Manual、製造廠維護手冊 Maintenance Manual、保險證明 Insurance Record、維修紀錄冊 Maintenance Record)

9.損壞更換機身、引擎者需填寫下列項目 (Damage Replace for Fuselage, Engine)：

更換項目名稱(Replaced Items)

1. 2. 3. 4.

10. 其他說明(Others):

申請人(Applicant):

日期(Date): mm/dd/yy

超輕型載具檢驗符合表					
Ultra Light Vehicle Inspection Check list					
所有人 Owner	陳		電話 Tel	093	
地址 Address	台北				
管制號碼 Control. No.					
所屬活動團體 Association					
機身機型/序號 Type/Serial No.					04-11-51-34
機身總時間 A/C Total Time	107 hr				
引擎型別 Engine Type	Rotax 912 ULS	引擎/序號 Engine Serial No.	4427513	螺旋槳/序號 Propeller Serial No.	DUC 0528
S = 滿意, U = 不滿意(不適用請打 N/A) 注意: 1. 操作人及檢驗員需符合活動指導手冊資格規定 2. 中英文翻譯如有差異, 以英文為準				操作人姓名 S	檢驗員姓名 S U
<div>1. 總則</div> <div>General :</div>					
1.1	註冊/適航限制/操作限制 Registration/Airworthiness/Operation limitation			✓	✓
1.2	航空器標示牌安裝 Aircraft identification plates installed			✓	✓
1.3	載重平衡/裝備需求表(符合原製造廠之規格) Weight and balance/equipment list (Comply with the Manufacturer's Specification)			✓	✓

檢查員

上述所有檢查項目已確實檢驗完畢並符合要求，超輕型載具所有者應負責超輕型載具之飛航維護安全責任。

The Above Inspection Items have Been Checked and Satisfied the Requirements, the Owner also Should be Responsible for the Safety Operation of Ultra Light Vehicle.

備註

檢查員

聲明人

日期

Signature:

Date: mm/dd/yy



超輕型載具組裝後合格聲明

Eligibility Statement (Ultra Light Vehicle)

填寫說明：除所有人簽名欄外，其他欄位均可繕打列印，並提交正本予民用航空局。第一欄至第三欄由載具所有人填寫，第四欄由所屬之超輕型載具活動團體證明並用印。

第一欄、所有人基本資料

姓名：聯絡電話：0932

聯絡地址：台南市

第二欄、超輕型載具基本資料

載具機型：ICP Savannah引擎型號：Rotax 912 ULS

機身序號：引擎序號：

管制號碼：螺旋槳型號：DUC

製造標準：☒符合 FAA51%套裝元件(Kit)規定螺旋槳序號：0528

☐LAMAC☐ASTM☐CS-VLA☐其他

附件：☒適航指令(AD)、技術通報(SB)符合紀錄☐組裝紀錄及過程照片

第三欄、所有人聲明	
茲聲明第二欄所述之超輕型載具進口後，由 依原製造廠組裝手冊進行組裝且未經改裝，並已備妥相關紀錄供民用航空局查驗。以上所提供之資料已確認屬實且完整無誤，並同意作為民用航空局發證之依據。	
注意事項： 超輕型載具所有人、操作人、活動團體或超輕型載具製造廠，有民用航空法第一百十九條之一所規定情事之一者，處新臺幣六萬元以上三十萬元以下罰鍰；其情節重大者，並得停止其活動或廢止超輕型載具操作證。	
所有人簽名 	日期(年/月/日)
第四欄、超輕型載具活動團體證明	
上列各項經查明屬實，特此證明。	
活動團體名稱： 	



常見檢查缺失



載具稱重注意事項

經濟部標準檢驗局度量衡器檢定結果通知書

表列各器業經檢定完畢，茲將檢定結果紀錄如下 此致

光政企業有限公司

1/1

申請案號：	10BA1070000039	檢畢日期：	110年03月12日
申請日期	110年03月12日	負責人	吳幸蓁
申請者名稱	光政企業有限公司	執照號碼	標度字第03101號
地址	高雄市三民區十全2路54號	電話	07-3211118
所有人或持有人	屏東賽嘉普豪頓航機場		
所有人地址	屏東縣高樹鄉尚和路12號		

下列器具經檢定結果：

器名	廠牌 型號	器號	器量	最小分度 或等級	數量	檢定結果	
						合格數	不合格數
非自動衡器(電子式)	FA-303-R	C111166	300公斤	50公克	1具	1	0
非自動衡器(電子式)	FA-303-E	C111479	300公斤	50公克	1具	1	0
非自動衡器(電子式)	FA-303-E	C111478	300公斤	50公克	1具	1	0
		以下空白					

附註：無

合格印證編號：不適用

檢定合格單號碼：FOBA0016416-FOBA0016418

檢定合格證書號碼：無

檢定地點：高雄市鳳山區天興街125號

不合格器號及原因：無

注意事項：

- 一、合格各器具請於三月內使用。
- 二、不合格器具得於交領有製造或修理執照之工廠修理後申請重新檢定。
- 三、申請人如不服，得於接到不合格通知書之次日起三十日內，將其訴願書送本局向經濟部提起訴願。
- 四、器具存放期間內遇人力不可抗拒之災害損失本局概不負責賠償責任。


高雄分局分局長
馮本全

局長授權簽發



Fit the tail cone with the leveling tool and place spirit level on it.
Adjust nose wheel wedge until the spirit level reads 0°. *

載重平衡計算

 FLY SYNTHESIS	Pilot Operating Handbook TEXAN CLUB 580	Identification: POH_TClub580 Rev.0 Page: 5
<u>INDEX</u>		
Title	Section	Page
Identification		2
Definitions		3
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6.2 WEIGHING CONDITIONS

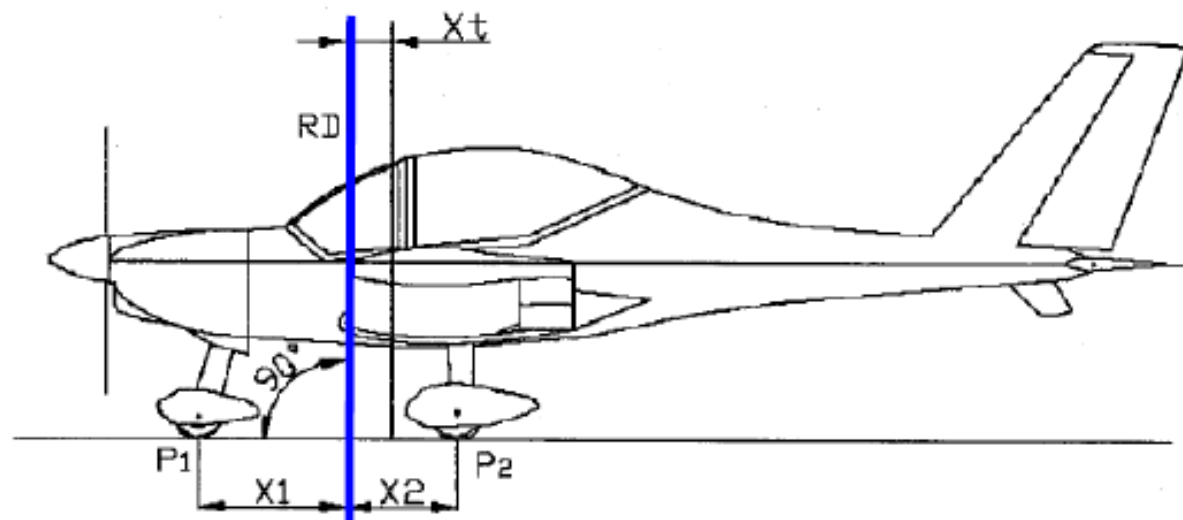
For the weighing of the aircraft, the followings conditions apply:

- The equipment installed must be approved by the factory for the aircraft in question.
- Must be included the brake fluid, engine oil, water coolant and the non-usable fuel.
- Must use three independent scales for each tire horizontal plan and of a thread to lead.
- To determinate the empty weight and the position of the Center of Gravity, the aircraft must be positioned on three autonomous scales, one for each wheel. It is fundamental that the longitudinal and lateral axes of the aircraft are both in the same horizontal plane. You can verify the horizontal datum position when the fuselage side





Using a plum bob mark a line on the ground directly beneath the leading edge of the wing. This point is your reference datum RD. Measurements are to be taken from this point.



X1 is the distance from nose wheel axle centerline to projection of RD.

X2 is the distance from main wheel axle centerline to projection of RD.

The standard distance is:

$$X1 = 925\text{mm} (\pm 0.5\%)$$

$$X2 = 655\text{mm} (\pm 0.5\%).$$



The formula for CG calculation is as follows:

$$X_t = ML / PT \quad [\text{CofG position in mm on the wing chord}]$$

Where: $PT = P1 + P2$

$$ML = (P2DX + P2SX) \times X2 - P1 \times X1$$

$$X_t\% = (X_t / MAC) \times 100 \quad [\text{CG position in percentage to the wing chord}]$$

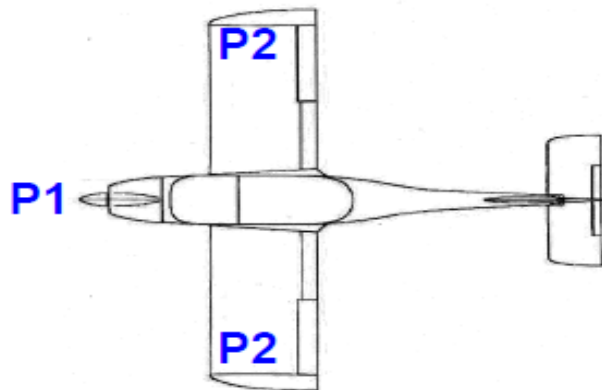
ML = Empty weight moment

P2DX , P2SX = Weight measured on main wheel

P1 = Weight measured on nose wheel

NOTE: DX = RHS SX = LHS

For greater W&B detail refer to the maintenance manual.





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Fax +39.(0)432.931280
Site web: www.flysynthesis.com
e-mail: info@flysynthesis.com

Maintenance Manual
FLY SYNTHESIS TEXAN
TOP CLASS 2
(For Rotax 912 S/ULS
versions)

Identification: MM_TC_2_Rev.1
Page: 5 of 79
Date: 13/04/15
Issued: C. Cosatto
Verified: C. Cosatto
Approved: C. Cosatto

Revision Description:
New manual issue

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載具重心範圍

4.3 CENTER OF GRAVITY LIMITATIONS

Forward Limit:	377 mm behind the reference datum (27% MAC)
Aft Limit:	504 mm behind the reference datum (36% MAC)

The longitudinal location of the Centre of Gravity (CG) is measured as the distance behind a reference datum (RD).

The reference datum is defined as the vertical plane of the leading edge of the wing, when the airplane is level.

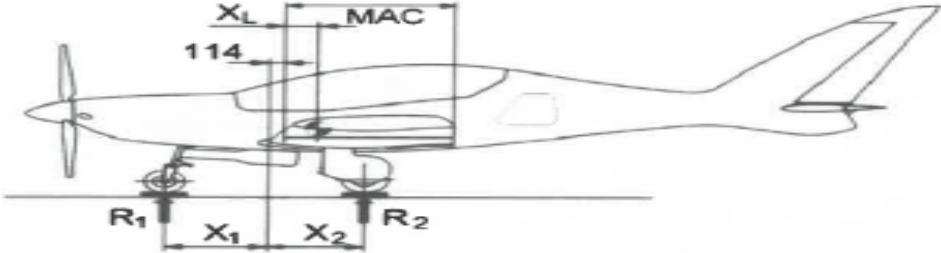
The mean Aerodynamic Chord (MAC) is the average chord of a wing, for this airplane it is 1400 mm.

The 0% of the MAC is the reference datum (RD).

The location of the CG can be defined by reference to the % MAC.

X1	756 mm
X2	742 mm
MAC	1237 mm
REF - MAC	114 mm

REFERENCE PLANE passes through leading edge of wing on connection of wing and fuselage.
REF - MAC is distance from reference plane to leading edge of MAC in longitudinal direction.



CALCULATOR

	Weight(kg)	Arm(mm)	Moment(kgmm)
Empty SHARK	347.2	354	122908.8
Fuel	0	678	0
Pilot(front seat)	0	490	0
Passenger(rear seat)	0	1370	0
Baggage	0	1734	0
	0	0	0
TOTALS	347.2	354.4	123047.68

WEIGHING(empty or in any other configuration)

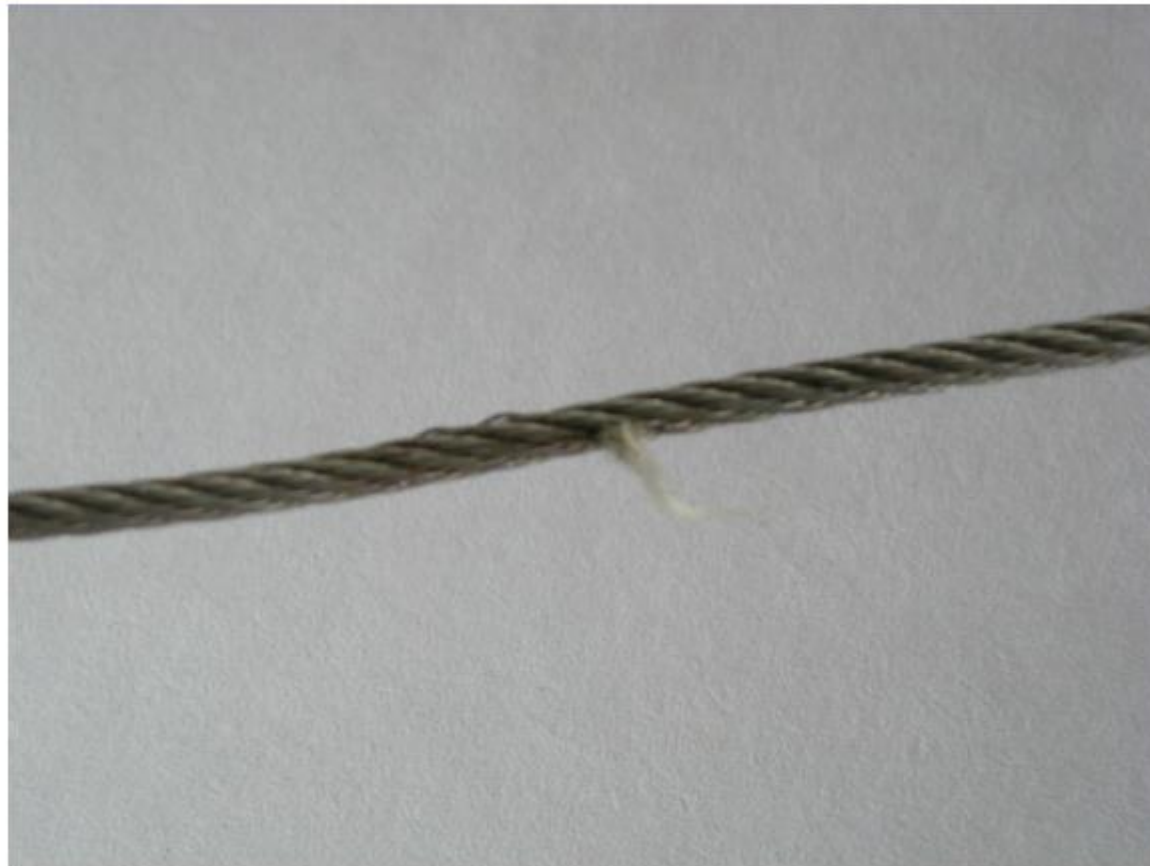
front wheel	90.2	-756	-68191.2
left wheel	130.3	742	96682.6
right wheel	126.7	742	94011.4
TOTALS	347.2	354.4	123047.68

CALCULATED CENTER OF GRAVITY

XL	238.18 mm
XL%MAC	19.2 %

CG range for empty aircraft is 15-20%	CG range for flying aircraft is 16-34%
---------------------------------------	--

鋼繩斷股



接合螺栓銹蝕



翼面帆布破損



機翼固定螺絲安裝反向



未用原材質修補翼面帆布



未有燃油種類標示

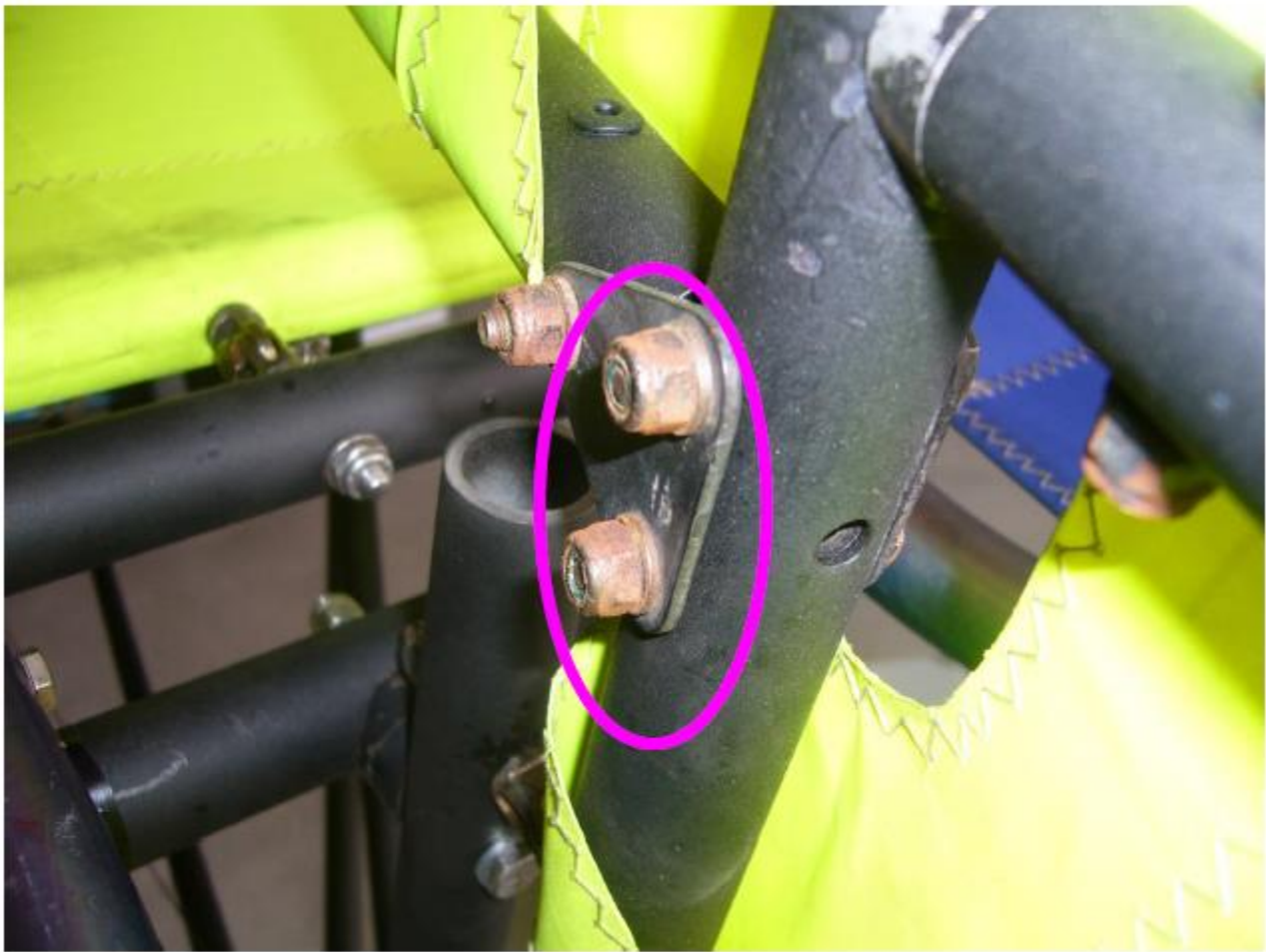


搭接螺栓未施塗Torque Seal

改正
後
情形



搭接螺栓出牙不足





油濾不良



不良

OK





機翼快拆插銷銹蝕



螺旋槳傳動軸盤銹蝕

儀表板未有操作限制標示



未標示

OK



AIRSPEED INDICATOR

MARKING

Green Area

SIGNIFICANCE

Normal operating range.

Lower limit: V_s (stall)

Upper limit: V_{no} (max structural cruising)

Speeds: 33-64

Yellow Area

Caution range.

Lower limit: V_{no} (max structural cruising)

Upper limit: V_{ne} (never exceed)

Speeds: 64-75

Operations must be conducted with caution and only in smooth air.

Red Line

Maximum speed.

V_{ne} (never exceed)

Speed: 75

Do not exceed this speed under any circumstances.

TECHNICAL DOCUMENTATION

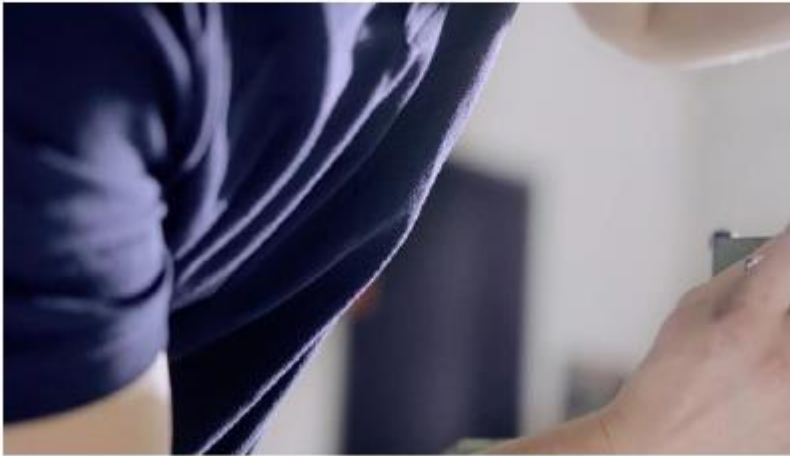


<https://www.flyrotax.com/services/technical-documentation.html>



ROTAX

TECHNICAL DOCUMENTATION



TECHNICAL DOCUMENTATION

Engine Type

912 ULS

Document Type*

- Overhaul Manual
- Repair Manual
- Service Bulletin
- Service Instruction
- Service Instruction for Parts and Accessories

Engine Serial No

Full Text Title

Rotax Website

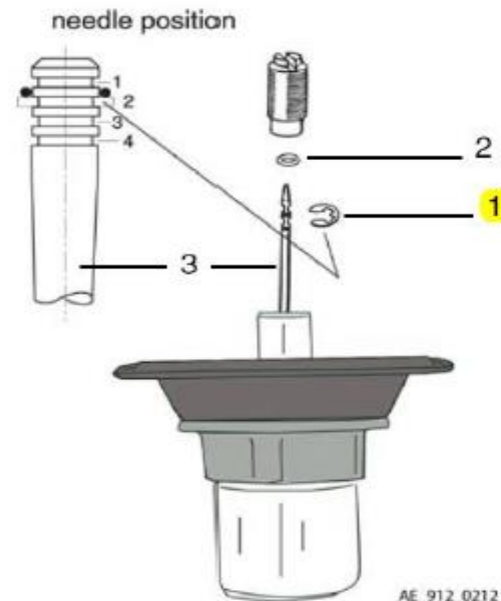
<https://www.flyrotax.com/p/service/technical-documentation>



SB-status and modification record:

Airworthiness directive or modification:	Date:	Signature & Licence no.:
SB-912-073: Replacement of circlip (carburetor) for ROTAX Engine Type 912 and 914	14/9/2019	TEVESO s.r.o. Part 145 appr. CZ145.0045 P. Pexa
SB-912-072 UL byl proveden. Pojistný kroužek kat.č. 945 785 byl vymeňen za nový po- jistný krou		
Step	Procedure	
1	Place a new circlip part no. 945786 (1) into the same needle position. Place a new O-ring 2.5x1 part no. 950430 (2) over the jet needle (3).	

Rotax SB-912-073



- 1 Circlip
- 2 O-ring 2.5x1
- 3 Jet needle

Rotax 912引擎 - 緊急技術通報

ROTAX®
AIRCRAFT ENGINES



ALERT SERVICE BULLETIN

CHECKING OF THE CRANKSHAFT JOURNAL (POWER TAKE OFF SIDE)
FOR ROTAX® ENGINE TYPE 912 AND 914 (SERIES)

ASB-912-059UL

ASB-914-042UL

MANDATORY

Rotax 912引擎 - 緊急技術通報(續)

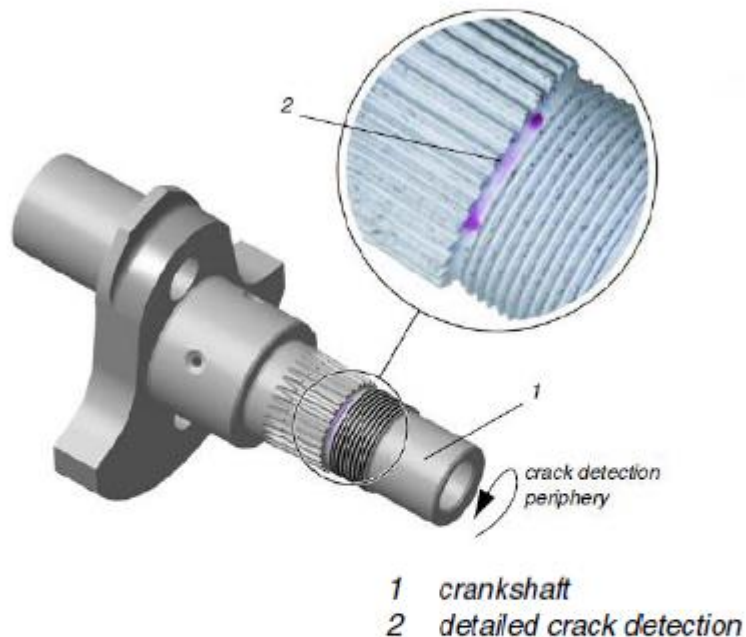
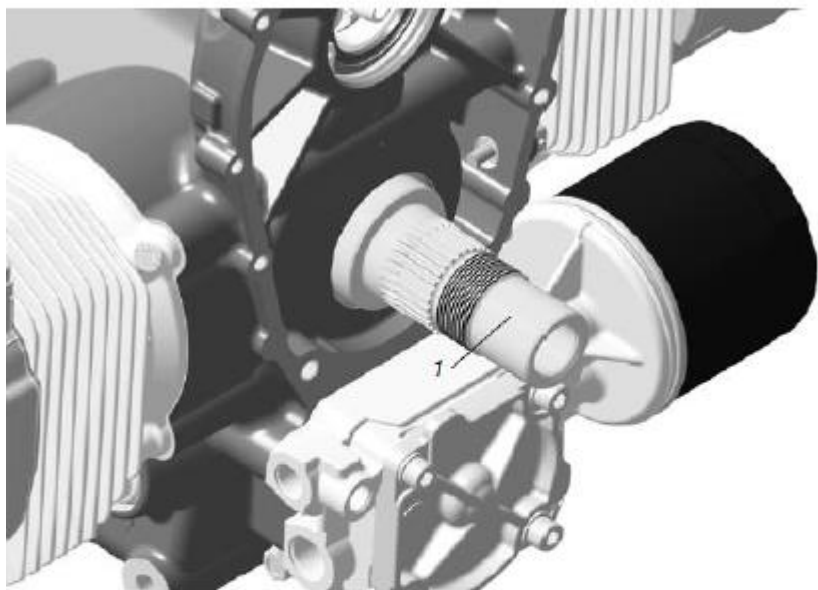


Fig. 1

crankshaft journal

1.3) Reason

Due to a deviation in the manufacturing process some crankshafts may have a crack formation occur on the power take off side. These cracks can cause a breakage of the crankshaft support bearing and may lead to engine stoppage.

1.4) Subject

Check of the crankshaft journal (power take off side) for ROTAX® engine type 912 and 914 (Series).

Rotax 912引擎 - 緊急技術通報(續)

1.1) Engines affected

All versions of the engine type:

- 912 UL from S/N 6,770.159 up to S/N 6,770.176 inclusive/6,770.184
- 912 ULS from S/N 6,777.492 up to S/N 6,777.505 inclusive/6,777.526/6,777.528 up to 6,777.542 inclusive/6,777.544 up to 6,777.547 inclusive/6,777.563 up to 6,777.569/6,777.576 up to 6,777.594 inclusive/6,777.596/6,777.609/6,777.610/6,777.624 up to 6,777.628 inclusive/6,777.630/6,777.631/6,777.634 up to 6,777.642 inclusive/6,777.667/6,777.668/6,777.686/6,777.688 up to 6,777.690 inclusive
- 912 ULSFR S/N 6,777.514/6,777.527
- 914 UL from S/N 6,774.151 up to S/N 6,774.160 inclusive/6,774.165/6,774.166/6,774.168 up to 6,774.171 inclusive/6,774.176 up to 6,774.193 inclusive/6,774.199 up to 6,774.213 inclusive/6,774.220

◆ NOTE:

Crankshafts with the following serial number (S/N) that were installed in the above-mentioned engines are also affected, if removed:

S/N 40233 up to 40235 inclusive/40237/40239/40240/40243/40244/40246/40247/40249 up to 40255 inclusive/40258/40260 up to 40263 inclusive/40266/40293 up to 40299 inclusive/40301/40304 up to 40309 inclusive/40311 up to 40328 inclusive/40330 up to 40336 inclusive/40338 up to 40348 inclusive/40350 up to 40357 inclusive/40360/40362 up to 40372 inclusive/40374/40408 up to 40421 inclusive/40425/40427/40431/40433/40437/40448/40449/40451/40452/40454/40457 up to 40460 inclusive/40465/40467/40468/40470 up to 40476 inclusive/40481 up to 40485 inclusive/40487/40489 up to 40506 inclusive

Rotax 912引擎 - 緊急技術通報(續)


1.1) Engines affected

All versions of the engine type:

- | | |
|---------|--|
| - 912 A | from S/N 4,410.884 up to S/N 4,410.887 inclusive |
| - 912 F | from S/N 4,412.984 up to S/N 4,412.985 inclusive |
| - 912 S | from S/N 4,924.044 up to S/N 4,924.054 inclusive/4,924.056/4,924.058/4,924.064 up to 4,924.077 inclusive/4,924.081 up to 4,924.084 inclusive/4,924.086 |
| - 914 F | from S/N 4,420.965 up to S/N 4,420.970 inclusive/4,420.972 up to 4,420.978 inclusive |

如安裝此型引擎，則需符合)

EASA適航指令

EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	<p><u>AD No.: 2011-0224-E</u></p> <p>Date: 24 November 2011</p> <p>Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>	
<p>Type Approval Holder's Name:</p> <p>BRP-Powertrain GmbH & Co. KG</p>	<p>Type/Model designation(s):</p> <p>Rotax 912 and 914 series engines</p>
TCDS Numbers :	EASA.E.121, EASA.E.122
Foreign AD :	Not applicable
Supersedure:	This AD supersedes EASA Emergency AD 2011-0222-E dated 15 November 2011.

EASA適航指令 (續)

ATA 72	Engine – Crankshaft – Inspection
Manufacturer(s):	BRP-Powertrain GmbH & Co. KG, BRP-Rotax GmbH & Co. KG; Bombardier-Rotax GmbH & Co. KG; <u>Bombardier-Rotax GmbH</u>
Applicability:	<div>Rotax 912 A1, 912 A2, 912 A3 and 912 A4 engines, all serial numbers (s/n). Rotax 912 F2, 912 F3 and 912 F4 engines, all s/n. Rotax 912 S2, 912 S3 and 912 S4 engines, all s/n. Rotax 914 F2, 914 F3 and 914 F4 engines, all s/n.</div>
Ref. Publications:	<div>BRP-Powertrain <u>ASB-912-059</u> and <u>ASB-914-042 (single document)</u> original issue dated 15 November 2011.</div> <div>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</div>

SB-912-065UL R3
SB-914-046UL R3



This Service Bulletin is valid until SB-912-067UL/SB-914-048UL (latest issue) has been complied with.

SERVICE BULLETIN

Periodic inspection of the float buoyancy for ROTAX®
Engine Type 912 and 914 (Series)

ATA System: 73-00-00 Fuel system

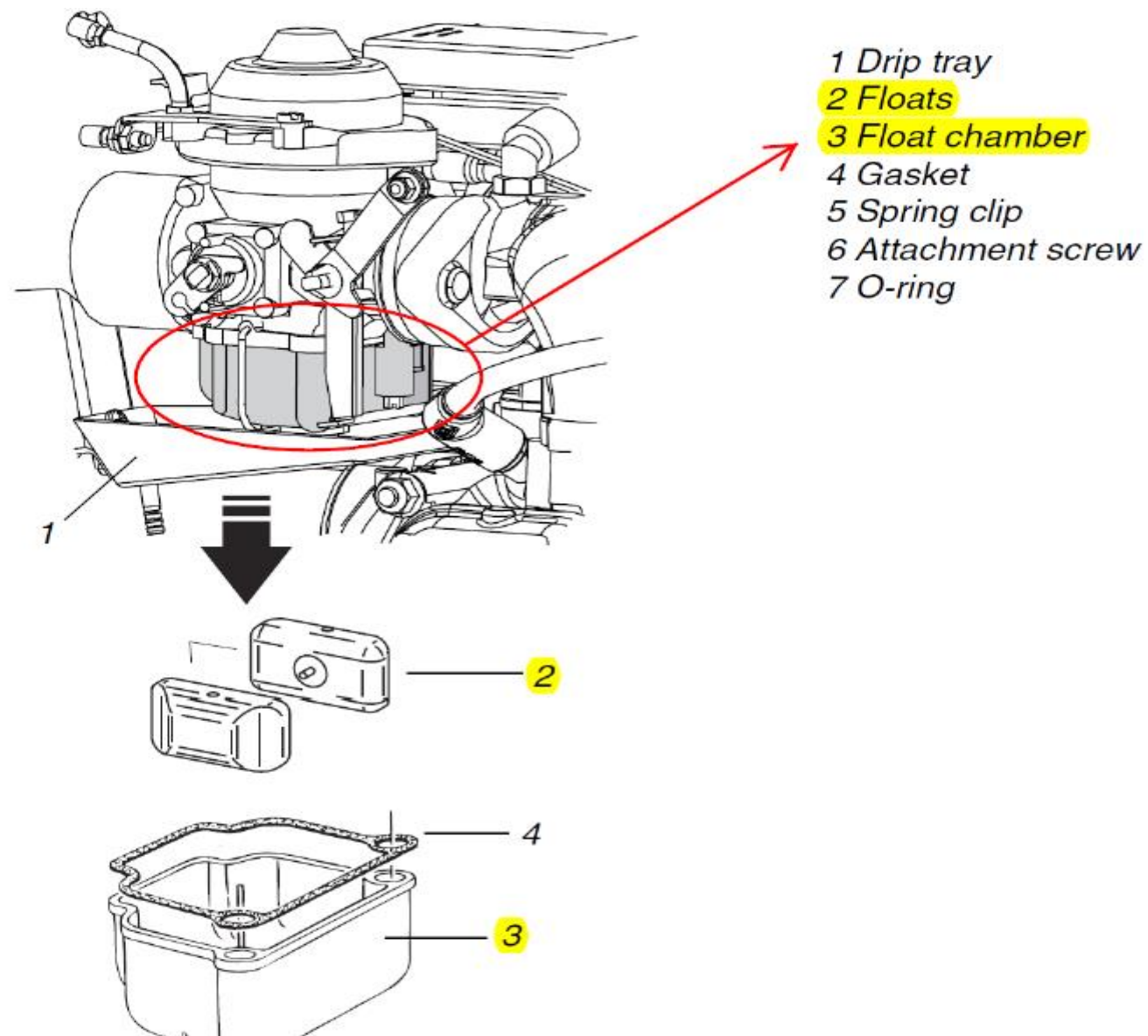
MANDATORY

1.1) Applicability

All engines of Series 912 UL, 912 ULS and 914 UL are affected, if at least one of following criteria applies:

Criterion A) Engine Serial number:

Engine type	Serial number
912 UL	from S/N 6 770 733 up to S/N 6 771 484 inclusive
912 ULS	from S/N 6 780 228 up to S/N 6 783 917 inclusive
914 UL	from S/N 7 682 154 up to S/N 7 683 662 inclusive





1.3) Reason

Due to a deviation in the manufacturing process some floats could absorb more fuel thus having more weight. This leads to a loss of float buoyancy and wrong regulation of the fuel in the float chamber. Possible effects may be a rough engine running, especially at low speeds and under circumstances loss of performance and/or fuel leakage in the area of the carburetor.

1.5) Compliance

NOTE:

The installation of new floats as per SB-912-067/SB-914-048 "Exchange of floats" (latest issue) supersedes and cancels the requirement to comply with SB-912-065/SB-914-046 (latest issue).

- Before the first installation in the aircraft and/or the initial start-up.
- Carry out this inspection of float buoyancy of the engines listed in section 1.1., according to the instructions in section 3 at the next BRP maintenance event or within the next 25 hours of operation, but at the latest after 60 days (from the date of the initial issue of this Service Bulletin).
- Carry out this inspection of float buoyancy of the engines listed in section 1.1., according to the instructions in section 3 periodically after each 25 hours of operation, but at the latest after 60 days.
- At rough engine running, especially at low engine speeds (crankshaft speed to 4000 rpm), fuel odor or fuel leakage carry out this inspection before the next flight. The cause (may also be independent of the float) has to be fixed before the next flight.



中華民國交通部民用航空局

Civil Aeronautics Administration
Ministry of Transportation and Communications



飛航標準組
初始適航科



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Fax: (+49) 7572 – 3309

E-mail: post@comco-ikarus.de

Internet: www.comco-ikarus.de

SERVICE BULLETIN

Issue Date: April 2013 Effective Date: 30 April 2013

SB-42-016-2013 Elevator Bearing Block

Subject

Inspection of elevator bearing block and exchange of the Polyamide distances.

Applicability

All IKARUS C42 and C42 B to serial number 1301-7234

By overloading on the ground (support on stick or elevator) or by clearance in the elevator linkage, the Polyamide distances can cause cracks in the bearing block.

Deadlines

Before the next yearly inspection respectively the next 100h inspection.

Airworthiness Implications

Upon failure of the bearing block the function of the elevator is impaired.

Classification

Service Bulletin, **MANDATORY**. The actions required as set out below must be complied with to maintain the airworthiness of the aircraft.

Image 1 previous version

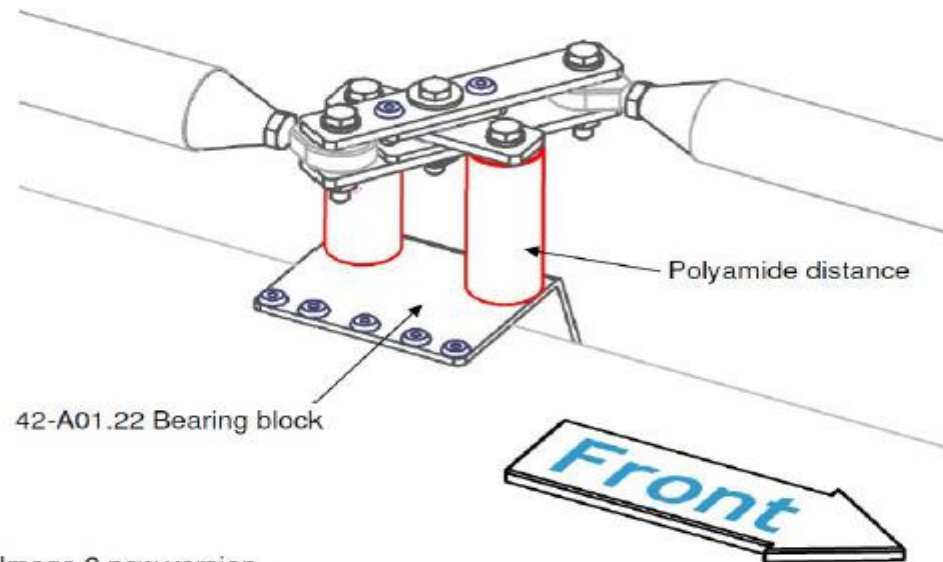
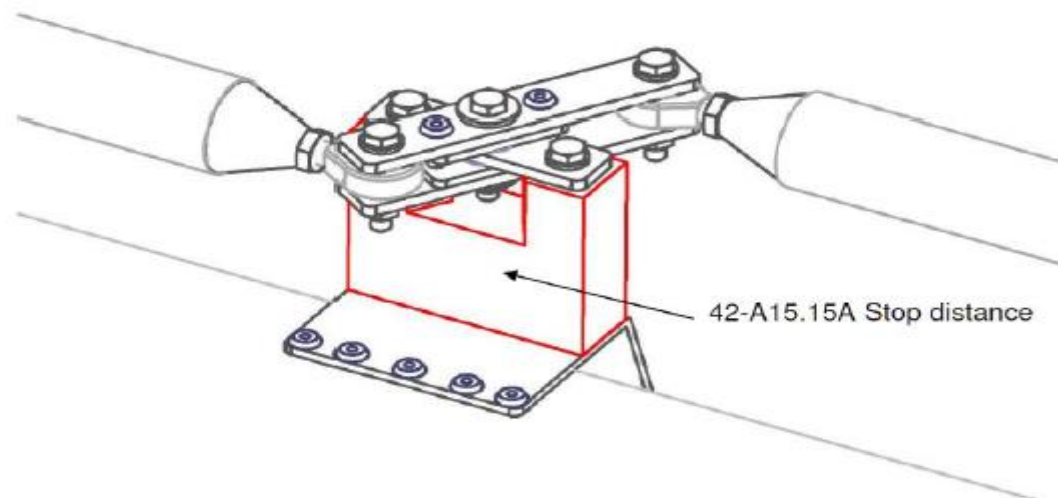



Image 2 new version





<div>  <div> <div>適航指令發布單</div> <div>Airworthiness Directive Issuance Form</div> </div> </div>			
<div>民航局 AD 編號</div> <div>AD number</div>	<div>CAA-2023-08-003 緊急</div>	<div>發布日期</div> <div>Date issued</div>	<div>2023/8/4</div>
<div>適用之航空產品</div> <div>Applied to (models, serial numbers or part numbers, as applicable)</div>	<div>Rotax 912 A, 912 F, 912 S and 912 iSc Sport (series) engines, all models, all serial numbers (s/n); and Rotax 914 F engines, all models, all s/n. These engines are known to be installed on various general aviation (EASA CS 23, CS LSA, CS-VLA or CS 22 certified) aeroplanes and powered sailplanes. Installation of these engines was done by either the respective aeroplane manufacturers or through a modification of the aeroplane by Supplemental Type Certificate (STC).</div>		
<div>主旨摘要</div> <div>Subject</div>	<div>Engine - Propeller Gearbox / Magnetic Plug - Inspection / Propeller Shaft - Replacement</div>		
<div> <div>民航局</div> <div>CAA</div> <div><input type="checkbox"/> 本國產品</div> <div>Native product</div> <div><input type="checkbox"/> 其他個案</div> <div>Other</div> </div>	<div> <div>設計國民航主管機構</div> <div>Original Authority</div> <div> <div><input type="checkbox"/> FAA</div> <div><input checked="" type="checkbox"/> EASA</div> <div><input type="checkbox"/> Brazil</div> <div><input type="checkbox"/> Transport Canada Civil Aviation</div> <div><input type="checkbox"/> DGAC</div> <div><input type="checkbox"/> Germany LBA</div> <div><input type="checkbox"/> CAA-NL</div> <div><input type="checkbox"/> UK CAA</div> <div><input type="checkbox"/> Japan CAB</div> <div><input type="checkbox"/> CAA of Israel</div> <div><input type="checkbox"/> Other_____</div> </div> </div>		
	<div>設計國 AD 編號</div> <div>Original AD number</div>	<div>2023-0156-E</div>	



EASA AD No.: 2023-0156-E



Emergency Airworthiness Directive

AD No.: 2023-0156-E

Issued: 02 August 2023

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part M.L.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part M.L.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

BRP-ROTAX GmbH & Co KG

Type/Model designation(s):

Rotax 912 and 914 engines

Effective Date: 04 August 2023

TCDS Number(s): EASA.E.121 and EASA.E.122

Foreign AD: Not applicable

Supersedure: None

**ATA 72 – Engine – Propeller Gearbox / Magnetic Plug – Inspection / Propeller Shaft
– Replacement**

ATA 72 – Engine – Propeller Gearbox / Magnetic Plug – Inspection / Propeller Shaft – Replacement

Manufacturer(s):

BRP-Rotax GmbH & Co KG, formerly BRP-Powertrain GmbH & Co. KG, Bombardier-Rotax GmbH & Co. KG, Bombardier-Rotax GmbH

Applicability:

Rotax 912 A, 912 F, 912 S and 912 iSc Sport (series) engines, all models, all serial numbers (s/n); and

Rotax 914 F engines, all models, all s/n.

These engines are known to be installed on various general aviation (EASA CS 23, CS LSA, CS-VLA or CS 22 certified) aeroplanes and powered sailplanes. Installation of these engines was done by either the respective aeroplane manufacturers or through a modification of the aeroplane by Supplemental Type Certificate (STC).

超輕型載具檢驗符合表				
Ultra Light Vehicle Inspection Check list				
所有人 Owner		電話 Tel		
地址 Address				
管制號碼 Control. No.				
所屬活動團體 Association				
載具機型/序號 Type/Serial No.				
載具類別 ULV Category	<input checked="" type="checkbox"/> 固定翼載具 Fixed Wing <input type="checkbox"/> 動力滑翔機 Powered Glider			
機身總時間 A/C Total Time	2 小時			
引擎型號/ 序號 Engine Type/ Serial No	ROTAX912IS 7706564	螺旋槳型號/序號 Propeller Type/ Serial No	DUC FLASH 94 95 96	
S = 滿意， U = 不滿意(不適用請打 N/A) 注意：1.操作人及檢驗員需符合活動指導手冊資格規定 2.中英文翻譯如有差異，以英文為準			操作人姓名	
			檢驗員姓名	
			S	U
			S	U
1. 總則 General :				
1.1	註冊/適航限制/操作限制 Registration/Airworthiness/Operation limitation		✓	
1.2	航空器標示牌安裝 Aircraft identification plates installed		✓	
1.3	載重平衡/裝備需求表(符合原製造廠之規格)		✓	

11. 文件資料 Paperwork :				
11.1	適航指令 / 技術通報 Airworthiness directives/Service Bulletin	✓		
11.2	紀錄的調閱與簽署資料的檢查 Record findings and sign off inspection	✓		
11.3	航空器維護經歷簿 Maintenance in aircraft log books	✓		
<p>上述所有檢查項目已確實檢驗完畢並符合要求，超輕型載具所有者應負責超輕型載具之飛航維護安全責任。</p> <p>The Above Inspection Items have Been Checked and Satisfied the Requirements, the Owner also Should be Responsible for the Safety Operation of Ultra Light Vehicle.</p> <div> <div>備註</div> <div> <div>聲明人_____</div> <div>日期 01/10/23</div> </div> <div> <div>Signature:</div> <div>Date: mm/dd/yy</div> </div> </div>				



飛航標準組
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報告完畢
謝謝