

	<b>Standard Modification</b> <b>Issue 1</b>	Mod No. SM12824
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		Compiled : A Draper
		Approved : F Donaldson

**TITLE :** Castoring Tailwheel.

**APPLICABILITY :** Fournier RF-5 and RF-5B aircraft  
**Mod Type :** Retro-fit

**1. Introduction**

This modification involves the manufacture and installation of components that are installed into the existing steerable tailwheel to enable 360 degree free castoring for ease of ground handling and an externally operated locking system to prevent free castoring and engage tailwheel steering for ground manoeuvring via the rudder pedals.

Supplemental Type Certificate No. PS 0010 695/2, approved by the Luftfahrt-Bundesamt (LBA) is used as a basis for approval for this Standard Modification, except that Wezel Version 1 only is to be used.

The cockpit operated locking and unlocking system described in Wezel Version 2 is reported to be unreliable in service and is not included in the approval of this Standard Modification.



**RF-5 Tailwheel assembly with castoring facility installed.**



**Underside of tailwheel support arm**

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## 2. Parts List

Qty	Description	Source
1	Tailwheel steering bellcrank	To be manufactured or procured in accordance with drawings in document CFI-Fau 07/2003 Wezel Version 1.  Supplier: Jon French <a href="mailto:Jonfrench0@gmail.com">Jonfrench0@gmail.com</a> 07885 213503
1	Stepped pivot disc (S/Steel)	
1	Chamfered disc (S/Steel)	
1	Pin receptacle (S/Steel 14mm x 1mm wall with 12mm dia base disc with 4mm central hole welded at one end)	
1	12mm dia pin (S/Steel)	
1	Compression spring to suit	
1	Pin retaining bolt (M4 12.9 skt hd cap)	
1	Notched pin lock-out wheel	
1	Locking bolt (M5 12.9 skt hd cap)	
4	Socket head cap bolts (M6 x 25 12.9 skt hd cap)	
4	Locking nuts (M6 Nyloc or stiffnut)	

## 3. Action

With the aircraft properly supported, remove and dismantle the tailwheel assembly. Discard the original aluminium tailwheel operating arm Part No. 512.004 and install the 12mm stainless steel pin receptacle by welding it into place aligned concentrically with the existing hole in the tailwheel support arm. Install the pin and spring and retain it with the 4mm retaining bolt using Loctite to secure it. Drill a hole for the notched pin lock-out wheel's shaft and install the wheel with its locking nut.

Assemble the tailwheel steering arm and pivot discs together: the chamfered disc sits against the tailwheel support arm, then with grease between them, the steering arm which is retained by bolting in place the stepped pivot disc using the four socket head cap bolts and locking nuts. Check that the steering arm is free to pivot and that there is not excessive play. Make the necessary adjustments as required.



**Tailwheel steering pin engaged.**



**Steering pin disengaged and locked down.**

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**4. Weight and balance**

The change in weight following removal the installation of this modification is negligible.

**5. Flight Test and Special Inspections**


Check the operation of tailwheel steering is as effective as before modification.

Amendment to Pilot's Operating Handbook.

Add to the pre-flight inspection checks: Ensure that the tailwheel drive pin is engaged with the tailwheel steering bellcrank before taxiing and flight.

**6. Certification**

Before the modified aircraft may be flown a suitable LAA inspector must check the tailwheel pivot installation and, if satisfied, make an appropriate logbook entry, including reference to CFI-Fau 07/2003 and SM12824 and sign a Permit Maintenance Release (PMR).

Approved:	F Donaldson B.Tech C.Eng FRAeS Chief Engineer	Signed:	
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