

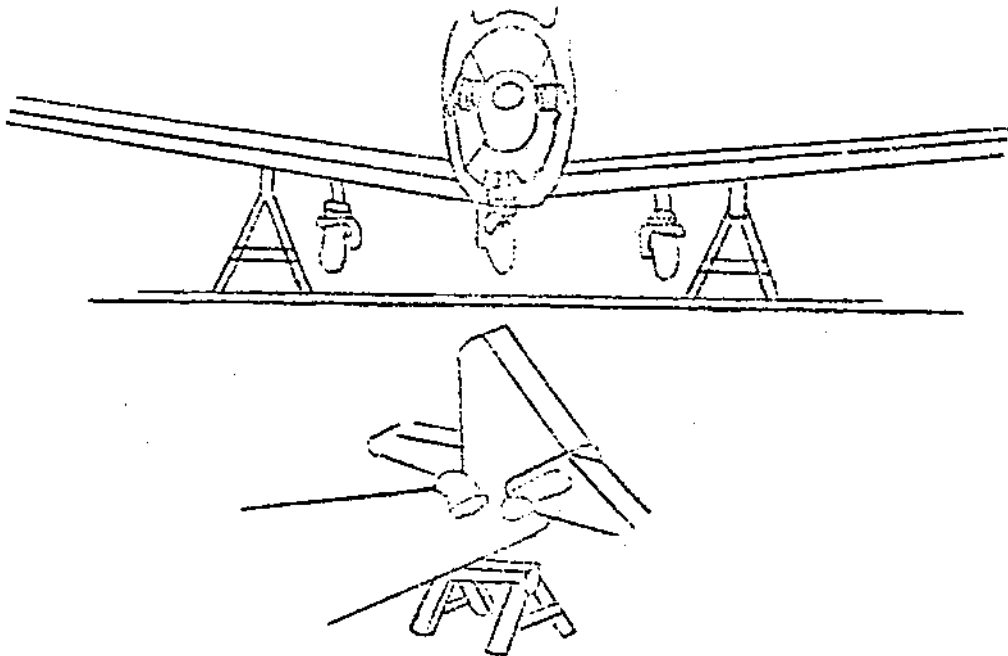
*The following article is taken from the **Mooney 18 Parts Service Manual**. Note that any reference to parts being available from Mooney Aircraft, Inc. is no longer valid.*

LANDING GEAR RIGGING

To check the rigging of the landing gear, the weight of the aircraft must be removed from the system.

Elevate the aircraft on three suitable saw-horses, two of which are placed under the wing just outboard of each main gear, between the third and fourth ribs, approximately three feet from the fuselage.... The saw horses should be of sufficient length to extend from slightly behind the rear spar to the front spar, and preferably past the leading edge of the wing. This length is desired to minimize damage to flaps and skin on the leading edge should the aircraft accidentally be rolled back or forward on the front spar while elevated on the horses. Should the tail be pushed down too far, a saw-horse extended behind the rear spar would rupture the flap fabric. Should the nose drop, rolling the aircraft onto the leading edge, the end of a saw-horse that did not extend beyond the spar would be pushed through the leading edge skin.

To step on the wing walk or enter the cockpit while the aircraft is elevated will naturally cause the nose to drop. This is prevented by placing the third saw-horse under the rear bulkhead of the fuselage and weighing down the empennage either by tying ballast to the tail bumper or placing it inboard on the stabilizer spar and on top of the fuselage just in front of the fin. In lieu of a third saw-horse, it would not be difficult for one man to balance the aircraft at the empennage.



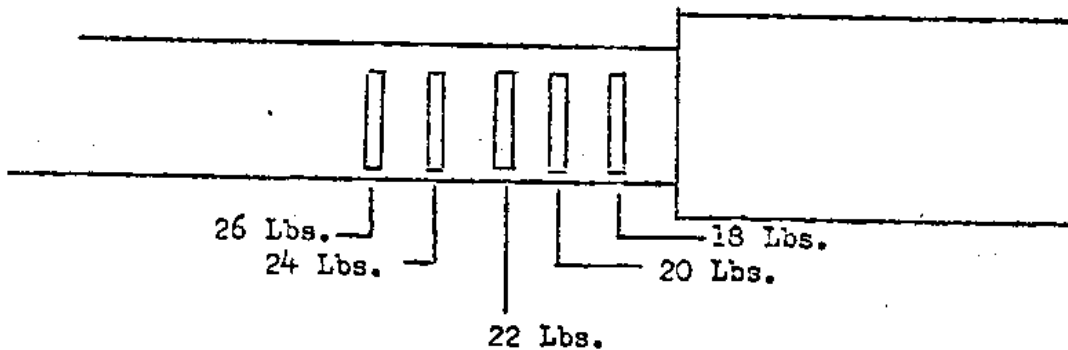
When checking the main gears a greater force is obtained by lengthening and less force by shortening the push-pull tubes operating these gears. This is done by adjusting the end fittings in the push-pull tubes at the nose gear retraction truss.

RIGGING

With all gears down and main gears disconnected from retracting truss, position lock down plate with washers as described before to obtain recommended force to push retracting handle into the lock down plate, making sure that nose gears is securely locked.

Hook-up main gear linkage, adjusting so that proper force is obtained and making sure that main gears are securely locked. Whether the gears completely retract or not, precedence should be given to the gears locked down properly.

CHECK GAUGE CALIBRATION

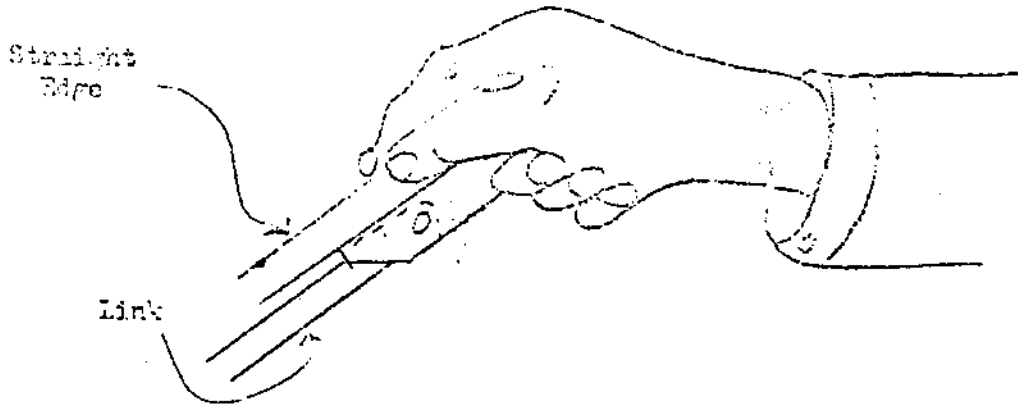


GAUGE MAY BE PURCHASED FROM FACTORY OR DISTRIBUTOR

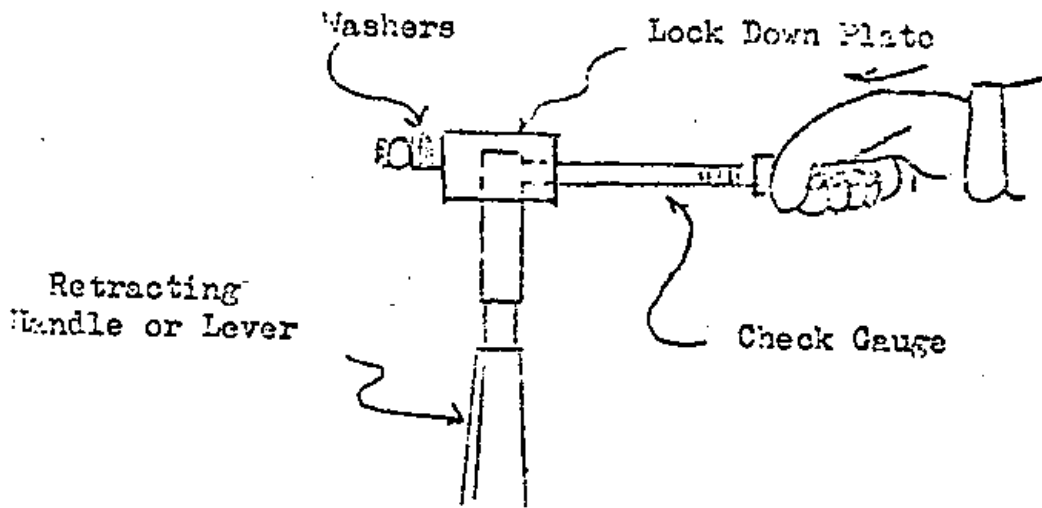
List Price \$ 3.51

INSPECTION

It has been found absolutely necessary for the over-center locks to be in the over-center position and that considerable force is required to change this position. To check whether lock is over-center, lay a short straight edge along the top side of the lock as shown in sketch.

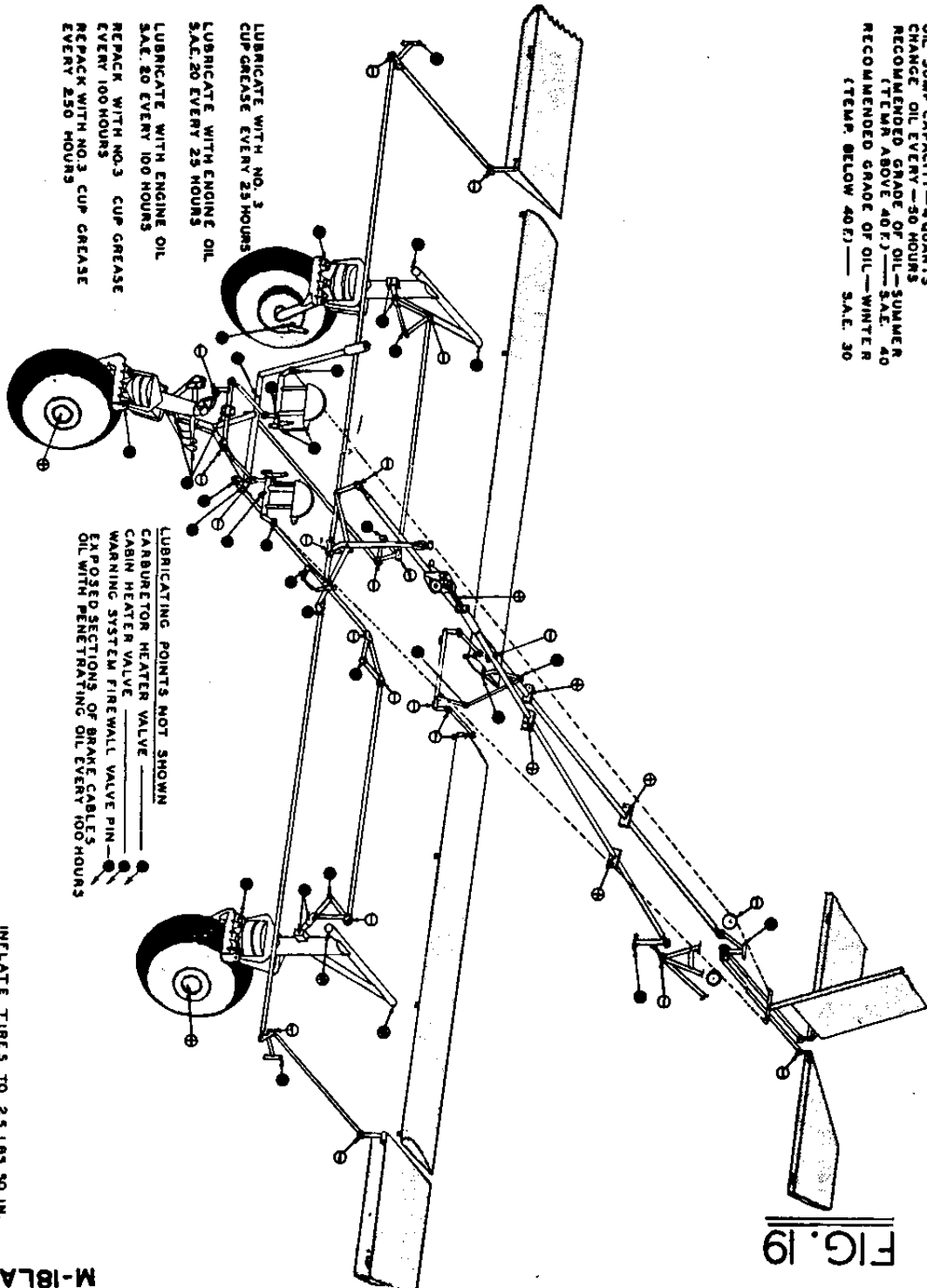


When the straight edge and link are parallel, the lock is over-center. The locks are held in this position by the force required to place the retracting lever in the "Gear Down" position. On new airplanes or ones in which new parts are installed, the force at the top of the lever with the main gears disconnected from the retracting truss on which the lever is mounted should be 18 to 24 lbs. The force should be 2 lbs. additional with all three gears connected. The nose gear should be checked alone first, on which greater or less force is controlled by adding or removing washers on the forward side of the handle lock down plate.



The check gauge shown in sketch is calibrated for nose and main gear loads and may be purchased from Mooney Aircraft, Inc.

ENGINE LUBRICATING OIL RECOMMENDATIONS
OIL SUMP CAPACITY—4 QUARTS
CHANGE OIL EVERY—50 HOURS
RECOMMENDED GRADE OF OIL—SUMMER
 (TEMP. ABOVE 40 F.)—SAE 40
RECOMMENDED GRADE OF OIL—WINTER
 (TEMP. BELOW 40 F.)—SAE 30



LUBRICATION CHART

- LUBRICATE WITH NO. 3 CUP GREASE EVERY 25 HOURS
- LUBRICATE WITH ENGINE OIL SAE 20 EVERY 25 HOURS
- LUBRICATE WITH ENGINE OIL SAE 20 EVERY 100 HOURS
- REPACK WITH NO. 3 CUP GREASE EVERY 100 HOURS
- REPACK WITH NO. 3 CUP GREASE EVERY 250 HOURS

LUBRICATING POINTS NOT SHOWN
 CARBURATOR HEATER VALVE
 CABIN HEATER VALVE
 WARNING SYSTEM FIREWALL VALVE PIN
 EXPOSED SECTIONS OF BRAKE CABLES
 OIL WITH PENETRATING OIL EVERY 100 HOURS

INFLATE TIRES TO 25 LBS. SQ. IN.

M-18LA,C

FIG. 19