MOONEY AIRCRAFT, INC.

SERVICE LETTER 20-59

(THE SERVICE LETTER IS FAA APPROVED)

DATE:  10-23-59
SUBJECT:  CLEARANCE - MAIN GEAR WHEEL IN WHEEL WELL
MODELS AFFECTED:  M-20 AND M-20A, ALL SERIAL NUMBERS

Several cases of landing gear failures have occurred on M-20 and M-20A aircraft due to improper diameter of the tires. If the tire is slightly oversized, it possibly may jam in the wing wheel well, which could cause the retraction tubes to be damaged when the gear is lowered. The gear was designed for a 6:00 x 6 - 6 ply Goodyear tire which is the proper size. Some other makes of 6:00 x 6 - 6 ply tires are slightly larger in diameter, and we therefore recommend only Goodyear tires be used as replacements.

Worn shock disks or bent or broken shock retainer collars may also cause wheel jamming. (Ref: Mooney Service Letters 20-34 and 20-51)

If any doubt exists as to the adequacy of tire clearance in the wing wheel well, it is recommended that a ground retraction check be made. The minimum clearance between the tire and wood with the tire inflated to 30 psi should be approximately 1/2 inch on new tires and approximately 1/4 inch on used tires. The size of the wheel well cutout was increased slightly on airplane Serial Nos. 1350 and subsequent numbers. The cutout on earlier serial numbers may be enlarged to the dimensions shown in the sketch, if necessary, for better tire clearance. The cutout area must be recovered with fabric tape, doped with butyrate dope, and repainted with suitable dope color.