

CULVER AIRCRAFT CORPORATION
WICHITA, KANSAS

10-24-41

MEMORANDUM TO CULVER LCA & LFA OWNERS.

NO. 1

SUBJECT: CARE AND OPERATION OF RETRACTING LANDING GEAR.

1. The landing gear on your Culver was designed to retract in order to give you the advantages of higher cruising speeds with a consequent saving in time and operating cost which naturally result. At the same time, it must be realized that the addition of the extra controls and mechanism requires an understanding on the part of the operator of the proper operation, inspection, and maintenance of this equipment. The Culver Aircraft Corporation considers it advisable to issue this memorandum.

2. Operation of Gear.

The landing gear is controlled from the cockpit by means of a mechanical hook-up. The lock pins are operated by a knob on the top of the retracting unit. This knob also operates the latch which holds the gear in the retracted position. The hand wheel is used to retract the gear or to return the gear to the extended position, if gravity is insufficient to fully extend it. A throttle inter-connection is fitted to the lock pin control so that the engine can not be throttled for a landing unless the gear is down and the lock pins are in place. On the ground the lock pin control must always be in the "Lock" position on the left limit of travel.

After taking off and climbing to a safe height, the lock pin control is moved to the "Retract" or center position after which the gear may be retracted by pulling on the right rim of the retracting wheel for just under two full turns. The wheels may be observed at all times through the windows in the top of the wheel wells.

To extend the wheels the lock pin control is moved to the "Extend" or right position and the gear will fall of its own weight, with the hydraulic dash pot limiting the extension to a slow rate of speed. If the retracting wheel is pulled just before moving the lock pin control to "Extended", it will be found that the control works much easier since the load on the latch is thereby relieved. The retracting wheel is next pushed down on the right side against the stop which lines up the lock pin holes. The lock pin control is then moved back to the "Lock" side, and the landing may then be made. The lock pin control can only be moved to the "Lock" position when the gear is down and in position for locking.

It is good practice for the operator to develop the habit of checking the retracting wheel motion with his right hand each time the gear is extended and if the gear tends to fall fast for one turn, oil should be added to the dash pot. If the oil is apparently low the operator can snub the wheel motion with his right hand until oil can be added and thus never run the chance of dropping the gear unrestrained at the dash pot low, thereby straining the mechanism. Another advantage of this practice is that the right hand is in position to push the gear against the stop, preparatory to locking.