SERVICE BULLETIN

REVISION AND MODIFICATION OF THE AUTO SHOCK NOSE TYPE GEAR, CORRESPONDING TO THE DRAG DISTANCE (Trail "T_M")

April 30th, 2009.

SB-Ibis-007

OBLIGATORY

AIRCRAFT AFFECTED:

All the aircraft IBIS type (Magic, Urraco, Millennium), having the auto shock nose type gear system, with production date prior to the month of April 2009. that are outside the parameters of the original design for the distance towed (Trail "T_M"); due to the manufacturing process not all aircraft have this defect.

REASON:

Analyzing the nose gear manufactured by IBIS Aircraft SA corresponding to the Auto-shock a variability in the tow distance (Trail "T_M") was detected, causing in some of the affected aircraft the nose wheel of the gear a misalignment, which can cause the steering to be too light but erratic, thus making the aircraft to have a trend sideways when on land or otherwise control of the aircraft through the nose gear can present a greater effort in its maneuverability; having the pilot greater control difficulty over the aircraft during the taxing operation, taking off or landing; These trends are due to the variability of the tow distance (Trail "T_M"), when is present in a negative or positive way.

This variability of the piece is produced by the methodology used in the manufacture of railway car-type shock. This is because to date the production

processes of IBIS Aircraft are in the process of standardization in which the company is still working.

SUBJECT:

Check and modify the tow distance (Trail "T_M"), of the nose wheel bearing in mind the parameters set by IBIS Aircraft gear for this type of auto-shock gear.

COMPLIANCE:

Immediate.
DANGER: Failure to comply with these instructions could damage the system, and damage the aircraft, in taxiing, taking off or landing situations.

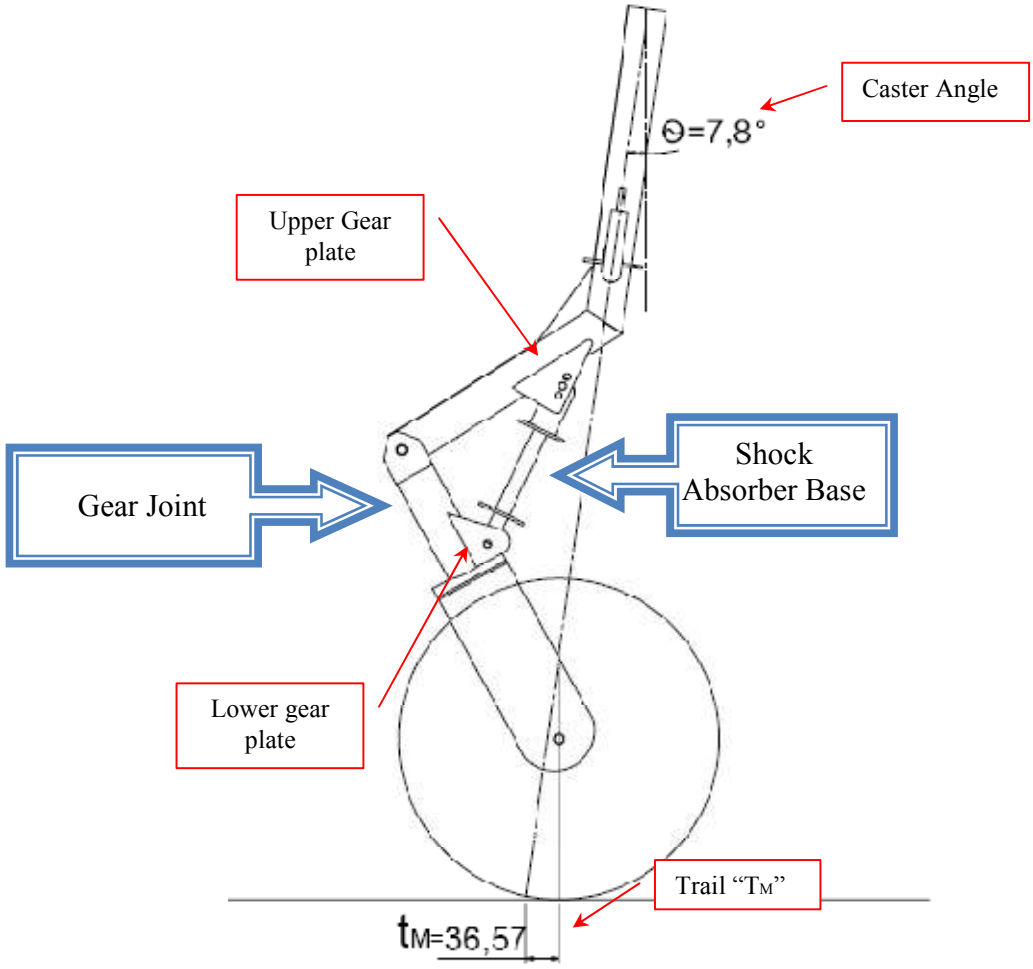
EXECUTION / INSTRUCTIONS:

EXECUTION. At IBIS Aircraft S.A. production plant, service centers and distribution centers.

INSTRUCTION. Before making any change in the auto-shock nose-type gear system, the parameters of the nose gear of the aircraft involved should be inspected, to perform this inspection, the following characteristics should be considered.

- The aircraft should be kept in a straight and level taxiing position, also in a straight and level ground.

- Thereafter, proceed to perform the inspection on the nose gear and it must meet the following specifications (Figure 1):



(Figure 1).

Here should be noted that the angle (TETA θ) for the angle of the wheel (Caster Angle) must be in the range of 0 to 15 degrees and the tow distance (Trail "TM"), should be in the range of 30 to 40 mm.

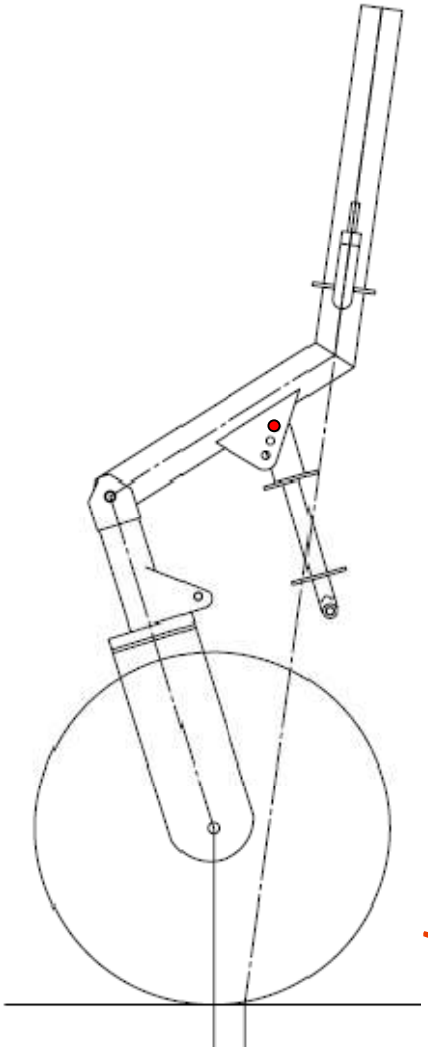
If the results obtained during the inspection show that the parameters are within the range of the design, do not run any kind of modification on the nose gear.

If the results fall outside the parameters you must run a check up of the gear again changing the positions of the upper bearing of the shock. If any of the positions in the gear is within range, you will not need to run any other changes.

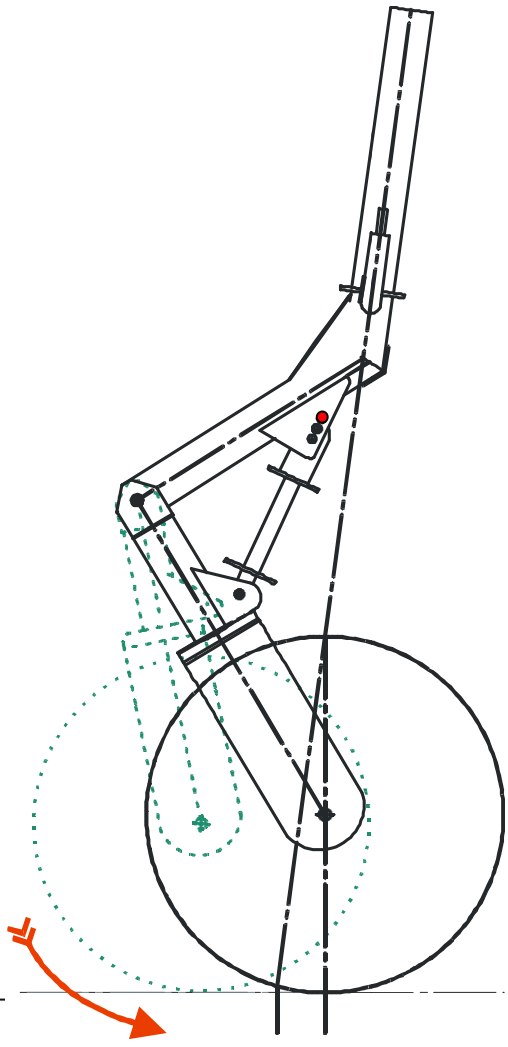
If the inspection results are still outside the design parameters it's necessary to do the change in the auto-shock nose-type gear that it's indicated below.

- ✓ Initially, secure the top base of the shock absorber at the highest point of the gear's plate, and then set it (Figure 2).

  Now remove the fixation at the bottom of the shock absorber in order to locate the wheel within the established range of the gear's design. This is done by moving the whole wheel setting toward the inside of the aircraft (Figure 3).

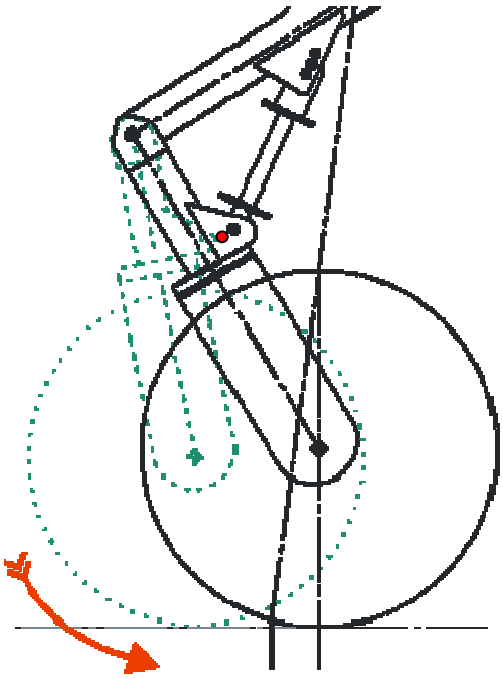


(Figure 2).



(Figure 3).

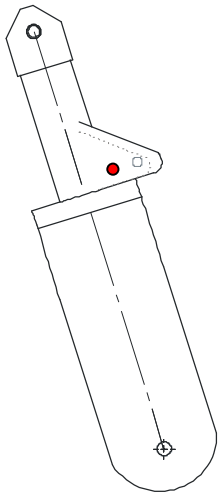
Once the position of the train is within the range is going to mark a new starting point to drill the new position of the base of the shock absorber to the nose gear (Figure 4).



(Figure 4).

With the new drilling position marked and established, proceed to execute the following operation:

1. The lower part of the gear is removed, what corresponds to the joint and for a better handling the Wheel is also removed (remember that this piece should have the new point marked) because the lower base does not enter the plate due to the gear's plate, the outline should be marked in order to make a new cut on the plate (Figure 5).

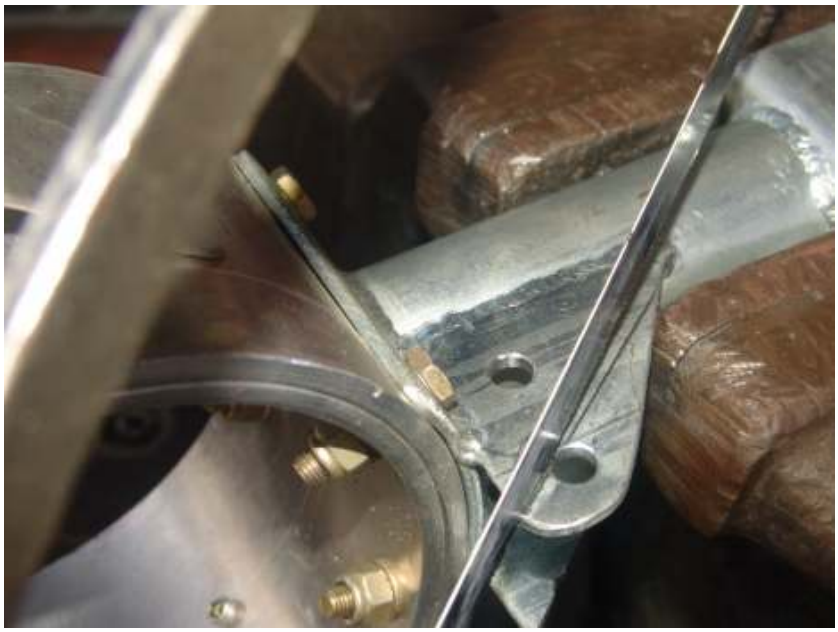


(Figure 5).

2. At this point make the drilling for the new fixation point of the nose gear's lower base. (Figure 6).

(Figure 6).

3. After cut the silhouette of the lower gear base, where the lower base of the shock absorber system is fixed. (Figure 7).



(Figure 7).

4. This cut should guarantee that the lower base of the shock absorber can be fixed to the new drilling, after the cut should be finished. (Figure 8).

(Figure 8).

5. Finally the gear is mounted in the system and it should be within the parameters established in the design of the nose gear (Figure 9 and10).

(Figure 9).

(Figure 10).