

No. 65-10

Issued: April, 1965

**PART I LARGER TIRES FOR MUSKETEER MODEL 23  
PART II MAIN GEAR WHEEL ALIGNMENT**

**MODELS AFFECTED: Part I BEECHCRAFT Musketeers prior to M-555  
Part II All Model 23 and A23 BEECHCRAFT Musketeers.**

**PART I**

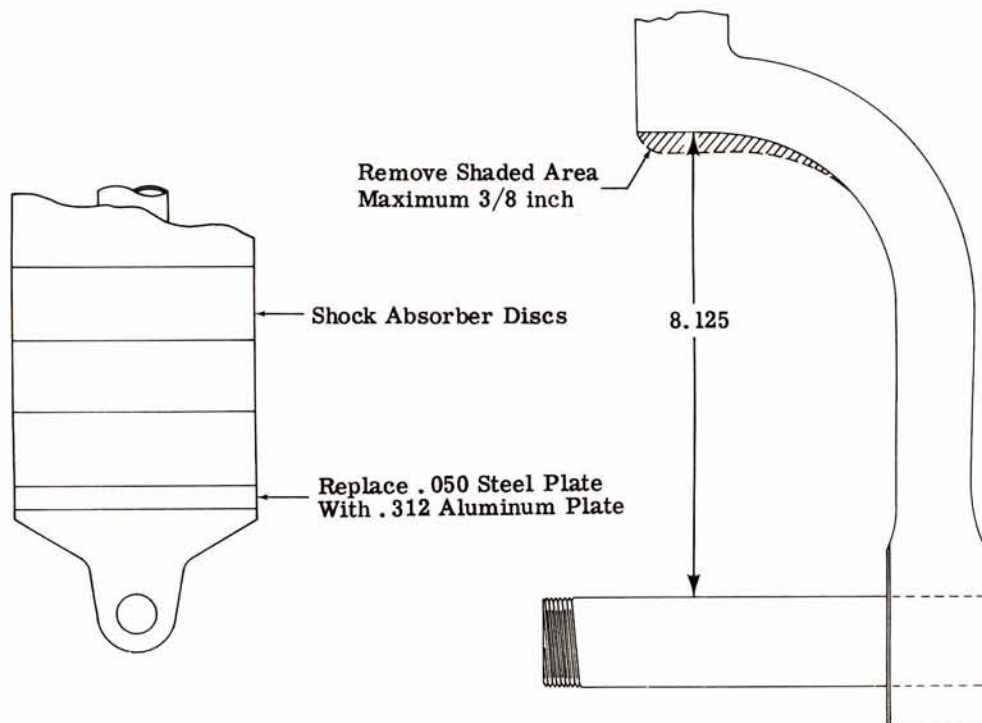
Musketeer ground handling and tire life may be improved by replacing the 15" diameter tires with 17.5 diameter tires. Increased clearance required by the larger tires is obtained by removing material from the landing gear forks and adding a thicker plate in the rubber shock absorber stacks.

**NOTE**

Tires must all be the same size on a particular airplane.

The landing gear must be removed from the airplane and partially disassembled (Refer to Model 23 Service Instruction Manual) to make this modification. Remove material from landing gear forks as shown in the illustration. Smooth the reworked area with a fine file or sandpaper to remove all tool marks. The exposed metal surfaces must be treated in an approved manner to insure against corrosion.

Disassemble the rubber disc shock absorber stacks and replace the .050 steel plate (P/N 169-810000-57) with a .312 aluminum plate (P/N 169-810000-99).



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**PART II**

Maximum tire life has been obtained on the Musketeer by aligning the main landing gear with 1/16 to 1/8 inch toe-in per wheel. This feature has been incorporated in the A23 Musketeer beginning serial M-620. The following method is recommended for aligning wheels on earlier Musketeers. Fabricate two angle or channel bars as shown in the diagram. Material selected for the bars should be as straight as possible and rigid enough to insure accurate measurements. The use of a 1/16 inch thick spacer between each bar and wheel casting at the forward hub cap hole will assure correct toe-in when measurements taken at the ends of the bars are equal.

**NOTE**

Certain types of tires may extend beyond the rim and interfere with the bars. Use additional but equal spacers at both front and rear hub cap holes as required to clear the tires.

The first wheel checked is aligned to the centerline of the airplane by using the center row of rivets on the belly of the fuselage as a reference line. Mark the centerline with a straight edge and grease pencil or

a similar method. Equal distances from both ends of the bar to the center line indicates correct toe-in with the 1/16 inch spacer in place. The bar must be horizontal and the airplane should be near gross weight when measurements are taken.

Wheel alignment is corrected as follows:

1. Remove the screws attaching the upper landing gear fairing and slide the fairing down.
2. Remove the landing gear retaining bolt.
3. Rotate the landing gear into correct alignment.
4. Drill a new 3/8 hole for the landing gear retaining bolt 30 degrees or 1 inch to the left or right of the existing hole. Weight of the aircraft must be on the landing gear when the new hole is drilled.

The second wheel is now aligned to the wheel already corrected. Make sure the bars are horizontal and the 1/16 inch spacers are in place at both wheels when measurements are taken. The alignment may be further checked by measuring diagonally between opposite ends of the bars. Bars are parallel to the center line when measurements are equal. Remember that the accuracy of the aligning job depends on the straightness of the bars and the care exercised in taking measurements and making adjustments.

