ANAC | AVIACIÓN CIVIL ARGENTINA

ADVERTENCIA 290/DAG

La presente ADVERTENCIA tiene por objeto dar a conocer una situación que puede resultar de interés para Talleres Aeronáuticos de Reparación, operadores y/o propietarios de aeronaves, por tal motivo la misma se emite a los efectos de informar, y las recomendaciones en ella contenidas no tienen carácter mandatorio.

Ciudad Autónoma de Buenos Aires, 03 de marzo de 2023.

DIRIGIDO A:
Talleres Aeronáuticos de Reparación, Propietarios y Operadores de aeronaves marca TECNAM, Modelos P92, P2002 y P2008, categorías ADL y VLA, todos los S/N.

MOTIVO:
Precisiones sobre las tareas de reparación del sellado de los tanques de combustible.

ANTECEDENTES:
Ante los problemas de pérdida de combustible en los tanques de los semiplanos, la ANAC ha solicitado al Representante de TECNAM en Argentina el desarrollo de un procedimiento que contemple la reparación completa del sellado interno de los tanques de combustible de estas aeronaves. Este requerimiento obedeció al hecho que TECNAM si poseía un procedimiento para reparar el sellado de los tanques, pero contemplaba tan solo una reparación PARCIAL, no alcanzando las tareas necesarias en nuestro país.
Recientemente la ANAC recibió desde TECNAM, la Job Card No.728 Ed.2Rev.0, la cual ahora prevé el desarme total y el nuevo sellado de todas las uniones de los tanques.
Respecto a los procedimientos empleados en el mantenimiento de las aeronaves, el RAAC 43.13(a) requiere que cada persona que realice mantenimiento, en una aeronave, debe usar los métodos, técnicas y prácticas establecidas en el manual de mantenimiento actualizado del fabricante o en las instrucciones de aeronavegabilidad continuada preparadas por su fabricante, u otros métodos, técnicas y prácticas aceptables para la ANAC.

RECOMENDACIONES:
En base a lo arriba indicado, se informa que todas las reparaciones del sellado de tanques de combustible, deberán ser realizadas siguiendo el procedimiento indicado en la TECNAM JOB CARD N° 728 Ed.2Rev.0.

ISA Ing. Aer. Francisco OSCIAK
Encargado del Área Ingeniería del DAG

Aircraft:	All Tecnam LSA	**s/n:**		**A/C Time Since New (h)**	
Engine:	Rotax	**s/n:**		**Date (dd/mm/yyyy)**	23/02/2023
		s/n:	--//--	**Maintenance**	☒
Propeller:		**s/n:**		**Repair**	☐
		s/n:	--//--	**Modification**	☐

Tecnam LSA Fleet
Fuel Tank Internal Sealing

Reference:

- FAA AC 43.13 - last issue;
- Aircraft Maintenance Manual – last issue
- Illustrated Parts Catalogue – last issue

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Aircraft:	All Tecnam LSA	**s/n:**		**A/C Time Since New (h)**	
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Descrizione Operazioni / *Description of Operations*	**Operatore *Operator***	**Controllore *Controller***		**DATA *DATE***
		1ST	**2ND**	
1. Introduction This Job Card describes the complete procedure concerning the Tecnam LSA Fleet Fuel Tank Internal Sealing. The technical content of this document is approved under the authority of DOA ref. EASA.21J.335			**N.A.**	
2. Aircraft preparation 1. Park the fuselage in a closed hangar; 2. Master Switch: OFF; 3. Starter Relay Breaker: OFF; 4. Parking brake: ON; 5. Fuel Selector Valve: OFF; 6. Wheels locked; 7. Remove the positive cable from the battery; 8. Proceed with followings instructions;			**N.A.**	
3. Kit preparation Prepare the KIT composed by the following items:			**N.A.**	

Description	***Part number***	***QTY***
Aluminum Pop Rivets Ø 3.25mm	Avdel 01663-00410	125
Aluminum Solid Rivets	MS20470-AD4	175
Fuel Tank Sealant (not included)	PR1776B2 or CS3204 B	As required
Structural Sealant (not included)	Sikaflex 221	As required
Aluminum Solid Rivets	MS20470-AD3	8
Aluminum Solid Rivets	MS20426-AD4	2

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4. Fuel System Drainage Procedure 1. Electrically ground airplane; 2. Place a container under the Gascolator; 3. Open the Gascolator drain valve; 4. Wait for complete defueling; 5. Place a container under the fuel sump drain valve; 6. Open the drain valve; 7. Wait for complete defueling; 8. Close the drain valve; 9. Repeat for the other fuel tank step 5 to 8.			**N.A.**	
5. Fuel Tank Sealing Procedure This procedure is applicable for both, LH and RH, Fuel Tank: 1. Identify the Fuel Tank in object. Remove the fuel line and fuel tank fitting, remove wire from the fuel quantity sender unit located inboard on top of the tank. Tape off the edge of the fuel tank, drill out all outboard row rivets with a Ø 3.25mm drill bit. Pay attention to avoid deformation or damage; 2. Record the position of Pop Rivets and Solid Rivets; 3. Using a cutter, carefully separate the tank edge skin from the wing on the top, bottom and sides of the tank; 4. Carefully pull the tank forward approximately 6 inches; mark and remove the small plastic vapor return line tube and the outboard vent line tube from their respective fittings. Record their position; 5. Remove the tank and place it on a protected surface. Remove the large inboard and outboard side access plate by removing exterior sealant from the rivets and carefully separate the access panel from the tank by removing the rivets using Ø 3.25mm drill bit. Use a cutter to cut the old sealant traces; 6. Remove all ribs and back cover plate drilling out row rivets using Ø 3.25mm drill bit 7. With a Plexiglas scraper and aluminum brush remove sealant from all parts with old sealant, clean area with suitable product such as thinner; 8. Restore sealant layer on interior fuel tank skin area in contact with ribs, on ribs and solid rivets 9. Rivet all ribs to tank skin and apply sealant layers inside fuel tank along edges, attachment points, on the rivet tail and wherever is required. 10. Remove any traces of dirt and foreign objects from Fuel Tank;			**N.A.**	

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11. Restore sealant layers in contact area with back cover plate 12. Put back cover plate in position and rivet to ribs and tank skin. Apply sealant layers to outside edges of back cover plate and rivet tails. Let sealant dry as long as required. 13. Spray fuel (approved fuel) into tank in order to rinse the tank and to verify if the tank has been correctly sealed; 14. Tip the tank up and let drain fuel used for "washing" out of the fuel tank fitting hole. Use suitable containers to gather drained fuel; 15. Repeat from step 7 to 14 several times as required; 16. Remove all sealant traces from the access panel and tank mating surfaces; 17. Make sure to keep tank clean from sealant debris.; 18. Verify that the Fuel Tank is clear from foreign objects; 19. Apply a new sealant layer *(PR 1776B2)* on fuel tank flange and install the access plate in its position; 20. Install *N° 8 Aluminum Pop Rivets Ø 3.25mm P/N Avdel 01663-00410* and fix the access panel to fuel tank flange; 21. Carefully apply the sealant *(PR 1776B2)* all around the access panel edges in order to perform a sealant strip; 22. Carefully apply the sealant *(PR 1776 B2)* on access panel rivets heads in order to seal them; 23. <u>Let sealant</u> <u>dry as long as required;</u> 24. Repeat from Step 12 to 19 to reinstall the other access panel; 25. With a Plexiglas scraper and mineral spirit, clean the exterior tank-to-wing mating surfaces of the tank and wing; 26. Inspect the rivet holes and correct any deformation according with FAA AC 43.13. Inspect the wing rivet holes and clean all debris, loose sealant and rivet tails; 27. Reinstall the tank onto the wing making sure to reconnect the fuel vapor return line and the outboard fuel vent line as previously recorded. Place Fuel tank into its original position and check fit; 28. With the tank pulled approximately 2 inches out from the spar; apply a thin bead of Sealant *Sikaflex 221* around entire tank, push tank into position and temporary fix this last using clecos; 29. Install the Fuel Tank using *Aluminum Pop Rivets Ø 3.25mm P/N Avdel 01663-00410* or *Aluminum Solid Rivets P/N MS20470-4AD5* as recorder in Step 2 (use Pop Rivets or solid Rivets depending on what had previously installed); 30. Wipe off excess sealant with towel moistened with mineral spirits; 31. Re-install fuel fitting to the tank, apply fuel lube on the threads and tighten;			**N.A.**	

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32. Re-install the fuel line; 33. Reconnect the Fuel quantity sender unit electrical connection; 34. Let sealant dry as long as required; 35. Repaint as needed using RAL9016 White paint color.			**N.A.**	
5. Final check • Clean the aircraft from eventual chips or dirt. • Make sure that the aircraft is clear of foreign objects and tools. • Ensure that all inspection doors are closed and properly fastened. • Reinstall the positive cable of the battery. • Starter Breaker Relay: ON. • Refill the A/C with approved fuel and perform a functional and operational test of the Entire Fuel System.			**N.A.**	
6. Record of Work • Record the operation on the aircraft logbook.			**N.A.**	