

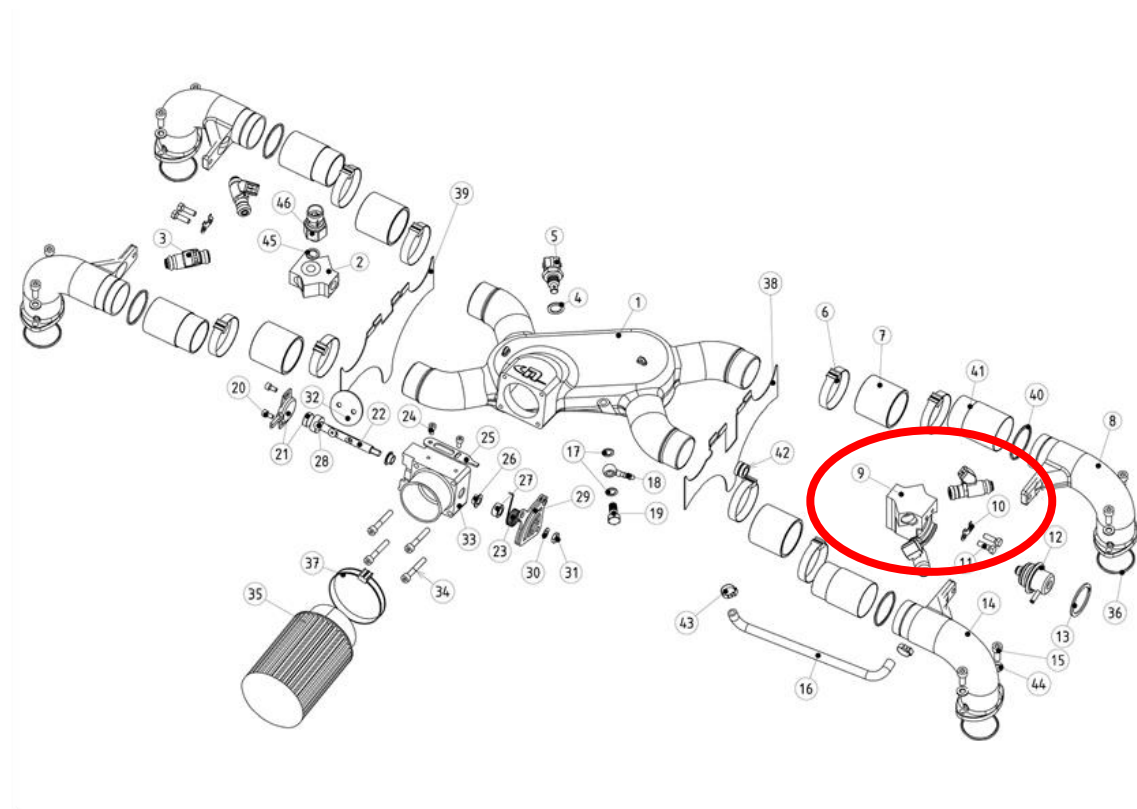
RETROFIT AN INJECTOR HOLDER WITH INTEGRATED BY-PASS

A. Verify if your engine already has an injectorblock with integrated by-pass

Injector holder WITH integrated by-pass.

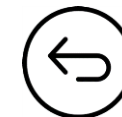


Injector holder WITHOUT integrated by-pass



All engines with a serial number higher than 191401 already have factory installed injector holder with build-in by-pass

Only If you don't see a "o", continue with the procedure below.





RETROFIT AN INJECTOR HOLDER WITH INTEGRATED BYPASS

Required documents : Illustrated parts catalogue which can be downloaded from our website.

Required tools:

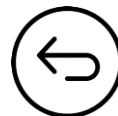
- 12 mm wrench
- 17 mm wrench
- Torque wrench with 5 mm / 8 mm /12 mm socket
- Wire rope cutter
- Circlip plier
- Hose clamp tool
- Screwdriver
- Hammer
- Grease

Required parts : (K1100001 – integrated bypass kit for UL260/350) (K1100002 for UL390/520)

•E061513	injector + pressure regul. holder /bypass	1 pc (for UL260/350 –single ECU)
•SE061520	injector + pressure regul. holder/bypass	1 pcs (for UL390/520 – single ECU)
•S3081210	copper ring ø8x12x1	2 pcs
•S3121715	copper ring ø12x17x1,5	4 pcs
•F2580001	hose clamp Ø47	2 pcs (only for UL260/390 engines)
•E061512	injector holder lock plate	1 pc
•S1036020	O-ring viton 36 x 2	2 pcs (only to be replaced if lost/damaged)

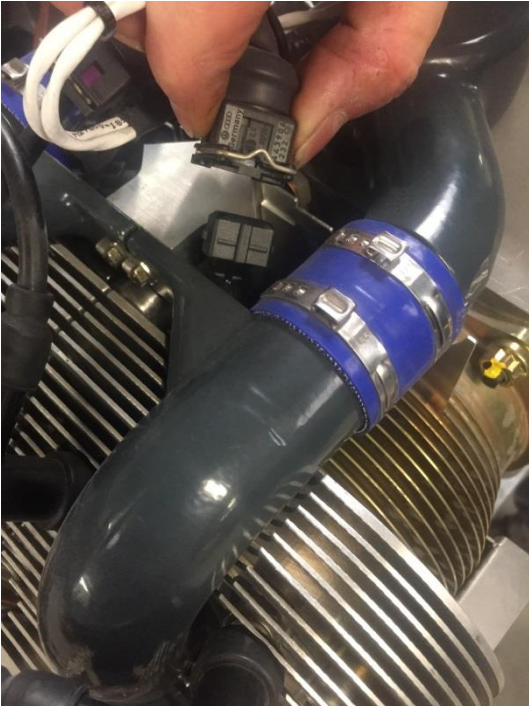
Wait at least one hour after shutdown until the engine has cooled down and fuel pressure has dissipated, before starting to work on the engine. During this procedure there may be some fuel spillage. Ensure that work is carried out in a well ventilated area clear of sparks or open flames.

Pictures in this procedure are based on a generation 2018 - UL260. Slight variations are possible compared to older engines . E.g. color of the silicone hoses , presence of nordlock washers, presence of O-rings etc.....

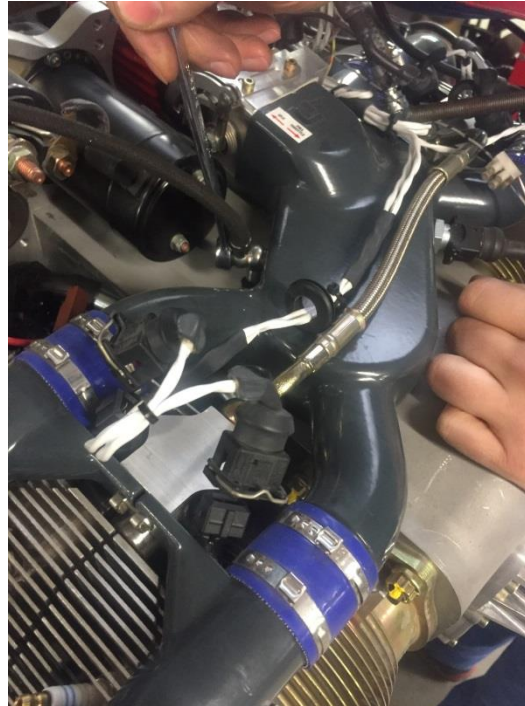


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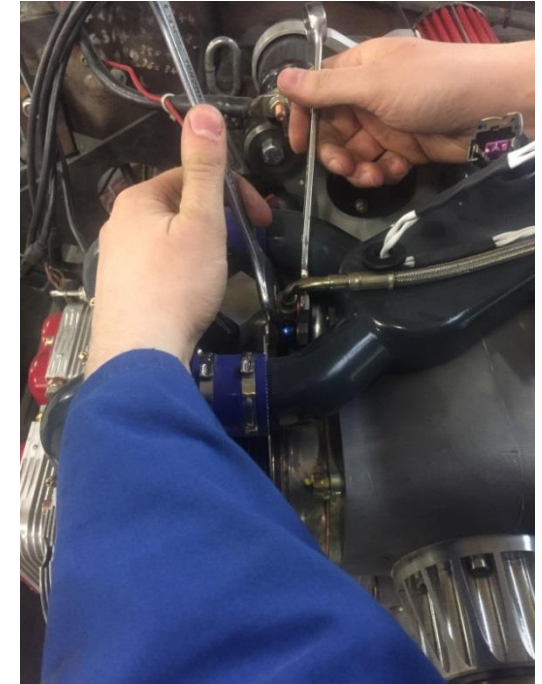
B. Disassembly



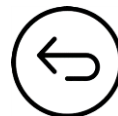
Disconnect injector connectors



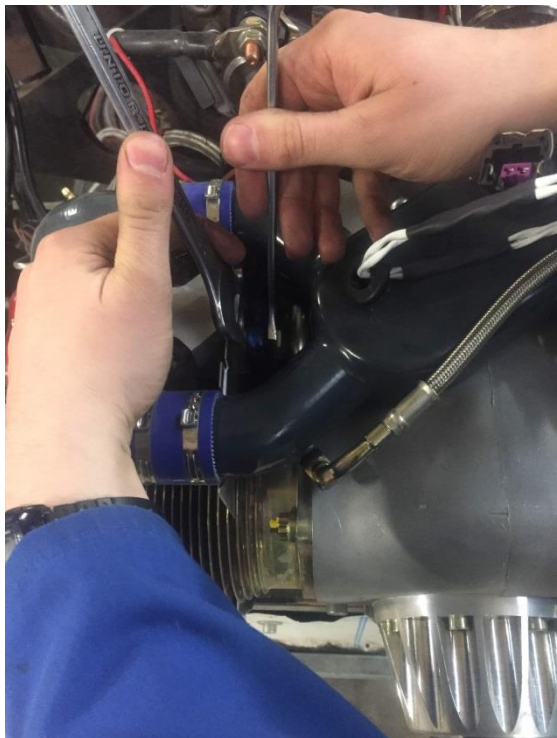
Unscrew banjo bolt / black hose from the manifold
Discard the copper rings .



Unscrew banjo bolt from the fuel cross line
Discard the copper rings .



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Unscrew banjo bolt of the fuel return line. Put copper rings aside

For UL350 / 520:
disconnect the AN6 return line



Cut the hose clamps.
Only 1 on each side. No need to cut the ones closest to the inlet manifold.

No need to do that for UL350/520

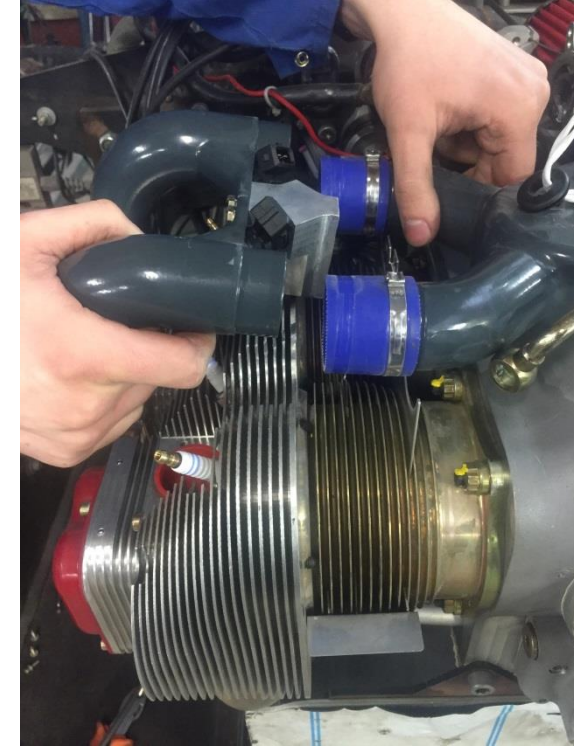
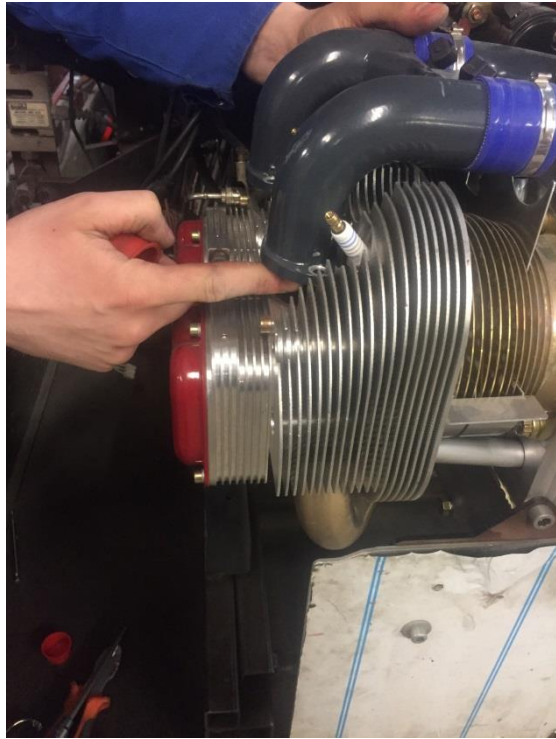


Unscrew 4 bolt F0106016 (2 on each inlet tube / cylinder head connection)
Put bolts and nordlock washers aside

Nordlock washer may not be present on older engines



RETROFIT AN INJECTOR HOLDER WITH INTEGRATED BY-PASS



Lift the 2 inlet tubes (make sure to lift them high enough so they can pass over the heads) and gently pull them away from the cylinder head. Pull them from the blue (or black) silicone hoses .

Cover the inletholes on the cylinderheads to prevent debris or foreign objects from entering the engine



For UL350 / 520 : the inlet extension tubes (BE61515) remain on the manifold . Simple remove the inlet tubes from the inlet extension tubes.

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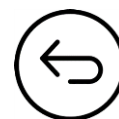
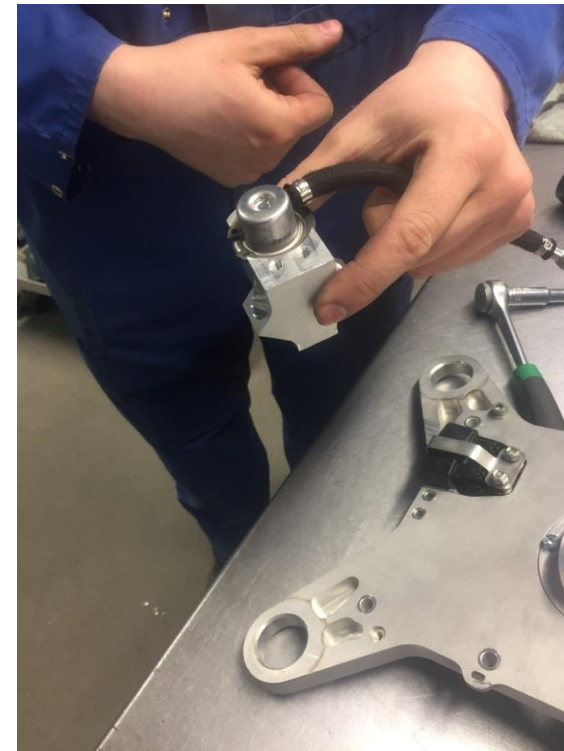
Unlock the locking plate (E061512) that secures the bolts fixing the inlet tubes and the injector holder.



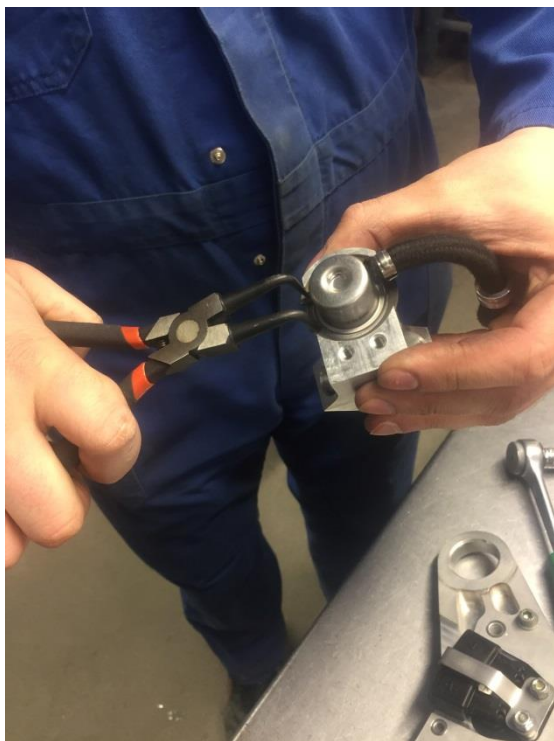
Unscrew both bolts (F1005010) and put them aside



Pull away the inlet tubes carefully and remove the injector from the injector holder



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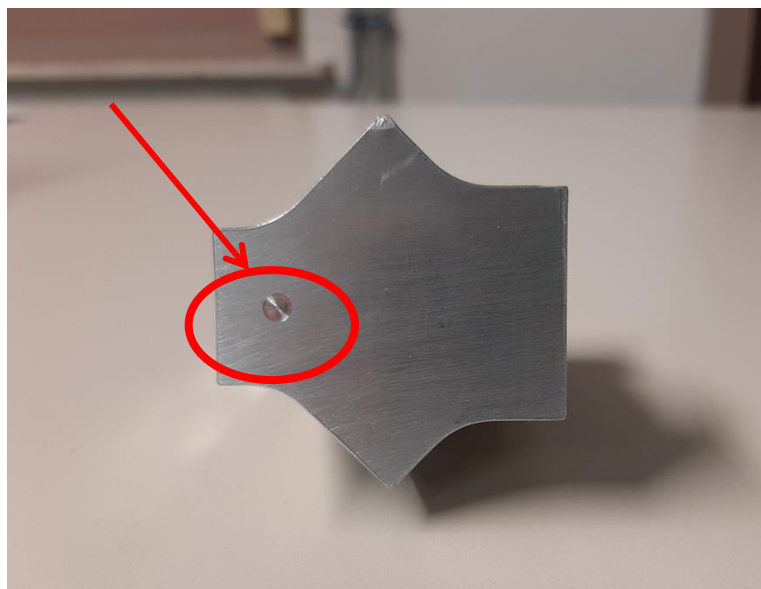
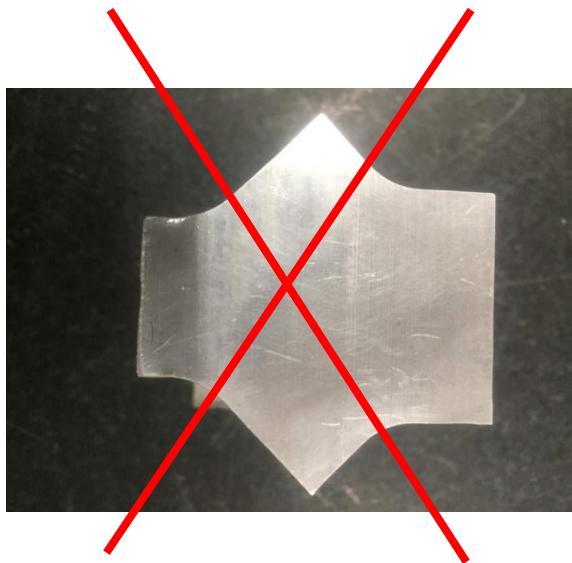
Use suitable circlip pliers to remove the retaining ring (F1600036) that holds the pressure regulator (E064501) in place and carefully pull the regulator out of the injector holder .

Pay attention to the O-ring and ensure that it is not damaged during the process



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C. Assembly



Take the new injector block with integrated in by-pass .
Verify that the new injectorblock has the "o" mark



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Apply a small amount of general purpose bearing grease on both O- rings of the fuel pressure regulator (E064501).



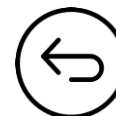
Gently push the fuel pressure regulator into the new injector block until firmly seated



Reinstall the retaining ring (F1600036) using appropriate circlip pliers



Apply a small amount of grease on the O-rings of the injector



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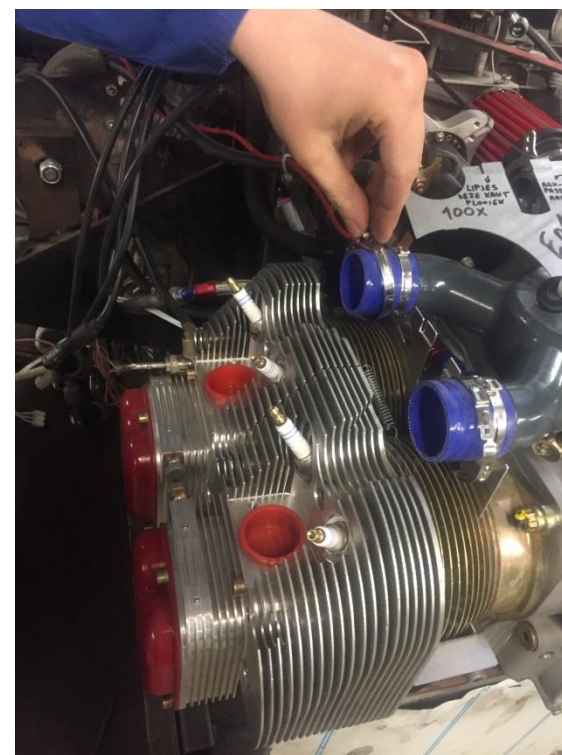
Reassemble the inlet tubes over the injectors .

Make sure to not damage the O-rings



Install a new locking plate (E061512) and screw in the bolts M5 (F1005010)

Do not tighten the bolts yet !

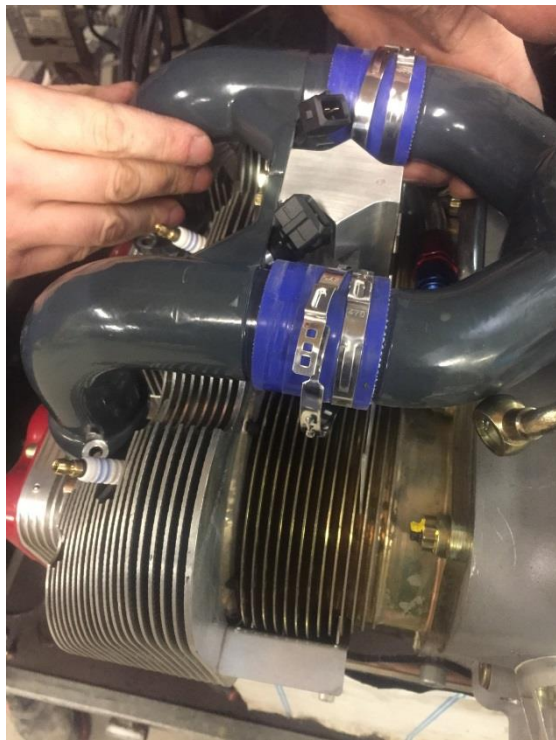


Slide 1 new hose clamp (F280001) over the left and right blue/black silicone hoses

Not necessary for UL350 / UL520



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Slide the inlet tubes into the blue silicon hoses .

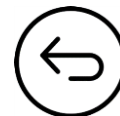


Make sure that the black hose with protection ring (E012517) is in the correct place in the baffle (E012510)



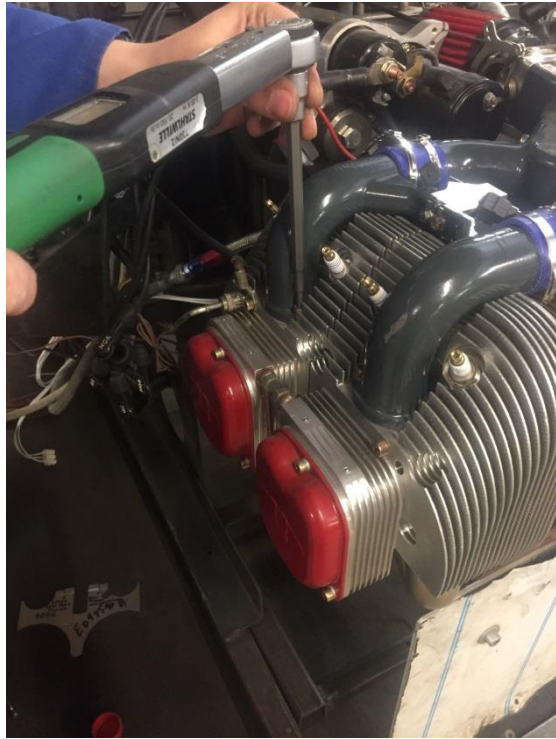
For UL350 / UL520 : slide the inlet tubes over the extension tubes on the inlet manifold

Make sure the O-rings (S1036020) are still in place and aren't damaged.
NB : O-rings may not be present on older engines.



Don't forget to remove the covers which were placed to protect the inlet holes of the cylinder head

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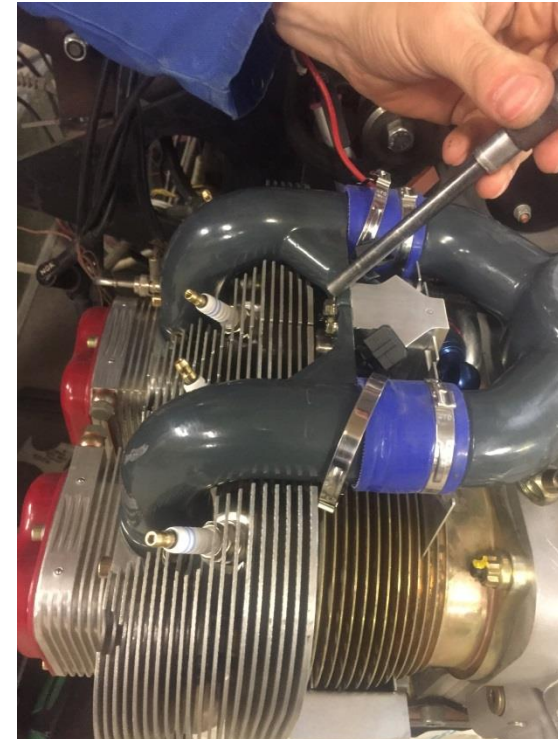


Screw in the 4 M6 bolts (F0106016) and tighten to 10Nm.

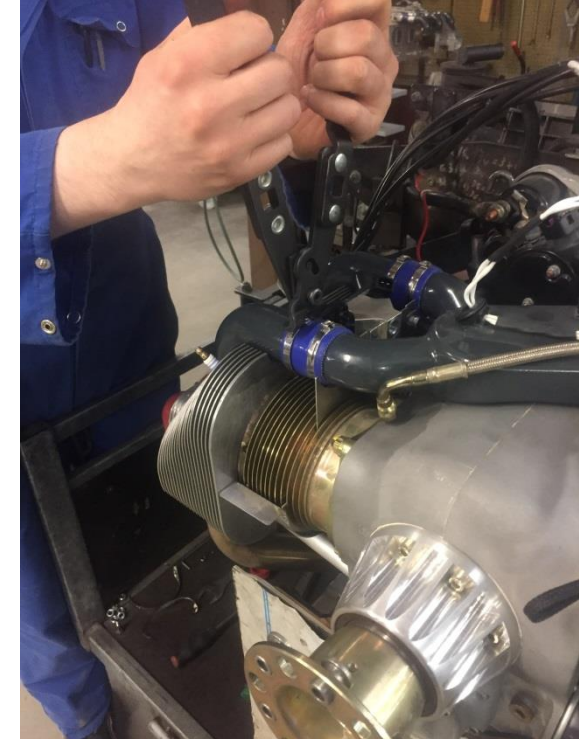
Don't forget the Nordlock washers . Make sure they are installed in the correct way !



Torque both M5 (F1005010) bolts on the injector block to 6 Nm



Bend locking plate (E061512) to secure the bolts

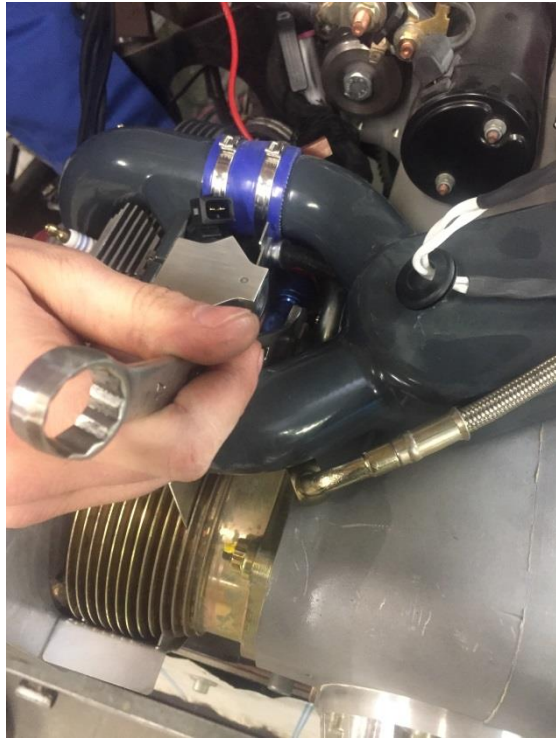


Put tension on both hose clamps (F2580001)

Not necessary for UL350 / UL520

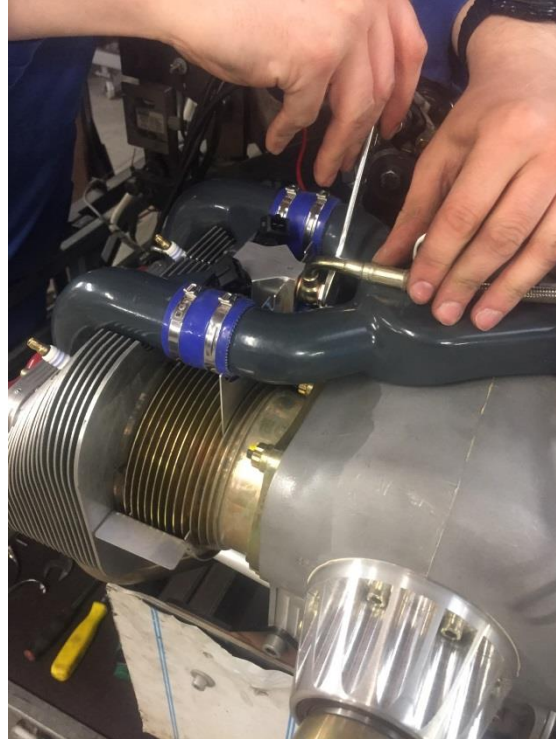


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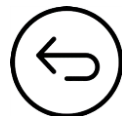


Reinstall the fuel return line using 2 new copper rings (S3121715).

For UL350/520 : reinstall the AN6 return line



Reinstall the fuel cross line using 2 new copper rings (S3121715)



Reinstall the banjo bolt to fix the black hose to the manifold. Use 2 new copper rings (S3081210)



Reconnect the injectors

Perform ground and flight test to check if everything works fine.