SERVICE BULLETIN

MODIFICATIONS PRESENTED IN THE ENGINE MOUNT AND PRE-ENGINE MOUNT SYSTEMS MANUFACTURED BY IBIS Aircraft S.A. FOR THE MOUNTING OF THE ROTAX ENGINES

May 18, 2009.

SB-Ibis-008

OBLIGATORY

AFFECTED AIRCRAFTS:

All the IBIS (Magic) type Planes, that have the ENGINE MOUNT and PRE-ENGINE MOUNT system fixed laterally, produced before the month of May 2009. That have shown troubles or frictions at the moment of executing the installation of the Engine system, due to the manufacture form not all the manufactured pieces show these problems.

REASON:

Analyzing the ENGINE MOUNT and pre ENGINE MOUNT systems manufactured by IBIS for the Rotax Engines a small variation in each of its components was noticed.

In the ENGINE MOUNT was evident a difference in the higher fixing pipes between the ENGINE MOUNT trays and the firewall, this causes the engine's air filters to have a slight friction with the pipe, this variation wasn't present in all the manufactured pieces.

In the Pre-ENGINE MOUNT was evident that the lower engine fixing points did not match with the Pre-ENGINE MOUNT fixing points, thus making difficult the fixing of the engine to the piece

The variation presented in the pieces was produced with the methodology applied in the manufacture of the pieces (ENGINE MOUNT and PRE-ENGINE MOUNT manufactured by IBIS Aircraft S.A). This is due to that to the date the productive processes of the Company are in a process of standardization in which the company continues working on

SUBJECT:

Check and modify. The variations that come up in the ENGINE MOUNT and PRE-ENGINE MOUNT systems manufactured by IBIS Aircraft for the installation of the Rotax engines taking into consideration the parameters established by IBIS Aircraft S.A. for these type of pieces.

COMPLIANCE:

Immediate.
PRE-ENGINE MOUNT: Failure to fulfill this instruction will make the Rotax engine installation process, and in some cases the fixing will be impossible to be realized.

ENGINE MOUNT: Failure to fulfill this instruction can cause damages in the system and in the aircraft, in situations of friction of the Air filters and the ENGINE MOUNT'S pipe.

EXECUTION / INSTRUCTIONS:

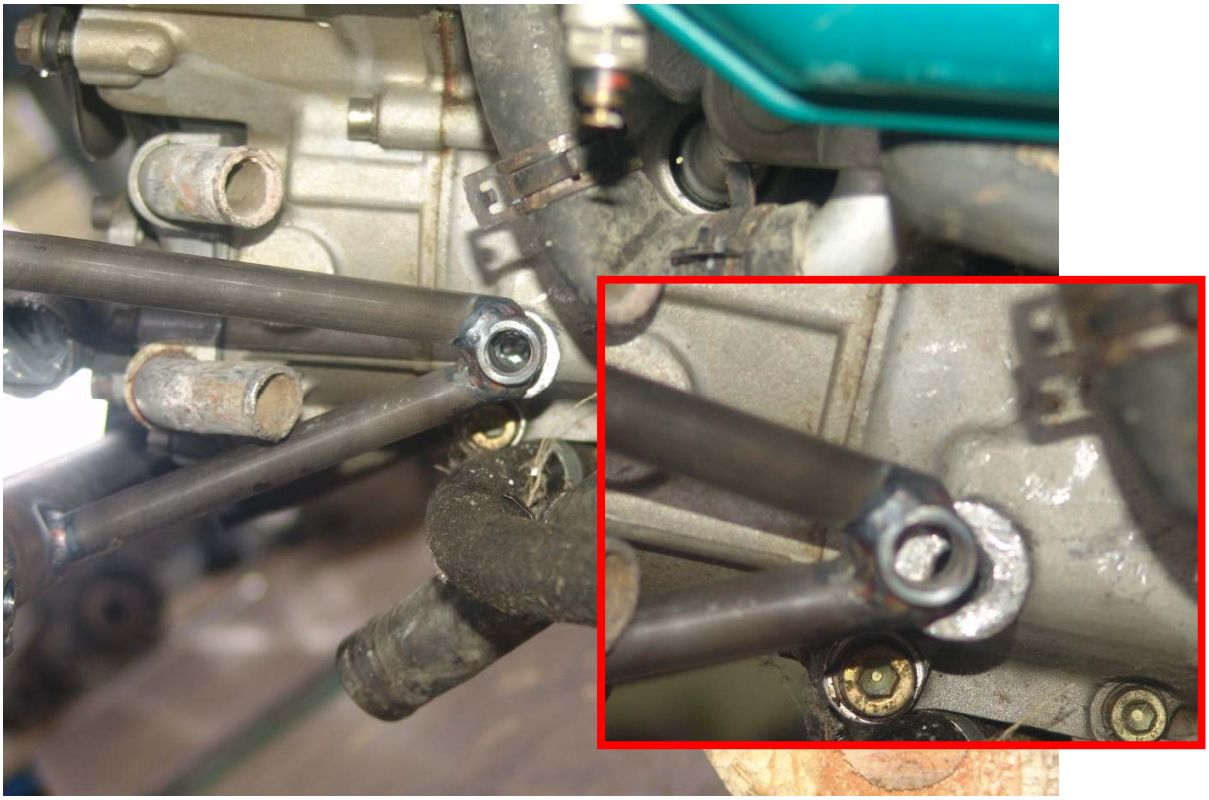
EXECUTION. By IBIS Aircraft S.A production plant, Service centers and distribution centers.

INSTRUCTION. This instruction is realized only for the affected pieces, since not all the manufactured pieces present the same variations.

In order to execute this instruction we must divide it in two parts, corresponding to the PRE-ENGINE MOUNT and the ENGINE MOUNT according to the identified variation case in some of the systems.

PRE - ENGINE MOUNT:

Due to a small variation in the Pre-ENGINE MOUNT'S fixing points and the engine's fixing points, these cause the inability to fix the higher part to the lower part at the time of fixing them, therefore the following should be done, identify the points where variations are present, this is executed with the engine and the Pre-ENGINE MOUNT ready as if the fixing were going to take place. (Figure 1).



(Figure 1)

Once identified the problem proceed to un-install the engine's PRE-ENGINE MOUNT in order to continue with the modification.

The PRE-ENGINE MOUNT is placed in a fixed place with the lower part upwards, this in order to make some cuts at the fixing points of the Pre-ENGINE MOUNT (Figure 2).

(Figure 2)

This cut is made taking as reference the welding points or welding cords from the pipes to the engine fixing points of the PRE-ENGINE MOUNT to the engine (Figure 3).

(Figure 3)

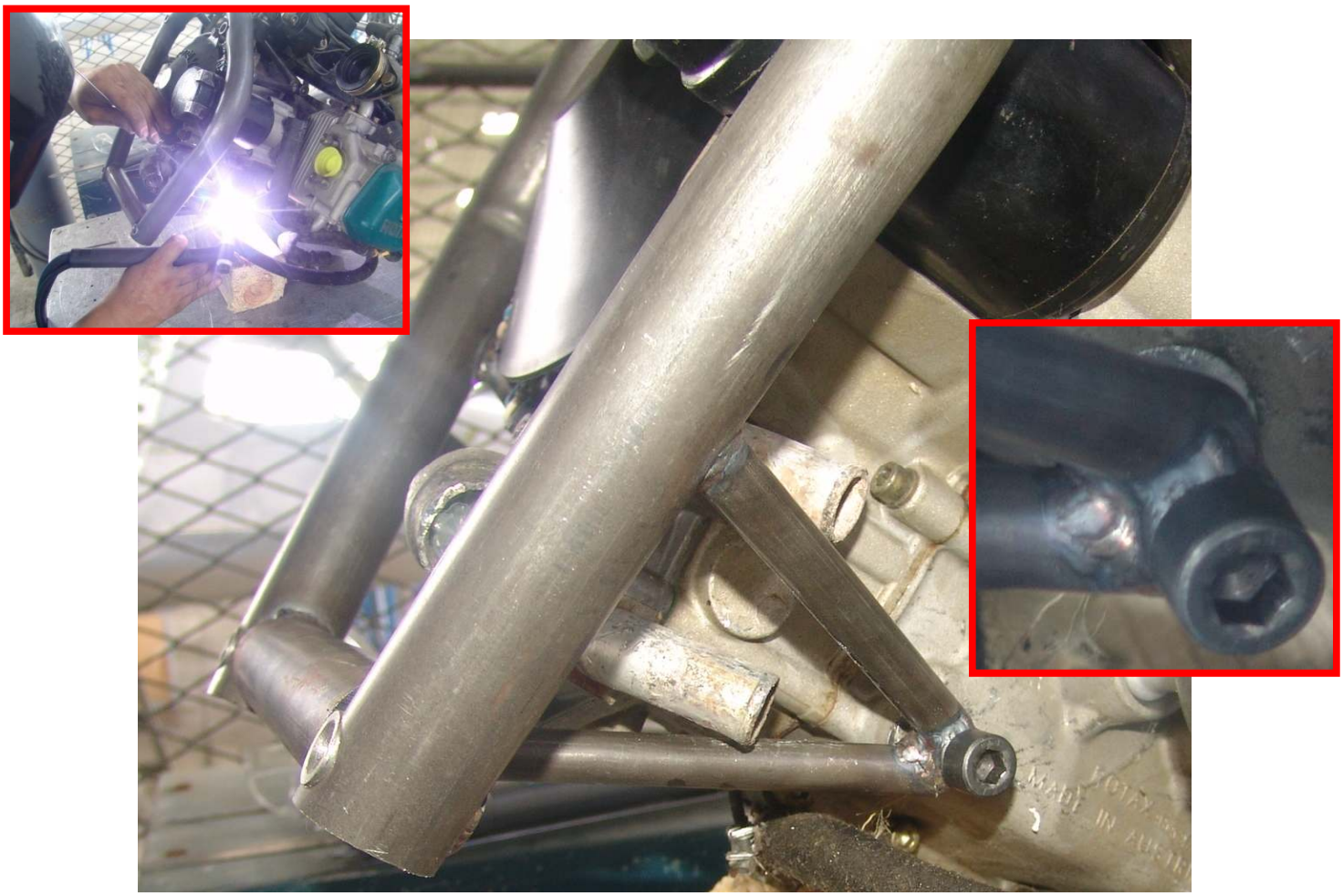
Once the respective side cut is executed where the variation was found, the fixing of the Pre-ENGINE MOUNT with the engine is realized again, this in order to be able to determine the new point to be welded and be able to correct the variation. If the points don't match the piece should be forced to fit the fixing. (Figure 4)

(Figure 4)

Once the engine is fixed in the Pre-ENGINE MOUNT with the cuts made proceed to execute some welding points with the engine fixed to the Pre-ENGINE MOUNT. This in order to make sure that the engine's fixing points match with the Pre-ENGINE MOUNT'S fixing points. (Figure 5).

(Figure 5)

The welding is applied in all points where the work can be done, without affecting the engine parts and guaranteeing the good welding application in the cut point of the piece, since the welding should be applied all around where ever is possible to apply it. (Figure 6).



(Figure 6)

Once covered the places where is possible to apply the welding, the piece still fixed to the engine is left to cool off for about fifteen minutes, alter that time when the piece is cold proceed to take down the engine from the piece to finish the

welding job at the points that were missed, and finish with the re-welding of the Pre-ENGINE MOUNT. (Figure 7)

(Figure 7)

Finished the re-welding of the pre-ENGINE MOUNT let it cool off for 15 minutes before being used in the engine fixing. Passed this time, the piece is ready to continue with the aircraft's engine system and to make the fixing of the engine with the ENGINE MOUNT and the Pre-ENGINE MOUNT. Once the pieces are verified to be correct, proceed to paint again

ENGINE MOUNT:

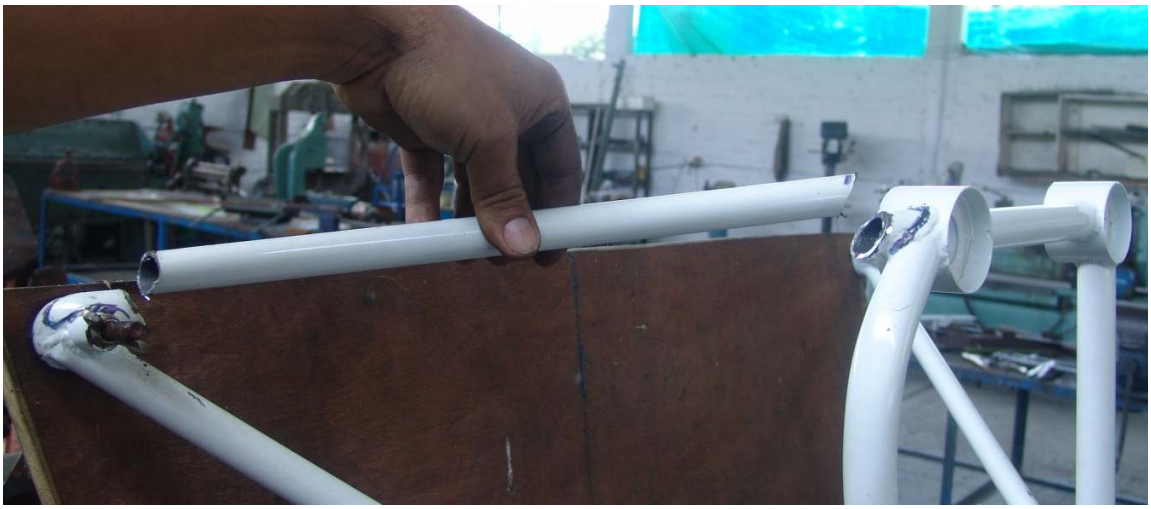
As consequence of the methodology used to execute the welding process, a variation in the ENGINE MOUNT'S system welding jigs was identified, having as consequence a friction of the ENGINE MOUNT'S higher pipes with the engine's air filter. This friction was identified on the right side of the fixing, the friction with the engine's right air filter, in case that the same situation happens in the left side; proceed to execute the same process in the opposite side. (Figure 8).

(Figure 8)

To realize this modification the steel pipe Cromomolibdeno 4130N of 3/4 x 0,049 should be replaced because is making contact with the air filter, therefore the ENGINE MOUNT should be in a fixed point in order to make the cut at the points where the pipe was welded to the ENGINE MOUNT'S bows. (Figure 9)

(Figure 9)

Once identified the cutting points, proceed to do the job, this should be done the closest possible to the points where the pipe was welded. (Figure 10)



(Figure 10)

Alter cutting the pipe; proceed to finish the piece in order to completely eliminate any debris, in the two points of the ENGINE MOUNT where the cut was made. (Figure 11)

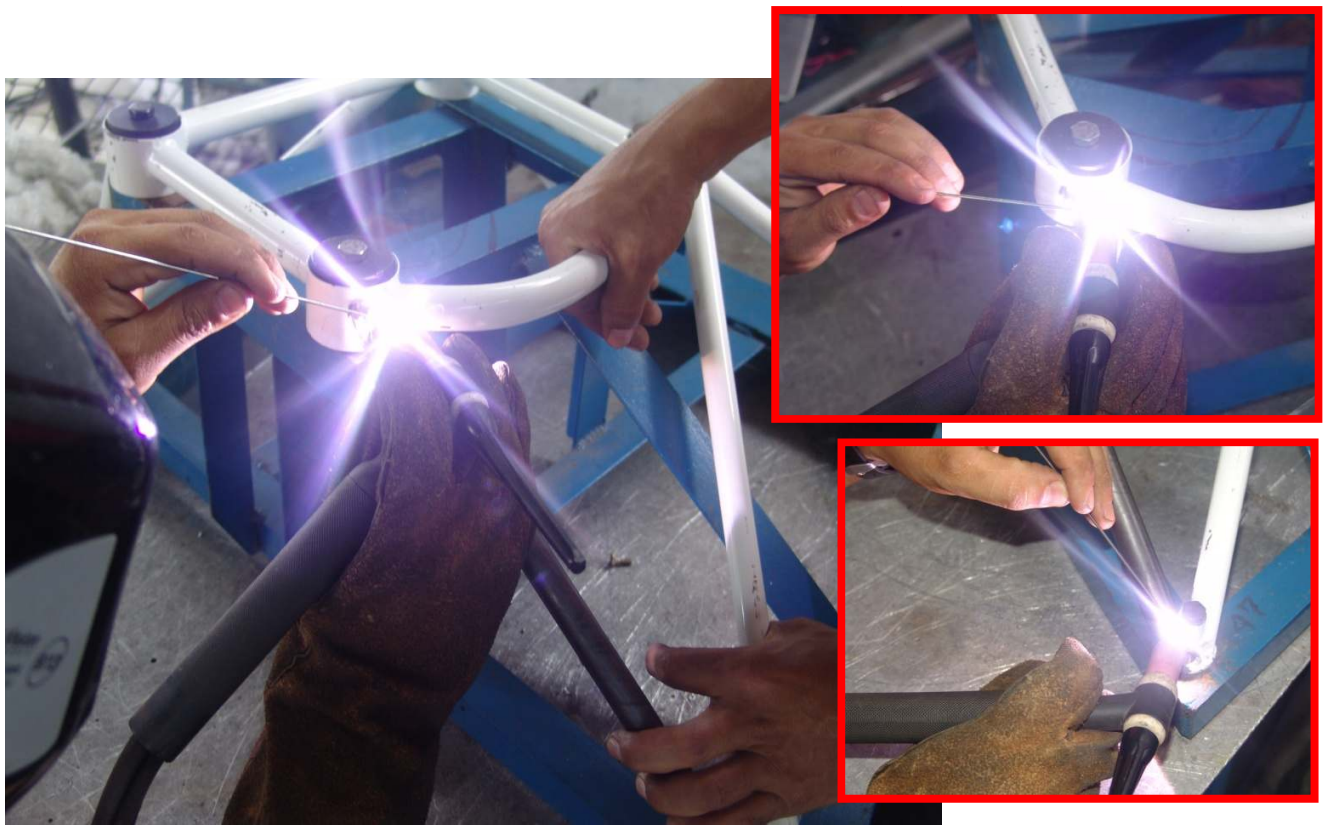
(Figure 11)

Once the ENGINE MOUNT is ready and finished a steel pipe Cromomolibdeno 4130N of 3/4 x 0,049 should be cut based on the distance there is between the two fixing points where the cut was made, at the ENGINE MOUNT'S fixing point and the ENGINE MOUNT'S bow. The pipe's exact position should take into consideration the characteristic that the pie's center should be lined up and centered with the bow's screw supporting the ENGINE MOUNT, and the cuts in the pipe's ends should adequate to their position form. It should always be

considered that the modification should be verified continuously for the air filters not to have any friction with the ENGINE MOUNT (Figure 12)

(Figure 12)

Once the higher pipe that is going to be modified is ready, start the welding job in these two points. The tying point to the bow (Engine mount tray) is welded according to the characteristics, making sure that the pipe doesn't make contact with the filters and it should be placed lining it up with the center of the bow or of the screw that holds the shock absorbers of the ENGINE MOUNT, the inferior point (fire wall tying) is located in the same place where the cut was done. (Figure 13)



(Figure 13)

The piece is left to cool off in order to be verified later in the engine mounting, painted and used in the installation after. (Figure14)

(Figure 14)

Once the job is finished according to the variation that may have happened, proceed to verify the tying points, the ENGINE MOUNT and the PRE-ENGINE MOUNT and that there are no frictions in the system or problems to fulfill the mounting. (Figure 15)

(Figure 15)

This way is verified that the ENGINE MOUNT and PRE-ENGINE MOUNT'S systems are ready for the Engine's mount.