

737LM CHECKLIST

Leave in Airplane

PREFLIGHT INSPECTION

CABIN

- (1) Pilot's Operating Handbook – AVAILABLE IN THE AIRPLANE
- (2) Landing Gear Lever -- DOWN
- (3) Control Wheel Lock -- REMOVE.
- (4) Ignition Switch -- OFF.
- (5) Avionics Power Switch -- OFF
- (6) Master Switch -- ON.
- (7) Fuel Quantity Indicators -- CHECK QUANTITY.
- (8) Landing Gear Position Indicator Light (green) -- ILLUMINATED
- (9) Master Switch -- OFF.
- (10) Static Pressure Alternate Source Valve -- OFF
- (11) Fuel Selector Valve -- BOTH.
- (12) Baggage Door -- CHECK for security, lock with key if child's seat is to be occupied.

EMPENNAGE

- (1) Rudder Gust Lock -- REMOVE.
- (2) Tail Tie-Down -- DISCONNECT.
- (3) Control Surfaces -- CHECK freedom of movement and security.

RIGHT WING Trailing Edge

- (1) Aileron -- CHECK freedom of movement and security.

RIGHT WING

- (1) Wing Tie-Down -- DISCONNECT.
- (2) Fuel Tank Vent Opening – CHECK for stoppage.
- (3) Main Wheel Tire -- CHECK for proper inflation.
- (4) Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment and proper fuel grade (Blue).
- (5) Fuel Quantity -- CHECK VISUALLY for desired level.
- (6) Fuel Filler Cap -- SECURE and vent unobstructed.

NOSE

- (1) Static Source Openings (both sides of fuselage) -- CHECK for stoppage.
- (2) Propeller and Spinner -- CHECK for nicks, security and oil leaks.
- (3) Landing Lights -- CHECK for condition and cleanliness.
- (4) Carburetor Air Filter -- CHECK for restrictions by dust or other foreign matter.
- (5) Nose Wheel Strut and Tire -- CHECK for proper inflation.
 - (6) Nose Tie-Down -- DISCONNECT.
- (7) Engine Oil Level -- CHECK. 6 qts. Normal Do not operate with less than 5 qts. Fill to 7 qts. for extended flights only.

- (8) Before first flight of the day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, and fuel selector valve drain plug will be necessary.

LEFT WING

- (1) Main Wheel Tire -- CHECK for proper inflation.
- (2) Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade (Blue).
- (3) Fuel Quantity -- CHECK VISUALLY for desired level.
- (4) Fuel Filler Cap -- SECURE and vent unobstructed.

LEFT WING Leading Edge

- (1) Pitot Tube Cover – REMOVE and check opening for stoppage.
- (2) Fuel Tank Vent Opening -- CHECK for stoppage.
- (3) Stall Warning Vane -- CHECK for freedom of movement while master switch is momentarily turned ON (horn should sound when vane is pushed upward).
- (4) Wing Tie-Down -- DISCONNECT.

LEFT WING Trailing Edge

- (1) Aileron -- CHECK for freedom of movement and security.

BEFORE STARTING ENGINE

- (1) Preflight Inspection -- COMPLETE.
- (2) Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.
- (3) Fuel Selector Valve -- BOTH.
- (4) Avionics Power Switch, Autopilot, Electrical Equipment -- OFF.
- (5) Brakes -- TEST and SET.
- (6) Cowl Flaps -- OPEN (move lever out of locking hole to reposition).
- (7) Landing Gear Lever – DOWN
- (8) Circuit Breakers -- CHECK IN.

STARTING ENGINE

- (1) Mixture -- RICH.
- (2) Propeller -- HIGH RPM.
- (3) Carburetor Heat -- COLD.
- (4) Throttle – CLOSED

Note

The carburetor does not have an accelerator pump; therefore, pumping of the throttle

must be avoided during starting because doing so will only cause excessive leaning.

- (5) Prime -- AS REQ'D (2-4 strokes max.)
- (6) Master Switch -- ON.
- (7) Auxiliary Fuel Pump – ON (check for rise in fuel pressure), then OFF
- (8) Propeller Area -- CLEAR.
- (9) Ignition Switch -- START (release when engine starts).

Note

If engine does not start after 5 seconds of cranking in warm weather, crack throttle 1/8 inch and crank again.

- (10) Oil Pressure – CHECK.
- (11) Low-Voltage Light – OFF (at approximately 1000 RPM).

BEFORE TAKEOFF

- (1) Cabin Doors and Windows -- CLOSED and LOCKED.
- (2) Parking Brake -- SET
- (3) Flight Controls -- FREE and CORRECT.
- (4) Flight Instruments – SET
- (5) Fuel Selector Valve – BOTH
- (6) Mixture – RICH

Note

In flight, gravity feed will normally supply satisfactory fuel flow if the engine-driven fuel pump should fail. However, if a fuel pump failure in flight causes the fuel pressure to drop below 0.5 PSI, use the auxiliary fuel pump to assure proper engine operation.

- (7) Elevator and Rudder Trim -- TAKEOFF.
- (8) Throttle -- 1700 RPM.
 - a. Magnetos -- CHECK (RPM drop should not exceed 175 RPM on either magneto or 50 RPM differential between magnetos).
 - b. Propeller -- CYCLE from high to low RPM; return to high RPM (full in).
 - c. Carburetor Heat -- CHECK for RPM drop and indication on carburetor temperature gage).
 - d. Engine Instruments and Ammeter -- CHECK.
 - e. Suction Gage -- CHECK.
- (9) Avionics Power Switch – ON
- (10) Radios – Set.
- (11) Autopilot -- OFF
- (12) Flashing Beacon, Navigation Lights and/or Strobe Lights – ON as required.
- (13) Throttle Friction Lock -- ADJUST.
- (14) Parking Brake -- Release.

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TAKEOFF

NORMAL TAKEOFF

- (1) Wing Flaps -- 0° - 20°.
- (2) Carburetor Heat -- COLD.
- (3) Power – 31 IN. Hg (Max) and 2400 RPM

Note

To avoid over-boosting the engine, do not use full throttle for takeoff.

- (4) Mixture – FULL RICH
- (5) Elevator Control -- LIFT NOSE WHEEL at 55 KIAS.

Note

When the nose wheel is lifted, the gear motor may run 1-2 seconds to restore hydraulic pressure

- (6) Climb Speed -- 70 KIAS (flaps 20°).
80 KIAS (flaps UP).
- (7) Brakes – APPLY momentarily when airborne.
- (8) Landing Gear – RETRACT in climb out
- (9) Wing Flaps -- RETRACT

SHORT FIELD TAKEOFF

- (1) Wing Flaps -- 20°.
- (2) Carburetor Heat -- COLD.
- (3) Brakes -- APPLY.
- (4) Power – 31 INCHES Hg (Maximum) and 2400 RPM

Note

To avoid over-boosting the engine, do not use full throttle for takeoff.

- (5) Mixture – FULL RICH
- (6) Brakes -- RELEASE.
- (7) Elevator Control -- MAINTAIN SLIGHTLY TAIL LOW ATTITUDE.
- (8) Climb Speed -- 59 KIAS (until all obstacles are cleared).
- (9) Landing Gear – RETRACT after obstacles are cleared.
- (10) Wing Flaps -- RETRACT slowly after reaching 75 KIAS.

ENROUTE CLIMB

NORMAL CLIMB

- (1) Airspeed – 90-100 KIAS.
- (2) Power -- 25 INCHES Hg and 2400 RPM.
- (3) Fuel Selector Valve -- BOTH.
- (4) Mixture – FULL RICH.
- (5) Cowl Flaps -- OPEN as required.

MAXIMUM PERFORMANCE CLIMB

- (1) Airspeed -- 88 KIAS at sea level to 85 KIAS at 20,000 feet.
- (2) Power – 31 INCHES Hg and 2400 RPM
- (3) Mixture -- FULL RICH.
- (4) Cowl Flaps -- FULL OPEN.

CRUISE

- (1) Power -- 17-25 IN. Hg, 2100-2400 RPM.
- (2) Elevator and Rudder Trim -- ADJUST.
- (3) Mixture -- LEAN.
- (4) Cowl Flaps -- CLOSED.

DESCENT

- (1) Fuel Selector Valve -- BOTH
- (2) Power -- AS DESIRED.
- (3) Carburetor Heat -- AS REQUIRED to prevent carburetor icing.
- (4) Mixture – LEAN for smoothness.
- (5) Cowl Flaps -- CLOSED.
- (6) Wing Flaps -- AS DESIRED (0° - 10° below 140 KIAS, 10° - 40° below 95 KIAS).

Note

The landing gear may be used below 140 KIAS to increase the rate of descent.

BEFORE LANDING

- (1) Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.
- (2) Fuel Selector Valve -- BOTH.
- (3) Landing Gear – DOWN (below 140 KIAS).
- (4) Landing Gear – CHECK (observe main gear down and green indicator light illuminated).
- (5) Mixture -- RICH
- (6) Carburetor Heat -- ON (apply full heat before closing throttle).
- (7) Propeller – HIGH RPM
- (8) Autopilot – OFF.

NORMAL LANDING

- (1) Airspeed – 70-80 KIAS (flaps UP).
- (2) Wing Flaps -- AS DESIRED (0° - 10° below 140 KIAS, 10° - 40° below 95 KIAS).
- (3) Airspeed – 65-75 KIAS (flaps DOWN).
- (4) Touchdown -- MAIN WHEELS FIRST.
- (5) Landing Roll -- LOWER NOSE WHEEL GENTLY.
- (6) Braking -- MINIMUM REQUIRED.

SHORT FIELD LANDING

- (1) Airspeed – 70-80 KIAS (flaps UP).
- (2) Wing Flaps -- 40° (below 95 KIAS).
- (3) Airspeed – MAINTAIN 64 KIAS
- (4) Trim – ADJUST
- (5) Power – REDUCE to idle as obstacle is cleared.
- (6) Touchdown -- MAIN WHEELS FIRST.
- (7) Braking – APPLY HEAVILY
- (8) Wing Flaps – RETRACT for maximum brake effectiveness.

BALKED LANDING

- (1) Power – 31 INCHES Hg and 2400 RPM.
- (2) Wing Flaps -- RETRACT to 20°.
- (3) Climb Speed -- 70 KIAS until all obstacles are cleared.
- (4) Wing Flaps -- RETRACT slowly after reaching 75 KIAS.
- (5) Cowl Flaps -- OPEN.
- (6) Manifold Pressure – REDUCE TO 25 INCHES Hg.
- (7) Carburetor Heat -- COLD.
- (8) Power – READJUST as desired.

AFTER LANDING

- (1) Wing Flaps -- UP.
- (2) Carburetor Heat -- COLD.
- (3) Cowl Flaps -- OPEN.

SECURING AIRPLANE

- (1) Parking Brake -- SET.
- (2) Throttle -- IDLE.
- (3) Avionics Power Switch, Electrical Equipment, Autopilot -- OFF.
- (4) Mixture -- IDLE CUT-OFF (pulled out).
- (5) Ignition Switch -- OFF.
- (6) Master Switch -- OFF.
- (7) Control Lock -- INSTALL.
- (8) Fuel Selector Valve – RIGHT or LEFT to prevent cross-feeding.